CONCEPTUAL FRAMEWORK FOR MODELLING AND ANALYSING PERIURBAN LAND PROBLEMS IN SOUTHERN AFRICA

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CONCEPTUAL FRAMEWORK FOR MODELLING AND ANALYSING PERIURBAN LAND PROBLEMS IN SOUTHERN AFRICA

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PREFACE

This technical report is a reproduction of a dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Geodesy and Geomatics Engineering, February 2006. The research was supervised by Dr. Sue Nichols, and funding was provided by the University of Botswana Staff Development Training Office.

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ABSTRACT

Customary periurban environments in southern Africa are facing many challenges, as can be seen in most countries in the region especially Botswana, Malawi and South Africa. The periurban land problems have continued to exist despite many land tenure and land administration attempts aimed at resolving the customary periurban land problems. There is a need to better understand customary periurban land problems in order to design improved intervention strategies to meet effectively the land tenure and land administration requirements in southern Africa.

This research developed a soft systems-based analytical framework to guide the analysis, modelling, and design of land tenure and land administration options as well as the implementation to meet land tenure and land administration requirements in periurban areas of southern Africa. A problem highlighted in the study of periurban land problems is the lack of understanding of the real issues, and the belief expressed in the literature that the periurban land problems can be resolved by merely replacing customary tenure with a western-based statutory tenure system. The primary objective of this research is to help clarify and deepen understanding of periurban land problems often exacerbated by the misconceptions surrounding customary tenure. This was achieved by developing a non-prescriptive and intuitive soft systems-based analytical framework for analysing, identifying and designing strategies for meeting the land tenure and land administration requirements for periurban areas in southern Africa. The major conclusion is that a soft systems approach that incorporates different worldviews, goals, norms, cultures and interests of local communities, can structure thinking about the periurban land problems.

The soft systems-based conceptual framework is developed by integrating concepts and theories from anthropology, cadastral studies/geomatics engineering, urban land economics and planning, and soft systems engineering. The conceptual framework analyses the periurban land problems in three major phases: the institutional/cultural systems analysis phase, the operational systems analysis phase and the monitoring and control systems phase. Conceptual models are then developed from the issues identified in the institutional/cultural analysis phase. The comparisons of conceptual models with the real world situations stimulate debate about why the differences exist, and leads to the identification and evaluation of desirable and feasible strategies for meeting land tenure and land administration requirements in periurban environments.

The soft systems-based conceptual framework is tested by applying it to the periurban situation of Botswana in southern Africa. Comparisons are also made with periurban environments of Malawi and South Africa.

ACKNOWLEDGEMENTS

This research would not have been possible without the support of many people and organisations who have contributed information, time, and advice, financial and moral support. To all who contributed to my research I would like to extend my sincere appreciation for their assistance: *ke a leboga, le ka moso bagaetsho.*

My supervisor, Dr Susan Nichols, deserves special thanks for helping me gain admission into the UNB graduate programme when I first met her in Botswana in 1998. I thank her for reading my numerous revisions and for helping me make sense of the confusion. Thanks also for supporting me (and my family) financially throughout my extended research and stay in Canada.

The major sources of funding for this research were the University of Botswana Staff Development Training Office who awarded me a scholarship to study for a Ph.D. Dr Susan Nichols provided the leadership and financial resources required for my fieldwork in Botswana, Malawi and South Africa. I would also like to thank the University of Pretoria SADC Centre for Land-Related, Regional and Development Law & Policy for also giving me the opportunity to participate in the research and drafting of the operational framework document for post-settlement interventions. Other organisations that have contributed financially are the Canadian International Development Agency, the Alberta Land Surveyors Association, the International Federation of Surveyors (FIG), and the University of New Brunswick.

And finally, a very special thank you to my wife, parents, and numerous friends who have endured this long process with me, always offering assistance, encouragement and love.

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CHAPTER 1: INTRODUCTION

> *Periurban areas are of capital importance in modern societies because it is there that most of the transformations resulting from the dynamics of society are concentrated. Between towns which find it difficult to adjust and which often have declining populations and rural areas proper which continue to lose populations at a diminished rate – the periurban areas are the centre of almost all new developments and of a great deal of the transformations in economic activities. Economic expansion in all its forms gives rise in these areas to lively competition for land, which is also in demand to meet the housing requirements since the population continues to increase in these areas.* [Organisation for Economic Co-operation and Development, 1979: 1]

Urbanization in developing countries is occurring at a more rapid rate than in Europe and North America. In Eastern and Southern Africa, urban centres were designed and planned for a small number of the population and today's process of urbanization makes them ineffective and inadequate in supplying serviced land for housing to the growing population and the workforce. The result has been increasing informal sector activities, in both the urban and periurban environments. A number of efforts have been put in place to resolve the periurban problem, but unfortunately, there has not been a tangible way of addressing the land tenure and land administration problems facing periurban settlements.

The consequences of not fully addressing the periurban problem have been manifold. At the heart of the periurban problem is: (1) tenure insecurity, (2) poor infrastructure and services, (3) acute shortage of housing, (4) haphazard and unregulated land development giving rise to complex organic structures in defiance of spatial planning theories, (5) illegal and informal land transactions, (6) rapid land tenure transformation generating

fears about imminent periurban land crisis, (7) proliferation of informal[1] settlements, (8) environmental degradation due to pollution, and (9) the loss of agricultural land with associated food insecurity. Although some of these problems may occur in both urban and rural areas, they are more visible and more pronounced in the periurban setting.

In southern Africa, the periurban problem has continued to capture the attention of the international development agencies, researchers, planners and policymakers since the late 1980s [Mougeot, 1993]. In Botswana, the periurban land problems were the subject of a Presidential Commission in 1992 [GoB, 1992a and 1992b]. With increasing economic difficulties and the International Monetary Fund's structural adjustment programme, the urban poor have sought a variety of ways to ease their problems, both legally and illegally. One option, especially with respect to the lack of land for housing in the urban areas, has been to turn to periurban areas to gain access to land. It should be emphasized that the extent of the periurban land problem is not uniform throughout the country or region, but varies from city to city within a jurisdiction, and from one country to another. One might ask the question: Why did the periurban land problems develop in the first place and why have they continued to exist even today? Some of the reasons why the periurban land problems exist can be traced to: (1) the massive rural-to-urban migration exceeding capacity of authorities; (3) the misconception of customary land tenure; and (3) the extension of ill-adapted land administration systems into the periurban environments. In order to improve the understanding of the periurban land problems in the African context, there is need to analyze and model land problems and compare

[1] Informal means illegal, not recognized under any form of law. The type of rights associated with informal settlements are possession, extra-legal tenure arrangements and squatting

alternative options for land tenure and land administration systems, as well the nature and pattern of land use.

Most governments are neither prepared to deal with the politically sensitive periurban land issues, nor incapable to allocate a high percentage of their national budgets to the improvement and management of the periurban environment. In addition, the causes of periurban land problems cannot be associated with one source, but the demographic pressures seem to contribute more to the problem than other factors.

If governments in the region are overwhelmed by the periurban land problem, new institutional arrangements and policy interventions will fail because these institutions and policies will have different dimensions in periurban areas. For example, customary periurban tenure lacks certain features that cause it to be unstable as compared to rural and urban areas. This research assumes that the problems will not subside until viable land tenure and land administration solutions have been found. The reality is that there is no single cause of the periurban land problems, meaning there is no simple solution; therefore the problems need to be tackled from many levels and directions.

The purpose of this research is to design a strategy for meeting the land tenure and land administration requirements for periurban areas in southern Africa. This is achieved by employing soft systems methodology-based conceptual framework developed in Chapter 3 to identify land tenure and land administration options for customary periurban[2] areas. The research also evaluates land tenure and land administration options for periurban area using the evaluation criteria of efficacy, efficiency and effectiveness.

[2] The use of the phrase '**customary periurban'** does not imply that customary tenure is the only form of tenure to be found in periurban areas in southern Africa. In fact there are other forms of tenure that do exist such as freehold tenure, statutory tenure, quasi-customary tenure (mixture of statutory and customary or customary and informal arrangements) and informal tenure or rights. Informal rights often contain elements

The conclusion of this research is that "the periurban land problems" are principally problems of: (1) not being able to define clearly the root problem, (2) not recognising customary tenure, (3) not recognising the existence of plural legal systems, (4) inadequate and incomplete land records, (5) not being able to determine what the land tenure and land administration requirements are for periurban environments, (6) lack/inadequate support framework for land administration systems; and lack of capacity and resources to deal with the overwhelming periurban land problems.

1.1 Definitions

It is important to define terms as a lack of clear and consistent understanding of these concepts can lead to problems in both research and policy intervention regarding the periurban land problems. Therefore this section provides the main definitions used in this research and clarifies the broad approaches taken.

1.1.1 Periurban

The origin of the term periurban is still unknown but its importance rose over half a century ago as a result of the limitations in the dichotomy between rural and urban. These settlements have been given such terms as "rurban", "suburban", "urban fringe", "urban periphery", "perirural", and "periurban" areas. Among these terms, "periurban" is commonly found in the literature and policy discussions. Periurban may include land inside, or at the fringes of urban areas and lands further away from the city. This may, in turn, include both urban and rural land that is formally or informally occupied. Periurban has been defined by Kasanga *et al.*, [1996] "as a locus of abrupt tenurial transformation"

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of customary tenure in southern Africa. Customary tenure is based on traditions and customs of the local communities.

where land is being transformed institutionally from rural to urban and as such it is in a state of transition from customary to statutory tenure. For Iaquinta and Drescher [2000], the term periurban is less a geographical location but rather a state of mind or change in mental orientation. The periurban may be a state of mind or a zone, but it is a physical place [Home, 2004].

Examples of periurban areas are: (1) indigenous or customary tenure areas that are being subjected to strong demand pressures because of urbanization; these may be in close proximity to the city or further away from the city (*in-place or village periurban*); (2) customary tenure areas that were outside the city limits but have now been absorbed by city due to urban expansion (*absorbed periurban*); (3) freehold farms within and outside the urban boundary; and (4) squatter settlements within and outside the urban area limits (*diffuse periurban*).

For the purpose of this study periurban will be areas surrounding towns or cities and these will be areas strictly under customary tenure[3] in order to highlight the conflict between statutory and customary law.

The customary periurban belts can be characterised by the following main features:

- intermediate between urban and rural (and interacting with both);
- institutional fragmentation;
- "urban-traditional land use": intermixing of rural and urban economies and cultures;
- opportunities for multiple livelihoods;

[3] The amount of land under customary periurban tenure varies from city to city within a country and between countries. Village housing (customary periurban areas) is common in Gaborone, the capital city of Botswana and has provided over 10% of alternative housing for the urban dwellers whilst the informal sector (squatter settlements) provided about 4% [Ministry of Finance & Development Planning, 1991: 407].

- lacking some things from urban environments and other things from rural settings which give each of these social stability;
- fragmented land holdings and structures;
- rapid, and probably permanent, sudden transformation from traditional agriculture to intensive commercial and urban residential uses;
- lacking basic utilities and infrastructure which urban systems are supposed to provide, such as, properly designed and constructed roads, piped water supply, surface and foul water drainage, electricity and telecommunications;
- lacking institutional infrastructure of local or municipal government, such as physical and economic planning and property taxes;
- unregulated rental markets, entailing insecurity and risks for both landlord and tenant.

1.1.2 Land tenure

Land tenure may be defined broadly as the complex relationships between categories of individuals, groups and the government with respect to land, water, forests and respective products. These relationships can be analysed in terms of sets of rights, responsibilities and restrictions held by these categories of people or bodies with regard to access, control, management, and transfer of specific land rights. Some of these specific rights and responsibilities are highly formal and are administered under statutory or religious laws. Others are based on oral traditions and customs such as those found in Africa, Asia and among indigenous groups in North and South America. In all cases, it is rare to find such rights that are fully exclusive or inclusive in character. In all land tenure systems,

there are certain limitations or restrictions that are governed by cultural histories, social organisation, politics, economy, legal rules and geography [Noronha, 1985].

Land tenure systems may be codified or documented (e.g., by religious law, common law, civil codes, judicial reviews, legislation and regulations), undocumented (e.g., customary rights, *ejidal* land, stool land, squatter rights) or a mix of these types of formal and non-formal tenure systems.

A land tenure system is said to be sustainable if it reflects the actual relationships between people and the land [FAO, 2002; UNECA, 2003]. In terms of sustainable development this may not be enough. Land tenure has to promote both social stability and economic development.

1.1.3 Land administration

Land administration is an umbrella term commonly used by land related professions: surveying and mapping, planning, land law, land valuation and taxation. The existing definitions and uses of the term land administration are vague, contradictory and often partially cover all aspects of land administration. There is also a problem when distinguishing between land administration and land management, especially when these terms – administration and management – are not as distinguished as they are in English. In some jurisdictions, the two terms are synonymous and in others are treated as different.

In the last decade, there have been a number of attempts within cadastral studies towards defining land administration. Nichols and McLaughlin [1990] have defined land administration as the "operational component of resource management … concerned with the management and control of the tenure system". This view is reinforced by Nichols [1993] by defining land administration as the "management of the land tenure system,

including arrangements for monitoring and enforcing many of the laws and regulations affecting tenure". The United Nations Economic Commission for Europe further limits the term 'land administration' as the processes of determining, recording and disseminating information about ownership, value and use of land when implementing land management policies" [UNECE, 1996]. These definitions are rather narrow and limited and they tend to disguise "the potentially wide array of functions and agencies that comprise land administration in the modern-State" [Home 2004:19]. Instead, a much broader definition of land administration that reflects the importance of institutions, traditional authority structures and other aspects such as politics should be utilized to undertake useful analysis in a customary tenure context.

In distinguishing land administration from land management, O'Riordan defines land management as,

> *… the processes … of decision-making … whereby resources are allocated over space and time according to the aspirations and desires of man within the framework of his technological inventiveness, his political and social institutions, and his legal and administrative arrangements.* [cited in Dale and McLaughlin, 1988: 4]

This definition of land management accommodates a wider notion of the linkages and organizations involved in land administration, and is tied more closely with land management. Dale and McLaughlin argue:

> *Land management includes the formulation of land policy, the preparation of land development and land use plans, and the administration of a variety of land-related programmes…. Land administration includes the functions involved in regulating the development and use of land, gathering revenue from the land… [and] resolving conflicts concerning ownership and use of the land.*
> [Dale and McLaughlin, 1988: 6]

Reinforcing the institutional perspective, Nichols [1993] defines land management as "the process of making and implementing decisions about how land and its resources are distributed, used and protected in society".

Both definitions by Dale and McLaughlin [1988] and Nichols [1993] emphasize implementation and the close linkages between different organizations and place them in a hierarchy with land management above. Their approach is open to criticism because it does not hold in all situations that land management and land administration can be separated into distinct compartments and neither does such a rigid hierarchy exist in customary tenure environments. Barry and Fourie [2002] have argued that in South Africa's customary and informal settlements no such rigid hierarchy of land policy, land management and land administration exists. In customary tenure in transition as in periurban environments, all three elements alter their positions in the hierarchy over time [Fourie, van der Molen and Groot, 2002].

The definition of land administration needs to cover aspects all customary tenure that are not linked to the land rights. Also, such a definition should treat land management and land administration as equivalents in a non-hierarchical fashion [Fourie, van der Molen and Groot, 2002]. In addition, land administration functions in the developing world take place outside of the land registration/cadastre sphere where the majority of the land is under customary and informal tenures. This is in contrast with situations in the developed world where land registration and cadastre play a **primary role** in land administration.

Following on Dale and McLaughlin [1988] and Nichols [1993] arguments, it is not possible to focus on land administration exclusively as defined in the UNECE [1996] definition of land administration. Land administration may be defined as:

> The operational functions of land management for making and implementing land policies; protecting, acquiring, using, transferring, and distributing rights and interests in land; and carries out the distributive functions by planning, organizing, coordinating, directing, and controlling the use of land. Such operational functions are defined, monitored, and enforced by the traditional authority systems, political, economic, environmental, and cultural factors of the community including their worldviews, values, aspirations, interests, belief systems, and goals within an institutional framework.

This definition is neutral because it does not limit itself to either land registration or cadastre.

1.1.4 Legal pluralism and the periurban problems

Much of the literature analyzing periurban problems has maintained a dual portrayal of the legal system (customary, traditional, tribal, or informal versus state, modern, official or formal). In some cases the duality is made absolute, and the interconnections are entirely ignored. The dichotomization of periurban land activities into 'legal/illegal', traditional/modern, official/unofficial, regular/irregular could obscure the rather fluid relations and structures that span both the legal/illegal and the customary/statutory [Home 2004; Fourie 2004]. Hoffman [1990] shows that in the case of Indonesia, the legal and illegal tenure arrangements exist not as polar opposites, but along a continuum of legal rights ranging from fully registered local-rights, unregistered legal rights, and unregistered quasi-legal rights to squatter rights in informal settlements. The same reasoning can be extended to periurban customary tenure environments in southern Africa. The current literature on periurban indicates that customary and statutory land

rights do not exist as polar opposites (e.g., Fourie, 1981 and 2004; Home, 2004; Barry, 2002). Land rights range from fully registered legal rights such as freehold, fixed period state grant, leasehold, common law leases, and customary grants to quasi-customary, unauthorized land transactions and subdivisions, and squatter rights. Although this may be similar to European systems, the distinguishing factor is the dominance of customary tenure in periurban areas.

Gilbert and Ward [1988] have also argued against the use of dualistic legal/illegal terminology in periurban informal settlements. Seeing periurban activity in terms of this duality is an oversimplification of the periurban problem. In a customary periurban setting in southern Africa, there are a plurality of mechanisms of control and ordering of the social and geographical space. However, the periurban customary tenure relations and land administration arrangements in Third World countries have received very little attention in the field of "law and society" and "law and economics" literature, even though its theoretical constructs provide significant insight into the understanding of the periurban land problems.

Among the most useful of these contributions is the analytical framework of "legal pluralism". Legal pluralism is a situation in which two or more legal systems co-exist, each with its own basis of legitimacy and validity [von Benda-Beckmann 2002]. In examining the periurban land problems, it is useful to employ the perspective of legal pluralism, recognizing that there is not just one legal system that applies nor a simple division between customary and statutory rules, but rather overlapping legal and normative frameworks related to the periurban land problems (See, for example, Figure 1.1). Not only statutory law but also customary, quasi-customary, "received" common

law[4], and unwritten norms may all address the rights, responsibilities and restraints related to land.

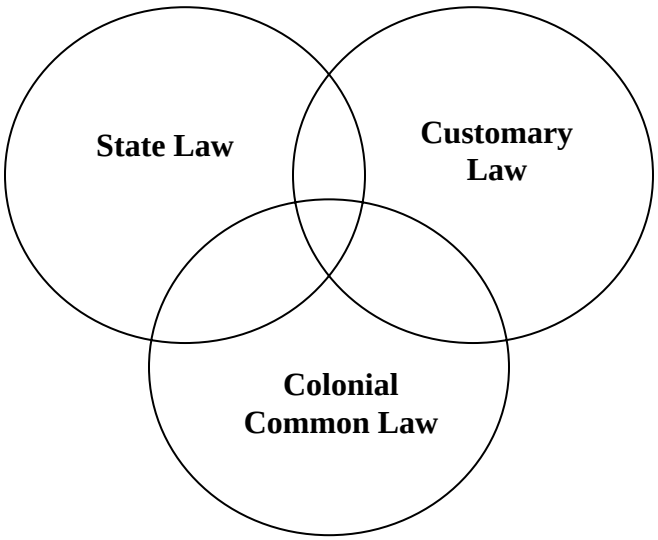

Figure 1. 1: Concept of legal pluralism

As Home asserted:

> *The State is not the only source of law, since many private systems of law can co-exist, with characteristics more akin to tribal than State-structured societies: based upon strong oral traditions, giving less emphasis to due process but with robust rules of evidence, concentrating on protecting shared values and communal peace rather than individual rights.* [Home, 2004:21]

And therefore,

> *The challenge of improving security of tenure for the poor in a world of rapid population and urban growth requires an awareness of differing legal cultures and traditions, particularly in postcolonial and pluralistic societies, as they relate to the problems of urban and periurban development.* [Home, 2004:26]

And further,

> *A recognition of diversity of cultures and legal systems can provoke a mutual interrogation and challenge and offer perspectives on relationships between global and national, State and local, land and people*. [Home, 2004:21]

[4] Not all 'received' colonial law in southern Africa was common law, e.g. the Roman Dutch Law applied in Botswana, Namibia and South Africa, and the Portuguese Civil Law in Angola and Mozambique.

1.2 Research Problem

1.2.1 Research questions

Due to the complexity of the periurban land problems, several questions were raised in the introductory part of this chapter. Arising from the review of the periurban land problems, the following subset of questions will be answered:

i. What are the land-related problems currently facing the customary periurban environments in Botswana, Malawi and South Africa? And why do they still exist?

ii. What analytical frameworks exist for studying and understanding periurban land problems in southern Africa?

iii. How can we design land tenure and/or land administration strategy to help resolve periurban land problems?

iv. What can be learnt from the experiences of Botswana, Malawi and South Africa in dealing with customary tenure in transition?

1.2.2 The periurban research problem

In this thesis, "periurban" will refer to customary tenure areas in the periphery of town and city limits unless specified. Periurban settlements have recently received considerable attention within the agricultural and urban studies literature. However, the following issues have been identified as hampering research into periurban land problems from field experience and review of the literature:

- lack of participation and support from international donor agencies;
- negative attitudes of elected policy-makers;
- inadequate institutional and organisational structures;

- lack of understanding of periurban land problems and their impact on social relationships;
- failure to define adequately the fundamental terminology involved in periurban areas;
- failure to identify key institutions and players in periurban land administration; and
- failure to understand the operations of customary tenure in periurban environments.

The important question to ask might be which institutions should be promoted in these different types of periurban environments?

There has been a growing interest in periurban areas over the last decades because of the important role they play in food production and the supply of developable land for residential and investment purposes. The functions of periurban environments can be summarised as (see for example, OECD [1979]; Iaquinta and Drescher [2000]):

- playing a mediating role between the rural and the urban;
- acting as places of social compression and dynamic social change;
- fulfilling the role of food production/food security;
- providing developable land especially to urban 'immigrants'; and
- acting as an essential component of the urban environment by planners.

In this research, the institutional issues facing the administration of periurban land will be clarified. It will employ theoretical contributions of legal pluralism, urban economic theory, soft systems methodology and theories from geomatics engineering to

examine periurban tenure relations, design of tenure security arrangements in periurban settlements, and evaluation of land administration options for southern Africa.

Systems thinking is a holistic approach to problem solving; it addresses overall patterns and relationships between different components as opposed to reducing the problem into smaller parts. The soft systems approach guides the way complex problems are perceived and interpreted in a real world [Checkland and Scholes, 1990]. It is a useful tool for learning about complex situations and for conducting interdisciplinary research [Churchman, 1971]. Since periurban land problems are inter-disciplinary in nature, a systems approach is a useful tool for understanding periurban tenure arrangements as it embraces multiple dimensions, hierarchies, stakeholders and variable perspectives.

1.3 Assumptions, Objectives and Methodology

The **general goal** of this research is to contribute to the understanding of the periurban land problem. The **specific goal** of this research is to develop a conceptual framework for evaluating land tenure and land administration options that can evolve with the changing social and economic needs of periurban areas.

1.3.1 Assumptions

Two main assumptions guiding this research are:

- Customary tenure systems in general as compared with other systems of land tenure present no special or extraordinary problems; the problem mainly arises from the inadequate land administration support framework to meet modern demands.

- The greatest need for periurban land tenure and land administration is a land information system.

1.3.2 Objectives

The following objectives of the study have been identified:

- to analyse land tenure and land administration objectives and requirements for customary periurban areas in southern Africa;
- to develop and design criteria for evaluating land tenure and land administration options for customary periurban environments in southern Africa;
- to design and develop a conceptual analytical framework for identifying, analysing, modelling, comparing and evaluating customary periurban land problems in southern Africa using soft systems methodology;
- to design and develop a strategy for meeting land tenure and land administration requirements for customary periurban areas in southern Africa;

1.3.3 Methodology

To meet the research objectives, the methodology shown in Figure 1.2 (following page) was used. In the first phase a literature review on customary tenure reforms and land administration in sub-Saharan Africa was undertaken. Since the focus of this research was southern Africa, with specific emphasis on Botswana, Malawi and South Africa, literature review on periurban problems was undertaken to form a background to the thesis. Three-country case studies on customary tenure reforms and land administration in southern Africa were undertaken. This phase led to the analysis and modelling of periurban land problems, the formulation of concepts on land tenure and land administration, and a conceptual framework for evaluating land tenure and land administration options.

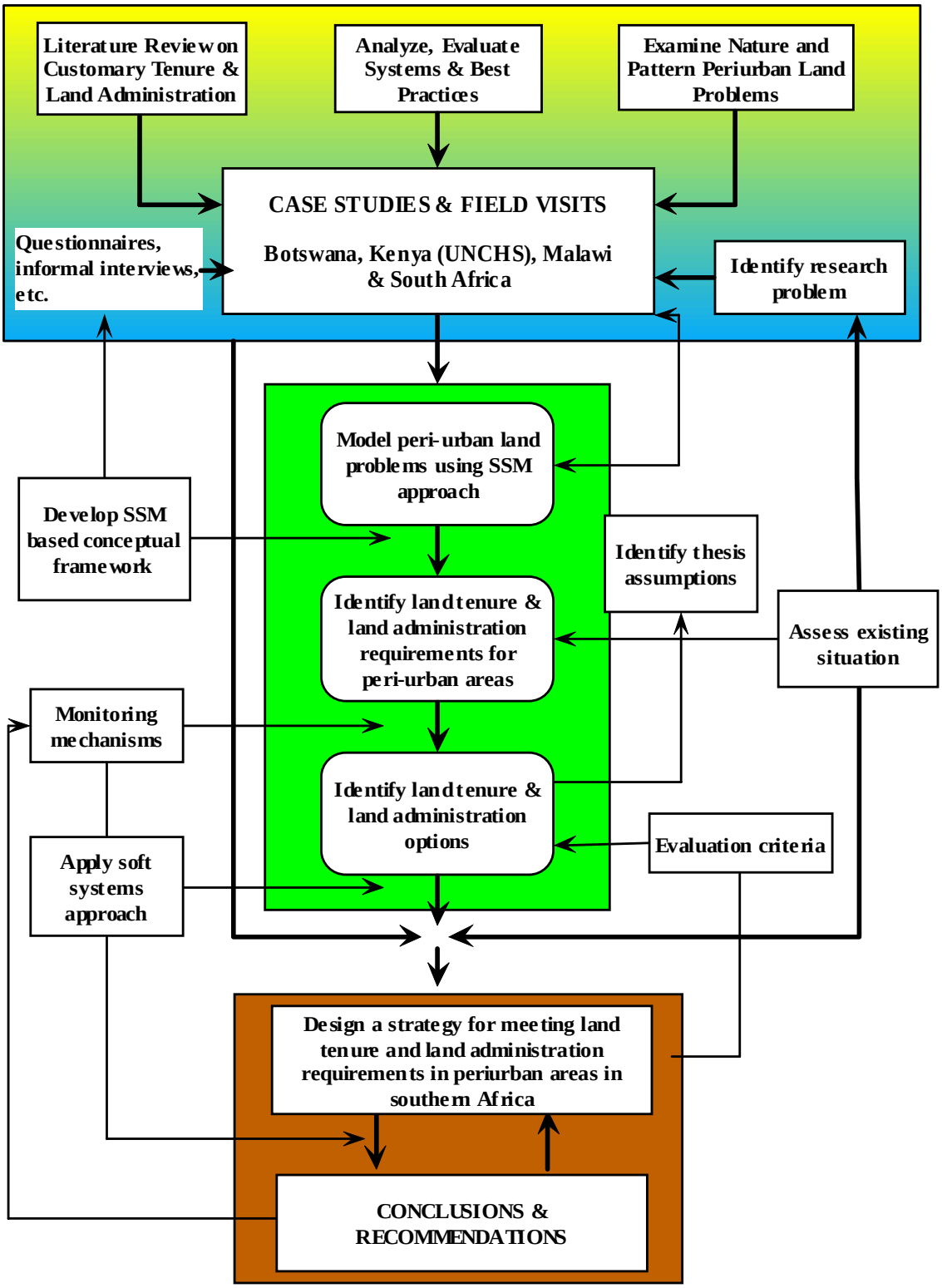

Figure 1. 2: Research Methodology

In the second phase of this study, short site visits were made to land administration agencies and academic institutions in Botswana, Malawi, South Africa, as well as to the United Nations Centre for Human Settlements (Habitat) offices in Nairobi, Kenya. The site visits were undertaken to verify and test the validity of the land tenure and land administration options. This phase then led to the final phase of the improvement and modification of the concepts and framework for periurban land administration.

In each of the case studies, a brief questionnaire was forwarded to potential interviewees with a coversheet explaining the purpose of the research. This questionnaire was a systematic way to obtain basic details about the organisation being interviewed.

The target organisations were government departments, academics, private surveyors, non-governmental organisations and donor agencies. Direct interviews were conducted with senior government officials, academics that had carried out research on various aspects of land administration: valuation, land law, land development, planning, land tenure, social anthropology and geomatics to discuss their insights into the periurban land problems. In addition to scholarly literature, the study also utilised technical, consultancy, and government reports, various national land policies and acts, World Bank and United Nations reports, statistics and electronic material from the World Wide Web.

The case studies were chosen based on the following criteria:

- They have established land administration systems, e.g., Botswana has over 30 years of experimenting with the Land Board system, an interesting institutional innovation;
- They are currently experiencing periurban problems, with variation in scale and degree;

- They have substantial amount of their land under customary administration;
- There was funding available and a fair amount of literature existed regarding periurban land problems and also because of experience working in the region;
- They are relatively accessible;
- The legal or institutional aspects of their land administration systems include existence of a feature or innovation relevant to this research. An innovation would be some new institutional procedure, policy or legislation aimed at helping land administration to better support land tenure reform.

All the selected case studies are former British colonies countries with similar political and legal heritages. They were selected to fulfil the case study component of this research.

1.4 Research Contributions and Thesis Organization

This thesis makes an initial contribution by addressing the land problems specifically in periurban environments. Periurban land-related problems are analyzed in terms of the analytical framework of legal pluralism, soft systems methodology, urban economics theory, and geomatics engineering. Periurban land problems are often addressed in terms of technical and legal issues, for example, the application of different surveying and mapping technologies, the use of land information in registration systems by government agencies, use of police force, land use planning and zoning regulations, establishment of lands tribunal for dispute resolution, payment of fines for regularisation of self-allocations of plots. This research helps looks beyond the technical and legal issues and analyses the periurban problem from the social and political perspectives.

Another contribution of this research comes from the approach used in this analysis. As noted above, this research used an analytical framework employing the constructs of legal pluralism to analyse the contradictions between customary and statutory systems of tenure. This is an unconventional approach in land administration and consequently this research yields new insights regarding the design of a strategy for meeting land tenure and land administration requirements in periurban areas in southern Africa. The conclusions suggest a number of shifts which should be made to conventional thinking regarding periurban land problems in southern Africa.

Chapter 1 has provided the background to the periurban land problems in southern Africa. The challenges faced by these countries in the design and development of land administration activities are highlighted, and these form the basis of the thesis objectives. Although land tenure reform especially customary land tenure reforms, have received attention in most Third World countries in general, including sub-Saharan Africa, much of the research on customary land tenure systems has concentrated on rural agricultural communities, i.e. on the effect of land titling and registration on increasing agricultural productivity and access to credit and also on urban land development. Whilst it is acknowledged that sustainable food production is important to Africa, the periurban areas have been almost forgotten. Periurban environments have different functions, i.e. their land tenure and land administration requirements differ from those of rural as well as urban areas, and as such this research fills the gap by stimulating interest in these areas. From a practical perspective, the research fills the void by increasing our understanding of land problems in periurban environments by identifying, defining, clarifying, analysing and modelling the periurban land problem. It does that by seeking the answers to two basic questions:

- how can we manage the periurban land problems better, e.g. the conflict between statutory and customary law, illegal land subdivisions and transactions; and
- what do we need in order to make the administration of periurban land tenure work better.

From a theoretical perspective, the contributions of this research include the following:

- introduction of the periurban land problems and development of land tenure and land administration concepts (Chapter 1); review and analysis of theories which influenced the evolution of customary tenure reform approaches in sub-Saharan Africa (Chapter 2) as this feeds into the analysis and evaluation of land tenure options for periurban environments in southern Africa;
- development of conceptual framework based on soft systems methodology (SSM) for analysing, evaluating, modelling and comparing periurban land problems in southern Africa (Chapter 3);
- analysis of the land tenure and land administration requirements for periurban areas in southern Africa using soft systems approach as a guideline (Chapter 4 and 5);
- identification and evaluation of land tenure and land administration options for periurban environments (Chapter 6);
- design strategy for meeting the land tenure and land administration requirements in periurban areas in southern Africa (Chapter 7);
- (Chapter 8); this framework should provide a learning tool as well as facilitate the evaluation of land administration options.

However, the major contribution of this research is to define the periurban land problem clearly. This involved the use of theoretical approaches of legal pluralism, urban economic theory, and soft systems methodology to develop a general conceptual framework (Chapter 3); analysing and modelling the periurban land problems; analysis of

periurban land tenure and land administration requirements for periurban environments (Chapters 4 and 5); identification and evaluation of land tenure and land administration options for periurban areas; design of a strategy for meeting land tenure and land administration requirements in periurban environments across three countries in southern Africa (Chapter 7). Conclusions, recommendations, and a more detailed discussion of the research limitations and contributions are presented in Chapter 8.

CHAPTER 2:

AFRICAN LAND TENURE MODELS AND REFORM THEORIES

Chapter 1 has given an overview of the periurban land problems in southern Africa. In this chapter, the historical African land tenure models will be analyzed, as well as, the general land reform theories and drivers that have continued to influence land reform policies in southern Africa. The purpose of this chapter is to highlight the importance of these customary tenure reform approaches on periurban land tenure. In addition it will highlight their impact on access to land for housing and planned land development. In chapter 3, the design of a conceptual framework for evaluating periurban land tenure and land administration options will be examined using soft systems methodology approach.

2.1 Misconceptions about African Land Tenure

African systems of land tenure are often loosely referred to as “customary”, “communal”, and “traditional”. This research defines the three terms as follows:

- “customary tenure” should be understood as a tenure deriving or in accordance with customs, has evolved locally, and this does not connote time or history.
- “communal tenure” refers to a tenure situation whereby group rights are predominant, but not exclusive.
- “traditional tenure”, meaning a tenure situation consisting or drawing from tradition, with a connotation of history or antiquity.

This is in contrast to the European systems of land tenure that are viewed by western writers as more evolved, more progressive, modern, formal and ideal for commercial and

public spheres. What is often forgotten is that these "modern" tenure systems reflect European values, traditions and attitudes and are part of a modern (western) economy.

The biggest misconception comes when describing African land tenure as "communal" implying group management, ownership, exploitation, control and use of land. It implies that there is absolutely no exclusive right to land, which is misleading. There can be exclusive possession of residential, arable, commercial, and water holes but the forests, rivers, wild fruits, minerals, hunting and grazing areas are usually common property[5].

The terms "customary" and "communal" cover a fairly wide range of spectrum of situations and land arrangements ranging from individual to group rights. Describing African systems of land tenure as "communal" should be avoided as it "oversimplifies a complex situation" [Crocombe, 1974; Noronha, 1985]. Further, referring to "communal tenure" as "customary" leads to even more contradiction. For example, "customary tenure" which is practised in the Swiss Alps by the sheep farmers, although relatively modern, is "communal" and historic rather than "traditional" as stated by Noronha [1985]. Customary rules can be recognised and enforced using formal law as in Botswana and Fiji. The Islamic shari'a and the Hindu law share many characteristics of "customary tenure" and both laws are "customary", "traditional", "modern" and very "formal".

Further still, customary rules can be incorporated into statutes such as rules developed by the merchants during the industrial revolution. The best way to avoid this confusion when describing land tenure systems that have evolved locally is to use the term "indigenous", as it [Noronha, 1985]:

[5] This statement might not be true in some places in Africa as there are areas where water holes are communal and where no exclusive rights exist for fruit.

- clearly distinguishes land tenure systems that have evolved locally from those that have been imposed from without;
- avoids the issue of time dimension, i.e. how “ancient” should the tenure system be in order to be described as “customary” (should it be pre-colonial, colonial or time immemorial in order to be so classed?);
- reduces the intrusion of *a priori* prejudices about the efficiency of individual tenure systems as opposed to communal tenure systems; and
- permits a more objective perspective about the functional utility of each type of system under diverse conditions.

This research distinguishes between two terms, “traditional tenure”, meaning those indigenous African tenure practices before the European contact, and the term “customary tenure” which derives from customs. The latter should be understood in the context of customary tenure after the colonial and post-colonial period, i.e. customary tenure practices of today that evolved in a largely rural environment. All tenure systems, including western tenure systems are constantly evolving, but modern customary systems in Africa are experiencing an accelerated rate of change.

2.2.1 Lugard’s evolution model of African land tenure

Lugard [1922] identified three stages in his unilinear evolutionist model of African land tenure as:

- *Stage 1:* In the initial stages land and produce all belonged to the community and there was no individual ownership. Later on, there was separation of control, the ultimate control of access to land resting with family, clan or lineage head. Here

land tenure security was dependent of the fulfilment of social obligations and there was no alienation of land except to the family.

- *Stage 2:* With the development of tribal societies, chiefs controlled access to land resources. There were individual rights to residential and farming land and common grazing and forests rights.
- *Stage 3:* Due to increasing population pressure, the introduction of cash crops and the infusion of foreign ideas and concepts of land tenure, customary tenure acquired an exchange value and new tenure concepts emerged, such as mortgages, leases, sale, compulsory purchase, loans, and tenancy agreements.

Lugard's model is merely describing changes in land tenure practices over time. The Luggardian model depicted in Figure 2.1 also assumes a closed system that might not necessarily be true. It is however difficult to confirm or dismiss his evolutionary perspectives outright; it very much depends on the time frame and institutional opportunities. Nonetheless, most of the anthropological literature on indigenous land tenure demonstrates that various land tenure changes occur at different paces[6].

[6] See for example, Schapera [1948]; Biebuyck [1961]; Crocombe [1971, 1974]; Moore [1978]; and Berry [1993]. Also, private individual tenure is not just a higher evolutionary step; all land tenure systems are equally valid.

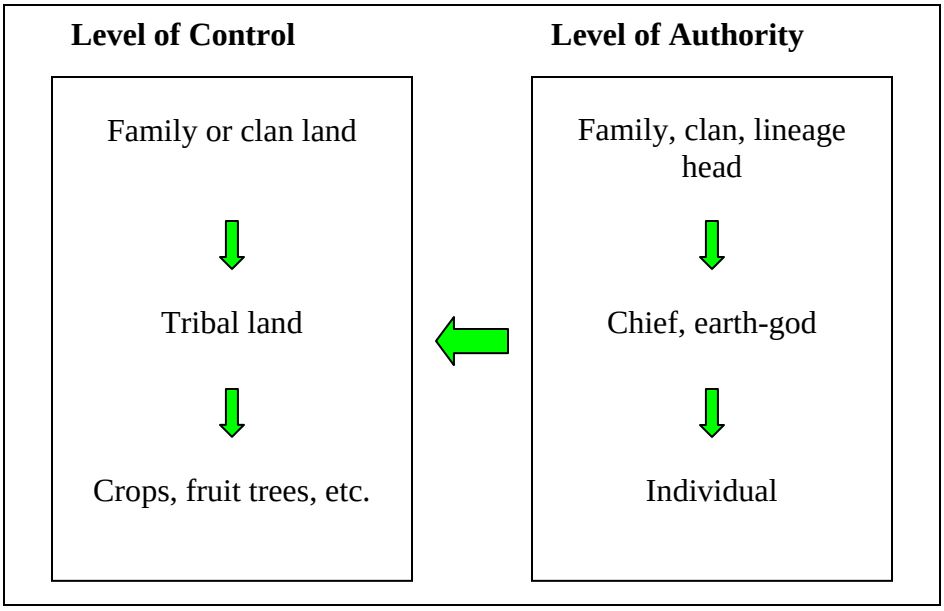

Figure 2. 1: Lugard's evolution model of African land tenure

Benjaminsen and Lund [2001: 5], for example, have pointed out the lack of evidence in the unilinear development of customary tenure towards a general market-oriented private individual property rights.

2.2.2 Hailey's evolutionist African tenure model

Hailey's model of the evolution of African land tenure shown in Figure 2.2 stresses

> *…the importance of the changes which economic forces produce in the customary systems of landholding, and of the extent to which a modern administration may have to take account of the bearing of these changes on the development of primary production.* [Hailey, 1946: xi]

During the initial stages, traditional land tenure practices form an integral part of political and social relations and this stage is equated with feudalism in Europe. However, the changes in tenure which took place in Europe, like the enclosure movement in England,

were slow and gradual and took several centuries compared to customary tenure which had to adjust within a couple of decades in Africa[7].

The second stage was triggered mainly by economic forces. The tenure change compared to the initial stage is much more rapid and follows a clearly defined path. In the African context, Hailey stated that the process of tenure change:

> *…has been accelerated, and is likely to be increasingly accelerated in the future, in proportion as the more primitive systems of holding and utilizing land become more adjusted to the needs of a modern economy of production and marketing.*
> [Hailey, 1946:xii]

Although Lord Hailey's statement is not politically correct in today's circumstances, evidence of what he was describing is the rapid tenure change in the periurban environments due to rising land values. The final stage of Hailey's evolution model is reached when, "with growing density of population and increased pressure on land, holdings acquire a transferable value, and rights in them become more completely commercialized" [Hailey, 1946: xii].

[7] See, for example, Clark G. [1998]. "Commons Sense: Common Property Rights, Efficiency, and Institutional Change." *The Journal of Economic History*, **58**(1):73–102; and also H.T. Elias [1965]. "Evolution of Land Tenure in England: A Case of Contrast." In *Twenty-six Centuries of Agrarian Reform: A Comparative Analysis* by H.T. Elias, Berkeley: University of California Press, pp. 37–53.

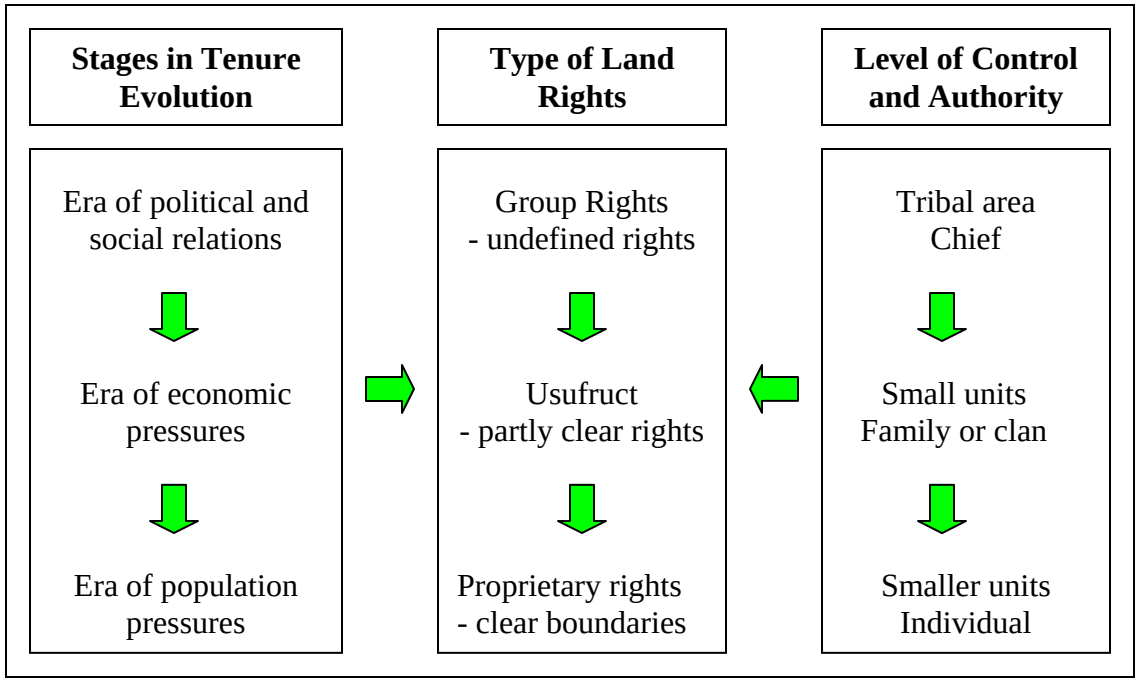

Figure 2. 2: Hailey's evolution model of African land tenure

2.2.3 Meek's African tenure model

Meek [1946] identified the following characteristics of African land tenure systems:

- designed to meet the needs of a subsistence system of agriculture;
- held on kinship, and/or community basis;
- qualified by membership to a family, clan, lineage or tribe;
- instituted chief as custodian of land;
- applied *usufructuary* rather absolute rights; and
- inalienable.

Because customary land rights are inalienable, Meek [1946] stated that it is "a hindrance to development" and "an impediment to progress". Statements similar to Meek's are still

being echoed in African governments' policy documents, international development agencies and by some academics [De Soto, 2000; The Economist, 2004].

Meeks's description of African land tenure as '*usufructuary*' is misleading as it does not cover the full strength of the customary land rights. It shows a lack of understanding of the African land tenure system and its continued use today obscures the real pattern and nature of customary tenure. For instance, under Roman law, a "grant of *usufruct* was for use of fruits during the holder's lifetime, not transmissible to heirs, as African holding is" [Gluckman, 1969:258].

2.2.4 Gluckman's African tenure model

The model is based on his research in Zambia on the Lozi Kingdom. Gluckman [1969] postulates that: (1) any system of land tenure is based on citizenship and social position in the political hierarchy (status), and (2) the incidence of rights over land varies with technological advancement, from pastoral to agricultural economy. In the context of the Lozi land tenure he observed,

> *… this system of landholding forms the essential part of the organisation of social relations from the king downwards through the political units of villages into the hierarchy of kinship relationships* [Gluckman, 1969:256].

According to the Gluckman model (Figure 2.3), the king holds the 'primary estate' of rights of administration, which he delegates to his subordinates, the headman of villages, who in turn acquire 'secondary estates' of rights of administration. The distribution of village lands to the heads of households is issued under what he calls the 'tertiary estates' of rights of administration. The heads of households issue 'estates' or 'rights' of production to their dependant heads of households similar to the English feudal system.

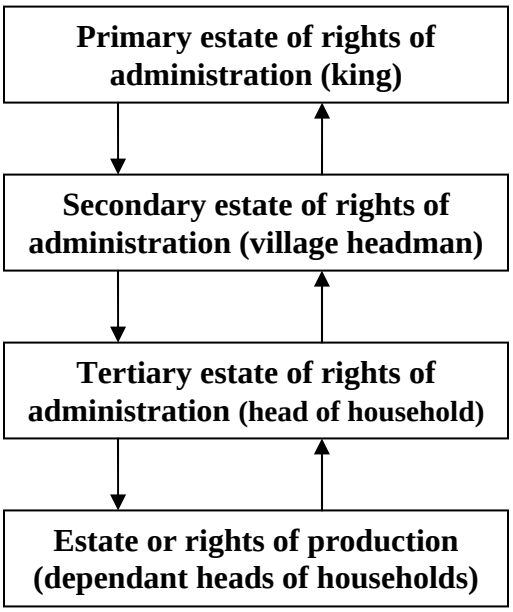

Figure 2. 3: Gluckman's model of customary tenure showing nested rights

The model can be criticised for implying the existence of well-organised systems of authorities dealing with land administration all over Africa and elsewhere. Several communities in Africa do not have chiefs or kings and therefore the model has limited applicability even in Zambia where it was formulated. For example, the hunter-gatherer communities and some groups such as the Tonga in Zambia do not have chiefly authority structures.

2.3 Customary Tenure Reform Theories

Colonial administrators and post-colonial governments in sub-Saharan Africa have been trying to replace the customary tenure systems with statutory tenure. Accordingly, different forms of statutory tenure arrangements have been implemented in many sub-Saharan African countries during and after the colonial era. Several theories have influenced such land tenure policy changes or statutory tenure arrangements. These range

from the ‘market-oriented’ individual property rights (replacement theory) approaches to ‘anti-market’ oriented collectivized state-guaranteed forms of tenure (anti-market theory). Other land tenure policy reform approaches in the region fall in between the two extremes.

Figure 2.5 uses the device of a timeline to list a number of theories, themes and policy thrusts that have been influential in the customary tenure reform policies in sub-Saharan Africa since the 1950s. The figure is not intended to give a definitive account of the customary tenure reform theories and their historical influence upon each other, but to highlight mainstream customary tenure reform narratives and to explore the turning points between these approaches.

It is immediately evident from Figure 2.5 that the predominant customary tenure theories are not trapped in time capsules conveniently organized in decades. For instance, theories developed in one decade often come into effect in the following decade, and only affect customary tenure ten to fifteen years after having been put forward.

This is true of the replacement theory, which was developed in the 1930s and 1940s but began to gain strength in the 1950s. In following the timeline depicted by Figure 2.6, it is important to distinguish substantive theories from minority ideas. By removing minority ideas in Figure 2.4, dominant customary tenure reform paradigms in sub-Saharan Africa can be identified as shown in Figure 2.5.

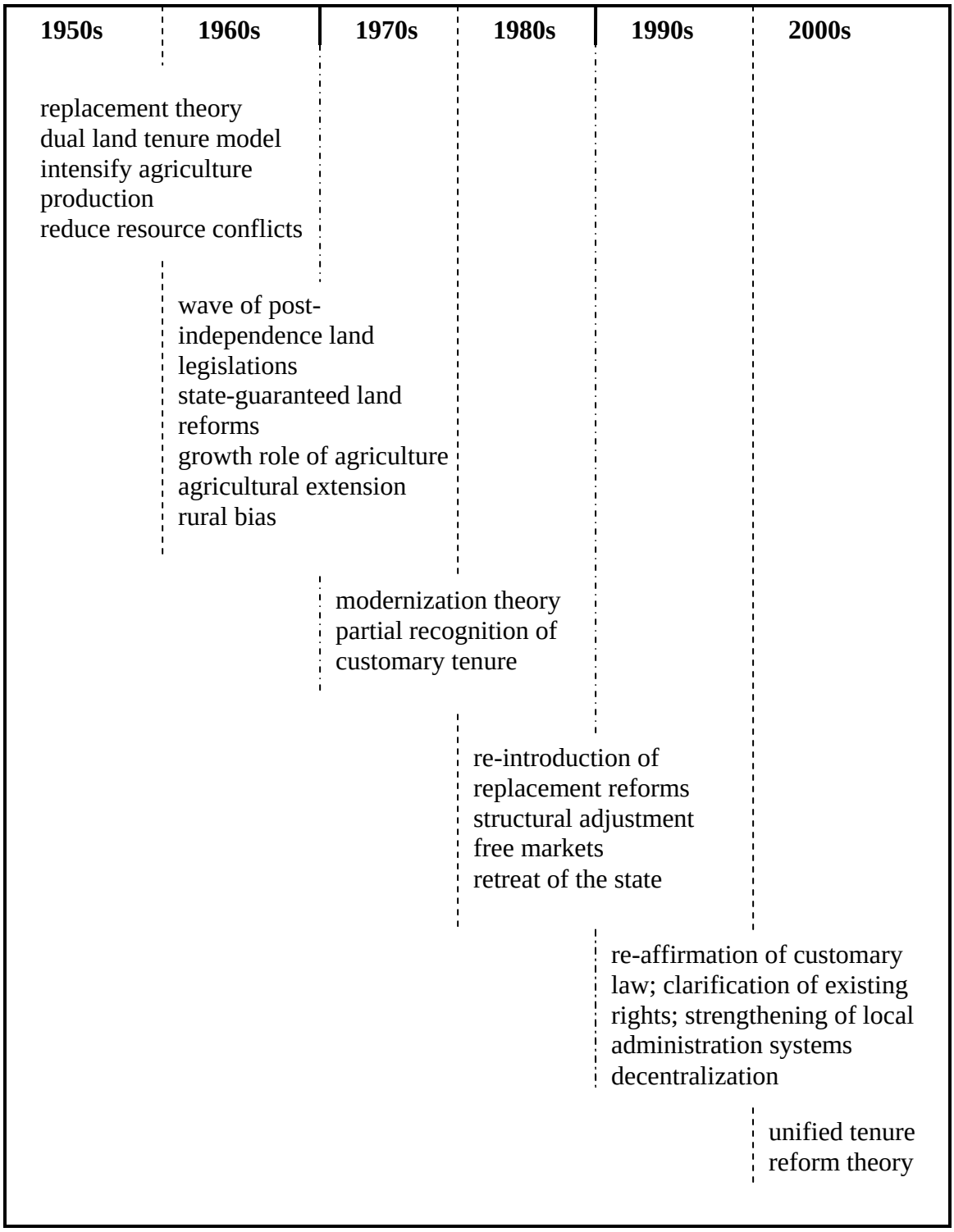

Figure 2. 4: Customary tenure reform theories timeline

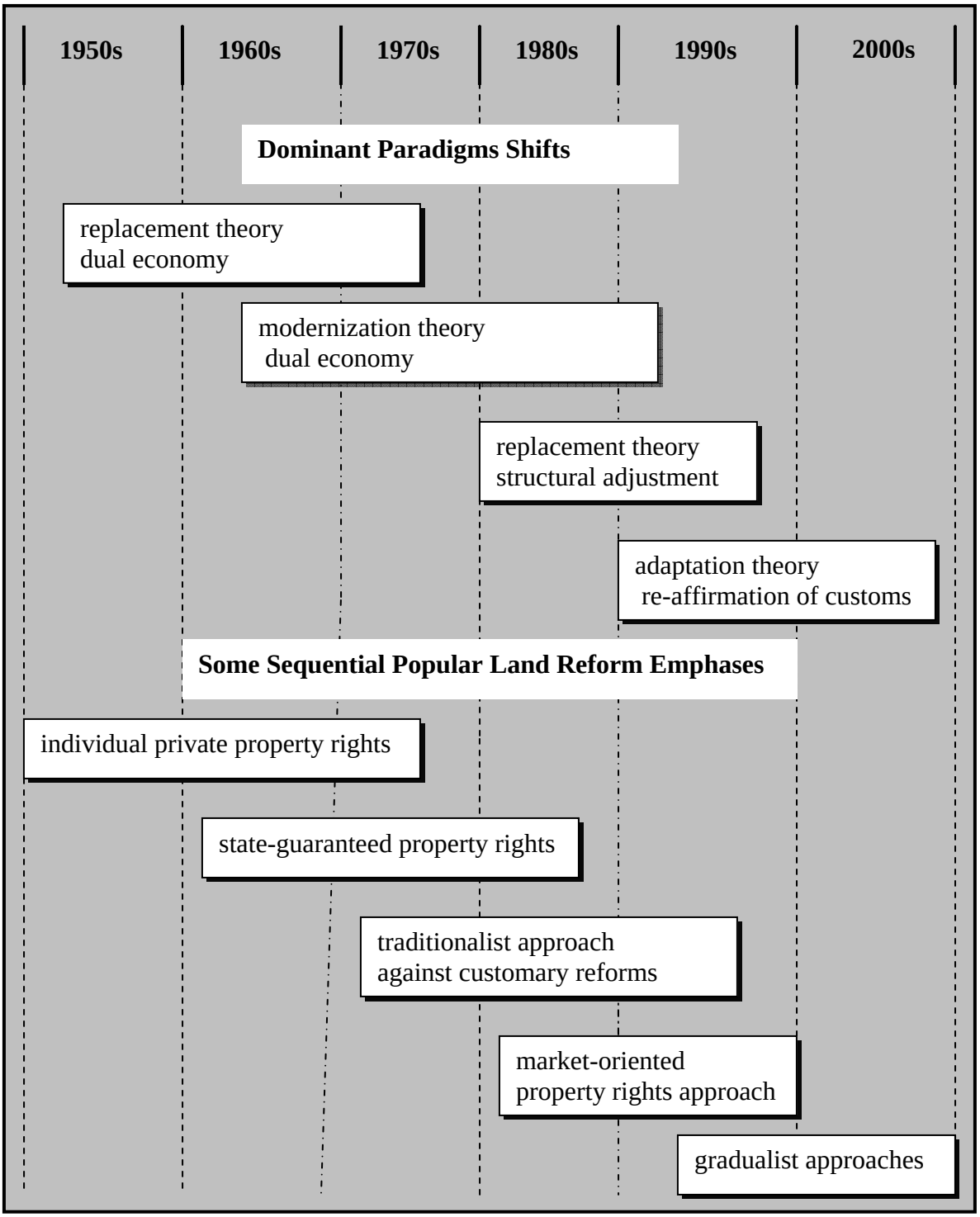

Figure 2. 5: Paradigm shifts and land reform emphases in Sub-Saharan Africa

2.3.1 The 'replacement' theory

The private property rights group proposes individualization, titling and registration (ITR) as a means of solving land management and administration problems currently facing the African region. This group strongly believes that ITR is a prerequisite to land development and improvement as well as management of land-related conflicts. They view customary land tenure as inimical to land markets and modernization of the economy and therefore should be replaced (the "replacement" theory). The views of this group have philosophical roots in neo-classical economic thought of Adam Smith, Jeremy Bentham and John Locke [MacPherson, 1978]. These ideas were expanded in the works of institutional economists such as Demsetz [1967], Alchian and Demsetz [1973]. Johnson [1972], Ault and Rutman [1979] applied the theory to the African customary tenure situation.

This replacement theory sees land markets and associated markets as the foundation for economic development. They believe that the individual private property rights paradigm is the gateway to successful land development and improvement, increasing credit opportunities, and promotion of land markets. Since land rights and land transactions are recorded in land registers, references can be made to them, and hence ITR is believed to be the most effective means by which land disputes, extra-legal tenure arrangements, unofficial land markets and litigations can be reduced[8]. As Keesing commented in his classic work:

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[8] See, for example, Hardin, G. (1968). "The Tragedy of the Commons." *Science* **162**: 1243–1248.; Johnson (1972); Alchian and Demsetz [1973]; World Bank (1974); Ault and Rutman (1979); Noronha (1985); H.W.O Okoth-Ogendo (1986). "The Perils of Land 'Tenure' Reform". In J.W. Arntzen, L.D. Ngcongco, and S.D. Turner (eds) Land Policy and Agriculture in Eastern and Southern Africa, Tokyo: United Nations

> *The average Westerner tends to assume that his own particular property usages, with their attendant paraphernalia of maps, theodolites, fences, and title deeds, have a kind of universal validity or even sacredness. Other systems of property holding, if they come to his notice, are regarded as primitive, inadequate, and perhaps vaguely subversive* [Keesing, 1946: 97].

This replacement approach to land tenure reform ignores the multi-functional importance of land in rural African communities. These communities view land beyond formal economics, as the foundation of the wider socio-economic and political systems [Simpson, 1976; Bruce, 1988; Okoth-Ogendo, 1989]. For example, Polanyi [1944] has noted that in Western Europe, land became a commodity, subject to the forces of impersonal markets after the feudal sequestration and kinship had been severed. Polanyi further states:

> *…land is an element of nature inextricably interwoven with man's institutions. To isolate it and form a market out of it was perhaps the weirdest of all undertakings of our ancestors* [Polanyi, 1944: 179].

The private property rights paradigm's main shortcoming is its exclusive focus on private property rights and land markets and rejection of non-market customary tenure arrangements. It should be stressed that due to the peculiar circumstances facing rural Africa especially in periurban environments, European experiences and concepts of land rights when transplanted to Africa have limited success. For instance, the fee simple tenure prevalent in Western societies is a product of many centuries of social, cultural, economic, political and legal changes [Fred-Mensah, 1999]. The enclosure movement in

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University; Falloux, F. (1987). "Land Management, Titling and Tenancy" In T.J. Davis & I.A. Schimer, eds. Sustainability Issues in Agricultural Development. Proceedings of the Seventh Agriculture Sector Symposium, p.190–208. Washington, World Bank.; Feder et al 1988; D. A. Atwood (1990). "Land Registration in Africa: The Impact on Agricultural Production." *World Development* **18**(5): 659-671; Platteau, J.P. (1996). "The Evolutionary Theory of Land Rights as Applied to sub-Saharan Africa: A critical Assessment." *Development and Change*, **27**: 29-86. H. de Soto (2000). *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.

England underwent several transformation stages and took several centuries to evolve[9]. As earlier pointed out by Polanyi [1944:179], "…*the mobilisation of land which in exotic regions may be compressed into a few years or decades may have taken as many centuries in Western Europe*". The migration of Europeans to the Americas, Australia, South Pacific Islands and Africa acted as safety valves to these countries during their transformation processes (e.g. Noronha [1985]; Bruce [1988]; Feder and Feeny [1991]; von Benda-Beckmann [2001]).

The market-oriented property rights advocates tend to place too much optimism on the ability of the state in Africa to design institutional arrangements, including law and policies, and to effectively implement them in rural areas. Fred-Mensah [1999] asserts that the state in Africa has not been able to penetrate into the rural areas and act as an effective means of social control. Most rural communities invariably extend primary allegiance to primordial political, economic, and legal structures [Bratton, 1989; cited in Fred-Mensah, 1999]. Ambiguities, ambivalence, inconsistencies, bureaucratic and logistic bottlenecks, and, as a consequence, land-related problems have bedevilled land transactions in countries such as Kenya, Malawi, Somalia and Cameroon, where land titling and registration were carried out in a large scale. The impact of the modern tenure systems on rural areas in these countries has remained minimal. Most of the transactions in land in these countries are still handled under varying indigenous tenure laws (e.g.,

[9] See, for example, Clark G. (1998). "Commons Sense: Common Property Rights, Efficiency, and Institutional Change." *The Journal of Economic History*, **58**(1):73–102; and also H.T. Elias (1965). "Evolution of Land Tenure in England: A Case of Contrast." In *Twenty-six Centuries of Agrarian Reform: A Comparative Analysis* by H.T. Elias, Berkeley: University of California Press, pp. 37–53. Fred-Mensah (1999), at p.8; citing Bratton 1989.

Haugerud [1989]; Mackenzie [1989]; Migot-Adholla et al. [1991]; Bruce and Migot-Adholla [1994]).

2.3.2. The anti-market theory

The Ujamaa Villagisation Policy in Tanzania during the 1970s, the *co-operative d'amanagement* rural in Benin during 1960s, the Ethiopian land reforms in the 1970s and the Mozambican village allotments in the 1990s are similar but distinct approaches to non-individualized property rights models of land tenure reform [Cloete, 1992; Bruce and Migot-Adholla, 1994; Okoth-Ogendo, 1999]. All these institutional reforms were inspired by their socialist ideology but differed in their emphasis. For example, despite their common philosophy of 'state-guaranteed' communal forms of tenure, the Ethiopian land reform differed from the others in its primary goal of addressing the issue of social justice of distributing land equally [Bruce and Migot-Adholla, 1994]. There are other examples of land tenure reforms that fall between the two extremes. Such examples may include the Land Use Decree of Nigeria in 1978, which involved replacing traditional tenure rights with "occupancy rights"[10]; the national domain laws passed in Senegal in 1964 which gave local councils the power to draw up land registers for recording land rights allocations from the state to individuals; and in the mid-1970s Zambia converted all freehold titles to leaseholds [Norohna, 1985]. What these reforms had in common with the replacement theory or market-oriented reforms is that land titles were individualised

[10] See, for example, B. Ayeni (1981). "Lagos" In M. Pacione (ed.) *Problems and Planning in Third World Cities*, London: Croom Helm; Francis 1984; Ezigbalike, C. and Q. C. Selebalo (1999). "African Experience of Tenure Reform and Cadastres: A Place in the Global Sun?" FIG/UN, Melbourne, Australia, pp. 46-62. Ezigbalike, I. C. (1996). "Land Information Management for Rural Africa." Food and Agriculture Organisation (United Nations), Rome.

in the sense that the traditional tenure system is cut off from its customary authority structures, leaving just the individual and the state [Noronha, 1985].

Moreover, what these two categories of land tenure institutional changes had in common were that they all attempted to replace customary tenure institutions with either an individualised freehold tenure or 'state-sanctioned' corporate form of tenure institution. It can be concluded that they all share the economic arguments made by the East Africa Royal Commission of 1951 that saw customary tenure system as a hindrance to land development and improvement. In spite of their ideological differences they all desired to replace customary tenure with imported tenure regimes. However, neither did they succeed in removing the customary tenure.

2.3.3 The traditionalist theory

Scholars who can be classified as traditionalists such as Coldham [2000] and Haugerud [1983] have strongly criticized the introduction of land titling and registration in Africa. These scholars base their argument on the failures of the market-oriented property rights and the state-imposed tenure reforms. For instance, the introduction of land registration in sub-Saharan Africa has yielded negative results such as land concentration, increased marginalization and landlessness as the elite took advantage of the less powerful. They view individualized land titles as a means to destroy or undermine customary tenure structures and authority.

To the traditionalists, customary tenure provides sufficient security of tenure. They argue that land acts as a social, political and economic tie between kinship groups.

Individualization of land titles, they argue, will break down group solidarity and social cohesion of African rural communities.

2.3.4 The adaptation theory

The arguments of the adaptation (evolutionist) approach have their philosophical basis in the work of Boserup [1981][11]. The evolutionist views are aimed primarily at dislodging the market oriented property rights advocates' criticisms of customary land tenure systems in Africa. The fundamental argument of the evolutionists derives from the premise that indigenous African tenure systems are able to adapt flexibly to changing economic circumstances and population pressures. They reject such arguments that indigenous tenure regimes are a constraint to land development and improvement and environmental management.

The evolutionists criticize the private property rights advocates for misunderstanding the pre-colonial African land tenure systems. To the evolutionists, the misconceptions derive from the use of 'ill-defined' terms such as communal, customary and corporate land tenure when describing the indigenous African land tenure systems. They contend that the use of such terms invokes images of unchanging and immutable normative systems[12].

The evolutionists also argue that the pre-colonial African land tenure systems have demonstrated varying degrees of adaptation, flexibility and responsiveness to economic

[11] Dasgupta (1995, p.1898) points out that one of the limitations of Ester Boserup's work that it does not address the population problem as it exists today in sub-Saharan Africa. In her pioneering work, she found out that pressure of population led to changes in the organization of production, property rights and the way of doing things.

[12] See, for example, Noronha [1985]; Chanock, M. [1991]; Bruce and Migot-Adholla (1994).

incentives and population pressure and do not need to be tampered with by outside agents, particularly national governments[13]. For instance, Bruce asserts that changes that have taken place so far in indigenous tenure arrangements

> *…have often not required radical revision of older tenure arrangements nor have they often involved conscious decision by the community. Instead, change has come in an unfolding of the internal logic of these systems in response to new circumstances* [Bruce 1988:33].

Still, in this group there are scholars such as Ault and Rutman [1979], and Bruce *et al*. [1994] who argue that the reason why state imposed land tenure reforms failed is because of the presumed rigidity of African tenure systems. Although this raises questions about customary tenure being inflexible and static, the group questions the widespread land titling and registration programs as a panacea for the economic problems in Africa. They support a gradualist or incremental approach to tenure reform and argue that land titling and registration programs should be applied where customary tenure is weak.

In evaluating the findings of their research in sub-Saharan Africa, Bruce *et al* [1994] reported that one of the implications of their findings for policy-makers is that attention

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[13] See, for example, Keesing (1946); Boserup, E. (1965). *The Conditions of Agricultural Growth–the Economics of Agrarian Change under Population Pressure*. London, George Allen & Unwin.; J. Cohen (1980). "Land Tenure and Rural Development in Africa." In *Agricultural Development in Africa*, edited by R. Bates and M. Lofchie. New York: Allen & Unwin pp. 323–389; Boserup (1981); Bruce (1988); Atwood (1990); Migot-Adholla, S., P. Hazell, B. Blarel, and F. Place (1991). "Indigenous Land Rights Systems in sub-Saharan Africa: A Constraint on Productivity?" *The World Bank Economic Review* **5**(1): 155-175; Place, F. and P. Hazell (1993). "Productivity Effects of Indigenous Land Tenure Systems in sub-Saharan Africa." *American Journal of Agricultural Economics*. **75**: 10-19; Bruce et al. (1994); J. Ensminger (1996). "Changing Property Rights: Reconciling Formal and Informal Rights to Land in Africa." In *The Frontiers of the New Institutional Economics*, J. N. Drobak and J. V. C. Nye, eds., Academic Press, London, pp. 165-211.; G. Payne (1997). *Urban Land tenure and Property Rights in Developing Countries:* a *review*. Intermediate Technology Publications/ODA, London.

needs to be redirected to more incremental approaches to change in indigenous tenure systems. They concluded that

> *…the task of tenure policy research for the next decade is to elaborate such gradualist approaches, relying to a significant extent on incremental patterns. We should be moving away from a "replacement paradigm" in which indigenous tenures are to be replaced by tenure provided by the state, toward an "adaptation paradigm." Can we define the basic legal and administrative requirements of a land policy that uses an adaptation paradigm?* [Bruce et al., 1994: 261].

Ault and Rutman assert that

> *… the tribal African responds as rationally to economic incentives as his counterpart in the economies of Western Europe, North America, and Japan. The institutional framework in which he makes economic decisions must be clearly understood before sound economic policy may be formulated. Simply arguing that tribal institutions must be replaced does not provide the understanding of the tribal economy necessary to formulate policy that will provide the set of the individual incentives desired* [Ault and Rutman, 1979: 182].

2.3.5 Towards a unified theory of customary tenure reform

There is need to search for ways to integrate customary tenure into the national economies and in ways that are compatible with the African culture. Economic success of southern African nations depends on adaptable land tenure institutions and robust macro-economic policy [Riddell, 2000]. There is a need to recognise the property rights of all players, especially those under the customary tenure regime. There is also a need to use culturally compatible technology to clarify the actual existing land tenure relationships of a society. Therefore, in the African context, the goals of land titling and registration should be:

- to ensure that the existing land tenure rights are respected;
- to provide the clarity on what these rights are by using land information management techniques; and

- to provide land tenure security where customary law has collapsed or is corrupt.

Modern land information systems (LIS) provide the tools for starting a process towards a unified customary land tenure reform because they provide a method of recording the basic data of who holds what rights, for how long, and for which land parcels[14]. LIS provides the set of tools that allows land administrators to clarify the vaguely defined customary rights. With LIS, unclear property rights can be clearly defined graphically in relation to individuals as well as groups. This has potential to work "because LIS has provided the necessary clarity to the legal capacity that is created by property legislation" [Riddell, 2000]. Governments in Africa and elsewhere together with their development agents assume that dealing in "customary law" is unnecessarily complex. Riddell views this as a mistaken assumption and argues [Riddell, 2000, citing Bascom, 1951] that all effective law is customary law. This statement means that a community feels something is just, right and proper in a legal sense because it is customarily accepted as right, just and proper in that society [Riddell, 2000].

2.4 Current Drivers of Customary Tenure Reforms

In examining the nature of the land question in southern Africa, Okoth-Ogendo [1999] identifies three broad land policy drivers as political, economic, socio-cultural pressures. However, the list should not be restricted to only three factors. Therefore Figure 2.6 depicts more interrelated pressures responsible for customary land tenure reforms, which have been going on during and after the colonial era. Identification of these pressures would help in

[14] Although LIS offers a lot of opportunities for administering customary tenure more effectively and efficiently, the above statement does not assume that African tenure can be completely parcelized.

making predictions in the light of international experience about the probable impact of new land policies on land development and improvement**.**

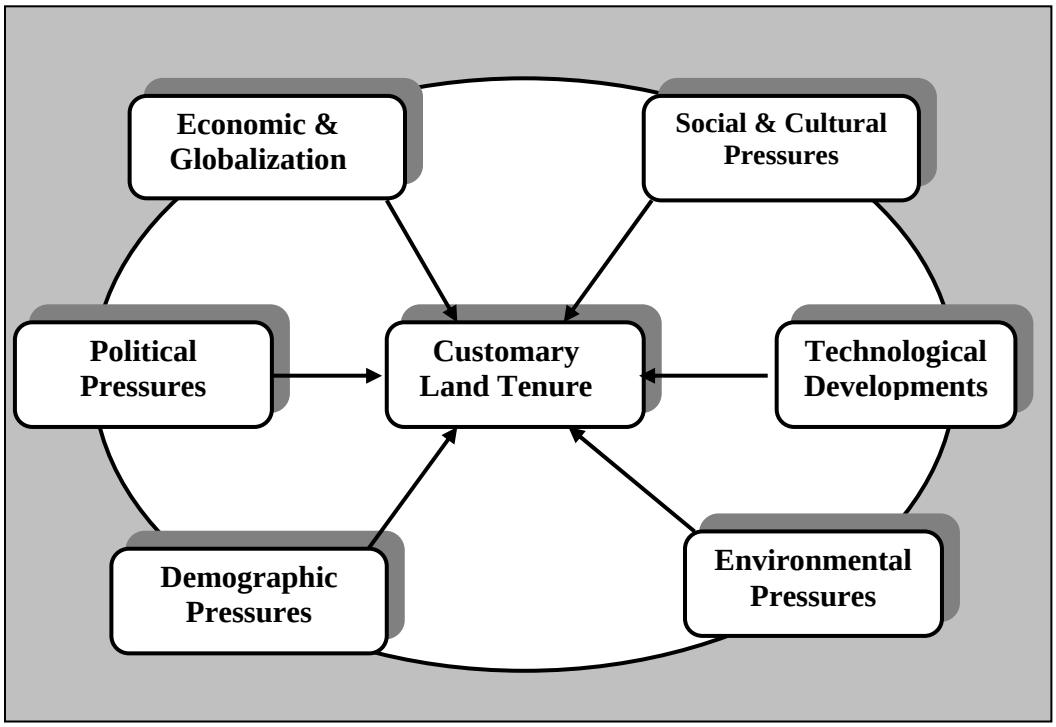

Figure 2. 6: Factors driving customary tenure reforms in Southern Africa

***Political pressures*:** The land question in southern Africa is still beset with the highly politicized land redistribution issue. The region (e.g., Zimbabwe, South Africa and Namibia) has a highly skewed land distribution pattern based on racial lines comparable only to Latin America and Asia . This is a legacy of colonial settlement policies of forced removals (and now President Mugabe's fast-track land reform), unjust racial laws and separate development. If the current land invasions in Zimbabwe are an indicator of things to come in South Africa and Malawi, the land question can be described as time bomb ready to explode.

Economic pressures. The structural adjustment policies of the International Monetary Fund (IMF) and the World Bank policies view customary tenure arrangements as

inimical to agricultural productivity and land improvement. Individual land titles and registration is promoted by multi-laterals as the panacea for attracting foreign investment and opening up land markets. The problem with these approaches is the over-emphasis on economic efficiency and their widespread disregard of other forms of tenure. These western-inspired land tenure reforms are mostly favoured by the African elites and bureaucrats[15] whose number one priority is the accumulation of wealth. The rural and illiterate poor are more inclined towards customary tenure arrangements which they widely understand. The extreme view of the IMF, United States Agency International for Development and the World Bank is flawed, as there have to be trade-offs in balancing the social, economic and environmental needs. For instance, there are cases where customary tenure performs better than freehold tenure, especially in semi-arid sparsely populated areas and where competition for land resources is low. But where customary tenure arrangements have been weakened or rendered inadequate or non-existent, individual land titles could prove more beneficial.

Socio-cultural pressures: Although socio-cultural factors are the most complex and difficult to deal with, they have been responsible for driving customary tenure reforms in Botswana and Swaziland for the past three decades. For instance, one of the objectives of Botswana's land tenure reforms in 1968 was the modernization of customary tenure to be in line with social and economic demands. According to customary law, land belongs to the dead, the living and the unborn, meaning land cannot be sold. One of the challenges facing policymakers in the region is designing a customary tenure policy reform that accommodates the triple objectives of meeting the needs of both living and unborn, and economic development. Botswana is a leading example of successful customary tenure

[15] Or potential investors who want some recognized means of calculating and managing risk.

reform in Africa and its model has influenced a number of countries in the region including South Africa. Instead of reforming the customary tenure, Botswana's approach was the transformation of the administration of tribal land by replacing the chiefs (traditional structures) with elected statutory bodies called the Land Boards (political structure). One of the enduring tenure reforms in Botswana was the introduction of a long-leasehold concept for residential, commercial and industrial development in customary tenure environment. As noted by Obenson [1977], the leasehold concept is acceptable under customary law because it at least meets the triple objectives of recognizing the rights and interests of the future generations by option to terminate the lease if the land is needed by the community, in that way assuring the unborn places in their ancestral lands; and also the rights and interest of the present occupier is met in that land can be treated as a commodity, that is, it can be used as collateral to secure bank loans and stimulate economic development but not alienated/sold.

Demographic pressures*[16]*. As the world population rises, it is common knowledge that the area of land a community occupies is fixed and does not increase under normal circumstances. Sub-Saharan Africa has the highest urbanization rate in the world and this puts pressure on limited land resources inside and outside the cities. The urban population has led to increased land related conflicts in the periurban settlements especially with the increasing land values. Due to high urban population growth rate, the demand for

[16] Another related problem impacting on customary land tenure in periurban areas is that of HIV/Aids epidemic and the migrant labour system in southern Africa. For example, in Malawi and South Africa, the HIV/Aids epidemic has brought in new dimensions of the customary periurban land problems by increasing the vulnerability of women, children and poor households to land dispossession by patrilineal kin on the death of the male household (UNECA, 2003). This calls for the need to protect land rights of women and orphans in the context of HIV/Aids epidemic (Home and Lim, 2004).

serviced land inside the cities is very high and it pushes in-migrants and the city poor into the periurban areas to search for land for housing.

Under customary law, periurban land under customary tenure has no marketable value and therefore cannot be sold. The consequences of this on land with high value and high demand is the illegal land transactions which are unrecorded, illegal subdivisions of cultivation because of low compensation accorded to customary land, squatting, and protracted legal battles between customary landholders and the government. This situation is now prevalent in most periurban environments in sub-Saharan Africa and customary tenure has been unable to deal with these complex issues sometimes involving corruption. This situation raises questions in terms of land administration around periurban areas such as:

- Do you design a land administration system to deal with periurban land problems only? or
- Do you incorporate periurban areas into these expanding urban centres, and replace customary tenure with statutory tenure? or
- Do you leave the situation to evolve on its own without directing its evolution using the statutory legal regime?

With regard to the question of replacing customary tenure, Obenson [1977:80] citing Chubb [1961] has warned:

> *These systems of land tenure are rooted in the immemorial past and that although their rate of evolution is being increasingly accelerated by the impact of Western economy, they cannot be changed by a stroke of the pen.*

And Obenson further emphasizes, by citing Lord Luggard [1901]:

> *The natural evolution of land tenure should not be arbitrarily interfered with, either on the one hand by introducing foreign principles and theories not*

understood by the people, or on the other hand by arresting progress in evolution, by stereo-typing by legislation primitive systems which are in a transition state.[17]
[Obenson, 1977:81]

Environmental pressures: The semi-arid conditions which are prevalent in much of sub-Saharan Africa and the associated problems of land degradation in customary tenure areas have been used by both donors and African policymakers to justify the adoption of western concepts and theories of property in trying to diagnose these environmental problems. From experience with land titling and registration in southern and eastern Africa, replacing customary tenure with individual land titles is not a cure for environmental problems. Land degradation is not a problem only peculiar to customary tenure but is also a common phenomenon in some freehold farms too. Crocombe [1974:3] asserts: "the physical environment poses limits within which any tenure system must function, and it makes certain choices more likely than others".

Technological pressures. The introduction of modern technology such as tractors and improved seed technology has enabled more land to be put under cultivation, raising demand for land. Animal diseases which used to wipe out the entire stock, have now been controlled with Western medicine. In addition, agricultural extension services and borehole technology, especially in Botswana, were responsible for the increase in cattle population from one million to three million by the 1960s. These technological developments led to land degradation which in turn necessitated the need for new land management concepts such as individual land titles and registration. In Botswana, examples of the customary tenure reform measures include the Tribal Land Grazing

[17] Even though land tenure changes that are occurring in periurban areas are revolutionary as opposed evolutionary, there is need to be extremely cautious when introducing new measures to deal with the problem.

Policy (1975) and Agricultural Fencing Policy (1991), which aimed at introducing individual land titles. However, these policy measures were later found to be ill-informed as they lacked the basic understanding of how customary tenure operates.

Keesing [1946:114] has noted that in the Third World, official policies regarding land should be very elastic and adaptable, hence of a kind that would encourage native groups to try out for themselves which types of tenure might best suit their needs in the modern setting. Keesing further states:

> *…the land question, except in a few regions, is still beset with difficult problems, especially in the sphere of native tenure. There can be no quick solutions, and, for the most part, resolving them depends on long-term education rather than immediate action. Indigenous land ideas and customs are an integral part of the whole cultural and psychological fabric now being tested for its survival value.* [Keesing 1946:114]

2.5. Summary and Conclusions

Misconceptions about customary tenure have been highlighted. An overview of the historical African land tenure models has been conducted including Hailey's model, Lugardian model, Meek's model and Gluckman's African tenure model. An evaluation of customary tenure reform theories was presented. This included replacement theory, anti-market theory, traditionalist theory and adaptation theory. It was concluded that adaptation theory is currently the most viable and practical option given the situation in customary periurban environments. Lastly the customary reform pressures currently facing southern Africa were analyzed together with their implications for access to development land in periurban areas.

CHAPTER 3:

DESIGNING A FRAMEWORK FOR MODELLING PERIURBAN LAND PROBLEMS

> *"Development" is not an easy path, except perhaps for the foreign "experts" who can retreat from their failures to the capitals of the industrial world and search again for a solution. Solutions lie in hard bargaining and long experience in the field where the struggle is taking place. …some solutions are already known, if the people and institutions with leverage will apply them. We cannot expect management clichés or the IMF's "conditionality" to solve problems that are essentially the product of personal relations, a power struggle between people and institutions, and of many years of complex historical development. We are not dealing with two or three variables in a regression equation.* [Stren and White, 1989]

Chapter 1 introduced periurban land problems in southern Africa and gave a background to periurban land issues facing periurban environments. In Chapter 2, a detailed background to the customary tenure reform approaches in sub-Saharan Africa and their impacts on periurban environments was discussed. In this chapter, a conceptual framework for modelling periurban land problems will be developed.

In addressing the periurban problem, there is need to develop land tenure and land administration options that are more effective and efficient. Using conceptual models, periurban land problems can be managed by reducing vague or complex periurban situations into simpler questions, and through this means, land tenure and land administration problems can be explored and made more explicit. The conceptual analytical framework introduced in this chapter and developed further in Chapter 7 is derived from soft systems methodology (SSM) [Checkland, 1981; Checkland and Scholes, 1990] and it incorporates systems ideas and concepts from many fields such as

anthropology, urban planning, systems engineering and cadastral surveying/geomatics engineering.

3.1 Review of Land Administration Conceptual Frameworks

The bulk of the literature on land administration evaluation frameworks is biased towards the technical, institutional, cost/benefit analysis or economic efficiency and effectiveness. Some works deal with the benefits associated with the implementation of land administration systems (LAS) with only a small minority focussing on a broader scale [e.g. Dale and McLaughlin 1988; Mulolwa 2002; Steudler, 2004] than cost/benefit analysis.

Many efforts have gone into quantifying the cost of certain LAS sub-systems in North America, South America, Africa, and Asia. Such attempts include the work of Professor Angus Hamilton at the University of New Brunswick who applied "unit cost principles" to property mapping and topographic mapping [see, for instance, Laroche and Hamilton, 1986; Hedberg, 1991].

Numerous studies were also conducted in the United States of America, mainly in the state of Wisconsin, to determine the annual cost involved in maintaining land information [see, for example, Moyer et al. 1988; Wunderlich and Moyer, 1988]. When comparing manual and digital procedures for maintaining land records, Moyer and others. concluded:

> *To be successfully implemented, multipurpose LIS … must meet at least three criteria – technical feasibility, institutional practicability, and economic cost effectiveness.* [Moyer *et al*., 1988: 200]

The World Bank studies on security of tenure under customary tenure in Africa undertook a general survey of economic efficiency of customary tenure in a number of

countries. The results of the World Bank studies concluded that: "…security is not, by itself, a sufficient incentive for land improvements and heightened productivity" [Bruce *et al.* 1994, p.256].

Several researchers [e.g. Wunderlich and Moyer 1984; Anderson, 1990] have attempted examining the economics of land information in an effort to design effective cost/benefit models. There are difficulties in terms of quantifying costs and benefits of land administration projects as products like maps make it difficult to adopt traditional approaches of supply and demand. In many cases, the market does not reflect the cost of production.

Epstein and Duchesneau [1984] developed the "avoided costs" model to determine the costs and benefits of establishing a geodetic reference network and obtained the cost/benefit ratio of 4.7/1.7. Their work when applied to land information systems has been widely criticised for underestimating the true benefits of such products [Blaine and Randall, 1987].

From the foregoing discussion, it is clear that it is very difficult to quantify costs and benefits of the different components of a land administration system. As Dale and McLaughlin asserted:

> *Benefit-cost analysis allows comparisons to be made between different approaches to a solution of a problem. It is not a technique that can readily be applied to the evaluation of new products.* [Dale and McLaughlin, 1988: 180]

And also P.S. Ross & Partners stated that:

> *Throughout this report, it is stressed that all the benefits from the LRIS program cannot be assessed in quantitative terms. While many of these non-quantifiable benefits may be economic in nature, there is no method to objectively measure them in dollars. Therefore, these benefits are discussed in qualitative terms.* [Ross & Partners, 1977:2]

Due to the limitations of the cost/benefit approach for evaluating land administration options, other broader approaches have been developed to examine the various dimensions and attributes of LAS and these have allowed a better understanding of the issues surrounding the implementation of these systems. Such approaches include:

- The logical framework (LFA) approach commonly used in project planning and implementation, performance monitoring and evaluation. Although there is no critical evaluation of LFA application in land administration projects, it has been extensively used by Swedish International Development Agency (SIDA) (e.g., Mozambique [Nichols *et al*., 1996] and the in Baltic States [Watermark Industries, 2001]). Although Mulolwa [2002] advocates the use LFA for evaluating land administration systems, its application is problematic. Some of the weaknesses of LFA in land administration may include: (a) It tends to focus on the achievement of intended effects by intended routes making the application of *log frames*[18] a very limiting tool in conducting evaluations; (b) Its effective application to complex fields like land administration poses many challenges, even to the experienced user; (c) It is based on an assumption of consensual project objectives which is rare in a multi-disciplinary field like land administration with many competing and conflicting objectives.
- Steudler [2004] developed yet another checklist approach for evaluating land administration systems and cadastre in Europe based on evaluation criteria obtained from earlier publications on land administration evaluation frameworks [e.g. Simpson [1976], land registration systems; Holstein [1987], land registration; McLaughlin and Nichols [1987], parcel-based land information

[18] A log frame looks like a table. It is a framework for planning and managing development projects.

systems; FIG [1995], cadastre; Bogaerts [1999], cadastre; Williamson [2001], land administration systems). Steudler's work would be of limited use in socially complex and dynamic customary periurban situations that are rapidly changing because of his emphasis on cadastre, and well-structured land tenure arrangements and land administration systems currently existing in the west. What is required is a methodology to structure, analyse and model complex periurban land problems in order to clarify understanding of the problem situation.

- Other possible approaches for evaluating land tenure and land administration options may include: the soft systems methodology based on systems theory [e.g. Checkland, 1981; Checkland and Scholes, 1990; Checkland and Scholes, 1999]; the "learning theory" [Lunar, 1987]; the "means-end" model [Jordan and Sutherland, 1979]; the use of longitudinal studies, the assessment of the impact of emerging and prospective technologies, and the development of radical and critical theories to compliment the existing models.

Most of these land administration evaluation techniques, when compared with the soft systems approach, can be regarded as initial steps towards evaluating a land administration system. They fit mostly in the initial stages of a soft systems methodology, i.e., finding out about the problem situation stream of the methodology (see Figure 3.3). Since periurban land problems are very complex and dynamic in nature, any conceptual evaluation framework developed to model the periurban situation should be simple, organic, intuitive and flexible. Despite their limitations in terms of modelling the periurban problem situation, these evaluation criteria or checklists are helpful in the

finding out stage of the SSM-based conceptual framework to reflect the inner strengths and weaknesses of any existing land tenure and land administration system. Table 3.1 below presents a land tenure evaluation checklist.

Table 3. 1: Land tenure evaluation framework for periurban environments [adapted from Dowson and Sheppard, 1956; Simpson, 1976]

Variable		***Description***
1	**Access to Land for Housing**	Promotion of greater equity in access to land, housing, and other needs
2	**Efficiency**	Efficient land, housing and rental markets; efficient land use; maximum productivity of land
3	**Security of Tenure**	Reasonable security of ownership and possession Protects interests of future generations Improved access to credit in any financial institution
4	**Complexity**	Avoids costs, technical and legal complications Inexpensive tenure options Progressive and innovative tenure approaches Easy to understand by local community
5	**Negotiability**	Inheritable, transferable, pledgeable, cedeable, assignable, loanable and saleable
6	**Flexibility and Adaptability**	Responsive to social, economic, and political pressures
7	**Affordability**	Affordable to the poor
8	**Access to Services**	Basic infrastructure and services provided
9	**Cost Effectiveness**	For infrastructure and services and recurrent services provided
10	**Conversion to Different & more Appropriate Uses**	Necessary to meet the prevailing social and economic conditions at the time

Drawing from a pool of experience of many authors, a land administration evaluation checklists is presented in Table 3.2 on the following page.

Table 3. 2: Land administration evaluation framework for periurban environments

	Variable	*Description*
1	**Equity**	Accommodate needs of poor, women, children, national minorities, elderly and disabled Protect weak from powerful
2	**Efficiency**	Improved productivity in public sector; more savings; better decision-making processes Improved periurban land sales and rental markets
3	**Effectiveness**	Effective administration of periurban land Effective coordination between land administration sectors Effective land policies Economic cost-effectiveness e.g., establish clear ownership rights at minimum costs; reduction of errors; improved service delivery; time-saving; easy and rapid access to up-to-date land information.
4	**Maintainability**	Reflects current periurban situations; robust land administration institutions; accessible dispute resolution mechanisms
5	**Utility**	Appropriateness; breadth of user community participation; local capacity building for data updating; data sharing and collection coordination
6	**Cost**	Affordable running costs; includes surveying and titling costs, registration, equipment procurement, staff and accommodation costs; ability to sustain after initial donor infusion of money.
7	**Complexity**	Simplicity, since there are too few resources and inadequate personnel Organic or evolving systems; models got to evolve when needs change and resources change Compatibility with local culture and conditions Incremental approaches land administration reform
8	**Quality**	Accurate, up-to-date and completeness of land records Monitoring and evaluation mechanisms
9	**Decentralisation**	Ease of running; accessible dispute resolution mechanisms, reduction of bureaucracy.

Practical experience, however, suggests that typically a complex and confusing problem such as periurban land problem will utilize many approaches to resolve the problem and those models that do not work are discarded. Very few approaches have successfully

addressed the periurban problem and therefore the soft systems methodology based on soft systems engineering is seen as an important alternative to tackling the periurban problem.

3.2 Systems Thinking

A system thinking approach exhibits two different kinds of systems approaches, 'hard' systems thinking and 'soft systems thinking' [Checkland and Scholes, 1990; Checkland, 1981]. The definitions of 'hard' and 'soft' centre around the assumption made about the 'systems' concept and how it is used to represent the real world [Checkland, 1981].

In the hard systems approach it is assumed that reality is itself an ordered, stable system. The emphasis of hard systems thinking lies in making a clear, exact, true and objective representation of the world. The system exists in the world just for us to discover and analyze [Dahlbom and Mathiassen, 1993]. The hard approach emphasizes the particular and the precise in a specific area and tends to look at the area from a single perspective [Avison and Fitzgerald, 1995]. The 'real-world' is made up of systems waiting to be identified and classified. If two individuals examining the same situation reach dissimilar conclusions about the systems, then this must be a result of inaccurate observation. One set of conclusion can in principle be shown to be closer to reality and thus be a more accurate representation of it [Lewis, 1994].

The proponents of hard systems thinking believe that the world consist of systems that can be 'engineered' to achieve their objectives. To analyze a perceived problem in the hard systems approach is to 'engineer' improvements in the real-world systems by discovering optimal solutions for it [Checkland and Holwell, 1998]. A goal is assumed in hard systems engineering. The problem-solver uses the methods to change the system in

some way, in order to achieve this goal in the most effective way. Hard system engineering is related to the 'how' of a problem [Avison and Fitzgerald, 1995].

The hard systems approach encompasses an ontological view on the concept of a 'system'. It is used to label objects in the real world. Analysis is based on the idea that the world is made up of systems and subsystems [Lewis, 1994].

"Hard system thinking" assumes that the perceived world contains *holons*[19]. In following hard approaches the problem-solver thinks in terms of 'holons' as though they exist and as such they can be engineered [Checkland and Scholes, 1990]. Hard systems thinking considers organizations to be logically arranged goal-seeking mechanisms [Lewis, 1994]. Organizations are seen as goal-seeking entities and the role of information is to provide an aid for decision-making [Checkland and Holwell, 1998].

The basic assumption of the soft systems thinking, on the other hand, is that there are always several, equally possible perspectives of the social world. The world is shaped by our experience of it and as such it is subjected to the history, culture, norms, values and aspirations of the person perceiving it. The world we live in is the world we perceive. In soft systems engineering, there is no such thing as a 'right' perception of the real world. The strategy for expressing different perspectives in soft systems approach is to engage people in a discussion and debate with the purpose of reaching some sort of consensus of the problem situation and possible solution [Dahlbom and Mathiassen, 1993]. In the soft systems approach, it is assumed that the objectives of the system are more complex than an achievable and measurable goal. The systems are thought to have purposes rather than goals. An understanding of the situation can be achieved through discussion and debate

[19] A *holon* is a special kind of model that organizes thinking by means of systemic ideas [Lane and Oliva, 1998]. (See, for example, section 3.4.2 for detailed discussion on the concept of *holons*.)

with the analyst and stakeholders. The weight lies on the ‘what’ as well as the ‘how’ of the system in the problem situation [Avison and Fitzgerald, 1995].

Soft system thinkers consider the world to be problematical but they also assume that the process of investigating it can be organized as a system [Checkland and Holwell, 1998]. It is the use of the concept of a ‘holon’ as an epistemological device for thinking about the real world that allows soft system thinkers to explain why different interpretations of ‘the problem’ exist. Systems ideas are employed as a means of inquiry and are based upon a paradigm of learning rather than optimization [Checkland and Scholes, 1990]. To soft systems engineers, systems are perceptions of the world that can be modified to improve the situation when confronted with other real world perspectives, new experiences, new challenges, new problems, and new learning. A conceptual framework or methodology must then be developed based on the soft systems approach, with the purpose to improving understanding of perspectives that differ from our own [Dahlbom and Mathiassen, 1993]. A soft systems methodology can therefore be seen as a holon itself, which makes use of models of holons in the discussion and comparison of the models with the perceived world [Checkland & Scholes, 1990]. Figure 3.1 provides a summary of the basic principles of underlying the soft systems approach.

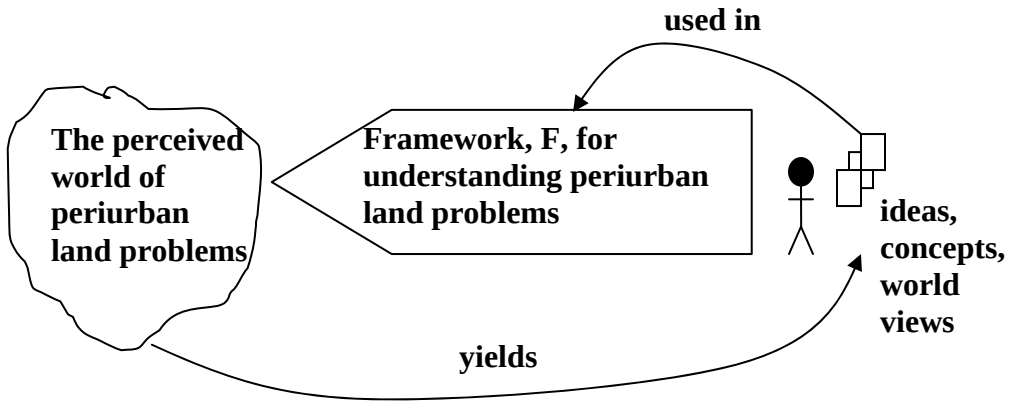

Figure 3. 1: Periurban Land Problems Viewed from a Systems Perspective [after Checkland and Scholes, 1990:23]

Soft system thinking considers organizations and social problems to be complex and changing entities whose nature is repeatedly redefined by the people in it. The perception of the periurban land problem being both an organizational and social problem, and environmental constraints are shaped, defined and re-defined, by the constant interaction of roles, norms and values [Lewis, 1993].

In light of the distinction between the soft and the hard systems thinking approaches, it is obvious that the best way to approach the periurban problem situation is from the soft systems engineering perspective. This conclusion can be drawn from the very nature of the problem situation: the need to clarify understanding of the periurban problem and to come up with systemically desirable and culturally feasible changes to improve the situation.

A soft systems approach is a holistic approach to problem-solving; it addresses overall patterns and relationships between different components as opposed to reducing the problem into smaller parts. Soft systems thinking guides the way complex problems are perceived and interpreted in a real world [Checkland and Scholes, 1990]. It is a useful tool for learning about complex situations and for conducting interdisciplinary research [Churchman, 1971]. Since periurban land problems are ill-structured, 'messy' and therefore difficult to define clearly, soft systems thinking provides a framework for exploring and understanding the periurban situation as it embraces multi-level views, hierarchies, stakeholders and variable perspectives. It also provides a methodology for drawing the different actors into the process of performing interventions.

3.3 Soft Systems Methodology

Soft systems methodology (SSM) was developed by Peter Checkland and his colleagues at the University of Lancaster [Checkland, 1981; Checkland and Scholes, 1989]. Checkland and Scholes [1990] and Checkland [1999] spell out the basic shape of evaluation with SSM as follows (see, for example Figure 3.2):

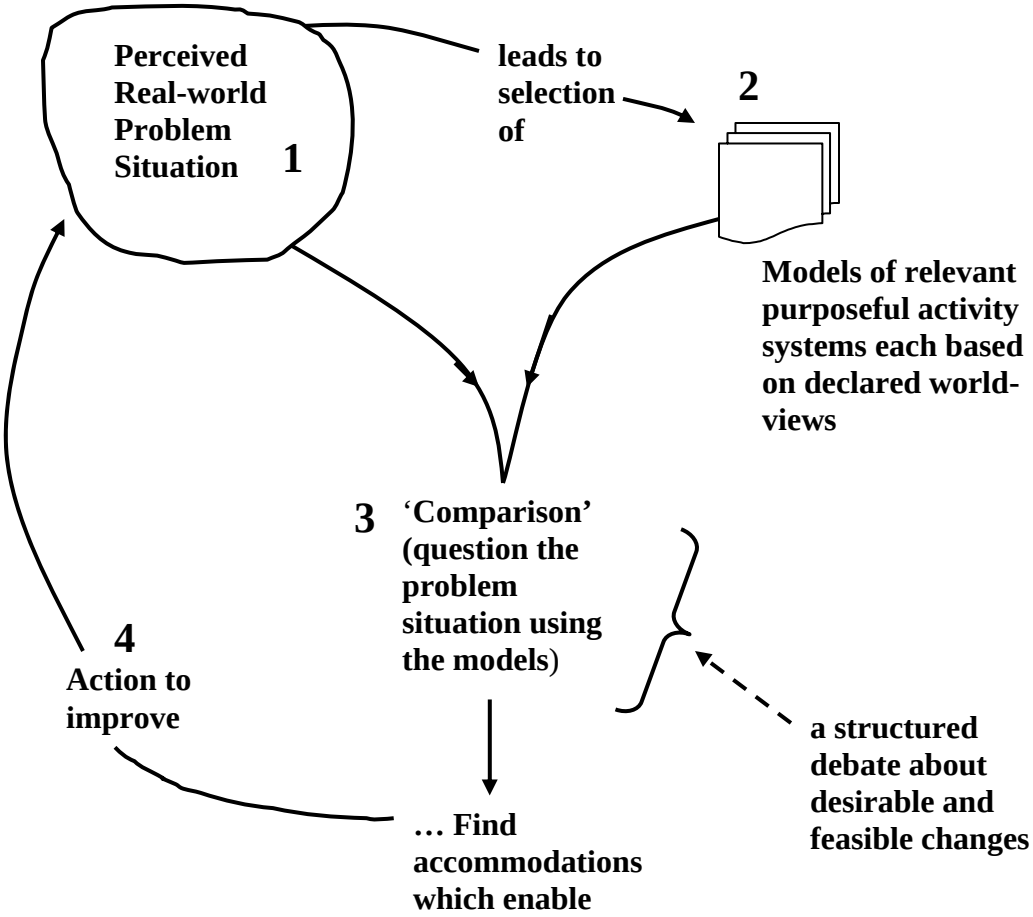

Figure 3. 2: Model of Soft Systems Methodology as an Evaluation Tool [after Checkland 1999; Checkland and Scholes, 1990:7]

The process of SSM can be divided into four main activities [after Checkland and Scholes, 1990, A15]:

- Finding out about a problem situation, which includes cultural and political dynamics of the situation;
- Building conceptual activity models of the various systems that exist to structure an exploration of the problem situation;

- Evaluating conceptual models by comparing the models to the real situation and using the comparison to define desirable, feasible changes that would improve the situation; and
- Taking action for improving the problem situation.

SSM is based upon systems theory, which provides a complement to conventional, reductionist scientific enquiry – with its tendency to reduce phenomena into smaller and smaller components in order to study and understand them [Checkland, 1976]. Systems theory attempts to take a holistic view of the interrelations of components part; that is, it takes the wider picture.

SSM then, is potentially well-suited to evaluation of complex land tenure and land administration options for periurban areas. Its philosophical underpinnings are interpretive and evaluative in nature, not objectivist. It is focused upon qualitative issues; it is also participative in nature. Its systemic nature makes it suitable for modelling complex periurban land problems, and it can explicitly cope with differing and constantly changing stakeholder views through the concept of differing worldviews (*Weltanschauung*). Its epistemological premise of comparing systems models with real-world problems is dependent neither on measurement techniques and establishing causal

validity, nor on goals and objectives, which may be poorly specified, irrelevant or out-dated.

3.4 Basic Concepts and Terms of Soft Systems Methodology

3.4.1 The perceived real-world problem

There are always several perspectives of reality since the real world is shaped by our experiences of it. As such it is subjected to our differing worldviews, history, culture, education, training, norms, values, and aspirations of the person perceiving it. Therefore, the world we live in is the world we perceive. As Dahlbom and Mathiassen [1993] stated, there can be no 'right' perception of the real world. The real world is taken to be very complex, 'messy', and mysterious, but it is assumed that through the inquiring process of SSM, real-world problems can be organized and modelled as a system. Hence the use of the term 'system' does not refer to the real-world per se, but to the process of dealing with the world [Checkland and Scholes, 1990].

Systems ideas are employed as a means of inquiry into the problem situation and are based on the concept of cyclic learning and optimization [Checkland and Scholes, 1990]. Systems are perceptions of the real world that are modified and improved when faced with other perspectives, new experiences and by learning [Dahlbom and Mathiassen, 1993]. It is important to remember that the systems ideas is not a way of describing what exists but is a means of describing an interpretation of what exists or some thinking that is relevant to what exists. It enables the analyst to explicitly think about some real-world situation [Wilson, 1984].

It is human nature to ascribe meaning to how the world is perceived. These meanings are founded on the observer's experience-based knowledge. Whenever there is feeling that things could be better than they are, the perception of the real world would be that of some problem requiring attention [Checkland and Scholes, 1990]. In soft system thinking, problems do not occur in a way that makes it possible to isolate them. They are often thought of as interactive incidents. Consequently, it is more accurate to approach the feelings of unease, not as a 'problem' but as a 'problem situation'. It is this part of the perceived world, the problem situation, that is to be studied and explored [Wilson, 1984].

3.4.2 The concept of holons

One of the principles of soft systems engineering is that the whole is greater than the sum of its parts. This covers the idea that the whole may display emergent properties. The properties of the parts have no meaning in terms of the parts of the whole [Checkland and Scholes, 1990; Avison and Fitzgerald, 1995]. The idea of the whole is an epistemological device, a theoretical concept that is used to describe and make sense of the real world. Soft systems methodology uses the word *holon* to distinguish the theoretical concept from the systems of the perceived world, leaving the word 'system' to everyday language (Checkland and Scholes, 1990]. Lane and Oliva [1998] define a *holon* as a special kind of model that organizes thinking by means of systemic ideas.

3.4.3 Human activity systems

In examining real-world problems, the fact that humans perceive the world in different ways will never yield only one relevant 'holon' but several different holons. As shown in Figure 3.3, the human activity system can be divided into a system of activities and a social

system whose boundary is concurrent with the boundary of the human activity system itself. The system of activities is made up of a collection of activities linked together according to their dependent relationships in order to make a purposeful whole.

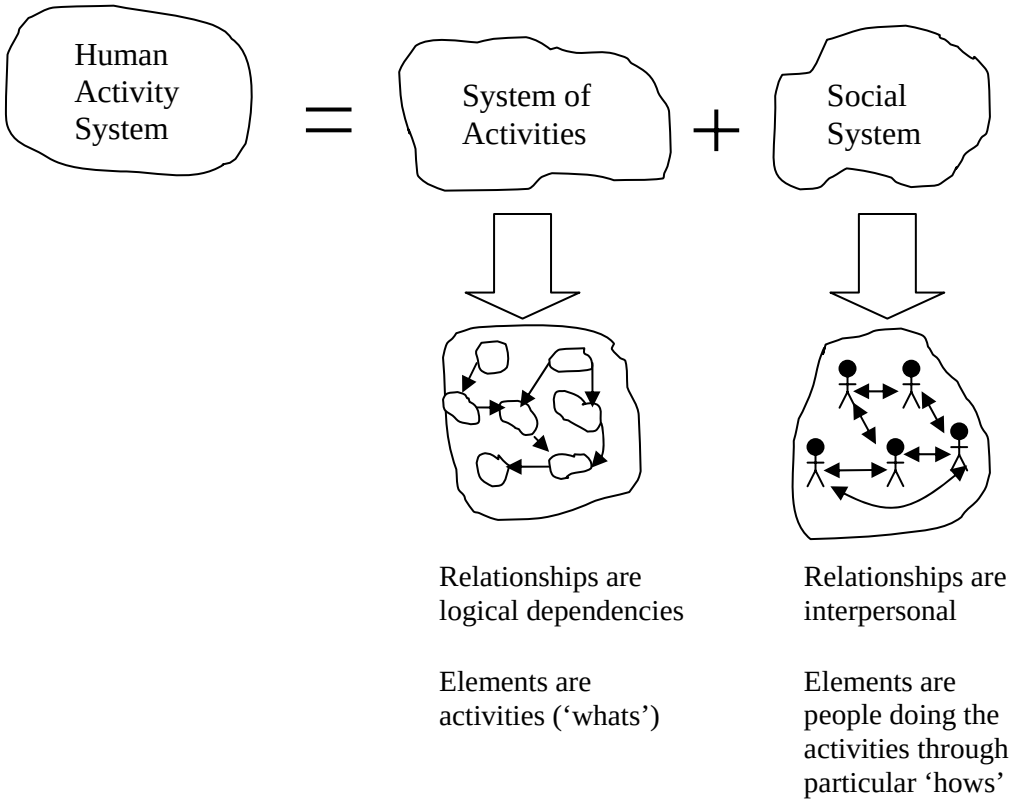

Figure 3. 3: The Subsystems of Human Activity System [adopted from Wilson, 1984:25]

The social system performs monitoring and control so that the whole is acceptable to changes in the environment [Checkland and Scholes, 1990].

The system of activities is made up of elements of activities whose relationships are logical dependencies. These elements can be used to define 'what' to change. The elements of the social system are the people/organizations doing the activities. These elements are the ones that define 'how' that change may be implemented and whether or not the changes are acceptable. Therefore it is important to remember that although the human activity system usually is modelled as the system of activities, the related social

system must also be defined. Figure 3.4 depicts a basic framework for analyzing periurban land problems that allows integration of the above ideas with soft systems methodology.

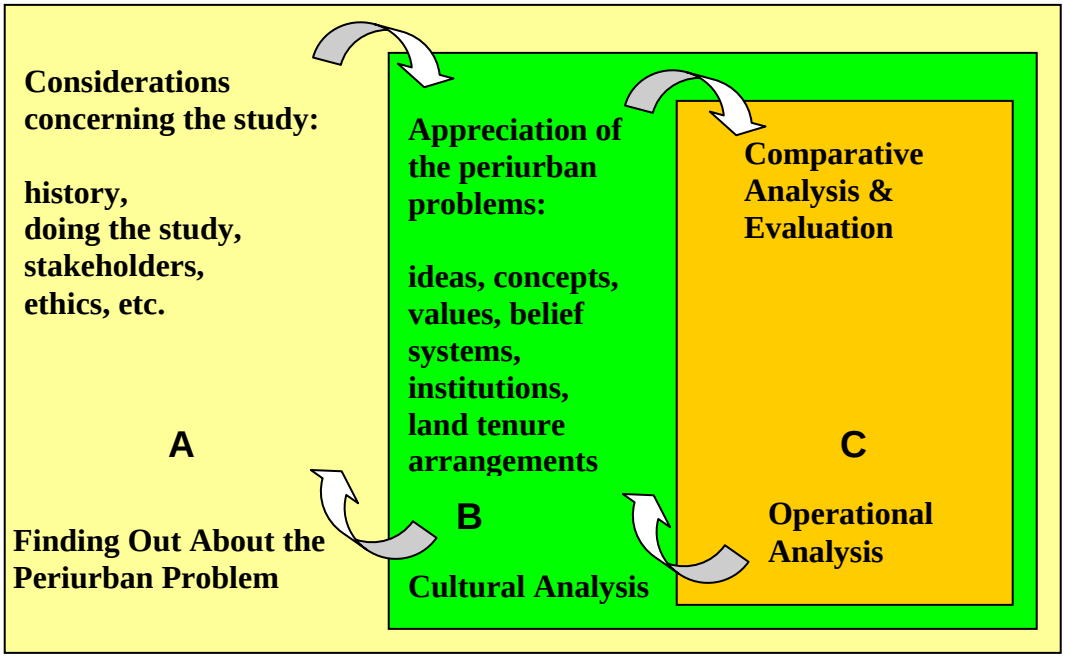

Figure 3. 4: **Basic Framework for Analyzing Periurban Problem Using SSM**
[adapted from Checkland and Scholes, 1990:278]

Periurban land problems as subsets of human activity systems are very complex. The human components of a periurban land problem may display different attributes when studied separately than they would if their role in the whole system were examined. The concept of human activity system recognizes the significance of people in an organization as a whole. It is therefore vital to include the human issues in order to make sense of the periurban problem. This entails including people in the design of a conceptual model for studying and analyzing periurban land problems.

The unpredictable nature of periurban land problems, the competing and conflicting land tenure/land administration objectives, differing perceptions and viewpoints of the

players makes it quite difficult to model periurban land problems [Avison and Fitzgerald, 1995]. It is therefore necessary to construct several models of periurban land problems and to discuss their relevance to real situations with all the stakeholders. Before modelling periurban land issues can commence, choices have to be made as to which conceptual models are likely to be the most relevant in investigating the problem situation. Once this choice is made, it is essential to determine the perspective or viewpoint from which each purposeful activity model will be built [Checkland and Scholes, 1990].

It is important to remember that human activity systems *do not ex*ist in the real world, they are holons models to be compared with the real world. These human activity systems provide a logical theoretical framework that can be used in order to understand and intervene in the rich and surprising unpredictability of everyday situations of periurban environments [Checkland and Scholes, 1990]. The complexity of the models can never surpass the complexity of real purposeful action. By using the models as a base for relevant questions, they can be seen as mechanisms to explore real world problems and make them explicit. The process of formal questioning should be made so explicit that it can be recreated by anyone interested enough to retrace the research process and see how it led to the research findings [Checkland and Holwell, 1998].

3.5 Using SSM to Build a Conceptual Evaluation Framework

The earliest attempt to apply systems thinking to land administration problems was by McLaughlin [1971]. This was followed by recent attempts by Nichols [1993] on land registration case studies, and Barry [1999] used Checkland's soft systems theory to analyse the extension of cadastral systems in unstable informal settlements of South

Africa. Rakai [2005] applied soft systems methodology to analyse, model and compare Aboriginal land tenure systems in Canada.

However, the application of Checkland's soft systems methodology to analyse, model and compare customary periurban land problems does not appear to have been reported. In the next section, **the basic principles of soft systems methodology (SSM) will be explored**, together with its benefits and limitations. Appendix II will detail the steps to be followed when applying a soft systems methodology to model customary periurban land problems.

Their approaches to get beyond 'hard' systems perspectives (i.e., to incorporate political and social conditions) have set a new direction in resolving ill-defined and unstructured land administration problems. Figure 3.5 (following page) is an expanded version of Figure 3.4.

Periurban problems were long been identified by the United Nations over half a century ago in sub-Saharan Africa and yet solutions are yet to be found. It is, therefore, urgent to design a conceptual framework for modelling and analyzing periurban land problems in order to formulate and structure thinking about these complex problems. Some robust, generic frameworks need to be developed to evaluate land tenure and land administration requirements for customary periurban environments in southern Africa.

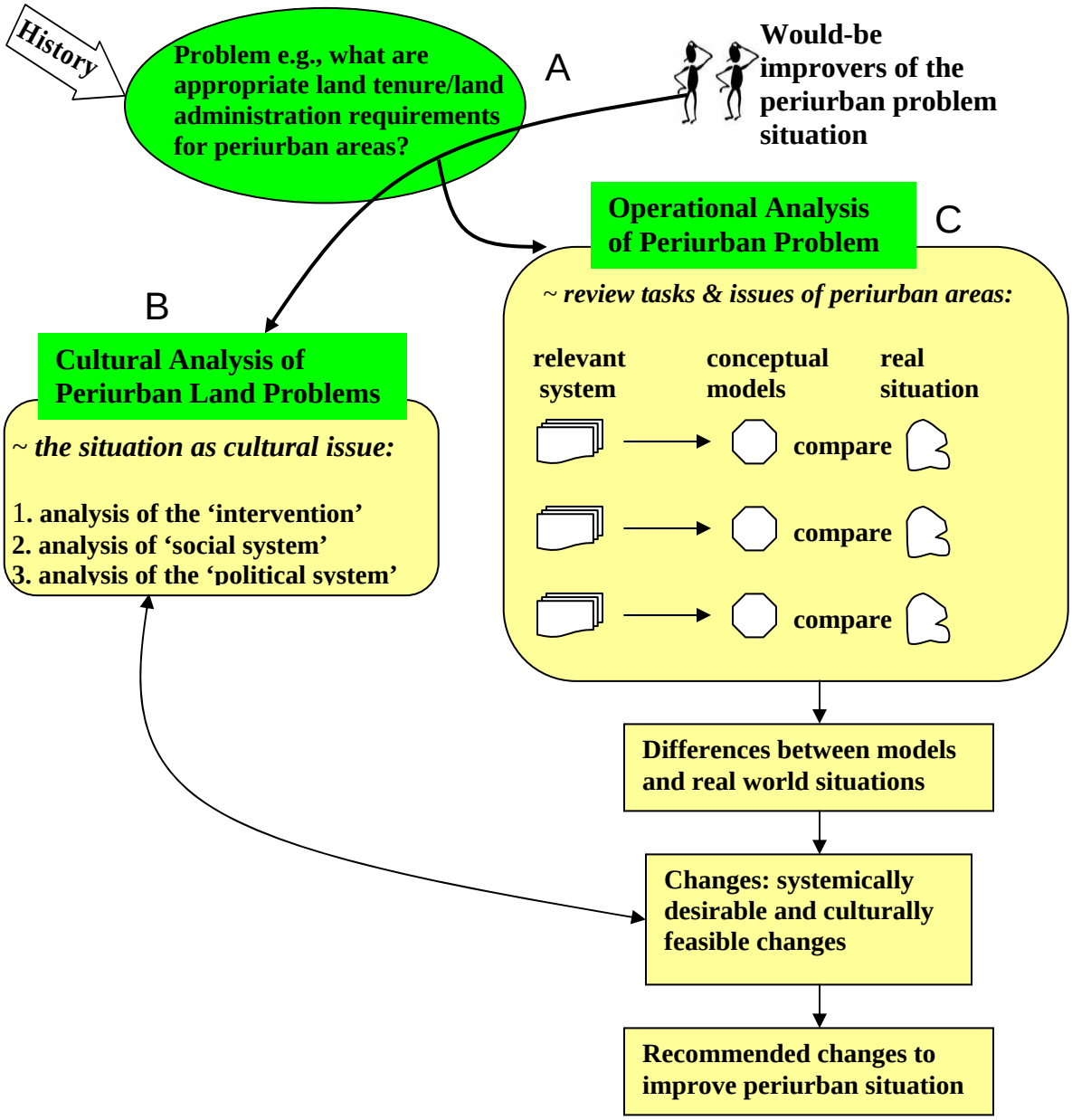

Figure 3. 5: Conceptual Framework for Modelling Periurban Land Problems [adapted from Checkland and Scholes, 1990:29]

In systems theory, the first law of systems modelling states that a system which is dependant upon another system should not be modelled without first modelling the system dependant upon it. In other words, a system or conceptual framework to evaluate periurban land tenure and land administration system cannot be modelled without a model of the periurban problems, or in layman's terms, "to evaluate anything, the evaluator should first understand what she or he is evaluating" [Remenyi *et al*., 1997, cited in Rose and Haynes, 2001]. Figures 3.4 and 3.5, 3.6 and 3.7 present a conceptual model and a framework for evaluating land tenure and land administration options in a periurban environment. The resulting systems model (see Figure 3.6) presents land administration as a set of founding principles employed, in full or in part, to organize a transition from an existing state of periurban land problems to an improved state (which then becomes a new existing state and so subject to further improvement). The philosophy underpinning this conceptual framework, has been validated and verified by informal interviews and questionnaires sent to land administration practitioners, NGOs, CBOs, donor agencies and academics, as well as by literature review in southern Africa.

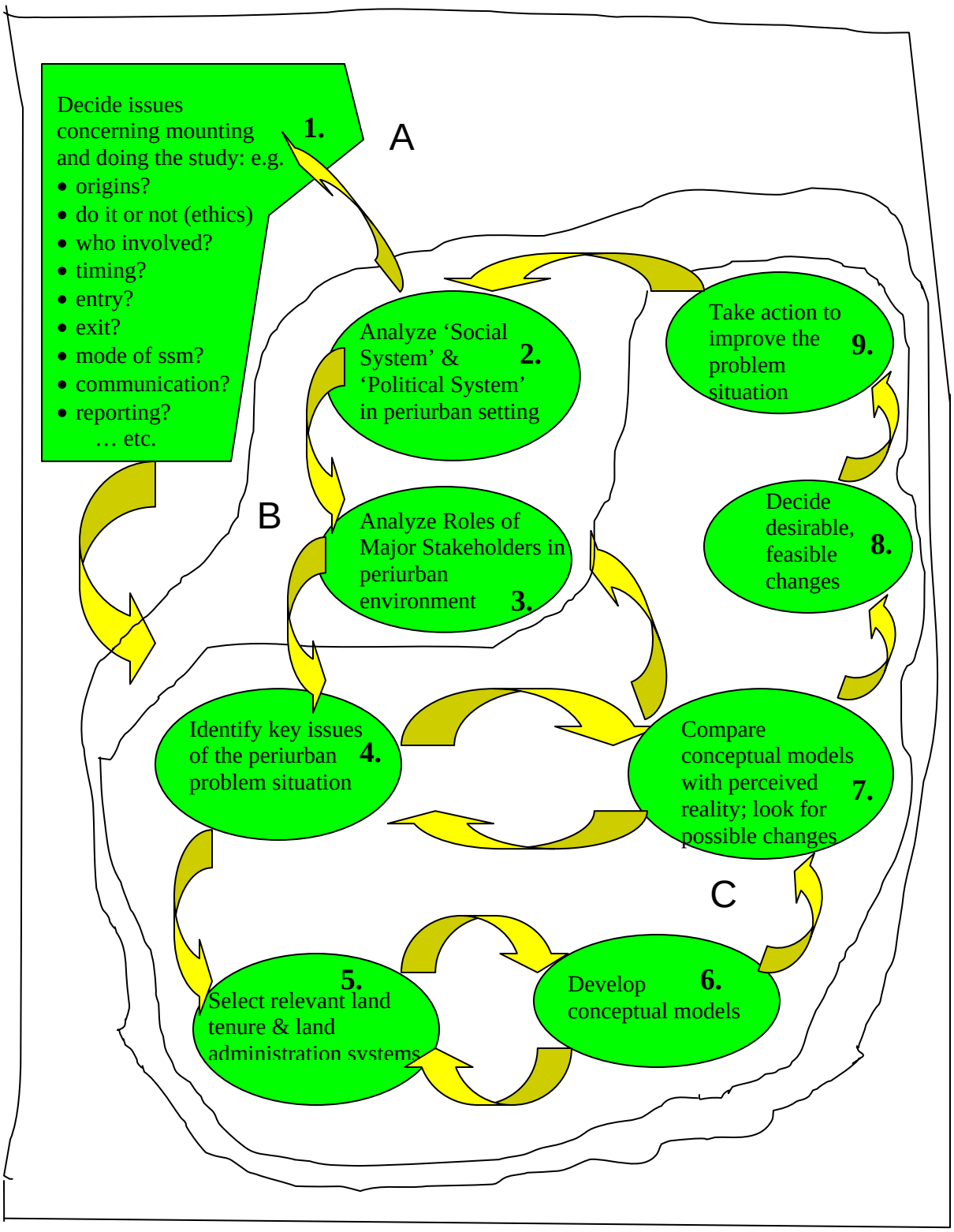

Figure 3. 6: Using the Conceptual Framework to Evaluate Periurban Land Tenure and Land Administration Requirements [adapted from Checkland and Scholes, 1990]

The model was then used to derive evaluation questions; each activity was examined in turn (and where necessary, modelled at a higher level of resolution) and measures of performance criteria were established for efficacy, efficiency and effectiveness [Checkland, 1981].

The conceptual framework in Figure 3.4 can be subjected to further modifications; it nonetheless constitutes an attempt from a systems perspective. With this model, periurban land problems can be viewed from two perspectives: the cultural analysis stream and the operational/logic-based analysis stream. As shown by the Figures 3.5, 3.6 and 3.7 the cultural analysis, systems thinking and operational analysis streams will interact, each informing and giving feedback to each other. The cultural analysis stream examines the social and political context of the problem situation. The selected relevant activity system tells us something about a particular jurisdiction in terms of the history and culture of the periurban settlement. Similarly, knowledge and experience with the culture would help in the selection of both a systemically desirable and culturally feasible change. The reason why 'hard' systems approaches fail in the design of sustainable land tenure and land administration systems is that they totally and easily ignore the cultural aspects of a problem situation. The systems thinking stream provides the learning, recognition, understanding and insight into the problem situation. The operational analysis stream takes action to improve the problem situation.

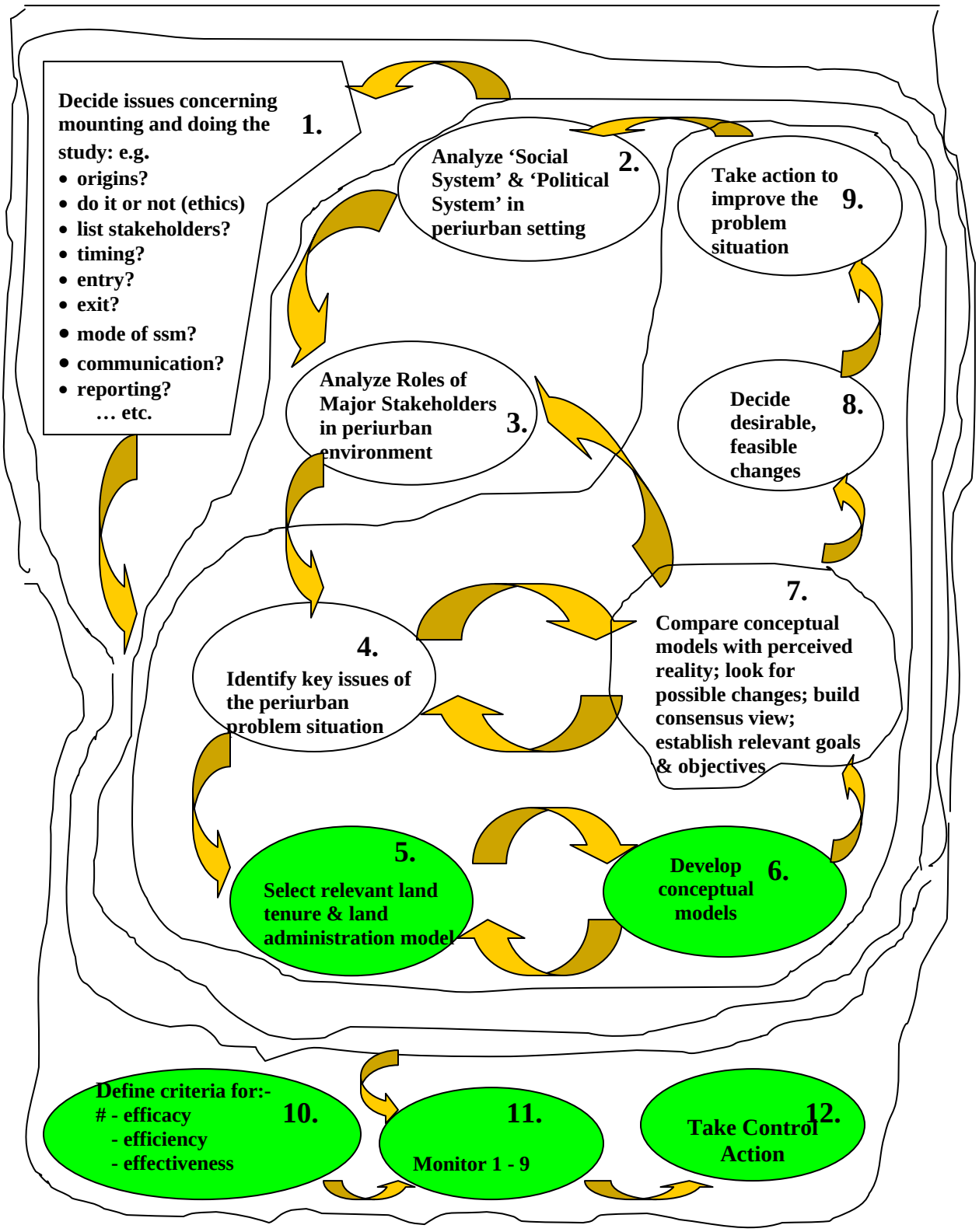

Figure 3. 7: Evaluating Periurban Land Tenure and Land Administration Options
[adapted from Checkland and Scholes, 1990]

Different aspects of a periurban problem will involve different stakeholders that are affected or may influence the source of the problem. SSM requires that all stakeholders to the problem situation should be involved. Having developed the conceptual framework, it needs to be evaluated and further developed. Based on Checkland and Scholes [1990] and Checkland [1997] measures for performance for evaluating and developing the conceptual evaluative framework are encapsulated in the "3 Es":

Efficacy: Did the selected reforms work?

Efficiency: Were the land tenure and land administration reforms achieved with minimum use of resources?

Effectiveness: Did the reforms meet both short-term and long-term objectives?

3.6 Building Conceptual Models

A conceptual model represents the minimum, necessary set of activities, at a particular level of detail or resolution [Wilson, 1984]. To gain a better understanding of the systems or sub-systems, the system modelling can be taken to a higher level of resolution (See, for example, Figure II.14, Appendix II). It is also important to check the adequacy and validity of the conceptual model. To test for internal inconsistencies, the model has to fulfil the criteria of "3Es" as determined by Checkland and Scholes [1990].

Depending on a particular situation, the "3Es" can be supplemented with other performance indicators such as ethicality (Is the proposed system morally acceptable?), elegance (Is the system aesthetically pleasing?), comprehensiveness (Does the system offer a holistic approach to problem-solving?), affordability (Can the poor afford it?), equity (Does it offer access to land and housing to women and the poor?), sustainability

(Is the system sustainable in terms of resource constraints?), etc. Figure 3.8 shows the processes involved in building conceptual activity models.

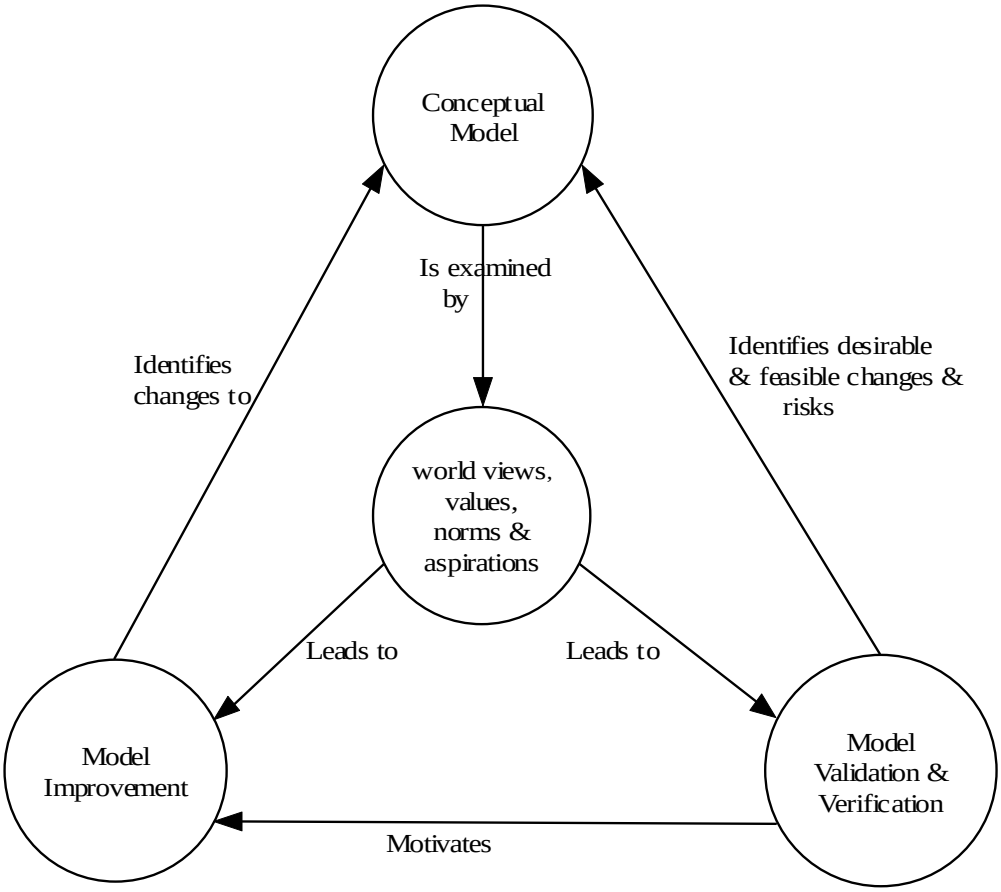

Figure 3. 8: **Conceptual Processes for Modelling Periurban Land Problems**

It is a matter of judgment to determine whether the conceptual modelling has been completed. Once the decision is taken that the model is complete, it can be compared with what exists in the real world and what is suggested by the conceptual model. The tests for conceptual models are further developed in Appendix II and III.

3.7 Comparing Conceptual Models with Perceived Reality

The conceptual models are compared to the real world with the objective of having a well-structured and logical debate about how to improve the perceived problem situation. That discussion is structured around the models in order to inquire into the perceptions of the circumstances of the situation. The comparison should be done together with participants of the problem situation that wishes to make the improvements happen, and who also have the authority to do so [Checkland, 1981; Checkland and Scholes, 1990].

The method of comparison most commonly used is called formal questioning, where the conceptual models are used as a foundation for inquiring into the real world (See Table II.2, Appendix II). Answering those questions encourage discussion about improvements in the problem situation. The discussion may be performed by a group of people in one place at one time, or by interviewing a single person over a period of time [Checkland and Scholes, 1990]. The comparison will be done formally through a tabular display, a matrix, that for each activity in a model indicate whether or not it exists, and if it does exists - in what form. The matrix should also include how these activities are linked together [Wilson, 1984; Checkland and Scholes, 1990]. An example of such a matrix for formal questioning when performing the comparison between the conceptual models and reality is demonstrated in Table 3.3. For example, column 5, ‘Comments,’ links the conceptual model with the real world situation.

Table 3. 3: The Matrix as a Technique for Comparing a Conceptual Model with a Real World Situation [after Checkland and Scholes, 1990]

Conceptual Model Name:				
Activity in Conceptual Model	**Does activity exist?**	**How is it done and who is responsible?**	**How is it judged?**	**Comments**
1. **……**			criteria and current judgements	new 'whats' alternative 'hows' etc.
2. **…...**				
3. **……**				
Performance criteria for evaluating Conceptual Model:				
E_1: Efficacy – measured by asking 'Does the system work?' (yes/no/partly) **E_2**: Efficiency – measured by asking 'Does the result justify the amount of resources used?' (yes/no/partly) **E_3**: Effectiveness – measured by asking 'Does the system meet both the short and long-term goals?' (yes/no/partly)				

First the name of the conceptual model should be filled in the matrix. Since every conceptual model is to be compared to reality, it might be quite confusing and difficult to connect the answers to the correct model if it were not named correctly. A left-hand column lists all the activities in the model. The following column records the real-world manifestations, if they exist and under what circumstances. A third column adds value assessment about the activities in the real world, and how it presently is being done. The last column is for describing what kind of improvements are necessary to carry out the activities: whether it is land information management, cadastral surveying, or land use planning support, or any other support necessary for performing any land administration activity. The last column is for any comments on the way that things are being done. There should be room for anything that might concern the present 'how'. This is all written in a language that is suitable for the situation and consists of the proposed

changes together with the real-world evidence that support the recommended changes. It is this last column that is the source for the ideas about desirable and feasible changes to the problem situation. Lastly the relationships between the activities should be listed. This would entail all possible relationships, and preferably with a short description as to under what circumstances these links occur [Checkland, 1981; Wilson, 1984]. The comparison of the conceptual model with reality is used to define systemically desirable and culturally feasible changes in the real-world. Examples of completed matrices can be seen in Appendix II, Systems Study of Periurban Land Problems in Botswana.

3.8 Assessing the Desirability & Feasibility of an Activity System

The results from the comparison between the real world and the conceptual models, the filled matrix, and the survey questionnaires on land administration issues in Southern Africa will serve as a foundation for a debate about change (See, for example, Table II.2, Appendix II, p.319). This debate is carried out in the real world of the problem situation with actors who are concerned with improvements taking place in the situation. As emphasized by Checkland [1981], the debate ought to involve people in the problem situation who care about the perceived problem and want to do something about it. The actors concerned in the current situation would be representatives from government departments, periurban local authorities, local Land Boards, traditional authorities, and NGOs.

The models of purposeful human activity systems that the conceptual models represent are selected according to someone's perception of what *might be* relevant to the problem situation. They are not models *of* the problem situation. Any recommendation for change coming out of the discussion, set off by comparing the real situation to the

conceptual models can only be claimed as being desirable, not mandatory. It is not very likely to expect that all the recommended changes will be acceptable [Checkland and Scholes, 1990]. The recommended changes must meet two criteria in order for them to be implementable. They must be both desirable and feasible. The changes must be desirable on the basis of system analysis and as a result from the knowledge base that was built whilst performing the selection of root definitions, and the building of the conceptual models. They must also be culturally feasible based on the uniqueness of the problem situation, the people within it, their mutual experiences, culture, norms, values and their interests.

Changes will be implemented in a human culture and as such it will affect and modify that culture. The changes will be implemented only if they are seen as meaningful within that culture, meaning within the organizational worldviews. What is culturally feasible is often altered by the discussion itself since norms and values are exposed in the discussion, making the decision on what is meaningful an iterative process in itself. That is why the changes have to be both desirable and culturally feasible in a sense that they are regarded as meaningful within the culture of the problem situation [Checkland, 1981; Checkland, 1985; Checkland and Scholes, 1990; Wilson, 1984]. Table 3.4 in the following page, for example, depicts a model to assess the systemic desirability and cultural feasibility of a proposed activity system. Column 4, ‘Possible action’, links the conceptual model with the real world situation. Test results can be seen in Table II.3, Appendix II.

Desirable and feasible changes might take different forms, and any combination may be suitable in a specific problem situation. Changes of three kinds are possible: changes

in structure, procedures or attitudes. Structural changes are those made to that part of reality, which in the short term does not change. These might have the characterization of organizational groupings, reporting or structures of functional responsibility. Changes of a procedural nature are those made to the dynamic elements, e.g., the processes of reporting and informing, all the activities and tasks that are relatively fixed, and things like education and training programs, etc. Both changes of structure and procedure are relatively simple to specify and implement, since the implementation process is of an explicit character and as such is easy to design. This is not the situation with the last kind of change, that of attitude. The term is intended to encompass things such as changes in influence and changes in the people's expectations on what is considered to be 'good' or 'bad' behaviour.

Table 3. 4: Assessment of Desirability & Feasibility of an Activity System [after Checkland and Scholes, 1990]

Name of Activity System to be Assessed:			
How will it be done?	**Is it systemically desirable?**	**Is it culturally feasible?**	**Possible action**
1. …..			
2. …..			
3. …..			
Performance Criteria for Evaluating Desirability/Feasibility an Activity System:			
Systemic desirability: measured by performance question 'Are recommended changes relevant to the systems and subsystems that comprise the periurban problem as a whole?' (yes/no) **Cultural Feasibility:** measured by performance question 'Are the recommended changes meaningful within the periurban situation, e.g. worldviews, values, norms and aspirations and culture? (yes/no)			

Theoretically it is possible to try to make changes in people's attitudes, but in reality it might be not be so easy to achieve the anticipated results [Checkland, 1981].

3.9 Framework for Periurban Land Tenure and Land Administration Requirements

This chapter has introduced the soft systems approach as a methodology for analyzing, modelling and comparing periurban land problems. In the next Chapters 4 and 5, a mixture of hard and soft systems approaches, with elements of evaluation theory, will be used in determining the periurban land tenure and land administration objectives and requirements. In complex and rapidly changing periurban environments, the use of a single approach will not resolve all the problems as different methodologies have both advantages and limitations.

Figures 3.9 and 3.10 (following pages) reflect the model-building epistemological premise of soft systems methodology, aspects of hard systems methodology, and evaluation theory. As Checkland [1985] pointed out, the relation between hard and soft systems methodologies is not like that between apples and oranges; it is like that between apples and fruit because hard systems methodology is basically a subset of soft systems methodology.

The previous sections have discussed the limitations of both approaches in dealing with periurban land problems, which are really a subset of human activity systems. Since periurban land problems are full of the ill-structured and messy problems of the real world, it is relevant to apply both soft systems and hard systems methodologies to resolve conflicting periurban land tenure and land administration objectives and requirements. Geomatics engineers, planners, legal experts, and economists cannot adequately define

the periurban land tenure objectives; it is also the duty of the political process to determine what the land tenure and land administration requirements for periurban are [Khisty 1995].

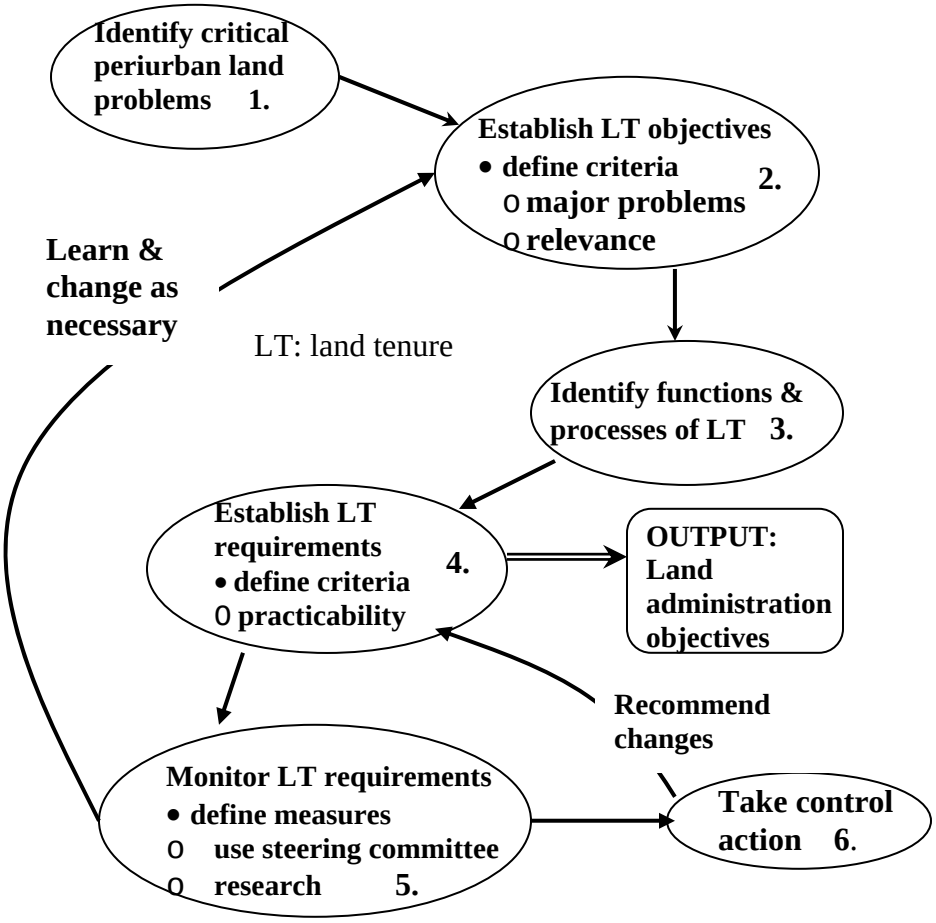

Figure 3. 9: A framework to analyse periurban land tenure requirements

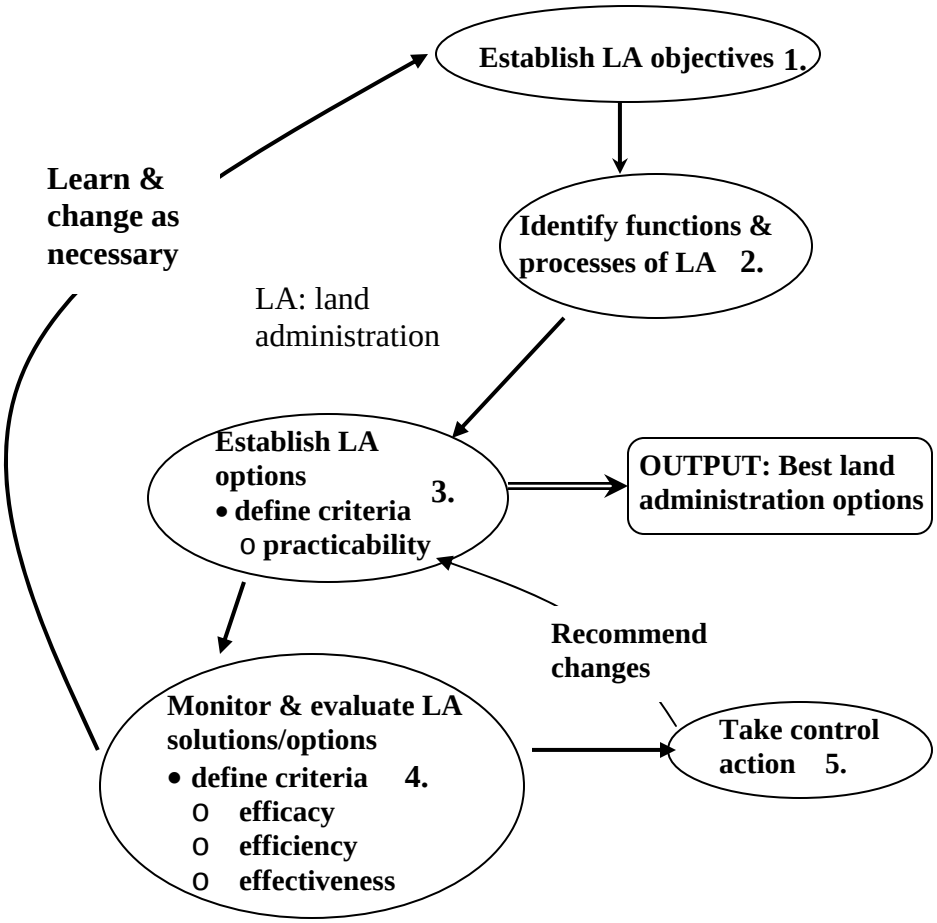

Figure 3. 10: A framework to evaluate land tenure/land administration options

This research did not have the benefit of engaging all relevant stakeholders in determining what the objectives of customary periurban land tenure are or should be. That task is left for the next level of this research, to improve on the work of this thesis. As a recommendation, the job of future research in analyzing periurban land tenure and land administration requirements/options would be to engage the political process to come to a consensus about what the objectives/requirements of periurban land tenure/land administration systems should be.

In this research, the criteria used to determine the land tenure objectives/requirements were derived by examining the major land issues facing

periurban environments in southern Africa. This was done through extensive literature review, field experience, informal meetings, email, and telephone interviews with key informants in government, private and donor agencies. Case studies in Botswana, Malawi, and South Africa – (see Appendices I, II and III) are based on field research and detailed literature review. In addition, questionnaires were sent to various organizations in Botswana, Malawi and South Africa as part of the broader Canadian International Development Agency project on building land administration capacity in southern Africa [Centre for Property Studies, 2002].

CHAPTER 4:

ANALYSIS OF LAND TENURE REQUIREMENTS FOR PERIURBAN ENVIRONMENTS

> *It is probable that no single topic has exercised so many students and men of affairs concerned with Africa as has that of land. It is equally probable that no single topic concerning Africa has produced so large a poor literature. We are still abysmally ignorant of African land practices. … The reason for this state of affairs is close at hand: there is exists no good analysis of the concepts habitually used in land tenure studies and certainly no detailed critique of their applicability to cross-cultural study.* [Bohannan, 1963:101]

4.1 Introduction

As a first step in achieving Objective number 3 of this thesis, the purpose of this chapter is to analyse land tenure requirements for periurban environments using some aspects of soft systems methodology-based conceptual framework developed in Chapter 3. This chapter is specifically concerned with answering the following questions: (1) What are the periurban tenure related problems? (2) Why do the land tenure-related problems still exist? And (3) what are the periurban land tenure requirements for resolving the tenure related problems?

This chapter will begin with a review of property rights and land tenure systems in sub-Saharan Africa as related to this study. This will be followed by a review and analysis of, firstly, the legal and cultural aspects of customary periurban land tenure; then secondly the operational or functional aspects of customary periurban land tenure, and will use the framework for determining land tenure requirements developed in Figure 3.9

as a guideline, to identify the periurban land tenure requirements that will be culturally feasible and systemically desirable for periurban environments in southern Africa.

4.2 Property Rights

Property can be defined as an enforceable right among individuals or groups to the use, or benefit, with respect to an object [MacPherson, 1978]. A right can be enforced by legal sanctions, or by customs, norms and societal values. This means property rights can only be effective if there is a system of authority that protects and enforces the claims of a holder of rights in a specific situation. Barzel [1997:3] has also defined the property rights of individuals over individual assets as consisting of the "rights, or the powers, to consume, obtain income from, and alienate these assets", thus emphasising the exchange value concept of property rights. As Bromley asserted:

> *We must recognise that the nation-state is an authority system whose purpose is to give meaning to all transactions. When one has rights it means that the state will come to your defence in a dispute with others … In this way the state is party to every transaction.* [Bromley, 1992:224]

Property rights are social relationships between the holder of a right and all other members of a group with respect to the object of the right. Rights have no meaning if they cannot be enforced, as they can only "exist when there is a social mechanism that gives duties and binds individuals to those duties" [Bromley, 1991:5]. Property systems can serve several functions, such as providing a guarantee of security when exchanging assets and assigning social roles and responsibilities.

The debate on whether property rights in Africa should be organised privately has occupied academics, aid agencies, and governments since colonial times. African property systems, like other systems, are evolutionary, but they have been subjected to

abrupt changes, e.g., rapid transformation in the periurban environments, abrupt nationalisation, and forced privatisation of common property regimes.

In view of the recent land tenure developments and periurban problems, there is need for a better understanding of the different property rights in order to design better land tenure and land administration options to resolve the conflicting rights claims[20]. Periurban land problems manifest themselves as "lawlessness", "environmental degradation", "squatter problems", "unplanned settlements", and "poor services/infrastructure provision", unclear and conflicting rights claims, and clouded titles. There is need to "confront with full force, different interests that will make conflicting claims in order that they might have their interest given protection by a 'right'" [Bromley, 1991:3].

4.2.1 Types of property systems

In accordance with Bromley [1991], there are four analytical types of property systems: private property, state property, common property and non-property system.

Private property. This type of property encompasses various dimensions of controlling land, limited only by the frame of social obligation. The rights holder can usually exercise the following rights: use and non-use; exclusion of others from use; direct and indirect income; and transfer by selling, renting, loaning, leasing, pledging, mortgaging, gifting, and bequeathing. As Bromley and Hodge have pointed out: "More generally, private property in land is said to constitute the foundation of democracy, individual freedom and bounteous markets" [Bromley and Hodge, 1990:191]. With this

[20] In many instances, writers such as Hardin [1968], have failed to understand the concept of property and have confused common property with open access systems.

line of thinking, governments in industrialised countries have “become captives to the sanctity of private rights in land” [Kirk, 1999:71]. There are several arguments for private property in land:

- it is an incentive for the creation and employment of efficient forms of technology and for the maintenance of the basis of production;
- it is a necessary (but not sufficient) condition for economic prosperity under production conditions of a market economy.

What is often overlooked by the proponents of private property theory is that additional prerequisites must be fulfilled for it to be able to function particularly in a customary periurban setting. As Kirk [1999, citing Clapham 1989) pointed out in terms of agricultural productivity:

- land holding must be large enough to restrict marginal exigencies, debt and loss of property;
- supporting organisations, markets, infrastructure and services must exist in order to take advantage of the production potential offered by private property; and
- presence of a home-grown economic ethic must be based on the individual who highly values investments, savings and sustainability.

In southern Africa, the above three conditions are still difficult to fulfil except in a few specific cases. This is due to many challenges such as lack of appropriate support framework, access to credit, lack of infrastructure and absence of basic business skills. As the World Bank [1989:55] has asserted: “Efficiency has less to do with ownership than with the conditions under which the enterprises operate”. However, the strict neoclassical economic analysis of private property in land has led to many policy recommendations

calling for the individualisation, titling and registration of land as the solution to the African land question. This viewpoint has been criticized as being too narrow as it ignores the complexity and the immense problems faced by the African land institutions[21]. In Africa, the introduction of individual private property rights has resulted in the redistribution of power of negotiating property rights; hence the weakening of the existing property rights systems and customary authority structures.

State property. In a state property system, rights to utilize land and resources are controlled by the state. The state can acquire land rights by various ways: through conquest; by appropriation through purchase, donation or ad-hoc confiscations (e.g. Zimbabwe); and through changes in law and policy (e.g., nationalization). In many cases in African countries, land that was governed and managed by customary authorities has been appropriated and nationalized [Bromley, 1991]. The state allocates leaseholds, licences, and permits to occupy land and retains the ultimate right of ownership. This practice is widespread throughout much of southern Africa and other developing countries.

The weakness of the state property system manifests itself in institutional fragmentation, weak land administration systems and lack of support structures. The weakness of the African state has provoked considerable demand for state property conversion into private property.

Common property. Common property systems dominate the control, distribution, use and transfer of land and its resources in southern Africa. They generally consist of land and resources rights enjoyed by a kinship group. Common property differs from private

[21] See for example, Bromley [1991], and also Kirk [1999].

and state property in that it combines the attributes of both systems. There is non-exclusivity of group members with respect to access to land and resources and at the same time the right of exclusivity is exercised by individuals, e.g.: residential, arable, borehole and well sites. The private property right belongs to the kinship group and only members can enjoy the rights of utilisation. The term "common property" has given rise to many interpretations and misperceptions [Allot, 1961: 49] and its misconception has led to the confusion of the common property system with the open access system.

However, common property has distinct characteristics:

- there are rules and techniques for excluding non-members;
- there are institutional rules (internal regulating mechanisms) for managing land and its resources;
- it is not possible to sell or trade land outside the group;
- it is deeply rooted in tradition and historical knowledge but it could also be new, e.g., Mozambican villages;
- it solves the key insurance problem;
- unlike the open access system in which the user has only privileges to use land, common property is based on rights, responsibilities and restraints.

Under changing conditions of land utilisation in periurban areas brought about by urbanisation, population growth, new land use concepts, and new social and economic demands, the common property systems are in danger. The stability of the systems in times of rapid tenure change is endangered by actions of certain individuals. There is also a danger of collapse if the system continues to obstruct the "individuals from grasping new (economic) opportunities outside of the local system" [Kirk, 1999:85]. Most

recommendations for periurban land problems suggest its replacement with individual private or state property rights. The debate on periurban land tenure-related conflicts is therefore dominated by freehold versus state tenure regimes as opposite poles of the tenure spectrum, neglecting the authority systems at the local level [Berry, 1993]. Local authority systems have the potential to boost capacity of statutory institutions at the local level, thus helping to keep supervising and control problems down. Attributes of social equity inherent in common property regimes can be incorporated into the new land tenure arrangements.

During the early phase of colonialism, new authority systems were created, and the role of existing ones were changed in order to strengthen the colonial powers, e.g., British indirect rule or "dual mandate" [Kirk, 1999]. Therefore, in designing new land administration systems, current customary authority structures should be incorporated into the new institutions.

Open access systems. Under open access systems (*res nullius*) no one enjoys property rights; it is only a system of privileges. There is complete autonomy in the exploitation of land and resources. Because this kind of situation is undesirable as it may lead to over-exploitation of land resources, capacity building has to develop and stabilise the land tenure institutions. The open access regime may be rare in a periurban setting but it can result from the disintegration of the formerly existing institutional arrangements (private property, state property, common property) [Bromley, 1991: 30].

4.3 Land Tenure Systems

A land tenure system can be defined as the legal, contractual, social or customary arrangements whereby individuals or organisations gain access to economic or social opportunities through land. A land tenure system may range from the most formalised and bureaucratic arrangements to the most informal arrangements governing the distribution of rights, responsibilities and restrictions of both individuals and groups in the use, enjoyment and control over the basic resources of land. A land tenure system can be classified by:

- degree of codification (see Figures 4.1 and 4.2);
- degree of exclusivity, that is, ranging from group-oriented, corporate to individual private property rights;
- relative degree of land tenure security; or the
- degree of state involvement.

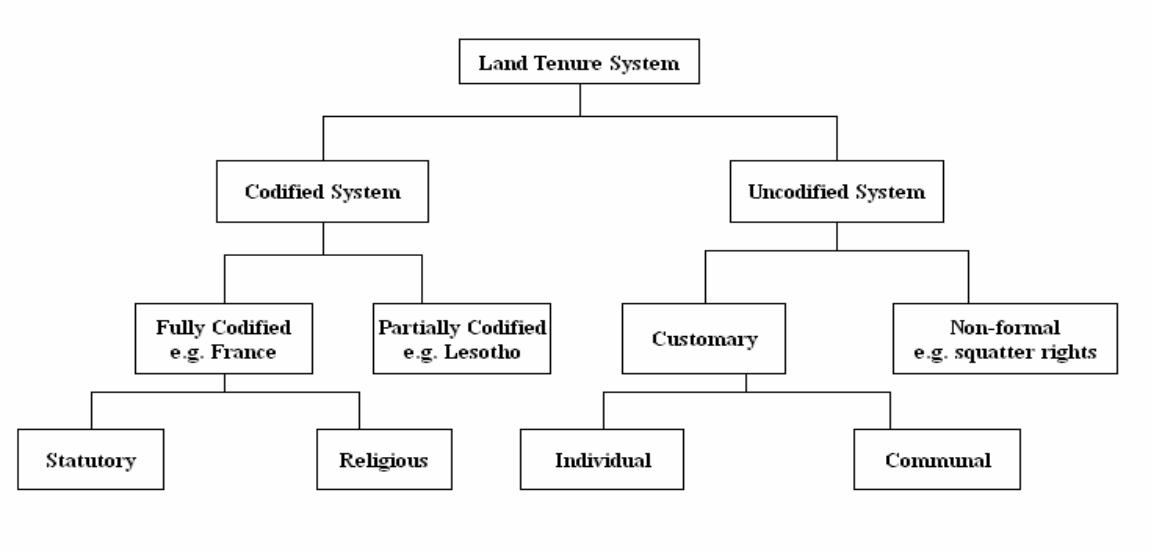

Figure 4. 1: Taxonomy of land tenure systems

Land tenure systems play a crucial role in developing countries in terms of shaping the pattern and degree of land distribution as is apparent in Botswana (See Appendix I). However, "this does not imply that land tenure institutions exist or exert influence in isolation" [Radcliffe, 1976:12], for the dimensions and future security of economic opportunities are critically affected by the availability of labour, capital, infrastructure and services as well as access to product markets. Figure 4.2 shows the evolution of customary law in relation to other legal systems.

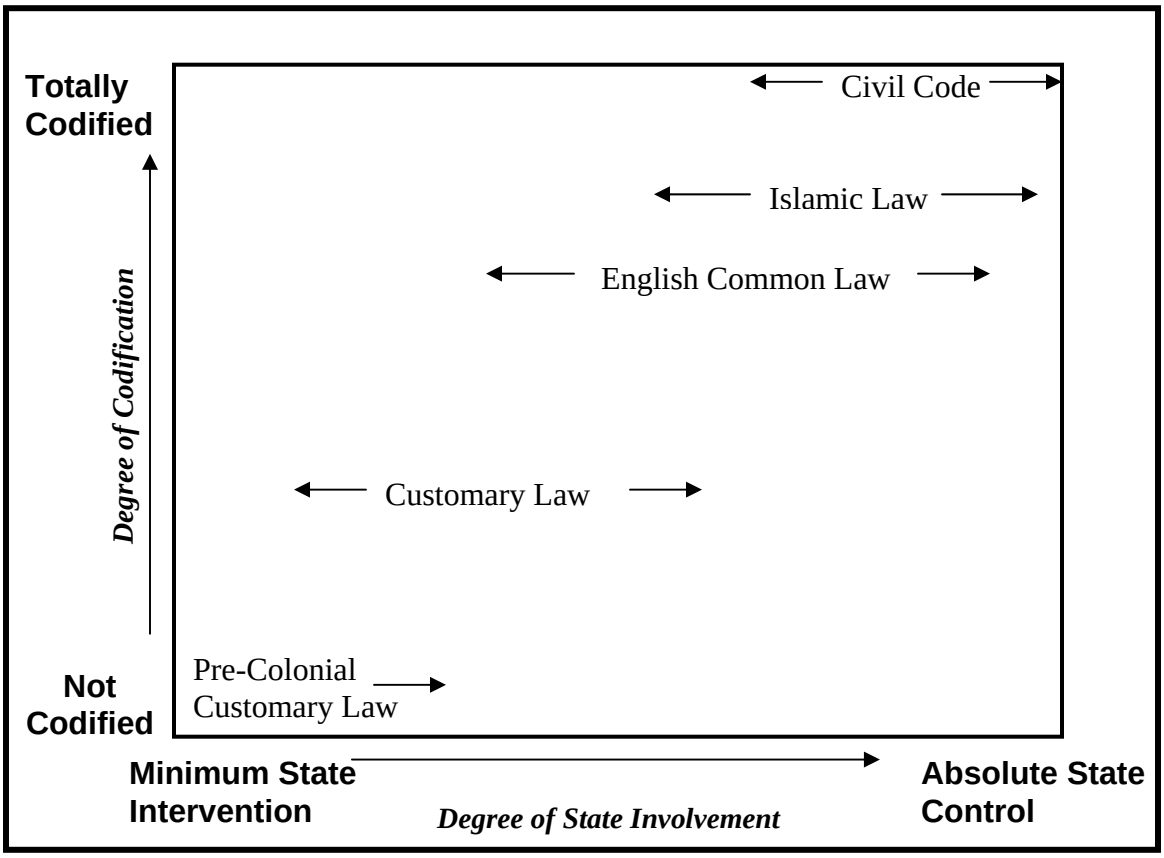

Figure 4. 2 Evolution of customary law

4.3.1 Relating land tenure systems to economic development

Land is the basis of all human existence. It is a determinant factor of economic, social and political organisation of every human activity. Like in most countries, land tenure is the foundation for economic development of land and natural resources. Because of the central role of land in humankind's economic activities, a land tenure system has an important bearing on the economic and beneficial use of land and natural resources. Figure 4.3 illustrates the conceptual linkages between land tenure systems and economic development.

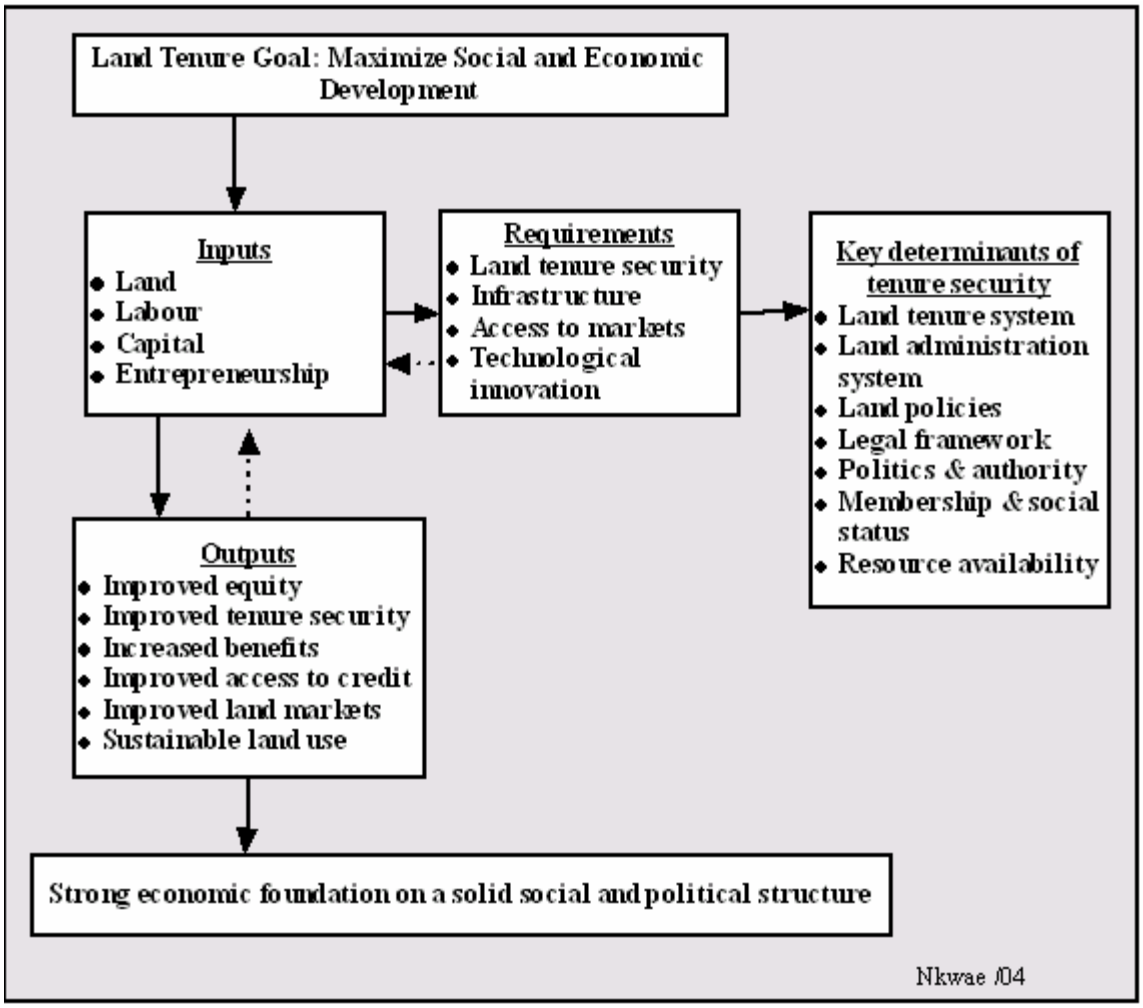

Figure 4. 3: Link between land tenure system and economic development

4.3.2 Land tenure security

Land tenure security still occupies an important place in both government and the residents of periurban settlements in Africa. Since colonial times, governments have been trying to record and codify customary laws in order to make customary tenure secure. The question to ask is security of tenure for whom? The irony is customary land tenure holders generally feel very much secure[22].

Doebele has long criticised the legalistic understanding of land tenure security by stating:

> *While tenure [security] is generally considered a legal category, it is, just as fundamentally, a matter of the state of mind of the persons concerned. Stated operationally, the critical element may not so much be the legal category involved as the* ***perception*** *of the occupant of his security in relation to the investment contemplated.* [Doebele, 1983:349-350]

Further, McAuslan [1985:30] asserts that "land tenure has legal and mental elements; efficiency and equity are concepts that are perceived differently in different societies". According to Doebele's statement there are a variety of factors that influence the different perceptions on tenure security such as:

- legal status;
- level of threat of eviction and demolition;
- provision of social services and infrastructure;
- passage of time or age of the periurban squatter settlement; and

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[22] See, for example P. F. Dale (1976). *Cadastral Surveys within the Commonwealth*. London: Her Majesty's Registry, on land demarcation and adjudication in Uganda; Dale (p.43) asserts that: "In many parts of Kigezi in southern Uganda… the local cultivators were offered certificate of title … [if] they would pay a subsidized survey fee. The majority declined to make this extra payment as they were satisfied to know that their boundaries were clearly determined." See also Firmin-Sellers (1999) on Cameroon.

- socio-economic status of inhabitants in the periurban settlement.
- level of property investment

4.3.3 Legal titles

Legal land rights are often assumed to be the most secure form of tenure anybody can aspire for. Many legal scholars have even gone on further to suggest that legal titles should be issued to periurban and urban dwellers irrespective of whether they want them or not. McAuslan stated:

> *Overcrowded inner urban areas, wherever they are, can neither be justified nor left unremedied out of an exaggerated respect for the inhabitants' feelings about security of tenure*. [McAuslan, 1985:29]

Linn [1983:144] has also argued for the issuing of legal titles to the urban poor so that legal rights can accelerate their accessibility for social services and credit.

> *The regularisation of tenure rights on land owned by the public sector but occupied by squatters is a more common possibility for improving the housing conditions of the squatters—directly by increasing tenure security and providing ownership…Tenure security and ownership rights are known to act as incentives for shelter improvement and to permit better access to capital markets, since the new owner-occupants are able to offer their land as collateral.* [McAuslan, 1985: 144]

Yet others have argued on the contrary that legal titles, if anything, lead to insecure tenure for the poor as it "commoditises" land for housing, thus subjecting the urban poor to land speculation, land hoarding, and landlessness[23].

Razzaz [1991] has argued: "just as illegality does not necessarily imply lack of secure tenure, legality does not imply the presence of security of tenure". Doebele [1977] found

[23] See also South Africa Lincoln Land Policy Institute; Okoth-Ogendo, H.W.O. (1986). "The Perils of Land Tenure Reform: the Case of Kenya, In J. Arntzen, L. Ngcongco, and S. Turner, eds. Land policy in Eastern and Southern Africa. Tokyo: United Nations University Press, pp. 79-92, and also J. Bruce (1988).

that an unofficial sales document, “a promise to purchase and sale”, was sufficient to release substantial funds for house construction. The occupants felt protected against third parties, against the sub-dividers, and believed that their “rights” were compensatable [*ibid*]. There is a mistaken assumption of equating legal title with security of tenure. Legal titleholders can still feel very insecure because of government land reform measures. The biggest threats to security of tenure in customary periurban settlements often arise from actions of governments themselves, particularly the eviction of settlers and demolition of houses (e.g., Mogoditshane, Botswana; Harare, Zimbabwe; Cape Town, South Africa, Nairobi, Kenya).

The question to ask is why have the squatter camps in periurban environments of Cape Town, Durban, Johannesburg, Gaborone, and Nairobi prospered? The answer according Okoth-Ogendo [1985] and de Soto [1989] is that they develop their properties in anticipation that the government would in future legalise their rights. The reality of the situation is that: seldom are these squatter rights regularised; in most cases government would like to demolish these squatter settlements, or in other cases the government does nothing. So, under what conditions does the security of tenure accrue, in the absence of legal rights as exists in the periurban environments? Is there a link between legal title, land tenure security, access to credit, land/house improvement and productivity?

A growing number of studies have documented the complex relationship between legal titles, land tenure security, access to credit and land/housing improvements. Case studies by Angel *et al*. [1983], Feder *et al*. [1988], Place and Hazell [1993], Bruce and Migot-Adholla [1994] have all contributed to a new understanding of how legal titles

influence land tenure security, access to credit, and investment in land and housing improvements.

4.3.4 Lessons for improved land tenure systems

These may include:

- A need to build on existing systems and adopt gradualist approaches to land tenure reform to increase chances of success by not being socially disruptive.
- Where customary tenure has completely collapsed, there is need to replace it with a statutory tenure system.
- Whenever customary land tenure reforms are undertaken, there is a need to understand that both statutory and customary systems can complement each other as both systems have their advantages and disadvantages. What really matters in terms land tenure reform is not the conversion of customary tenure into freehold. What is required is:
    - to make land more productive to meet the modern needs of social and economic development, human desires for full enjoyment and a happy life.
    - *rather than* imposing ownership in a western sense, there is need to provide basic incentives and support systems to give the assurance of security of use to reap the benefits and products of one's labour. As Henry George asserted: "What makes a man produce more is not the fact of ownership but the assurance that what he produces shall be his" [Henry George cited in Obol-Ochola,1969:111].

Whatever land tenure reform a particular individual country pursues will not depend "purely on economic reasons, but social, political and ideological aims as well"[Obol-Ochola, 1969:111].

4.4 Identifying Land Issues and Tasks for Determining Periurban Land Tenure Objectives

Section 4.3 reviewed land tenure systems and highlighted such issues as land tenure security. Section 4.4 will select major land issues facing the periurban environments with a view to identifying the objectives of land tenure in periurban areas. In accordance with the conceptual analytical framework developed in Chapter 3 and depicted in Figures 3.6 to 3.9 and 3.11, section 4.5 will identify the land tenure requirements for periurban areas which are then used as objectives for land administration requirements for periurban areas in Chapter 5.

4.4.1 Periurbanisation and access to land for housing

Sub-Saharan Africa still remains the least urbanised region in the world, at 37.3% of population [UNCHS, 2001], despite substantial increases in both the rate of urbanisation and the explosive growth rates of urban population. Sub-Saharan Africa remains at the bottom of the urbanisation ladder, together with South Asia. In spite of the relatively low levels of urbanisation and few large cities, it would be a mistake to dismiss the periurban problem in Africa as unimportant. Among other important factors: (1) the pace of urbanisation estimated at 4.87% [UNCHS, 2001] has been accelerating in Africa whilst in other regions it has been decelerating, and (2) the rural-to-urban migration continues to

play a significant role in the urbanisation process[24] in Africa (see, for example, Figure 4.4).

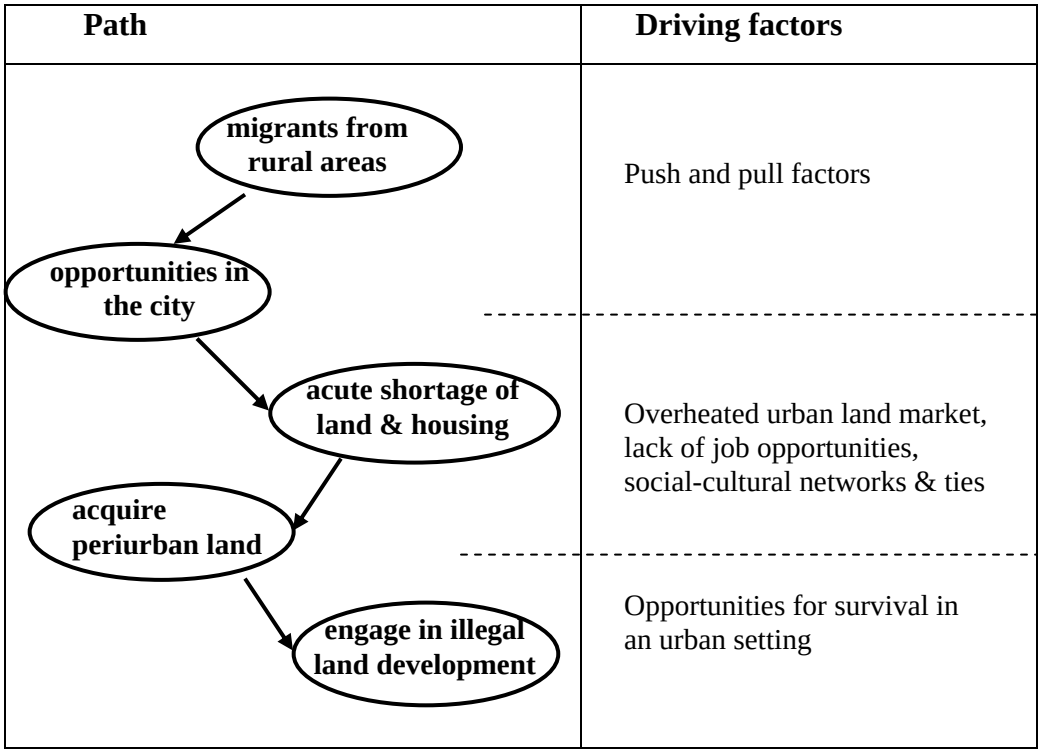

Figure 4. 4: Process of urbanization in a periurban environment

As Mehrutu explains:

> *Migration experts point out that almost 60 percent of LDC urban growth is due to rural-to-urban migration. It is therefore not surprising that one of the most crucial problems afflicting African cities is the current wave of rural-to-urban migration.* [Mehrutu, 1983:273]

The history and nature of periurbanisation in sub-Saharan Africa is still far from perfectly understood because of several misconceptions, such as [Mehrutu, 1983:244]:

[24] In Botswana, part of the increase in the rate of urbanization is due to some major villages being reclassified as urban. See, for example, Government of Botswana [1998]. Botswana National Settlement Policy, Gaborone: Government Printer, at p. 7: "The high rate of urbanization over the years has been due to the inclusion of two villages in 1981 and additional 15 villages 1991, which attained urban status". See also UNCHS [n.d.] "Reassessment of Urban Planning and Development Regulations in African Countries" at http://www.unchs.org/unchs/english/urbanpl/african/africa.htm

- The widely held view that tropical Africa "did not have a history of urbanisation and urban morphology" before the colonial period is no longer valid as it was couched in Euro-American ethnocentric approaches (i.e., because most African towns or cities[25] did not fit the rigid western-derived model of towns in terms of spatial organisation, they were disregarded as towns or cities).
- A greater number of cities in Africa were probably extinct by the time the Europeans arrived, as there were cities in Africa centuries before the birth of Christ.
- Most pre-colonial urban centres in Africa lost their significance with the advent of colonialism. According to Mehrutu,

  > *Of the 146 African centers which had 100,000 or more inhabitants in 1980, only 28, or hardly 20 percent of the total, are attributed to the colonial period. Contrary to what may be thought, a great many of the present urban centers claim their origin from historical centers of indigenous civilisations.*[26] [Mehrutu, 1983:252]

However, this does not mean that colonialism did not have a significant impact on urbanisation in sub-Saharan Africa. Most African cities still suffer from the colonial legacy as they were designed to function as transhipment centres for the efficient handling of raw materials destined for consumption in Europe. They were developed as colonial administrative and trading centres around the coastal areas rather than industrial and commercial centres equipped to support large urban populations. As a result of the colonial legacy:

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[25] The words town and city throughout this thesis are used interchangeably with no distinction being made.
[26] There were a number of pre-colonial urban centres in Africa: Kumasi (Ghana), Kano and Ibadan (Nigeria), Kinshasa (Democratic Republic of Congo), Khartoum (Sudan), Sofala and Quelimane (Mozambique) and Bulawayo (Zimbabwe).

- Well-serviced expensive city centres are often surrounded by under-developed, inadequately serviced customary periurban settlements supporting most of the populations.
- The major periurban problems facing governments in the region are the uncontrolled proliferation of sub-standard housing with all the associated economic, social, cultural, political, and environmental and health problems.
- The sites of these colonial cities in Africa often suffer from limited areas available for expansion and development. Such cities include Durban and Cape Town (South Africa), Nairobi (Kenya) and Gaborone (Botswana) and their expansion is handicapped by sea, mountains, and hills or completely surrounded by freehold farms and customary tenure areas that do not readily react to market influences in the transformation of land use and ownership.

In the context of periurban areas, governments in the region face a number of problems such as:

- satisfying and providing basic human needs which may include food security, personal security, land tenure security, employment, and adequate housing, water, health services, schools, street lighting, transport and communications;
- decentralising and extending urban activities, including development of smaller satellite cities; and
- stemming the tide of rural-to-urban migration.

These problems are difficult to resolve because of: (1) limited financial resources; (2) difficulty of planning in the face of rapid population growth; (3) increasing indebtedness of these countries and balance of payment problems; and (4) conflicting development

priorities and the need to identify distinct spatial priorities, that is, should funds be allocated for rural, periurban or urban development?

One of the major land use problems facing urban areas in sub-Saharan Africa is that of providing space for residential and investment purposes for the new migrants and the swelling urban population of the cities. In western countries, new migrants and the urban poor are likely to settle in or close to the central business district or some less attractive part of the central city. In sub-Saharan Africa, this settlement pattern is less likely to occur. The urban poor and new migrants from rural areas are likely to seek land in the customary periurban settlements and vacant open spaces. These places are likely to lack social and infrastructure services and will tend to "*exhibit advanced degrees of squalor, filth, and degradation*" [Breese, 1966:118][27].

4.4.2 Access to urban services & regional opportunities

Observations from the fieldwork indicated that periurban areas suffer from poor quality housing, lack of job opportunities and urban services such as access to roads, electricity, water, health care, libraries and schools, all which have a direct or indirect effect on the quality of life and life chances. This problem was observed in all three-country case studies.

4.4.3 Proliferation of informal settlements

Improvement of living conditions in informal settlement areas is one of the most complex and pressing challenge facing communities in periurban environments. Lack of housing

[27] For a more in-depth discussion about urbanisation and its impact on periurban areas in Botswana, see Appendix II.

land in urban areas is the driving force for the formation of informal settlements in periurban environments. Informal settlements are almost similar to customary periurban villages in the sense that both are unplanned, lack basic urban services and are sometimes very dense, but the differentiating criterion is that informal settlements are illegal. Hindson and McCarthy [1994] defined informal settlements as dense settlements comprising communities housed in self-constructed shelters under conditions of informal land tenure arrangements. They are a common feature in the periurban environments of Botswana, Malawi and South Africa (see Appendix II & III) for details); as such they are prone to degradation of the local ecosystem, e.g., erosion, poor water quality, sanitation, and severe social problems. A global report from United Nation Commission for Human Settlements (UNCHS) indicated that between 30 and 60 percent of residents of most large cities in the developing world live in informal settlements [UNDP, 1989]. Improvement of living conditions in such areas can only be effected by the assurance of security of use or tenure, provision of urban services, and regional opportunities. Easily accessible spatial data is a major requirement in the formalization and regularization of informal and customary periurban settlements.

4.4.4 Haphazard and unregulated land developments

Lack of comprehensive land use planning in periurban areas has resulted in haphazard, unplanned and unregulated land developments. To try and remedy the situation, customary periurban settlements around Gaborone, the capital of Botswana, were declared planning areas in the mid-1980s. But capacity constraints resulted in the lack of monitoring and enforcement of development covenants and zoning laws. As noted by the Presidential Commission on Periurban Land Problems in 1991, most of the construction

in periurban areas took place without planning permission [Government of the Republic of Botswana, 1991]. One of the consequences of ineffective land use control in the periurban areas of Botswana was the presence of gaps[28] between the plots. Mathuba stated:

> *It is essential that demarcation of plots be speeded up in order to "save" land and reduce the costs of providing services.* ***Land is being wasted by leaving unnecessary spaces in between plots.*** *This is because in most cases plots are not pre-demarcated and applicants are free to choose where they want to be allocated land. Zoning and demarcation of plots will also ensure orderly development and reduce disputes caused by land use conflicts* [Mathuba, 1989:67, *my emphasis*].

This problem of gaps between lots is not only peculiar to the periurban areas in Botswana; similar observations were noted in South Africa's customary periurban settlements. In addition, Dale had observed a similar phenomenon within the city of Gaborone, Botswana:

> *In places such as Gabarane (sic), the capital of Botswana, it is common for fences to be erected slightly off the legal registered boundary and for the de facto situation to be accepted for all practical purposes. Under the registration of deeds, modelled on the South African legislation, it would require a mammoth draughting exercise to bring the de jure situation in line with the de facto* [Dale, 1976:209]

4.4.5 Customary tenure in transition

One of the issues facing many periurban areas in sub-Saharan Africa is that customary tenure is in a state of transition. The sudden tenure changes affect the basic economic, social, cultural and political fabric of periurban settlements. As Twaib [2001:110]

[28] The general explanation from the interviewees with regard to leaving spaces between plots is that it is part of tradition to leave spaces around plots. Some writers strongly believe that the introduction of planned and surveyed layouts into the rural villages would eliminate the problem but the success has been limited so far. For instance, there have been reported cases of people continuing to leave gaps between plots in the newly planned and surveyed layouts. This has exposed the limitation of land use planning and cadastral surveying in Botswana's traditional communities.

explains: "*Any change in the pattern of land ownership automatically carries with it changes in economic, family and social relationships*". Two basic questions therefore need to be addressed: (1) how will those anticipated changes in customary land tenure arrangements occur, and (2) what will be their most likely impact on the economic, social and political fabric of the African society in the short-term and long-term? Whether these land tenure changes will be gradual or rapid, be accepted or rejected, and be compulsory or voluntary, is essential to understanding the future of periurban settlements in sub-Saharan Africa and other developing countries. Transitions from customary to statutory tenure systems that are humane, planning-oriented and gradual may ease adjustments into the 'new world'. The key questions asked by this research are:

- What should be done in terms of land administration in order to address the current and evolving situations?
- Should we design a land administration system that would address periurban problems alone or should we design a comprehensive land administration system that would cater for rural, periurban as well as urban areas?
- What are the consequences of taking either option?
- What should be done to guide the transition of customary tenure?
- What are the problems associated with customary tenure in transition?

The above questions call for close linkages between customary institutions/actors and statutory institutions/actors as depicted in Figure 4.5. These questions will be answered in Chapter 7 in the design of a strategy for meeting land tenure and land administration requirements for periurban environments in southern Africa.

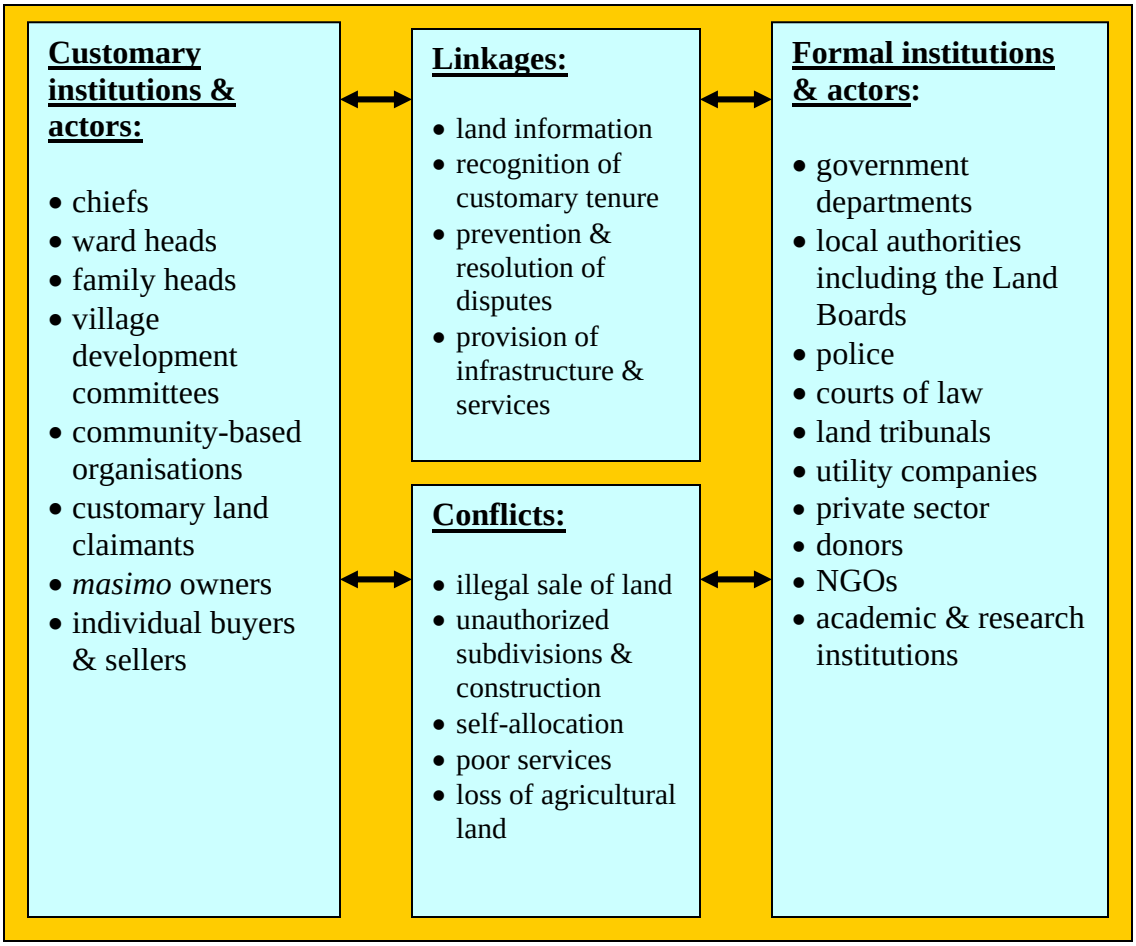

Figure 4. 5: Linkages between customary and formal institutions/actors

4.4.6 Conflict between customary and statutory tenure

The colonial land legislation in almost all southern African countries has largely been retained after independence. Some of this colonial land legislation was grossly inadequate in dealing with the social and economic demands of the newly independent nations. This led to several land tenure reforms in the region, which are still continuing today (e.g. the constant adjustment of the *Tribal Land Act* and regulations in Botswana to meet new concepts in land development; the new *Communal Land Rights Act* of 2004 in South Africa; and Malawi is yet to implement its 2002 National Land Policy).

The complexity of land tenure issues especially in the customary periurban context is also fuelled by competition between customary and statutory law or clashes between two cultures. The impact of this on customary periurban land tenure is that statutory tenure tends to promote private ownership and land registration in stark contrast to customary law, which forbids the sale of customary land. This situation of legal pluralism, deriving from the region's colonial history and the way the modern southern states were set up,

> *Causes a degree of uncertainty about land rights and leads to conflicts for which the many different arbitration bodies (customary, administrative and judicial) are unable to find lasting solutions.* [Delville, 1998:1]

The situation occurs,

> *Not because land-use rules and rights are ambiguous as far as local stakeholders are concerned, but because they are likely to be challenged—and cancelled—through resort to State law (or to State authorities).* [Delville, 1998:4]

In periurban areas, legal pluralism lies at the heart of the customary periurban land tenure issue. Having recognised this problem, the challenge for designing new land tenure and land administration options in periurban areas, is to harmonise customary and statutory tenure systems, to give legal recognition to existing customary land rights, and to build links between customary and statutory tenure. Most countries in the southern Africa are having problems with this approach, and the only country that has made substantial progress in this direction is Botswana (See Appendix I for a detailed case study on Botswana's land administration reforms).

4.4.7 Loss of agricultural land to residential uses

Concern has been raised that in a free market society, urban expansion tends to convert the best agricultural land into residential uses [Hill, 1996; United Nations, 1995]. This change is culturally undesirable and costly since it results in food insecurity problems. In southern Africa, especially in Botswana, the major players in the urban expansion into periurban zones has been the individual sellers and buyers of the subdivided land parcels, including central government, local authorities and the private sector. Because of the juxtaposition of statutory (freehold and leasehold) and customary tenure in periurban areas, the area of land that can be exchanged in a free market is limited. Under customary tenure, land is not available for sale. However, 'illegal' and informal land transactions have prospered throughout eastern and southern Africa.

4.4.8 Low compensation of customary periurban lands

In Botswana, like most African countries, when government expropriates periurban customary land, compensation is based on the value of the standing crops and other improvements. "Such a basis for compensation is irrelevant in the city where each lot (whether built upon or not) has a certain "economic rent," whatever the government or society may believe" [Stren and White, 1989: 310]. In the context of Botswana, the white paper on the *Land Problems in Mogoditshane and other Periurban Villages* [Government of the Republic of Botswana, 1992a], addressed the contentious issue of compulsory acquisition of land because of the failure of the Land Boards to pay adequate compensation to customary rights holders. The government white paper identified low compensation rates as one of the major route causes of the periurban land problems. As stated in the white paper:

> *The low compensation for Tribal land is the result of policy, influenced by the mode of acquiring land as well as the fact that the land is not held in absolute ownership. But this has now led to a crisis that we find ourselves, where excessive artificial intervention in the operation of market forces led to a collapse of tribal land administration* [Government of the Republic of Botswana, 1992a:12].

Although section 8 of *Constitution of Botswana Act* provides that:

> *No property of any description shall be compulsorily taken possession of, and no interest in or right over property of any description shall be compulsorily acquired except where the following are satisfied, that is to say, provision is made by a law applicable to the taking of possession or acquisition – for the prompt payment of adequate compensation*

The customary *masimo* (fields) owners in Botswana, consider themselves to have the freedom to subdivide their *masimo* and sell residential plots in a free market to willing buyers and sellers [Government of the Republic of Botswana, 1992a]. The acquisition of customary periurban fields for residential uses in Botswana has created uncertainties in the actual value of land and how it should be compensated. The government's position is to compensate for improvements on the land only (e.g., standing crops, house, borehole, shop, etc.), which the *masimo* owners find too low, compared to the market value.

4.4.9 Periurban Management and Development

In many periurban environments, decision-making is divided between the competing formal, customary and informal management structures making urban management and development difficult. Formal urban land management has a conflicting relationship with customary authority structures [Nkambwe and Arnberg, 1995; Nkambwe and Totolo, 2004]. Nkambwe [2001] states that this results in a complete lack of interaction between

urban management and the residents, which translate into failure to mobilize the abundant local resources, lack of public accountability and transparent urban governance.

4.4.10 Summary of Land Issues

There is need to design and build systems that meet not only the needs of today, but the future needs of generations ahead, for realistic change in land tenure reform takes a long time to implement. In designing these systems, we need to be realistic about what can be achieved with the amount of resources available, in terms of financial resources, human resources and expertise as well the time constraints. Administrators and implementers of land tenure systems in transition should be accountable to the public and should have integrity. In summary, the issues discussed in sub-sections 4.4.1 to 4.4.9 indicate that the following issues will need to be addressed:

- access to land for housing;
- access to urban services (infrastructure, facilities & services);
- legal pluralism;
- security of tenure & tenure pluralism;
- managing customary tenure in transition;
- comprehensive planning of periurban areas;
- regularising customary and informal settlements;
- compensation issues relating customary land acquisition; and
- environmental issues and loss of agricultural land.

This research will not address all the identified issues pertaining to periurban environments. It will select five major issues and then determine the land tenure objectives for periurban areas. The selection of the key issues facing periurban was based

on the need to place boundaries on this research and to show how tenure and land administration systems can assist in resolving the issues. Accordingly, the five major land issues:

- access to land & housing;
- access to urban services (infrastructure, facilities & services);
- legal pluralism;
- security of tenure & tenure pluralism; and
- managing customary tenure in transition;

4.5 Customary Periurban Land Tenure Objectives

According Doebele [1983], the two main objectives of a land tenure system are:

- ***Efficiency.*** The system should encourage a smoothly functioning land market to permit maximum productivity of the land resource; and should respond to rapid increases in demand for land, by allowing the rapid assembly of land as needed to meet such demand; and should also be responsive to major changes in the social and economic needs of periurban areas.

- ***Equity.*** The land tenure system must provide reasonable access for all income groups to land for housing, commercial, industrial and other needs. It should enable government to recapture increments in land value when it is socially and culturally acceptable to do so.

What Doebele proposed may be culturally feasible in a statutory tenure environment but, in a customary situation, the promotion of a land market might be contrary to customary

law. Therefore, in a customary tenure environment where land values have increased, there is need to balance the competing objectives. Based on the case studies and literature review for southern Africa, this thesis defines the objectives and requirements of periurban land tenure as shown in Table 4.1.

Table 4. 1 Land tenure objectives & requirements for periurban environments

	Land Tenure Objective	***Land Tenure Requirements***
1	**Legal/Tenure Pluralism**	Legally flexible to change, adaptable & innovative tenure approaches; compatibility & continuity with local tradition and customs
2	**Security of Tenure**	Legal recognition of customary tenure; protection of interests of future generations; processes for enforcing rights & resolving disputes equitably & efficiently; acceptance by government agencies of innovations in documentation that have emerged under customary tenure
3	**Facilitate Access to Land and Housing**	Promotion of greater equity in access to land, housing, and other needs; efficient land, housing and rental markets; responsive to demand
4	**Ability to Access Credit**	Recognition of rights as security for credit
5	**Effective Land Use Policy**	Efficient land use; optimal productivity of land; environmental protection
6	**Affordability& Simplicity**	Avoidance of costs, technical and legal complications; easy to understand by local community

4.6 Analysis of Periurban Land Tenure Intervention Strategies

The following intervention strategies impact directly and indirectly on the customary periurban land tenure objectives:

- ***Land tenure reform***. There is need to put in place land tenure reform policies that facilitate access to land by the poor with reasonably secure land tenure.

- ***Legal flexibility.*** The key to any system of tenure reform, whether customary or statutory, should be one which allows for flexibility and change over time.
- ***Shifting to an adaptation strategy***. The land tenure reform legislation should shift from the colonially-inspired replacement paradigm towards an adaptation strategy of customary tenure reform. In this regard, there is need to develop innovative land tenure arrangements that can be improved incrementally to meet special periurban land tenure requirements and circumstances such as the problem of access to land and housing, sustainable land use, provision of infrastructure and basic social services.
- ***Public participation***. Solutions to urbanisation, land tenure problems, access to land and housing must be negotiated with the communities. Negotiating with local communities and individuals (the soft systems approach) is time-consuming and difficult but if it is not undertaken will lead to anger and hostility in the community.
- ***Understanding periurban land tenure arrangements***. Since all land tenure systems are changing we need to understand:
    - trends and issues surrounding the administration of customary tenure in transition;
    - forces bringing about the land tenure changes;
    - nature and pattern of periurban land problems; and
    - speed at which changes in land tenure arrangements take place.
- ***The need to stimulate investment.*** There is the problem of access to credit as formal sector commercial financial loans institutions would not lend to the poor.

In addition, most people in periurban environments are engaged in informal employment, making it difficult to secure loans from formal financial institutions. Difficulties of having access to secure land tenure may reduce the household's commitment to periurban areas and therefore reduce the likelihood of housing investment in periurban areas.

- ***Promotion of efficient land use to meet national and local needs***. Periurbanisation and urban expansion have serious implications for food security and malnourishment, as agricultural land is being 'eaten up' by demands for housing, commercial, industrial and infrastructure investments [Barry, 2002; Home, 2002]. It is estimated that by 2020 half the population of Africa and Asia will be living in and around urban centres but according to UNCHS (Habitat) [2001], periurban agriculture plays a very crucial role in terms of food security in cities such as Nairobi (Kenya), Dar es Salaam (Tanzania) and Harare (Zimbabwe).

4.7 Conclusions

Some of the objectives and requirements of customary tenure in periurban areas will certainly conflict with customary law. It is the duty of the land administration system to try and strike a balance and meet the conflicting land tenure requirements. This is where soft systems methodology can play a major role and help resolve the complex periurban land problems. Chapter 7 of this thesis will present guidelines on how to apply the soft systems methodology in intractable periurban land problems. The next chapter will use the above land tenure requirements as objectives for land administration in a periurban problem situation and identify the land administration requirements for periurban areas.

CHAPTER 5:

ANALYSIS OF LAND ADMINISTRATION REQUIREMENTS FOR PERIURBAN ENVIRONMENTS

> *If services must be improved, if infrastructure must be maintained and upgraded, if the environmental quality of the cities in Africa are to be enhanced, and if the costs of doing all this must be recoverable and recovered, then it is clear that there is no realistic alternative to creatively confronting the seemingly intractable problem of urban land management in these cities. This should be done through designing [land administration] strategies and procedures [Mabogunje 1992:29].*

In Chapter 4, the land tenure requirements for periurban areas were identified. In this chapter, land tenure requirements for periurban environments will be used as the objectives of land administration. Major issues affecting land administration functions and processes will be used to identify and define priority land administration requirements for meeting these objectives. In sections 5.2 to 5.7, the land administration issues and tasks will be reviewed in the context of land administration objectives (i.e., from the land tenure requirements) in southern Africa. The conceptual framework derived in Chapter 3 and depicted in Figure 3.10 will be used in analysing the land administration requirements. The selected land administration requirements are then used in evaluating land administration options in Chapter 6.

5.1 Introduction

Periurban governance is of critical importance in African cities and periurban areas that are currently experiencing rapid growth rates. Given the widespread failures of most urban land management programmes, especially their inability to provide social services and infrastructure, the issue of periurban governance is very important. The term

governance can be broadly defined as the processes by which economic and social matters are managed, which involves a consideration of institutional performance and the relations between the state and society [Crook and Manor, 1995]. In the context of land administration, governance involves bureaucratic accountability and transparency and measures that make the bureaucracies more accountable. According to Dale and McLaughlin [1999] this requires:

- monitoring the performance of public agencies and officials;
- political will and commitment;
- systems for ensuring accountability and transparency;
- sound administration of justice and freedom of information;
- competent and effective public agencies; and
- participation by all stakeholders.

Periurban environments face distinct land administration challenges because of the complex and rapidly changing nature of their land tenure arrangements. Some of the basic issues pertaining to governance in periurban environments are:

- haphazard, sprawling residential development with insufficient social services and infrastructure;
- illegal land subdivisions;
- illegal and extra-legal land transactions;
- illegal land occupations (squatter settlements); and
- lawlessness, abuse of power and corruption.

Many customary landowners in the peripheries of urban centres in southern Africa and elsewhere are disposing of customary land rights illegally. Although such direct land

dealings are illegal and non-customary, the practices may be inevitable due to the increasing demand for land and land values and also because of the changing nature of customary periurban land tenure itself [Lakau 1995:104]. Some of the main periurban land problems identified in Chapter 4 are:

- acquisition of land by the economic elite and politicians for speculative purposes;
- illegal land occupations by squatters;
- unauthorised change of use from agricultural to residential land use;
- unauthorised land transactions without knowledge of the land administration authorities; and
- sale of customary land which is illegal under customary law.

Resolving these periurban land problems requires robust land administration systems. But the existing land administration systems in southern Africa are very weak. Addressing the weak land administration arrangements in periurban environments is a complex and very challenging task. Many government officials are advocating the easier option of replacing customary tenure with individualised, market–oriented property rights systems as their main policy strategy towards periurban land problems (See for example, Section 2.3.1). But according to Lakau [1995:105], such policy orientations reveal serious "*lack of understanding of the operation of the customary tenure systems, the roles they serve and how people participate in them*". Contemporary evidence suggests that, although the southern African countries are faced with a number of land problems, especially in the periurban areas, they still do not warrant the massive land tenure replacement reforms envisaged by the policymakers and donor agencies. As Bruce and Migot-Adholla [1994] and Lakau [1995] found out, what is required is an adaptation

strategy, to gradually change some aspects of the customary tenure systems that are definitely problematic or impede land acquisition and investment.

One of the options to reforming the current land administration institutions in the region is democratization. Existing land administration structures are characterized by a 'heavy administrative overload which is by and large inefficient and extractive' [Okoth-Ogendo 2000a:133]. Governments in the region must design land administration arrangements that are simple, flexible, accessible, and have the ability to include rather than simply change the traditional property institutions. The Land Board model in Botswana, even though it is still undergoing some adjustments, offers a case that can be studied by other countries in the region.

5.2 Legal Flexibility

In order to set boundaries, two issues will be selected for analysis: that of assessment of compensation, and that of periurban informal land markets. However, this does not mean that these are the only important issues in periurban areas requiring legal flexibility.

5.2.1 Assessment for compensation

The expropriation laws in southern Africa were designed for land under statutory tenure. This means that customary land tenure falls outside the ambit of the statutory compensation law, and no special legislation was evolved for its expropriation since the colonial period. This was deemed unnecessary as the colonial administration conferred on an officer, e.g., the High Commissioner the power to expropriate indigenous lands. The setting aside of land for Africans as Native Reserves safeguarded customary land rights from further expropriations. It was only land in private ownership which could be

subjected to expropriation laws if required for public purposes, and only fair and adequate compensation was paid.

The factors that were considered during assessment for compensation included [Ng'ong'ola, 1997:120]:

- market value of the land at the date of notice of intention to acquire the land;
- any enhancement in the value of the expropriatee's residual land;
- severance damages and damages for injurious affection; and
- any reasonable expenses incidental to change the premises.

On the contrary, compensation for customary land is limited to the value of *unexhausted improvements*[29], as customary land has no established market. But vacant land, especially in the periurban zone, is valuable. With regard to periurban areas in Botswana, Adams *et al*. [2003] have pointed out that the inequitable compensation is the root cause of the periurban land management problem. Under Botswana's 1997 compensation rate, periurban land was compensated at P1,950[30] per hectare whereas if the customary subdivided the land could create at least 6 residential plots that could sell at between P15, 000 – P30, 000. This situation has led to illegal subdivisions and transactions that could have been avoided if compensation rates were closer to the market rates.

5.2.1.1 Major issues

Valuation is an important step towards fair and adequate compensation of the existing occupier. Justice demands that the occupiers must be put in as good a position pecuniarily

[29] Improvements of any quality permanently attached to land directly resulting from the expenditure of capital or labour by a person holding a right in land being valued are legally referred to as **unexhausted improvements** [Government of Malawi, 2002].
[30] P1 Botswana Pula is equivalent to $0.20 USD.

as they would have occupied had their property not been taken. This should mean, contrary to the official and legal position, that fair and full compensation should be based on the true market value of the land. However, the existing statutory regulations perceive land under customary tenure as having no market value and the law also refuses to recognise the value of vacant land. This official and legal position has a number of consequences on the customary landholder:

- It is unfair as it leaves the customary landholder in an unfavourable position compared to compensation at full market rates.
- It does not take into account the reality of the periurban land market, as it exists today.
- It leaves the customary landholder with no choice than to follow the 'illegal' or 'informal' land market route as people subdivide their land parcels and sell plots in the open market since government compensation rates are low.
- The compensation is normally restricted to the *unexhausted improvements* and tends to be inequitable as monetary compensation alone is seldom adequate. Even where compensation entails the allocation of an alternative plot, no two pieces of land can have the same value [Doebele, 1983]. Considering the number of plots to be generated from a land parcel, a customary landholder should be entitled to a reasonable share of plots that will be created, taking into account the actual needs and those of the immediate family [Hesseling n.d.]

5.2.1.2 Priority requirements

Improved information management such as: (1) cadastral maps or an inventory of all parcels in the periurban areas; (2) inventory of current ownership; (3) effective

procedures for assessing and processing information during the compensation claims; (4) effective notification procedures in case a land parcel is required for public purposes or interests.

Access to a fair appeal process that does not require expensive legal and professional costs which deter the urban poor from using the system. If the customary landholder requires the services of an independent lawyer or professional in case of a compensation dispute, all professional fees should be paid for by the state. The appeal body should be impartial and should consist of people of high calibre such as a retired court judge, with power to enforce the land rights. Access to information will allow the aggrieved party to make an informed decision on the compensation claim.

Design effective checks and balances to stem malpractices and corruption by public officers, e.g. education of the public on corruption, internal monitoring units, encourage close scrutiny by media, land tribunals or complaints committee, form department dealing with economic crime and corruption, etc.

Design transparent and accountable valuation and compensation procedures. The aim of the above measures is to strive for a fair and full compensation for the sake of social justice and equity e.g. public education and participation, clear regulations and procedures on valuation of expropriated land, capacity development, availability and easy access to relevant information, verification procedures in determining compensation, carrying out reforms that promote transparency and accountability, democratisation of land administration processes, etc.

5.2.1.3 Opportunities and constraints

Malpractices are usually committed during the valuation exercise and this can result in landholders losing their rights. Because of the complexity and costs of appeal procedures, original inhabitants are seldom caught up in a maze and confusion of cumbersome bureaucracy and corrupt officers with dire consequences of loss of rights.

5.2.2 Periurban land markets

The legal position in most of sub-Saharan African countries is that there is no official land market in customary periurban areas. This position fails to take into account the reality of the informal land market, as it exists today in the peripheries of African cities. The following trends can be traced in the evolution of periurban zones. In the 1970s periurban settlements were usually zones of subsistence agriculture with strong customary tenure arrangements. The 1980s saw the economic austerity measures imposed by the International Monetary Fund on African governments and this led to economic hardships forcing urban residents to subsidise their income by periurban agriculture. With the economy of most countries improving in the 1990s urban residents and migrants began seeking land for housing in the periurban zone resulting rising land values. Periurban areas became zones of land development and investment opportunities such as the development of affordable rental accommodation for the urban poor, housing construction as investment capital by the middle income, and the intensification of commercial agriculture. More recently, periurban areas are zones of land speculation, as land becomes a desired commodity. There are several factors behind the vibrant unofficial land market around the periurban areas:

- housing is seen as the last item to be nationalised by the government;

- housing is also perceived as a safe investment for retirement and a form of social security in case of retrenchment;
- it is a source of income through the rental of rooms or houses; and
- it provides a secure base for other migrating family members into the city.

Other periurban pressures are due to the deficiencies in the public urban land management system and this has contributed to the evolution of the informal land markets in the periurban zone. The high demand for developable land in the city peripheries as well as its high costs has led to the booming informal market in periurban settlements.

5.2.2.1 Major issues

Because of the lack of clarity and ambiguity associated with customary tenure, the question of ownership in land in periurban areas has become critical with the commoditisation of land. In the southern African region, the land law distinguishes between rural areas (customary law) and urban areas (statutory law); this distinction breaks down in the case of rapidly growing periurban areas, and raises the issue of classification. With increasing land values in periurban areas, land use disputes are likely to intensify. This is the most pressing problem, which needs to be addressed in southern African periurban areas.

The informalisation of periurban land markets has serious consequences, as land transactions are not recorded. This has direct impact on land tenure security as it exposes residents to cases of fraud, such as multiple sales of the same plot and also, since the sale of customary land is illegal it means the plot holder cannot access formal credit. If the

government can regularise the land transactions, it stands to gain substantial amounts of revenue in the form of capital gains tax and property tax.

5.2.2.2 Priority requirements

There is need to reduce land use disputes in periurban areas as residential areas encroach into the arable lands. There is also a need to determine the extent to which the periurban land market has developed in the region. In the periurban areas of Botswana, Kenya and Tanzania, there is an active unofficial land market, which has led to the commoditisation of customary land even though it is strictly illegal and contrary to government policy [See, for example, Briggs and Mwafupe ,1999; Fekade 2000].

Accurate, complete, and up-to-date information on the extent and nature of the informal periurban land market is required to enable a well-informed policy intervention.

An effective monitoring system for monitoring illegal land subdivisions and unauthorised land transactions to determine the scale of the problem;

Design of simplified and cheap procedures for land transactions to encourage customary landholders to use the formal systems in transferring land.

Determination of effective ways of formalising illegal land transactions so as to generate revenue for the government through property and capital gains taxes. This would also strengthen the tenure security of the land occupiers and enable them to use land as collateral in formal credit institutions.

Research into customary tenure and performance of the periurban land market is required as there are many unofficial land transfers that take place outside of the formal government system, e.g., Botswana, Kenya, Tanzania and Rwanda. Many governments in the region are either unaware or choose not to recognise the existence of a vibrant

periurban land market. Ignoring the realities of an existence of unofficial periurban land market leads to difficulties in land administration, social and economic development. There is need for a research institute at local universities, funded to investigate the operation of the informal land transactions. This will be useful for future land administration reforms.

Research on documenting customary tenure in periurban areas is required. Although surveying, mapping and land registration have been confined to the urban areas, there are other areas in the country such as periurban zones where the extension of such technologies would improve land administration as depicted in Figure 5.1.

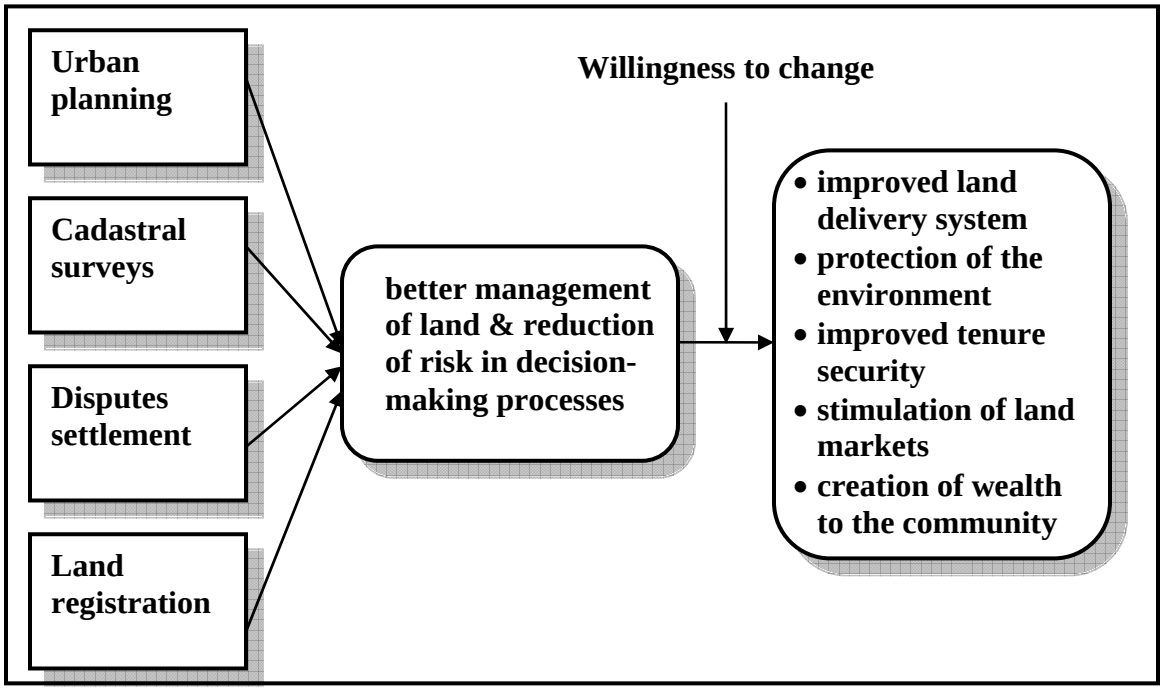

Figure 5. 1: Important factors for improving periurban land administration

5.2.2.3 Opportunities and constraints

The recognition of land values in periurban areas is contrary to customary law and any suggestion of commoditising customary land will be vigorously opposed by the government and the public. But the government cannot deny the existence of a periurban land market and some form of regulation should be in place to control the sale of periurban land. Any policy intervention into the periurban land market is difficult without information about the extent and nature of the land market

Although the motives behind the government restriction on the sale of customary land are understandable, a number of questions would need to be asked in order to assess the relevance of these restrictions in the periurban context, i.e.:

- is there still a case for deliberately retaining some restrictions on the sale of periurban land for the sake of the urban poor, thus protecting them from the urban market forces, which would operate against their egalitarian ideals?
- do these restrictions on sale minimize periurban land speculation?
- should the sale restrictions, then, be swept away as being incompatible with a free market in land?

There is no single answer that can adequately address these concerns, but the following points should be considered in designing any policy intervention for periurban areas [Farvacque and McAuslan, 1992]:

- If the sale restrictions do not seem to be working, land laws need to be revised with the possibility to overhaul them. There should be caution not to abandon the customary tenure principles of equity in the allocation of land use to the poor and the disadvantaged people.

- New instruments or policies should be devised to monitor and prevent the illegal land transactions.
- A rapid allocation and registration of serviced urban land is one way to reduce the ever-increasing demand for periurban land.
- The restrictions on the sale of periurban land must be kept under constant review for they may no longer be serving their original purpose and may instead hurt those they were designed to protect.
- For reasons of national policy, if the restrictions are to remain, their implementation must be managed efficiently; slow, inefficient public land allocation and registration systems invite evasion as it is the case in Kenya, Tanzania, and Zambia and also they may increase transaction costs through delays.

5.3 Provision of Processes for Enforcing Rights & Resolving Land Use Disputes

Improvement of the land market in periurban areas need not imply an increase in *sales*, but rather *rentals*. Although evidence from East Africa seems to suggest that land sales lead to landlessness and land hoarding, the land/housing rental option can promote equity. As noted by Natural Resources Services,

> *Presently, there is no procedure in Botswana for legal recognition of leasing land held under customary land grant or sub-leasing land held in terms of common law lease*. [Natural Resources Services, 2002:17]

The legal recognition of sub-leasing might increase periurban land market efficiency without promoting land hoarding and landlessness.

5.3.1 Major Issues

In Botswana, the scopes of the *Tribal Land Act* [1970] (e.g. increase in land use disputes), *Town and Country Planning Act* [1977] (e.g. declaration of periurban villages as planning areas), and the *Land Survey Act* [1959] (e.g. surveying of planned layouts in periurban settlements) have increased since the 1990s whilst the enforcement of rights and dispute resolution mechanisms have remained weak. This situation can be attributed to several reasons such as:

- inadequate professional and technical capacity to implement land use regulations;
- lack of policy directives and inadequate policy framework;
- lack of political will; as well as
- few checks and balances.

The above weaknesses have resulted in unauthorised and illegal land uses by both the holders of customary land grants and common law leases.

5.3.2 Priority requirements

The Habitat Agenda [UNCHS, 1996] suggests the following actions in providing processes for enforcing rights and resolving land use disputes:

- *review restrictive, exclusionary and costly legal and regulatory processes, planning systems, standards and development regulations; and*
- *adopt an enabling legal and regulatory framework based on an enhanced knowledge, understanding and acceptance of existing practices and land delivery mechanisms so as to stimulate partnerships with the private business and community sectors.*

Applied to the southern Africa context, these proposals may involve:

- ***According legal recognition to more types of transactions.*** Of particular concern is the renting or sub-leasing of land/housing in customary periurban areas.

- ***Ensuring improved access to land information and more efficient operation of land tenure and land administration systems.*** Improved access to information should be balanced against privacy concerns.
- ***Devising low cost methods to resolve land disputes in periurban*** areas as an alternative to using formal courts.
- ***Providing efficient and cost-effective methods of surveying plots.*** The surveying/mapping options are further discussed in section 6.3.5.
- ***Exploring the possibility of permitting the sub-leasing of customary land***. Allowing the leasing or sub-leasing of customary land grants and common law leases has potential of increasing the equitable access to periurban land.

Other ways to providing processes for enforcing rights and preventing land use disputes are by [Natural Resources Services, 2002: 58]:

- developing simplified locally based system of recording customary land grants and transactions;
- recognising the existence of a land market in periurban areas and validating existing transactions and creating a legal framework for future operation of the market;
- creating a range of "permitted uses" on customary land;
- creating a more user-friendly and pro-poor legal regime for secured loans and leases; and
- reordering and limiting the discretion of Land Boards to regulate tenure and transactions.

5.3.3 Opportunities and constraints

The major challenges facing the design of processes for enforcing rights and resolving land use disputes are the serious lack of resources especially the professional and technical resources. These problems are exacerbated by the balance of payments problems experienced by most countries in the southern African region.

5.4 Promotion of Greater Equity in Access to Land for Housing

Promotion of access to land for housing is one of the major challenges facing the sustainable development of periurban areas in southern Africa and elsewhere. Easier access to land for housing would also lead to poverty alleviation as it would lead to reduction in the living costs of the urban poor through affordable rentals. While recognizing the different obstacles facing the supply of land for housing in periurban areas, governments in the region, should nevertheless strive for greater equity in the access to land. This could done by removing discriminatory clauses in the legal system that restrict access to land by certain segments of the population (e.g., women, disabled and ethnic minorities), and also by ensuring that equal rights to land by both women and men are protected under the law.

5.4.1 Major issues in access to land for housing

The *Married Persons Property Act* [1971] and the *Deeds Registry Act [1960]*, deprive women who are married in community of property the capacity to register property in their own names [Mathuba, 1989; Government of the Republic of Botswana, 1992a]. The Presidential Commission on Land Problems in Mogoditshane and other Periurban Areas has reported that some Land Boards in Botswana continue to deny access to land by both

married and unmarried women [Government of the Republic of Botswana, 1992a]. Efforts are already underway in Botswana and other countries in the region to remedy this social injustice. In addition, under customary law, women are discriminated against in terms of accessing land through inheritance, as only male children tend to inherit. Married women also stand to lose access to their homes and properties when their husbands die. In Botswana and elsewhere, hunter-gatherer communities have been deprived of their ancestral lands because their land tenure does not conform to either the western or the traditional Tswana land tenure models.

5.4.2 Priority requirements

Facilitate the access to land for housing for all socio-economic groups. This could be done through a variety of ways such as [UNCHS (Habitat), 1996b]:

- *adopting an enabling legal and regulatory framework based on legal pluralism, tenure pluralism, the understanding of existing land tenure arrangements and informal land delivery mechanisms.*
- *providing institutional support, accountability and transparency in land management, accurate and up-to-date land information on current land use patterns, land allocations and land transactions.*
- *adopting innovative instruments for efficient development of periurban land, e.g. land readjustment that incorporates conflict resolution management; and*
- *developing appropriate and cost-effective cadastral systems, registration systems and mapping options for periurban environments.*

Eradicate legal and social barriers to the equal and equitable access to land. According to the Habitat Agenda, this could be done through a variety of ways such as [UNCHS (Habitat), 1996b]:

- *addressing the cultural, ethnic, religious, social and disability based causes that lead to segregation and exclusion by education and training in conflict resolution skills;*

- *promoting gender awareness campaigns to overcome existing barriers in land tenure systems, statutory and customary laws;*

- *reviewing legal and regulatory frameworks and by removing discriminatory clauses and also by ensuring that the rights of both women and men are clearly specified and enforced;*

- *developing customary land regularization programmes and projects that ensure full participation of all disadvantaged groups including women; and*

- *undertaking legislative reforms that give women full and equal access to economic resources, including the right to register property in their own names, right to access credit, and the right to inherit and own land*.

***Recognise and legitimize the diversity of land tenure systems*.** This could be achieved by developing flexible land allocation policies that accommodate diverse land tenure models and legal pluralism. The equal recognition of all customary laws would also strengthen the rule of law in periurban environments.

5.4.3 Opportunities and constraints

Accommodating diverse legal and tenure regimes has the potential to prevent "lawlessness" and many land problems in periurban areas but this should be balanced against the need for effective and efficient land administration systems. In addition, equal and legal recognition of rights of both women and men is going to pose a major challenge because of customary norms and practices.

5.5 Recognition of Rights as Security for Credit

Concern over the adequacy of customary land tenure institutions from a credit perspective has been an issue in southern Africa and elsewhere for a long time. The issue

of access to credit affects the supply of improved housing and rental markets in periurban areas. The concern of recognizing rights as security for credit needs to be balanced with what customary tenure is capable of achieving: easy access to land for housing. Policymakers throughout southern Africa are seeking ways to balance the egalitarian principles of customary tenure with the changing social and economic development opportunities of periurban areas.

While customary tenure continues to function well in rural areas, it poses "problems" in the "modern" economic contexts of periurban areas. The financial institutions operating in southern Africa have been modelled on western laws and land tenure concepts. These western laws and land tenure concepts do not "mesh" well with the existing customary land tenure arrangements found in periurban areas. Both the received western and customary laws will require adaptation in order to function efficiently in the periurban context.

5.5.1 Major issues

A range of authors and agencies [e.g. de Soto, 2000; Dowall and Clark, 1996; World Bank, 1993] have advocated the formalization of customary tenure as a means to improve security for credit and thereby utilize the excess liquidity which is present in some southern African countries (e.g. Botswana). But land titling and registration projects have performed poorly throughout much of Sub-Saharan Africa (e.g. Cameroon, Malawi, Kenya, Somalia, etc.) and because of that many countries are now cautious in adopting that option. In addition, the urban poor in Africa are risk-averse (see, for example, Datta and Jones, 2001; Molebatsi, 2004) and would therefore want to minimize any in-debt period. This suggests that sources of housing finance would need to be diversified and

patterns of credit-use analysed, i.e., the extent of the need for short-term credit and the reluctance to put assets at risk. Banks have tended to ignore this large market due to transaction costs of issuing small loans and the difficulties of using land as collateral especially when customary tenure is involved. Some researchers and policymakers seem to regard these conditions as fixed and insurmountable [e.g., de Soto 2000; Dowall and Clark, 1996; World Bank, 1993], but Botswana's gradual approach towards land tenure reform has shown considerable innovation in adapting customary tenure to suit the requirements of banks and customary law. This was done through the conversion of customary tenure to common law leases, which facilitates access to bank loans for residential, commercial and industrial plots in customary areas. It satisfies the customary principle in sense at the end of the lease the land together with the developments on the land reverts to the Land Board or community.

The National Development Bank (Botswana) [Bruce, 1981] and the Grameen Bank (India) [UNCHS, 1996a] have also shown that it is possible to provide unsecured loans for residential development without the use of collateral. Other options that are used by the poor in other countries in Latin and Asian countries are the micro-finance programmes and the group-based savings/lending schemes.

5.5.2 Priority requirements

Conversion of customary tenure to leasehold. The use of the Roman-Dutch/common law lease is fully developed in southern Africa, and Botswana has taken advantage of this development by adopting such an option in customary tenure areas. The conversion of customary tenure to leasehold in southern Africa has its own hurdles, e.g., the UNCHS [1996a] has pointed out that in a number of East African countries the formalisation of

customary tenure requires no less than 33 steps that can last up to three years. According to fieldwork conducted in Botswana in 2001, an applicant possessing all the necessary documentation can take at least 3 weeks and 5 steps to convert the customary grant converted into leasehold. Because of lack knowledge by the applicants of what documentation is required, the process can take several weeks to complete.

Development of innovative and flexible financial instruments. The housing finance is not yet fully developed and does not cater for the urban poor. The poor are still dependent on personal savings and high cost finance from moneylenders when developing their residential plots. Because of that they may take up to 4 years to develop their dwellings [Datta and Jones, 2001]. Even in situations where the banks are willing to extent credit to the poor, urban poor in Botswana have been unwilling to risk using their property as collateral to access such loans [Molebatsi, 2004]. The financial institutions should therefore adapt their financial instruments to these conditions but this will require considerable innovation in lending without the use of collateral. The National Development Bank in Botswana has shown that it is possible to issue such unsecured loans for housing [Bruce, 1981].

Provision of finance in the rental sector. The crisis facing the rental sector is often depicted as a central city problem but "research shows that a high proportion of tenants actually live in peripheral settlements" [Datta and Jones, 2001:343]. The slow formal land delivery system in Botswana and elsewhere has forced the urban poor to move outside the urban centres in search of affordable accommodation or cheaper land. This has led to the "steady escalation in the demand for, and pressure on, alternative forms of tenure such as renting and sharing" [Datta and Jones, 2001:341], in periurban areas.

Therefore, extending finance to landlords in periurban areas may lead to an increase in the production or quality of rental units, thus overcoming the short-term housing crisis of low-income households.

5.5.3 Opportunities and constraints

Lack of recognition of rights as security for credit restricts the access to finance for housing construction. Instead of looking only at financial institutions to offer credit, other options such as the training of landlords and tenants in financial management should be explored. This would reduce risk to lenders and landlords as well as improving their creditworthiness. This official bias towards ownership of housing has led to the marginalisation of the rental sector in Botswana where rental accommodation is viewed as a temporary housing solution. Since it is increasingly difficult to access land in periurban areas, the period spent in rental housing may not be as temporary as assumed. As Datta and Jones pointed out in case of urban Botswana,

> … *ownership is not the desired form of tenure for all, at least in the short-term. Certain types of households and those in certain stages of the life cycle may prefer to rent.* [Datta and Jones, 2001:341]

5.6 Optimal and Sustainable Use of Land

The aim of land use regulations is to promote optimal and sustainable land use patterns. Examples of land use regulations and control are: (1) zoning laws, (2) subdivision regulations, (3) building regulations, and (4) urban planning. They regulate such things as the shape, volume, density, placement of buildings, height restrictions, setback requirements, and requirements for public space around the neighbourhood. In most developing countries this task has been achieved by the use of master plans and this type

of planning has received criticism because of its rigidity and high costs. This is because plans are based on [Farvacque and McAuslan, 1992]:

- outdated and inappropriate planning legislation based on centralised European systems;
- master plans which take a long time to prepare and are prepared without evaluation of costs and benefits of the proposed development; and
- no regard for implementation issues.

5.6.1 Major issues

Farvacque and McAuslan [1992: viii] have described the current land use controls and regulations in place in southern Africa and other developing countries as "inappropriate and rigid". This means the existing land use regulations in the region are part of the periurban problem, not the solution, and therefore points towards the need to find "*more rational and equitable alternatives*" [Fekade, 2000: 130]. Because the existing land regulations are cumbersome, the result is the informalisation of periurban land markets with the associated problem of unplanned periurban land development and illegal subdivisions. This does not, however, suggest the repeal of land use regulations but rather how to "establish and make routinely operational the '*minimum levels of regulations*' or standards which can effectively balance the concerns about affordability and access by the poor with broader community-wide interests" [Farvacque and McAuslan, 1992: 33]. Examples of community-wide concerns may include: threat of crime and violence, lawlessness, water pollution, environmental degradation, sanitation and public health hazards, traffic congestion, encroachment of open/public spaces, the increased costs associated with future infrastructure and public services provision in the periurban areas.

5.6.2 Priority requirements

Provision of comprehensive land use planning & long-term strategy for development of periurban areas. There is need for a strategy for development and enhancement of land use plans that will allow infrastructure and municipal services to be improved, land use and land development to be better regulated, and to be implemented over time. Care should be taken not to abolish existing land uses, by gradually changing current land uses where necessary.

Incremental provision of infrastructure and services. Flexible infrastructure provision policy appeals to most periurban and urban poor as it is able to quickly relieve the most critical problem of housing shortage in the urban areas. A strategy to service the periurban settlements should as much as possible avoid slowing down the land delivery system. Land can be serviced incrementally to provide the basic services of water facilities, drainage and sewer lines, with electricity, improved roads, and telephone left for future upgrading when financial resources become available. This strategy should be combined with urban planning and surveying of plot-layouts. This is the approach currently being followed in Botswana's periurban settlements and works in vacant land. However, in the already occupied, built-up and unplanned parts of the settlement, the services and infrastructure upgrading are yet to be done. The regularisation of plot layouts in the already occupied areas would require compensating people of their lost properties and relocating displaced people to other parts of the periurban settlement. Where there are resource constraints, a less meticulous land subdivision process and surveying procedures could be deployed. The advantage of Botswana's semi-regularised approach to periurban land management is that it accepts the social and economic

realities as opposed to the idealized urban form based on western standards. The motivation behind the semi-regularised approach is the prudent use of urban land resources and the safeguarding of minimum public health standards and provides for future infrastructure upgrading when financial resources become available.

Land readjustment and regularisation. Land readjustment programs usually have multiple objectives, and will usually include the improvement of agricultural productivity. However, land readjustment and regularization can play an important role in the redevelopment and upgrading of infrastructure and services in the already built-up periurban villages. The objectives of land readjustment could include:

- consolidating separate landholdings for their unified subdivision for the planned pattern of periurban land uses;
- achieving timely servicing and subdivision of periurban landholdings to planning standards;
- facilitating the provision of local government services such as roads, water, sewerage, electricity, telephone, parks etc.; and
- ensuring an adequate supply of land for new housing development.

Protection of arable land from encroachment by settlements. The protection of arable land is necessary due to food insecurity in the region. In addition, the uncontrolled expansion of the residential sector into agricultural land would lead to land use conflicts or incompatible land uses with consequent health hazards.

Protection of the environment for present and future generations. The official view at least in Botswana is that customary tenure possesses many characteristics of meeting the

needs of the present as well as the future generations. As noted by the Government Paper on National Policy on Land Tenure in Botswana:

> *The desires of the people are not for new and radical forms of land tenure but rather easy access to land for citizens of Botswana, their ability to utilize it as an instrument of development and at the same time the retention of such developed land as a family asset to be passed from generation to generation. Tribal land tenure possesses many of the characteristics meeting such desires.*
>
> [Government of the Republic of Botswana, 1985:3]

Accommodating customary authority structures in the municipal structures. This is currently being done in Giyani Municipality in Limpopo Province in South Africa. The customary sector has always been flexible in adapting the statutory principles of land tenure. The statutory sector should also adapt and adopt some of the more practical and realistic approaches of the customary system as both systems stand to gain in terms of efficiency where such accommodation is allowed. It is also important to adopt more flexible land use regulations and adapt them to periurban local realities.

5.6.3 Opportunities and constraints

With all the problems in the periurban areas associated with land use control and regulations, should the western planning standards be abandoned? Or should the local people's culture and tradition be changed to suit the western standards of spatial development? There is no one answer to these questions. Although unplanned periurban settlements relieve the cities of their housing crisis, there are social costs associated with unplanned neighbourhoods: threat of crime and violence, water pollution, environmental hazards, traffic congestion, and furthermore periurban residents demand public services such as infrastructure, schools, clinics and shopping centres. Deregulation is not the answer to the problem of inappropriate western planning standards in developing countries. There is need for minimum levels of regulations and security that will be

compatible with easy access to housing and services and yet preserve community wide interests and a healthy environment.

5.7 Avoidance of Costs and Simplicity of Land Allocation Procedures

The blocked channels of land allocation systems prevalent in the statutory and customary land tenure sectors need to be addressed (see, for example Botswana case studies, Appendix I and II for more details).

5.7.1 Major issues

Some of the major issues facing land allocation (land delivery systems) in Botswana, Malawi, and South Africa are:

- slow and bureaucratic land allocation procedures resulting in long waiting lists in urban and periurban areas;
- slow land servicing;
- lack of transparency and accountability;
- corruption and self-allocation of land (e.g., by Land Board officials, cabinet ministers, chiefs, ward heads, and their families); and
- inadequate land allocation policies and guidelines.

5.7.2 Priority Requirements for Land Allocation

Complete and up-to-date land information in the form of property maps showing the extent of the land interests to improve efficiency in land allocation. The property maps should be up-to-date and complete in terms coverage of the periurban areas and should be sufficient to identify the location of the allocated land parcel and the abutting lots. Each

lot should be given a unique parcel identifier that can be used for indexing and cross-referencing between the land parcel and the records relating to the parcel.

A graphical description (plans, diagrams or sketches) and/or textual description for a parcel giving more precise description and identification of the land parcel. There should be a similar description of the abutting parcels to check for consistency and potential land disputes. Consideration might even be given to the use of sketch plans, if the purpose does not require measurements to be made on the plans. There should be sufficient information for reference features for subsequent field identification and for preventing future boundary disputes. Apart from the legal interests, land records should also show other land information such as soil types, vegetation cover, and relevant land use information.

Complete, up-to-date records of current interests, name, national identity, gender, address, telephone, email, including address of workplace. Information should be reliable and easily accessible by parcel identifiers, geographical location, coordinates, name or personal identity and other non-legal land information.

Monitoring and regulatory mechanisms of land allocation records indicating the date and particulars of the allottees and any changes in land use. There must be procedures for keeping records up-to-date and providing notification of any change of user or land transfers to the responsible land agency.

Effective notification and up-dating procedures for change of user and any land transfers and timely up-dating of land records upon notification of such changes or land transactions.

Efficient public land allocation procedures **to improve land allocation processes.** Several options have been put forward ranging from the reduction of procedural steps in land servicing and allocation to the adoption of high technology in land surveying and land information management, e.g.: (1) mobilisation of more resources in terms of personnel and finance; (2) strict enforcement of the law; and (3) devolution of land allocation to the local level [Kombe, 2000]. Whilst the options raised are important in addressing the land allocation problem, these attempts seem to fail in addressing the real problems facing the periurban areas, namely, that of capacity constraints in land administration. There is a severe lack of capacity in land administration in the region. For instance, of the 203 available posts of land administration personnel in the Dar Es Salaam City Council in 1992, only 35% were filled; and of the 20 land surveying posts only 60% were filled [Kombe, 2000:169]. Even if these positions were all filled, it is doubtful if there will be adequate capacity to efficiently and effectively provide the land administration services. This situation could be remedied by education, training and effective communication and coordination. In addition to the above measures, government departments would still need to streamline cadastral survey management, land allocation, and the land registration flow lines. Several options are available for improving office management, e.g., giving incentives to motivate staff, simple and risk management procedures for survey plan examination, design of simpler application forms, and the use of time and motion studies to determine wastage and inefficiencies in running the office.

Democratic allocation processes. There is lot to be gained from democratic processes, which should:

- build partnerships between the members of the community and the local land administration system;
- help ensure the interests of constituents are represented;
- help to ensure accountability and transparent systems; and
- regulate and provide rules, checks and balances to the system, e.g., officials can be removed from office if their constituents are not satisfied with their performance.

However, the downside of democratic processes is that they can be hijacked or manipulated by state elites, chiefs, bureaucrats, businesspeople, and politicians. There is also a possibility of weak land administration structures as the required competence for communal administration at the local level might not exist, a problem which is common in all land administration organizations in the region [Kombe, 2000; Twaib, 2001]. In addition, civil society especially in the rural areas is too weak to safeguard the interests of the rural poor.

5.7.3 Opportunities and constraints

The state bureaucracy in most of the case studies still controls the allocation of land for development purposes. Due to capacity constraints, the state land allocation procedures in the region are lengthy and cumbersome. The other problem facing the centralised system of land allocation is that it is open to malpractices such as bribery, forgery, nepotism, favouritism and corruption. The allocation system must have checks and balances and should incorporate transparent and strict accounting procedures such as those that:

- incorporate an interviewing process of plot applicants in order to screen the applicants;
- make the allocation process transparent by publishing the names of applicants in public places (public notice);
- monitor and enforce the period by which an allocated plot should be developed;
- ensure that land is developed according to the use for which it was allocated.

Land speculation[31], also a common problem in most countries, could be minimized if complete and up-to-date land records are in place to monitor and control the situation. In most of the periurban areas, especially in Botswana, it is very difficult to distinguish between a land speculator and a genuine applicant for a plot. Speculators often apply for free customary plots in the periurban areas, develop them for sale and then join the queue again. This has serious implication for the equitable distribution for building plots. The rural land allocation system could learn from the state land allocation policy and devise allocation criteria. With a clear and concise land allocation policy for rural and urban areas such land speculation and corruption could be minimised. In addition, information management could eliminate similar problems such as double or multiple allocations to the same parcel of land, irregular allocations and land grabbing. The illegal land transactions could also be easily monitored. Governments in the region could intervene through a legislative framework or a land policy measure since it has the overall control of both the urban and rural lands.

[31] The Botswana Land Policy Issues Report has noted the importance of considering the effects of further extending the land market into customary periurban areas. It warns about the possibility of a rise in speculative activity and a sudden rush for applications for unallocated land. Moreover, at a more fundamental level, the right to sell or lease customary land at its market value will challenge the customary tenure principle that only improvements and not the land itself may be sold. This distinction is increasingly difficult to grasp in a periurban situation [Natural Resources Services, 2002].

5.8 Summary of Land Administration Requirements for Periurban Environments

Table 5.1 summarises the land administration requirements for periurban areas as identified in sections 5.2 to 5.7. These land administration requirements form the basis of land administration options identified in Chapter 6.

Table 5. 1: Land administration objectives & requirements for periurban environments

Land* Administration *Objective(s)		***Land* Administration *Requirements***
1	**Legal flexibility**	Development of a hierarchy of legal systems; shifting from the replacement paradigm to adaptation strategy
2	**Provision of processes for enforcing rights & resolving disputes equitably & efficiently**	Re-establish judicial role of Chiefs in land dispute resolution at local level; establish land tribunals and relevant appeal processes for expropriation, planning permits, compensation, etc.
3	**Promotion of greater equity in access to land, housing and other needs**	Transparency, accountability in land allocation processes & procedures; decentralisation of land administration systems to provide easy access, local transactions of rights & registration; revised compensation provisions; revise land-related laws that discriminate based on gender, age, and ethnicity; gender awareness campaigns
4	**Recognition of rights as security for credit**	Removal of conceptual & administrative obstacles to improve access to credit (e.g. flexible conversion procedures from customary grant to leasehold; adequate information on collaterisation & acceptance by government agencies innovations in documentation that have emerged under customary tenure); public education campaigns
5	**Optimal and sustainable use of land**	Provision of comprehensive land use planning; provision of long-term strategy for development of periurban areas; incremental provision of infrastructure & services; protection of arable land from encroachment by settlements; protection of environment for present & future generations
6	**Avoidance of costs, technical and legal complications**	Provision of innovative land tenure options that are cheap to run & easily understood by local community & based on local solutions; efficient land allocation processes & procedures

CHAPTER 6:

ANALYSING & EVALUATING LAND TENURE & LAND ADMINISTRATION OPTIONS FOR PERIURBAN ENVIRONMENTS

> *It should always be remembered, however, that changing land tenure arrangements to improve environmental conditions, to promote gender equity, to resolve conflicts, or to facilitate economic development is more than changing laws or procedures. Such changes may result in fundamental shifts in the power structure within a family, within a community, or within a nation* [FAO, 2002].

Chapters 4 and 5 have identified the land tenure and land administration requirements and some options for periurban environments. This chapter will build on the findings of the previous chapters by identifying, comparing, analysing and evaluating the different land tenure and land administration options for periurban environments. It uses the land tenure and land administration requirements to evaluate the land tenure and land administration options for periurban environments.

6.1 Analysis of Land Tenure Options for Periurban Environments

Adjustments to periurban land tenure arrangements can be made in the short term to reduce rampant corruption and lawlessness in the periurban settlements and to clarify the key issues. When referring to the introduction of land registration in African customary tenure areas Meek [1968] stated:

> *It is hardly necessary to observe that no system of registering native rights should be introduced without close and expert investigation of the local systems of tenure. Where European forms of tenure are well established, or have been prescribed by statute, the task of registering rights is relatively easy. But in the case of native customary tenures the utmost caution is required, since the manner of recording rights necessarily affects the form that land-holding may take.*

6.1.1 Converting customary to freehold

Freehold[32] tenure is the most easily mortgageable of interests in land since banks, being western institutions, are more familiar with this type of land tenure. In Africa, some disadvantages of freehold tenure are that the economic elite use formal land registration processes to amass huge pieces of land, whilst in some jurisdictions peasants have become entrapped in debt, ending up losing land to banks and unscrupulous moneylenders [Besteman, 1994; Larsson, 1991, citing the Lawrance Mission 1966].

In the absence of a system of controls on land transactions to prevent landholders from unwisely disposing of their land, freehold tenure could open the way for the eventual development of large landless class with consequent social tensions [Bruce 1981; Mathuba, 1989; Natural Resources Services, 2002]. Such land control measures, even if instituted, are very difficult to administer and enforce, tend to invite corruption of land administrators, and are generally very expensive to institute. A precondition for any successful land control measure is the institution of an adequate land information system, with easily accessible, and complete and up-to-date land information. The use of presidential decrees and new legislation with supporting enforcement mechanisms could make freehold mandatory in periurban areas but that would not be systemically desirable and culturally feasible. In southern Africa, there are deep-rooted suspicions among rural communities about the introduction of freehold tenure because they associate it with colonial land dispossession. The other fear especially among the traditional leaders is that freehold would undermine their authority and therefore any suggestion of introducing

[32] Freehold tenure is defined as a special right granting the full use of real estate for an indeterminate time and land is held in a private capacity. It differs from leasehold, which allows possession for a limited time. There are varieties of freehold under common law, such as life estate, fee tail and fee simple.

freehold tenure[33] is vigorously opposed [Roth, 2002]. Also there would be a loss of secondary and tertiary rights not captured by western freehold concepts.

In accordance with democratic principles, any tenure policy change to freehold would require a major public consultation and education programme. Also, any fundamental change in land tenure would need to be discussed in a much broader context than housing and access to credit alone. Given the severe capacity constraints in land administration in the region, it is doubtful whether the current land administration institutions would be able to implement such a major land tenure policy change[34]. Under these conditions, land tenure policies should avoid simple solutions based on the imported 'replacement models' but should adopt innovative land tenure options that are adaptable to local environment, e.g. Certificate of Rights (Botswana) and temporary occupation licenses and land buying companies (Kenya), or other forms of starter titles.

6.1.2 Converting customary tenure to leasehold

Leasehold tenure is a derivative of freehold tenure and it is limited by the time dimension and covers very broad categories[35]. Despite the similarities of leasehold and freehold, there are some basic differences between the two systems: (1) differences in the time dimension because leasehold is held for term of years and when the term expires, the

[33] Because local communities associate freehold with colonial land dispossessions, the introduction of freehold will not be culturally feasible. There is also a general feeling that land will be concentrated in very few people as a result of land being freely transferable.

[34] The conversion of customary to freehold tenure in periurban areas should therefore be considered only if the existing customary authority systems have completely collapsed or in areas with no prior existing customary tenure arrangements.

[35] About 50% of Australia, mostly in the drier regions, comes under some form of leasehold and London-England is largely leasehold (Nichols, S. [2004] personal communication). The government of Botswana prefers leasehold to freehold as it can retain a variety of controls over how leasehold land is used, and therefore decided to stop issuing freehold in the 1970s.

property together with the improvements reverts to the original owner; and (2) because of the time limitations the benefits and income accruing to the leaseholder and the freeholder are different. Under freehold and customary tenures, land may be allocated to actual users on leases varying from as short as one month up to 999 years.

In eastern and southern Africa, the most common form of long leases are the 50-year leases for business ventures and the 99-year leases for residential development. Land held under such long leasehold such as the 99-year lease provides similar economic opportunities to actual occupiers as provided under freeholder. It is subject to purchase, sale, mortgage and foreclosure. However, Doebele has pointed out the major weakness of this tenure arrangement when stating:

> *The greater the degree of possible public intervention, however, the less attractive the lease may be as collateral. In addition, when leaseholds near the end of their term, their use as collateral becomes less and less acceptable, and the lessee loses the incentive to maintain the property. This has negative effects on productivity in the next lease period* [Doebele 1983: 85].

To guard against this technical problem, mechanisms should be built into the leasehold system to stop the investment from deteriorating any further.

This leasehold option is a much-preferred option in customary tenure areas because at the end of the lease period the land together with the improvements reverts back to the community. Leasehold option thus takes care of the needs of the customary land occupiers who would like to mortgage their land parcels as well as the needs of the future generations.

6.1.3 Recording and certification of customary land rights

There is confusion[36] as to what purpose the recording and certification of customary land grants (e.g., certificates of customary rights) are to serve in practice. The problem is further compounded by the fact that customary grantees generally feel secure once they have been shown the land use parcel and therefore do not collect their certificates at the Land Board offices.

The logic behind the issuing of certificates of customary land grants is based on the assumption that under customary law, the Chief had the power to modify land allocation agreements and would even require such agreements to be recorded [Mathuba, 1989]. In the context of Botswana, it was deduced from that assumption that customary land grants can be reduced to writing. However, the intention of the *Tribal Land Act* in Botswana is to preserve customary tenure and maintain its flexibility.

One of the objectives of the *Tribal Land Act* is to improve land management and administration for the benefit all citizens of Botswana and one way to meet that objective is through a certificate of customary land grant. A certificate of customary grant:

- specifies the conditions imposed by the Land Board or Government;
- serves as evidence of land allocation in case of a land dispute or when land is being expropriated for public purposes or when converting the customary grant into a mortgageable common law lease; and
- provides a rough description of a land use parcel (or sometimes exact measurements of a land use parcel).

[36] Such confusion is caused by the use of the word certificate, which is associated with a certificate of title as in the Torrens land title system.

Land is a scarce resource whether it falls under customary or other land tenure systems. The recording of customary land rights should be undertaken to support land use planning as the broader land administration functions in periurban areas. The land records should act as an official record to support the management of tenure information but not in the restricted sense of a legal register.

6.1.4 Mortgaging customary residential land

Customary tenure is a very secure form of tenure. It can be inherited, pledged[37], loaned, leased (tenancy arrangements) and sold subject with the qualification that for a sale to an outsider and non-citizen, the consent of a community and Land Board or Minister is required. The issue of whether customary tenure is mortgageable is yet to be resolved under customary law, or the issue has not been raised long enough for customary law to evolve new rules. Given the existence of sales of land with improvements under customary law, it seems that the mortgaging of customary land could be possible. In Botswana, the government allows the sale of customary land with improvements, and the question is: should the existing impediments regarding the mortgageability of customary land be removed?

For customary land to be mortgageable, a number of issues need to be addressed:

- ***Mortgageability of land under customary tenure*.** This would require the involvement of a third party, being the Land Board or some form of customary authority structure. But this requirement need not hinder the mortgageability of customary land. A Land Board or the customary authority structure could be made party to such a mortgage. This could be done by preparing a mortgage

[37] A pledge is something more than a lien and something less than a mortgage, e.g. in real property transactions, a pledge is the act of providing land as security for a debt or obligation [Black, 1979] A mortgage is a conveyance of title to property that is given as security for payment of a debt.

consent form such that in case default of a mortgage, the "security can be freely disposed of if this becomes necessary to satisfy the debt" [Bruce 1981: 21]. The mortgage consent form would resolve the "third party" problem, thus removing the uncertainties at the time the mortgage is negotiated.

- ***Resistance to land being sold to 'strangers' to satisfy the debt.*** This could pose a serious problem in the more traditional villages, but in the periurban villages, there is more population diversity due to in-migration from various parts of the country and in some cases, even foreign nationals. In the periurban areas, the control of land by kinship groups and families would have to be given up if banks are to loan on this form of tenure. In the older part of the village where kinship ties are still strong, the Land Board could refuse approval of such mortgages. On the edges of the periurban villages, new land allocations are no longer based on kinship ties, and such resistance should now be baseless.
- ***Repossessed land falling to non-citizens through public auction/sale.*** This restriction might reduce the value of the land as security. This might be dealt with by requiring the consent of a higher authority such as the Ministerial consent if citizens are not interested in the sale of such a property.
- ***Customary law forbidding the use of such repossessed property for commercial use.*** Where this is the case, a mortgage consent form should allow the conversion of such property into long-term leasehold for commercial purposes at the time of disposal. This solution could, however, interfere with zoning regulations in a periurban settlement.

The advantage of mortgaging customary land could be seen in terms of facilitating the development of customary law to accommodate the mortgaging of residential land as opposed to a land tenure policy directly contravening customary law. However, the disadvantage of this approach is that customary tenure is based on tradition and customs, and including a section on mortgages under *Tribal Land Act* might contravene customary law. It might also result in confusion as foreign legal concepts are introduced in the periurban villages, resulting in "unanticipated alterations in the basic rules of customary tenure" [Bruce, 1981: 22].

6.1.5 Community land trust and communal property models

Community land trusts[38] (CLTs) were first developed in the central cities of the United States in the 1960s because of the inadequacy of existing tenure arrangements to cater for the urban poor. Some of CLTs principles are similar to customary land tenure practices and aspects of Islamic tenure [Bassett and Jacobs, 1997; Yahya, 2002; Bassett, 2005]. The basic concept of CLT is that land belongs to the community, with individual ownership to the developments and improvements made on the land parcel. Like customary tenure, user rights can be transferred through inheritance, gift, and loan, but for a sale the consent of the community is required. In order to be responsive to market demands, it combines aspects of customary tenure with western market-oriented property rights system. In the event of sale, the community retains the first right to purchase

[38] Under community land trusts or communal property associations, communities are to form juristic persons, to be known as Community Land Trusts (Kenya) or Communal Property Associations (South Africa) in order to acquire, hold and manage property on a basis agreed to by members of a community in terms of a written constitution (see, for example, Communal Land Rights Bill of South Africa, [1996]).

housing to ensure the land remains with the community. Another condition for CLTs is that absentee landlordism is restricted.

Similar to CLT is the concept of the communal property association (CPAs) developed in South Africa developed in 1996. Because this form of tenure is similar to customary tenure, it has found popularity in land reform, particularly land restitution. Its general applicability in the regularisation of squatter settlements is still questionable. However, it has been applied widely in South Africa's land reform efforts [see for example South Africa's Communal Land Rights Bill of 1996; Tomkova *et al*, 2005]. James has reported that in South Africa, CPAs and CLTs have been criticised as: 'paternalistic', 'too complicated for the rural people to understand', 'second class type of owning interests in land', 'one size fits all' attitude, and tending to 'overemphasize the egalitarian and inclusive nature of communal ownership' [James, 2003: 9]. In South Africa, CPAs are also seen a 'too modern' and insufficiently tailored to the needs of African rural communities [James, 2003: 9].

The sentiments echoed by the rural people in James [2003] represent a critical commentary on the viability of community-based land tenure models for periurban settlements. Some of the drawbacks of these tenure models are:

- legal complexity of the model;
- lack of ongoing governmental support for the models and projects;
- ineffectiveness of committee members;
- corruption of committees as members sell land illegally;
- conflict-ridden committees and other social dynamics;
- general reluctance of the state to intervene in their affairs; and

- lack of clarity and certainty about property rights.

Central to the CLT/CPA model criticisms is

> *…the peculiar combination of private-with-communal ownership makes for uncertainty about the specific land use rights of individual members: a matter of particular concern where there is extensive intra-communal conflict. Disputes between members, or inactive committees, may lead to the withholding of the consent which is required by the CPA constitution in order for the individual to use or transact their land use rights. This can result in complete paralysis* [James 2003: 18].

Although the idea of community-based tenure appears to be theoretically sound, it raises a number of questions in practice. Roth [2002] points out:

- inability of community land trusts to adjudicate individual rights;
- far too little economic incentive for individuals within the community;
- failure to adequately protect individual rights and non-members;
- lack of ability within the administration of community trusts given the capacity constraints of all governments in the region;
- little attention given to the entry and exit conditions; and
- risk of being hijacked by political elites and traditional authorities.

Farvacque and McAuslan [1992] and Mabogunje [1992] have pointed out that in designing better performing land administration systems (i.e., improved security of tenure, promotion of greater access to land for housing and better stewardship of land resources, etc.) formal institutions should be adapted to take into account positive aspects of informal and customary land tenure arrangements. But closer examination of CLTs and CPAs from Kenya and South Africa seems to indicate that both models are not true adaptive tenures but constitutes another western ‘replacement model’ tinkered with to fit

the African situation. Therefore the concept of CLTs/CPAs still needs further adaptation and change before it can be successfully implemented in Africa.

Although the application of these land tenure options still need further adaptations to fit the African situation, they have potential in both informal settlements and land restitution projects and in places where customary tenure has been eroded.

6.1.6 Systems of occupancy permits and licences

Other ranges of interests in land exist in the form of systems of permits and licences. These quasi-legal tenure regimes are known as quasi-titles as they do not 'bestow' ownership in the traditional sense of the word and also because of their non-negotiability in the formal land market. Examples of such rights are the certificate of rights (Botswana), permits to occupy (Namibia and South Africa), temporary occupation permits (Zimbabwe) and temporary occupation licences (Kenya). The state retains the ultimate right of ownership, and the municipality acts under delegated powers in administering these interests in land.

The introduction of systems of permits and licences into customary tenure areas, it is often argued, is in line with African land customs and practices whereby the chief controlled the allocation of land, and by the same reasoning the state is merely supplanting the authority of chiefs in land administration. Bruce [1981] has criticised the introduction of systems of licences and permits in customary areas as offering no substantial change in tenure and as having the potential to excite unnecessary concern. It would seem necessary, therefore, to develop adaptive land tenure models, rather than adopting another replacement model of customary tenure at this point in time. Periurban land problems, it is further argued, are not caused by land tenure alone but are a result of

weak land administration systems, corruption on the part of the urban elites, poverty, and clogged land allocation and land registration systems, and the general economic collapse of Third World economies [Farvacque and McAuslan, 1992].

6.1.7 Formalisation of rental tenure in periurban areas

In Botswana, Kenya, Tanzania and South Africa, there is a vibrant unofficial sale and rental market in the periurban settlements and this situation makes periurban villages very different from those in even the largest villages elsewhere in the countries. The effective demand for land does not only come from the urban poor as squatters. The demand also comes from the middle class, with money to invest in land development and housing. The demand can be categorised into two classes: first the demand comes from the poor and the middle class wanting to rent houses and land to build houses; and second, demand comes from the wealthier stratum of the urban elites who own houses in the city and are in need of land for investment purposes. They often prefer to rent their houses in the city and opt for cheaper accommodation in the periurban villages.

Land in the periurban villages is acquired through various means: squatting, unauthorised land transactions, gift, purchase from allotees, and customary applications for allocations. Application for land in the periurban settlements is free of charge, and it is the most preferred route. During the fieldwork study in Botswana, there was evidence of a substantial number of houses advertised for rental in the local papers and the rent levels were at par with the city rental values.

Rather than deny the existence of periurban land market, as is generally the case in the region, it is time to recognise the existence of a periurban land market. There is need

for information in order to model and understand how this unofficial land market operates.

6.1.8 Amalgamation of periurban settlements into urban areas

Periurban environments are affected by the rapid expansion of towns and cities and the great surge in demand for housing land and investment. Because people can commute from these settlements to work in the city, the residential land that is still under customary tenure suddenly becomes part of the urban land market. The incorporation of these periurban settlements into towns and cities has been attempted on several occasions in Botswana [Bruce, 1981], Malawi [Government of Republic of Malawi, 2000 & 2002] and South Africa [Sadiki and Ramutsindela, 2002; Giraut and Maharaj, 2002] but has been resisted by traditional authority structures, conservative whites in South Africa and also due to legal, socio-economic and political implications.

The question of whether periurban villages should be absorbed by cities will be raised again in the future. This question has tenure implications. If the villages were incorporated, would they be allowed to retain their customary residential tenure status? Or would they be converted into statutory tenure regimes, or to some novel arrangement, such as the community retaining title but giving quasi-legal titles to the allotees? Also, is customary tenure capable of satisfactory transformation under conditions of rapid urbanisation? It is obvious, however, that what could be termed a natural or systematic modernisation of customary tenure in the periurban environments has simply not had time to evolve as witnessed by the periurban land problems in southern Africa. At the same time, efforts aimed at clarifying land titles and security of tenure in the region are frustrated by the continuous reversion of individual private ownership back into the fold

of customary tenure. Thus, frequent calls for the conversion or replacement of customary tenure in periurban areas is heard as the only means for clarifying and defining customary land titles and for improving both the security of tenure and sustainable land use for periurban land development process. On the other hand, however, is the belief that customary tenure is flexible and capable of adapting to social and economic contexts, although it might need certain innovative legislation to accelerate the process.

In Botswana, the periurban villages have for now been allowed to retain their customary tenure status, thus, not being incorporated into the cities. The advantage of not incorporating the periurban villages is that they would provide in future a real test of how customary tenure evolves when faced with urban land market pressures. Therefore, there is no better place to test the resilience of customary tenure than in a periurban situation.

However, there are growing pressures on periurban land resources, on the existing customary land tenure system, and on the traditional laws and customs, which have always assured the periurban residents access to land in the past. Such pressures are creating a climate of uncertainty, which may have impacts on the land tenure security, changing social behaviour, and on the maintenance of law and order in the periurban areas. It is these pressures which have recently provoked the replacement of customary tenure with individual private property rights in the region [Kirk, 1999]. The land tenure policy debate in sub-Saharan Africa is still influenced by the same beliefs and attitudes, which go back to the early colonial period despite substantial improvements in the knowledge and understanding of the customary tenure system.

In addition, recent developments in periurban land problems give cause for concern. There is ‘lawlessness’, illegal subdivision and land transactions, unauthorised and

haphazard developments, environmental degradation and sanitation problems, which urgently need to be addressed. These concerns have raised the urgency of the periurban land problems and solutions are required now. Therefore, new land administration options are required to stop the periurban crises from developing into anarchy.

With amalgamation, the periurban areas will benefit from an existing municipal support infrastructure in terms of provision of basic services (e.g. garbage collection, street lighting, etc.).

6.1.9 Evaluating land tenure options for periurban environments

Several land tenure options for periurban areas have been identified in the preceding sections. In section 6.1.9, the identified land tenure options will be evaluated in terms of meeting the land tenure requirements identified in Chapter 4. The following land tenure requirements are used for evaluating the land tenure options in Table 6.1 (following

Table 6. 1: **Assessing land tenure options for periurban environments**

Criteria / Option	Flexibility to change	Compatibility & continuity	Promotes equity in access to land	Efficient land use	Responsive to demand
Freehold	Limited by access to credit, legal and institutional factors: zoning, subdivisions laws, building codes, etc.	Incompatible with customary practices & tradition; hinders group solidarity and cohesion	Highly inequitable; difficult to access by Africans; requires major policy reform	May not occur due to lack of capital; corruption.	Very low response; underdeveloped land markets
Leasehold	Long time before lease expiry; slow, inefficient due to budget & capacity constraints	Acceptable under customary law as evidence from Botswana shows	Inequitable but fairs better than freehold; difficult to access by urban poor	May not occur due to lack of capital; disinvestment in the terminal years; corruption, etc.	Varies depending on administrative capacity; not always responsive to social & economic needs
Permits & licences	Limited by institutional factors	Little evidence	Little evidence	May not occur due to lack of capital and insecure tenure	Varies depending on administrative capacity
Customary rights	Flexible & dynamic but complex; institutional innovations limited by understanding of customary tenure	Incompatible with statutory tenure; displacement results in social, political and administrative problems	Ranks high in promoting equity; allocates rights by need, NOT market; meets social security needs	Ill-adapted to urbanisation; less dense development; land inalienable; restricted to tribal membership	Difficult to adequately respond due customary law restrictions; Reality: land sales, illegal subdivisions, etc.
Community land trusts	Little evidence	Little evidence	Little evidence	Restricted community	Difficult due to legal restrictions
Recording & certification of rights	Freezes customary tenure	Unintended effects on secondary rights	May perpetuate inequalities; loss of secondary rights	May not occur due to lack of capital	May vary according to capacity
Amalgamation	Limited by state law	Incompatible urban land uses	Limited evidence	May not occur due lack of resources	May vary due to capacity constraints

page): (1) legally flexible to change; (2) compatibility & continuity; (3) promotion of greater equity to land for housing; (4) efficient land use; and (5) responsive to demand.

6.2 Analysing Land Administration Options for Periurban Environments

A country may centralise its land administration functions in the national bureaucracy; it may also decentralise them by creating new land agencies or use several of the existing ones; or it may devolve responsibility downwards by transferring some or all of the functions to local authorities.

6.2.1 An integrated land administration system

There are many ways of organizing the administration of land in a country. In most countries an integrated approach to land administration "runs counter to the traditional separation of responsibilities" [Dale and McLaughlin, 1999] between the land valuation and taxation department, the land registry, and the surveys and mapping agency.

The introduction of an integrated land administration system is always politically controversial. Despite the opposition towards the integrated approach, it has many benefits such as [Opadeyi, 1995; Dale and McLaughlin, 1999]:

- builds dependency and creates a reliance between property agencies;
- provides a holistic approach to land administration problems by enabling easy coordination of land administration functions;
- enables cost-savings through economies of scale and minimizing duplication;
- provides one-stop-shopping which is a more effective service to the public;
- optimizes products and services by providing synergies among the various property agencies;

- provides equitable sharing of resources among property agencies instead of being biased towards the revenue generating agency;
- enables knowledge sharing and optimal support of cooperation between professionals;
- makes assessment of individual component's contribution possible as well as the evaluation of the effect of reform of one agency over the others; and
- ensures that all property agencies operate as a whole.

Figure 6.1 below depicts an example of land administration system.

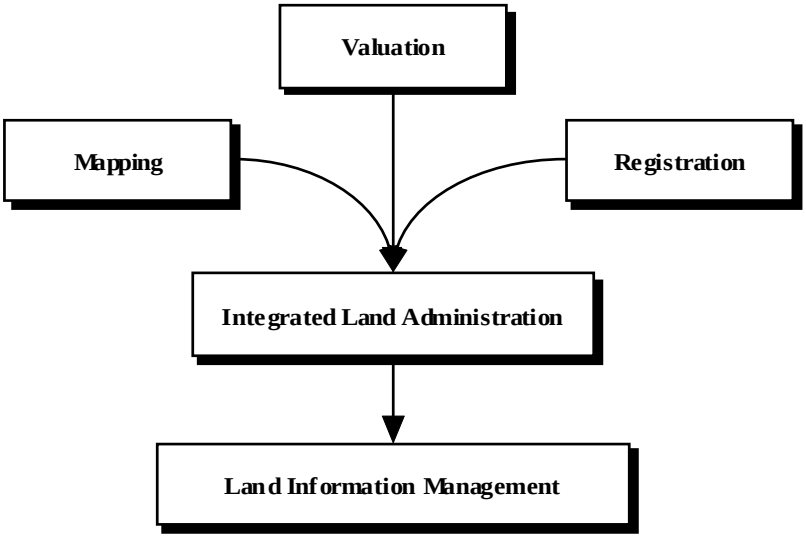

Figure 6. 1: **Framework for an integrated land administration system**

There is no standard model for integrated land administration system. Therefore, the following institution-driven strategies could be adopted as initial steps towards an integrated approach:

- simple sharing of physical facilities by different property agencies;
- sharing of front desk staff to receive documents and fees;

- sharing of data;
- sharing of common functions and procedures such as use of common forms; and
- sharing of common database standards.

This should be undertaken when re-engineering land administration systems and has several benefits such as “one-stop-shopping”, economies of scale as different land administration functions share front staff.

6.2.2 Centralised land administration systems

The centralised system uses central bureaucracy to carry out its land administration tasks, thus relying on a single closed system to discharge the functions. Some of the benefits of a centralised system have already been mentioned in section 6.2.1 above. Experience in most African countries and elsewhere has shown that the centralised system produces cumbersome land allocation and land registration procedures. In addition, failure of the centralised bureaucratic system can be attributed to the following factors:

- lack of accountability and transparency;
- largely unresponsive to the needs and desires of the poor;
- lack of commitment and political will on the leadership for change;
- focussed on looking after its own economic and political position; and
- susceptible to corruption.

This approach should be applied to government programs that require very little citizen participation rather than where programs require sustained citizen involvement.

6.2.3 Decentralised land administration systems

The third option of land administration involves the use of different land agencies to simultaneously carry out various state functions of land administration, without radically changing the bureaucratic system. Land administration responsibility is shared among different land agencies and tends to generate administrative plurality of interests. Thus land administration is diversified, and it can also be subject to local political manipulation. The simplest form of decentralisation is the delegation of land administration functions to states, provinces or districts or sometimes by splitting up the functions among different government department using various government offices at the central and local governments. Decentralisation should be applied where governments intend to bring services closer to the people (the principle of subsidiarity) and reduces the concentration of bureaucratic power at the nation's capital.

Decisions regarding the administration of land tenure systems should rest with the level of government closest to the community that is able to deliver services in a cost-effective and equitable way while minimising costs. The extent of decentralisation depends on the ability of central governments to devise appropriate regulatory frameworks and land policies for central-local relations and their willingness to provide local land administration systems with assets and technical support. But this will require a lot of resources to be put in place, which most countries in the region cannot afford at the moment. Figure 6.2 (shown in the following page) depicts a simplified model of decentralised land administration framework. Although this requires a lot of resources and may lead to local corruption, Dale and McLaughlin [1999] have identified the advantages of decentralised land administration systems as:

- bringing land administration services closer to the people;
- promoting of information symmetry;
- empowering local institutions thereby facilitating broader participation in the land administration system;
- helping to ensure that systems are more answerable to the local community;
- ensuring more reliable up-to-date records through greater community involvement; and
- improving understanding and appreciation of people's needs by the local land administrators.

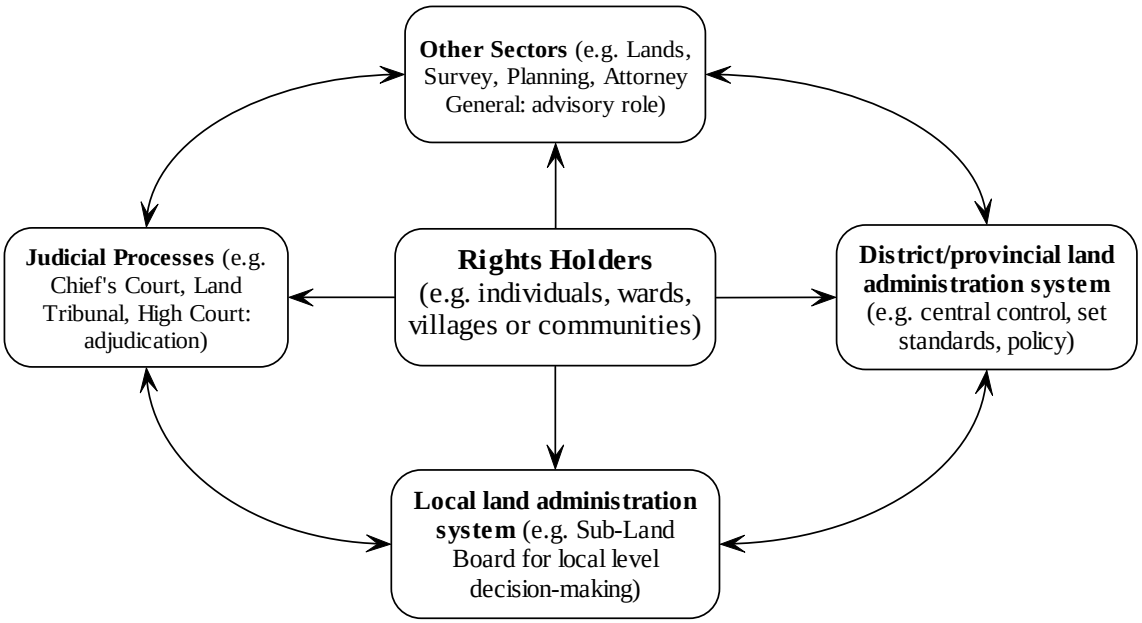

Figure 6. 2: **A model for decentralized administration of customary tenure**

But a decentralised land administration system will only succeed if

> *…there are adequate human, technical and financial resources to operate the system at the local level. While these resources are, by definition scarce in developing countries, …development occurs at the local level and therefore development interventions should be aimed primarily at this level. Supporting over-burdened and unrepresentative central government structures does*

> *nothing for the tenure security and ultimate welfare of the poor majority in these countries.* [Barnes, 2002]

In addition, decentralised systems will only be effective when there is strong central support and control and good communication channels between local offices and headquarters. Without strong central support and control, decisions taken at local levels will be different and also decentralisation can pose "additional re-engineering, communication, financial, and human resource management challenges" [Holstein, 1996].

Although decentralisation is a positive approach in the citizens' point of view, it produces marginal benefits in the administration of land when compared with the centralised option because of the duplication of resources, fractured and incomplete information resources, and the costs to operation are multiplied. In addition, some disadvantages of decentralised land administration systems may include:

- possibility of weak systems as the required competence at the local level might not exist, a problem that is of major concern in all land administration institutions in the region.
- decentralised systems are expensive to set up, maintain and run, a relevant example being the Ugandan Land Policy that proposed in 1998 the establishment of local land boards using the Botswana model. Whilst that was a novel idea, the cost of running such local land institutions was estimated at around $60 million annually – too much burden for a poor country to bear [Coldham, 2000].
- opportunities for corruption by local elites and politicians.

6.2.4 Devolved authority systems

Devolution of land administration tasks is similar to decentralisation but the difference lies in the devolution of real decision-making powers as in community land trusts, communal property associations, and village land administration by customary authorities. Distinctions have to be drawn between land administration options in order to avoid confusion. For instance there are decentralisation strategies that allow administration of state run functions (e.g., Eritrea and Namibia) by using customary structures as conduits of land administration services. On the contrary, devolution of land administration functions directly involves the legal recognition and empowerment of local interests[39]. This may involve the use of community property associations (South Africa), community-based natural resource management resources (CBNRM) in Botswana, community land trusts (e.g., Kenya and South Africa), locally elected community level bodies and committees (e.g. Tanzania and potentially Malawi, Zimbabwe, Swaziland and Lesotho), delegation of dispute resolution to community leaders such as chiefs, headmen, ward heads and village elders. The devolution of authority in land administration is useful in situations where there are limited administrative capabilities as in most of southern African countries. This approach has advantages as it increases the political power of the local communities. This approach is not new in land administration. It has been applied in land reform strategies, for example, in Iran, Chile, Venezuela, Mexico and Japan [Montgomery, 1972].

The biggest threat associated with this form of land administration model is the risk of takeover by the elite. Other problems include the lack of capacity for specialized

[39] Community land trusts and communal property associations in South Africa and community-based natural resource management (Botswana) are run by local communities not the State.

functions, the lack of comprehensive information available from many local authorities spread around the country.

Despite the risks involved, devolution can lead to development of self-governing local capabilities. Devolution as compared to the other land administration options may produce satisfactory results because of the possibility of public participation in the land administration reform program. Montgomery [1972] explains the potential benefits of devolution of authority system as follows: (1) easier access to knowledge/information at the local level (but not necessarily centrally); (2) more powerful motivation; (3) better communication; and (4) increased community solidarity.

In relation to periurban land administration, empowerment of local communities through devolution of land administration decision-making has several advantages such as:

- improving both the public understanding of the project objectives and the loyalty to the land administration processes;
- reinforcing the sense of citizen efficacy, user-ownership and potential of being sustainable;
- encouraging better use of resources provided by the government; and
- translating into greater administrative effectiveness in dealing with the periurban land problems.

The use of community land trusts and communal property associations have not been satisfactory in the southern African region because of the legal complexity of these models and the lack of governmental support [See, for example, Tomkova *et al*, 2005].

Other limitations of the communal property associations (CPAs) observed in the fieldwork in South Africa are: (1) limited organisational capacity and government support; (2) lack of enforcement of CPA rules; (3) internal conflict within the community which mars community participation; (4) corruption of CPA committee members; and (5) general lack of business and management skills to manage the land.

This land administration should be applied in situations where government wants to empower local communities to manage their interests and local resources; or wants to delegate dispute resolution to community leaders in situations where the government has limited administrative capabilities.

6.2.4 Evaluating land administration options for periurban environments

A sample evaluation of land administration options is presented in Table 6.2 in the following page. The criteria for evaluating the land administration options were the land administration requirements determined in Chapter 5. Only five were selected as evaluation criteria due to the need to set boundaries and logistical reasons.

Table 6. 2: Evaluation of land administration options for periurban environments

Criteria / Option	Acceptance of legal & tenure pluralism	Transparent & accountable system	Re-establish the judicial role of Chiefs	Removal of administrative obstacles	Promotion of innovative land tenure options
Integrated system	Limited	Yes	Limited evidence	Yes	Limited evidence
Centralized option	Possible	Yes/No	Limited, closed system	Cumbersome procedures	Little public participation
Decentralized option	Supports plurality of interests	Political manipulation at local level	Possible	Easy access to services	Can support different tenure options
Devolved structures	Suited to legal pluralistic situations	Promotes public participation	Involves traditional authority structures	Easy access to dispute settlement processes	Slow to change

6.3 Land Administration from an Information Management Perspective

Certain aspects of the periurban land problem are similar to those in urban areas and cities in both the developing and the developed world, and could therefore benefit from cadastral concepts developed for such jurisdictions. Sustainable land development and management requires management of land information, especially land tenure information. Land information may also include the socio-economic and demographic information for development, infrastructure and services, planning studies, information for land demarcation and land allocation, environmental and natural resources management. Land information management can be defined as the administration of information concerning land including consideration of the policy, institutional, financial, technical and educational aspects [McLaughlin, 1981; Holstein, 1990]. Some of the objectives of land information management as applied to land tenure information are identified in the literature (e.g., Dowson and Sheppard [1956]; Meek [1946]; Lawrance Mission [1966], Williamson [1986]; Dale and Mclaughlin [1988]; Nichols [1993]) as: (1) improved quality of information related to land; (2) reduction of storage costs; (3) promotion of easy access to land information; (4) certainty of ownership; (5) security of tenure; (6) security for credit; (7) reduction in land disputes; (8) improved conveyancing; (9) stimulation of land market; (10) monitoring & evaluation of the land market; (11) facilitation of land reform; (12) management of state lands; (13) support for land valuation and taxation; (14) improvements in physical planning; and (15) recording of land resources information.

One strategy often used to meet the objectives of land information management is to modify existing, or design new, land information systems. Dale and McLaughlin define land information systems as:

> *A combination of human and technical resources, together with a set of organising procedures, which results in the collection, storage, retrieval, dissemination and use of [land] data in a systematic fashion.* [Dale and McLaughlin, 1988:12]

Although the above definition refers to technical resources, **it is possible to have LIS without the use of a computer and that a computer and associated software does not comprise an LIS**. However, the use of technology has accelerated the reform of land information systems. A cadastre and a land registration system are examples of land information system.

6.3.1 Classical western cadastre

A cadastre is a public record of rights in land. Cadastral records consist of two parts: the graphical description (known as a cadastral, or property map) and the textual description. A property map shows the fiscal, land use, and/or juridical framework of a land parcel: property boundaries, administration boundaries, road reserves, parcel identifiers, coordinates if available, area of the land parcel, land values, street names, and administrative names, etc. Because measurements are made on maps for valuation and planning, cadastral maps are usually produced in large scales ranging from 1:250 to 1:10,000.

There is no disputing the value of property maps as they represent the most systematic description of the urban space, and they are perhaps the single most important instrument in urban and periurban land administration. Establishing a cadastre in Third

World countries is a cumbersome, complex and very expensive process. In the classical western model, it firstly entails the establishment of a national or local geodetic reference framework. A precise reference network is beneficial as it minimises overlapping gaps or uncertainties during cadastral surveying. In addition, geodetic networks also facilitate national mapping.

In most sub-Saharan African countries, maps needed for land administration have not been updated for over 10 or 20 years [Farvaque-Viktovic and Godin, 1998]. Most national reference networks are incomplete, and inconsistent in terms of coverage. This makes it difficult to conduct integrated surveys and data sharing and comparison becomes difficult.

In places where resources and the need can be justified such as in big cities, the western cadastre model is most preferred.

6.3.2 'Western' land registration, titling and adjudication

To achieve the long term goal of a full 'western' cadastre in southern Africa would require sustainable donor assistance and government commitment of up to 20 years. In addition, disputes are likely to arise during the process of developing the cadastre and arrangements should be made for an effective land adjudication system and appeal process probably in the form of a Land Tribunal.

Even though the development of a cadastre is a technical matter, local community participation is required both during the initial process and in the continuous updating of the cadastre. The task does not only involve the production of a comprehensive property map of an area, but may also require the production of plans of individual properties indexed for the purpose of land registration.

Policies aimed at encouraging land titling and registration (LTR) of customary land, including its adjudication and demarcation, are often confused with individualisation. Similarly, public intervention is often confused with nationalisation, although this is often done on a limited basis in market economies. Along the same lines of reasoning, policies that encourage the recording and certification of customary tenure are often misunderstood as facilitating individualisation of titles. Land titling and registration does not always involve the partition of group property rights into individual parcels and, therefore, could go a long way towards eliminating most of the tenure-induced constraints to periurban land markets and different uses. Land titling and registration can:

- enhance land tenure security;
- enhance the nature of property rights ownership over land;
- clarify land rights;
- bring certainty to ambiguous land rights; and
- easily regulate unauthorised land transactions in an orderly and informed manner to enhance security of landholdings though access to spatial information.

However, current trends in customary land tenure reforms tend to follow the Kenyan model, which equates 'western' land registration with individualisation of property rights. In Kenya, LTR was used to speed up the replacement of customary tenure with individual private property rights and until later periods, did not recognise group ownership rights as a registrable tenure option. Nigeria took a different approach in its Land Use Decree of 1978 and used adjudication to clarify customary land rights and established boundaries around land use parcels as initial steps towards registration of customary land. But Simpson [1976] has observed that the comprehensive conversion of customary tenure

does not extinguish existing interests in land, which by definition is the intended objective of a land title registration system. But through the process of individualisation of land rights, land registration may finally extinguish the character of all secondary land rights, resulting in the creation of a statutory tenure.

Given the current situation of illegal land transactions in the periurban areas, refusing to acknowledge the unofficial periurban land sales and refusing to consider land registration is contrary to the adaptation strategy of customary land tenure. A comprehensive program of land registration could curtail illegal land transactions and can facilitate a more efficient and transparent allocation of land and its resources under competitive periurban land markets. It can solve the problem of who can or cannot deal in customary land: a serious cause of uncertainty in the informal periurban land markets. Land registration has the potential to eliminate the ambiguity and the lack of clarity associated with illegal land transfers in periurban settlements.

However, there are a number of disadvantages associated with registering customary land, as it may lead to:

- no resolution of existing unsatisfactory tenure patterns and may perpetuate unsatisfactory land inequalities;
- freezing of customary tenure;
- fuelling of land concentration by the elites;
- selling of land through distress sales;
- no improvement in access to credit in situations where there is lack of capital for investment;
- limiting the egalitarian principles of allocating land for free; and

- increasing tenure insecurity of women and children if land is registered in the name of the male household head and tertiary rights held by such groups are often difficult to identify and document.

Where land registration is interpreted to mean individualisation of property rights, it is feared the process may weaken customary authority structures: chiefs, elders, lineage leaders, and ward heads that control the customary land allocations. This may also lead to the breaking down of the social fabric and social insurance functions provided by ethnic and kinship groups. To preserve the social fabric, (1) allow customary landholders to retain some reversionary interests in the individualised property rights, and (2) establish clear guidelines on the conditions of recovery when defaulting to pay a mortgage, e.g., first claim to repurchase the attached lot and buildings should go to the members of the community.

Urban areas are the best candidates for this option because it is much easier to justify the approach than in the rural areas.

6.3.3 Designing "modified" cadastres and land registration systems

If current periurban land problems are to be addressed adequately, serious effort should be paid to providing the beginnings of a cadastre or "modified or half-way" cadastre. With time and when resources become available, the modified cadastres should be brought to acceptable standards. To be effective, commitment to this eventual upgrading, as well as a process for achieving it must be in place (see, for example, Figure 6.3).

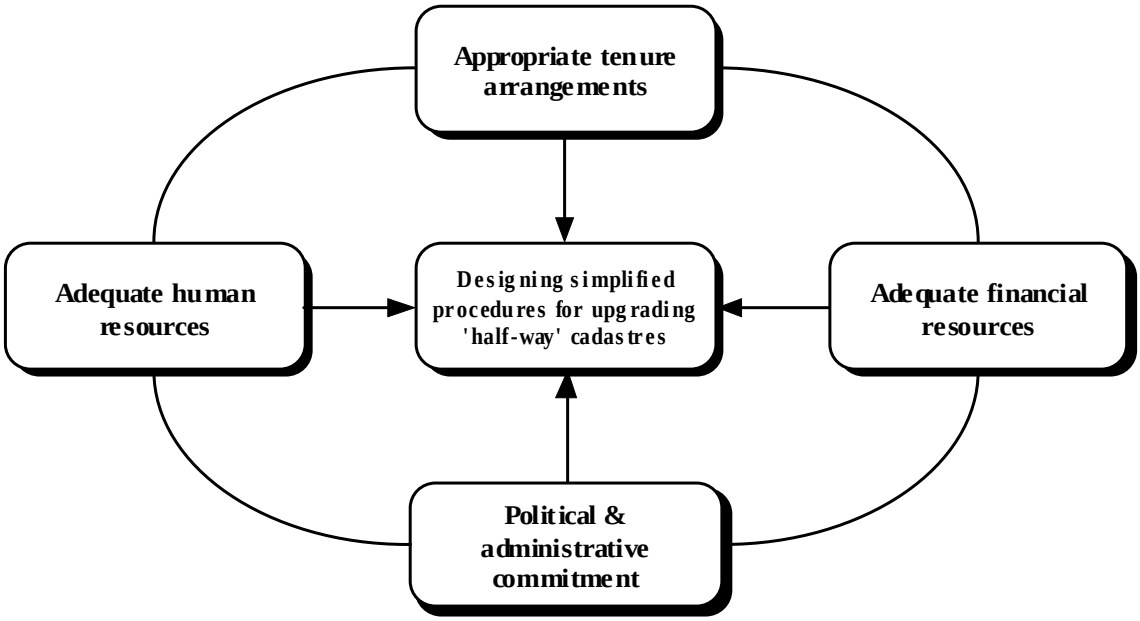

Figure 6. 3: **Important factors to make modified cadastres successful**

This is a long-term goal which could take 15 to 20 years to achieve. The implementation of a cadastre cannot be taken as a short-term measure, but whatever temporary structure is finally put in place should be designed such that it can be easily upgraded to acceptable standards.

In creating property maps, the following objectives should be considered:

- aim to achieve complete coverage of periurban settlements;
- issue some form of evidence to occupation (e.g. certificate of customary grant) before the commencement of the property mapping project;
- enhance land administration capacity to ensure continuous updating of land records and procedures; and
- introduce parcel identifiers in order to cross-reference data held by different organisations.

The above objectives are attainable through creative processes entailing:

- mix of simple and cost-effective technologies for data collection and recording (modified land registration);
- feature extraction techniques from high resolution digital imagery [see Mayunga and Nkwae, 2005]; and
- mix of risk management approaches in survey examination and land registration, as well as local community participation (e.g., World Bank project in Peru; USAID projects in former Soviet Union; and the British land registration project in Kenya using rectified orthophotos).

Various technological options[40] exist besides traditional land surveying such as Global Positioning Systems, conventional photogrammetry, and high-resolution satellite imagery although the cost is still prohibitive in data acquisition and image processing. Amongst the four technical options, high resolution satellite imagery offers most African cities the potential to produce a first approximation of a cadastre which would provide complete coverage and enable land administration authorities to begin the process of building up the much needed urban management information systems (See, for example, Figure 6.4). Figure 6.4(c) depicts a 2D vector layer extracted land use boundary edges from digital air photos (Mogoditshane, Botswana) using feature extraction algorithm (snakes) and automatic numbering of extracted properties.

[40] There is also the combined or hybrid option which may combine both traditional surveying and GPS techniques; traditional surveying, GPS and aerial photography; or GPS and remote sensing imagery.

Figure 6.4(a) Input image of Mogoditshane in Botswana

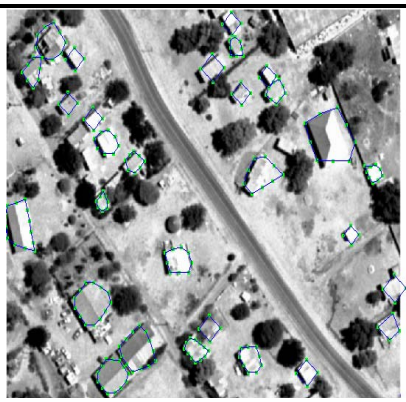

Figure 6.4(b) Extracted building in Mogoditshane

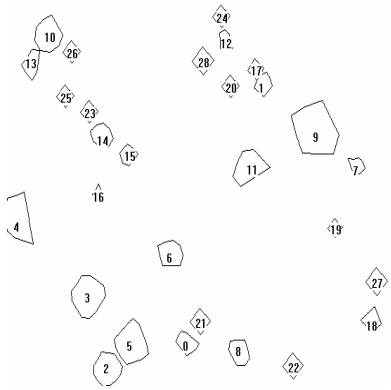

Figure 6.4(c) 2D vector layer of extracted buildings

Figure 6. 4: Automatic building extraction from aerial photographs [Mayunga and Nkwae, 2005]

Traditional surveying can be applied in small subdivision projects and provision of control points in a small area. GPS can also be used for small subdivision, road networks and control. Conventional photogrammetry for mapping large areas as it is more cost-effective than traditional surveying and GPS methods. Remote sensing is still limited to mapping and monitoring of natural resources. The use of high-resolution satellite imagery is still beyond the reach of most developing countries. As Bjorgo warns:

> *… in addition to data acquisition, data processing and analysing data is expensive. Indeed, processing and analyzing data is often more expensive than buying raw data and should be included in the budget when planning imagery purchases, if no in-house experience is available.* [Bjorgo, 2002]

Figures 6.5 and 6.6 in the following page show examples of how to creatively build the required spatial information using high-resolution digital imagery.

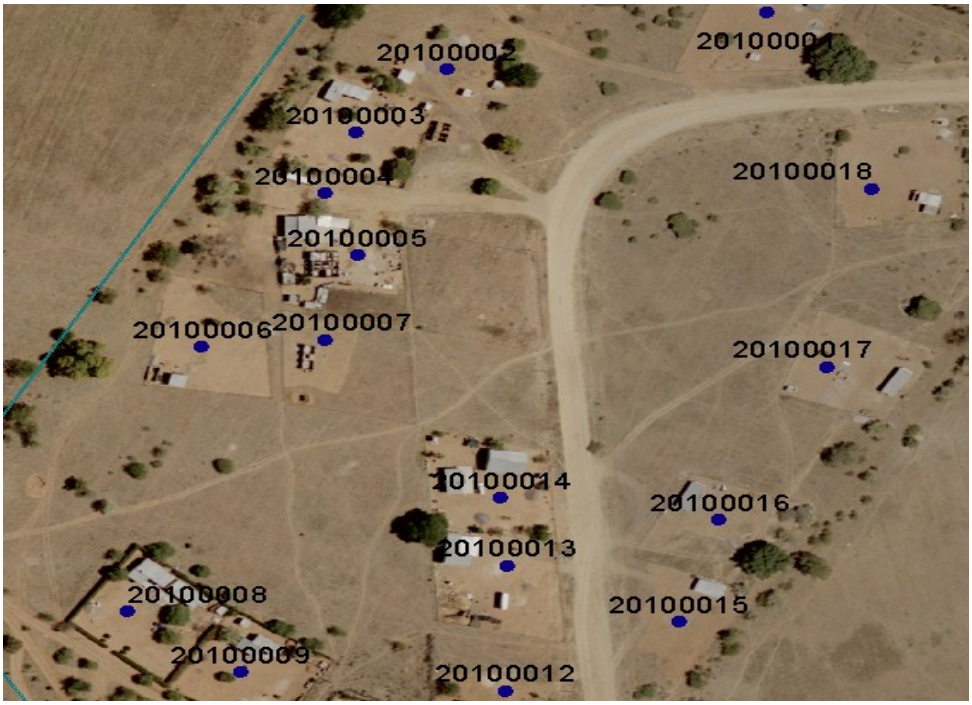

Figure 6. 5: **Example of property map based on centroids**

Figure 6. 6: **Example of property map based on land use boundary**

With a modified land registration system, land under different land uses and different types of tenure can be provided for. This system should accommodate a variety of attribute data. The system should be designed in a paper medium, if computers are not available. Such a modified system can initially provide for:

> *The registration of holders of, or applicants for, rights in land, and for subsequent changes. Registration as used here is in the* ***context of an official record [modified model]****,* ***and not in the restricted context of a legal register [western model]*** *for evidence purposes in the event of disputes.* [Ezigbalike 1996: 352; my emphasis]

The surveying and registration of individual properties in periurban areas is of limited value if they do not serve the broader aspects of land administration and land information management.

This approach is preferred in periurban and rural areas because of issue of resources. Since land information management is inadequate in periurban and rural areas, the modified model is much preferred due to issues of cost.

6.3.5 Evaluating of land information management and mapping options

The evaluation of the identified land information management (LIM) and mapping options is based on the criteria developed in Chapter 3 in the conceptual framework. Tables 6.3 and 6.4 summarises the assessment of LIM and mapping options in the context of customary periurban areas.

Table 6. 3: Evaluation of land information management options

Option/Criteria	Efficacy	Efficiency	Effectiveness
"Modified" cadastre	Can work if there are mechanisms in place for future upgrading	Yes, can make it as cheap as possible but will require follow-up	May resolve problems associated with lack of spatial data
"Western" cadastre	Partially, incomplete, records not current	Unaffordable to most countries in the region	Limited by lack of resources
"Modified" land registration system	Has potential to work if there is an implementation plan	Yes, can be relatively cheap	Yes, in the context of an official register
"Western" land registration system	No, weakens customary tenure structures	Varies from a simple deeds to a land titles system	No, especially if used in the restricted context of a legal register
Evaluation criteria:			
Efficacy: Does the selected option work? **Efficiency:** Can the required results be achieved with minimum resources? **Effectiveness**: Can this mapping option meet the land tenure and land administration requirements for periurban areas?			

Table 6. 4: Evaluation of mapping options

Option/Criteria	Efficacy	Efficiency	Effectiveness
Traditional surveying	Works relatively well in small area	Very slow and expensive	Effective on a small but not in a large area
Global positioning system	GPS signals obstructed by buildings in built-up area; new subdivision	Faster than traditional surveying techniques	Used for road networks and small subdivisions as well as providing control
Aerial photography	Decreases cost of cadastral mapping	Cost & time effective	High accuracy, flexible scheduling, easy-to-change configurations
High resolution remote sensing imagery	Potential to reduce demand for aerial photography but not yet affordable	Acquisition, processing and analyzing of data accounts for 80% of cost	Largely used for mapping & monitoring of natural resources; less on urban base mapping
Evaluation criteria:			
Efficacy: Does the selected option work? **Efficiency:** Can the required results be achieved with minimum resources? **Effectiveness**: Can this mapping option meet the land tenure and land administration requirements for periurban areas?			

6.4 Concluding Remarks

As indicated in the cautionary remarks of the conversion of customary tenure to freehold, it would be very difficult to justify the social benefits of freehold tenure over customary tenure. This type of tenure option would be rejected on the basis of equity in land distribution and on cost-benefit analysis terms. As Stamm asserted:

> *… from an economic point of view, customary methods of managing land are not so disadvantageous as often asserted, so that all attempts at land reform should be examined with great caution, all the more so when switching to a 'modern' system of management, based on property owned by individuals, not least because the ensuing costs might be more than those incurred by maintaining the existing forms of tenure.* [Stamm, 1994: 716]

Stamm further pointed out that:

> *There are various direct costs involved in the introduction and enforcement of new rules, including expenses in drawing up a land ownership register, in delivering and controlling land titles, and in establishing the necessary mechanisms for solving conflicts. … By way of contrast, transaction costs in the traditional system are extremely low because of the transparency of clearly defined and long established rules of land management.* [Stamm,1994: 716]

Analyzing the economic efficiency of non-capitalistic customary tenure regime using neo-classical economics has been questioned on whether it can yield any useful insights into the operations of customary tenure in traditional societies. However, Stamm argues that economic arguments, when not limited to neo-classical abstractions, may provide valuable information into the "rationale and functioning of traditional social structures" [Stamm, 1994: 717].

All the land tenure options have proved to be culturally feasible, the preferred one being the leasehold approach due to its relative simplicity. Lending institutions, being western institutions, are more familiar with this form of tenure, and they have quickly responded to it as evidence from Botswana has shown. This, however, does not suggest

that a customary land allocation is inferior to leasehold; on the contrary, it is not. It is because banks being western institutions are much more likely to respond to what they know and understand; and also it has been noted that in southern Africa, commercial banks tend to be overly conservative in their lending practices [e.g. Bruce, 1981; Atieno, 2001; Mosha, 2003].

The option of mortgaging customary land is also an attractive one since it would represent an evolution of customary tenure in periurban land markets rather a superimposition of western property rights concepts. This is a good policy as long as there is no contemplation by government of replacing customary tenure with statutory tenure systems in future. However, there are several drawbacks with this land tenure option:

- The mortgaging of customary tenure might prove too complex in practice.
- It might require expensive and time-consuming legal adjustments before being implemented.
- Banks being so conservative might feel very uncomfortable with the new arrangement.

In considering different land tenure options for periurban environments, not only one option should be selected over the others. There should be a possibility of implementing a range of options, thus giving rural people and the lending institutions a broader range of choice.

The land administration organizational options i.e., centralized, decentralized and devolved structures are not necessarily mutually exclusive in an organization. It is possible to centralize some land administration functions and at the same time

decentralize others. For example, politically sensitive land administration decisions can be made the prerogative of the Minister or resolved at Cabinet level. Centralized and decentralized/devolved systems of land administration should be seen as poles of a continuum along a single dimension; other models may lie near the centre. However, decentralized/devolved systems have often featured as important strategies for enhancing local community participation and equity in land allocation. For instance, in Botswana they are associated with self-reliance, democratic decision-making processes, citizen participation, transparency and accountability of public officers. As such, this policy of decentralized land administration has been pursued for over three decades.

The challenge facing land administration reform in the southern African region is one of striking an appropriate balance. Montgomery's analysis of land reform in 25 countries has indicated that performance is better when local participation is involved in the administration than when bureaucrats did it all [Montgomery 1972; 1979]. However, the assistance of the bureaucracy is crucial to the effectiveness of the participating local organizations [Montgomery 1979]. Esman and Uphoff [1984] also noted that top-down efforts are often needed to promote bottom-up approaches. It is therefore desirable to strike a balance amongst the centralized, decentralized and devolved approaches in land administration reform. As David Palmer noted:

> *The challenge facing reformers is to design the right mix of rigidity, control, and formalization on one hand and flexibility, participation and innovation on the other. As with all administrative reform, however, success is also dependent on winning strong political support, commitment from strategically placed administrators, and a willingness on behalf of external clients to work with reformers.* [Palmer, 1992: 20-21]

This chapter has identified and evaluated the land tenure, land administration, land information management and mapping options for periurban areas. Chapter 7 will

analyse a design strategy for meeting land tenure and land administration requirements in periurban areas in southern Africa.

CHAPTER 7:

DESIGN STRATEGY FOR MEETING LAND TENURE & LAND ADMINISTRATION REQUIREMENTS IN PERIURBAN AREAS

If services must be improved, if infrastructure must be maintained and upgraded, if the environmental quality of the cities in Africa are to be enhanced, and if the costs of doing all this must be recoverable and recovered, then it is clear that there is no realistic alternative to creatively confronting the seemingly intractable problem of urban land management in these cities. This should be done through designing strategies and procedures. [Mabogunje, 1992: 29]

Chapters 4 and 5 have identified land tenure and land administration requirements for periurban environments. In Chapter 6 land tenure and land administration options were identified and analysed with respect to periurban environments. Land tenure and administration options identified in Chapter 6 were also evaluated using the land tenure and land administration requirements derived in Chapters 4 and 5 as criteria.

In this chapter, a design strategy for meeting land tenure and land administration requirements in periurban areas in southern Africa will be presented. The soft systems methodology (SSM) based conceptual framework developed in Chapter 3 will be used to identify possible land tenure and land administration changes for periurban areas in southern Africa. The soft systems approach will also be used in the design of an implementation strategy for desirable and feasible changes. Implementation issues will also be analysed. To conclude this chapter, the design strategy will be evaluated using the criteria of efficacy, efficiency and effectiveness based on the conceptual model developed in Chapter 3.

7.1 Background

It is difficult to think comprehensively about periurban environments when the literature on the subject is very thin and when the few studies that are available have focused mainly on periurban agriculture and informal settlements, ignoring settlements under customary tenure in transition. The task of understanding the issues, trends and operations of customary tenure in transition and the associated periurban land problems is particularly daunting given the amount of diverse and desegregated literature on periurban environments. In addition, most of the literature and projects tend to focus either on rural or urban land problems, neglecting the transitional situations. This approach of ignoring the periurban environments especially under customary tenure is not surprising as donor agencies, such as the World Bank, divide programs into rural and urban.

The goal of this research is to clarify the periurban land problems under customary tenure and design conceptual frameworks for evaluating land tenure and land administration options for periurban environments. Conceptual frameworks, no matter how simple and basic, are urgently needed to help design a strategy for meeting land tenure and land administration requirements in periurban environments in southern Africa.

7.2 Conceptual Frameworks

According to Rapoport [1985], conceptual frameworks are neither *models* nor *theories*. When differentiating between frameworks, models and theories, Rapoport suggests that:

> *…models describe how things work, whereas theories explain phenomena. Conceptual frameworks do neither; rather they help to think about phenomena, to order material, revealing patterns—and pattern recognition typically leads to*

> *models and theories. …Frameworks are hence more "arbitrary" than either models or theories in the sense that alternative frameworks may prove useful for different purposes. Yet they are not completely arbitrary.* [Rapoport, 1985:256]

In terms of meeting the land tenure and land administration requirements for periurban areas, conceptual frameworks should provide guides to evaluating land tenure and land administration requirements, as well as assessing the context and success of a particular land tenure or land administration options in a periurban environment. Soft systems approaches, introduced in Chapter 3, are capable of providing structures for thinking, organising, analysing, comparing and presenting ideas or information, including evaluation criteria, for either a land tenure or a land administration option. According to Sharp and McDermott such frameworks can be used to:

> *… manage complexity by reducing vague or complex topics to a set of simpler questions. They organise work, maintain focus during interviews or facilitated sessions, ensure coverage of all aspects of the topic, and provide a standard format to document the findings.* [Sharp and McDermott, 2000:33]

The next section presents an SSM-based framework to identify options in the design of a strategy for meeting land tenure and land administration requirements for periurban areas in southern Africa.

7.3 Soft Systems Approach Design Strategies for Meeting Land Tenure and Land Administration Requirements for Periurban Areas

This section applies the soft systems methodology (SSM) to identify and evaluate options for designing a strategy for land tenure and land administration requirements. A general conceptual framework developed in Chapter 3 as in Figure 3.6 has been modified and re-introduced into the following page as Figure 7.1.

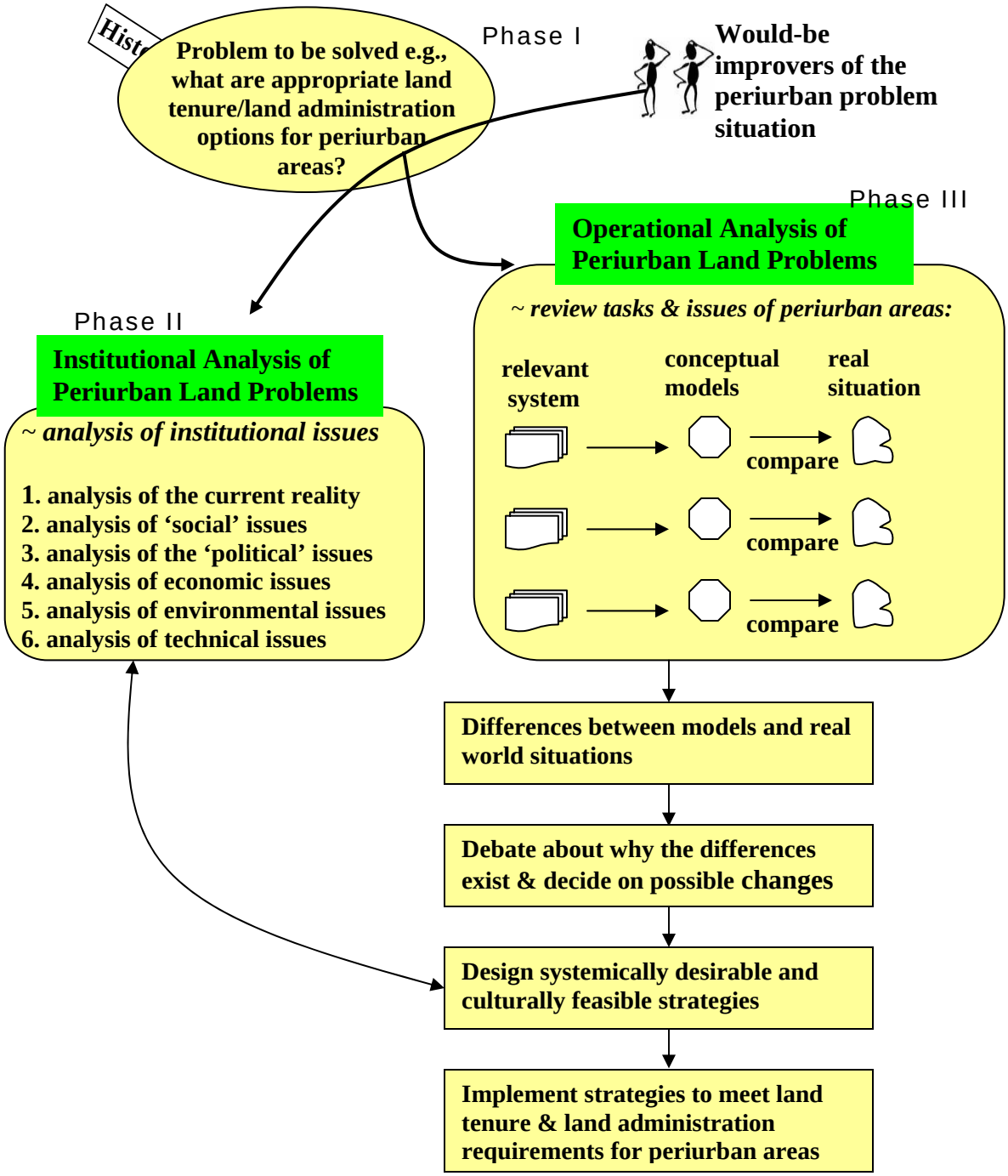

Figure 7. 1: Using the Conceptual Framework to Design Strategies to Meet Land Tenure & Land Administration Requirements [adapted from Checkland and Scholes, 1990: 29]

The first phase of the design strategy (Phase I in Figure 7.1) deals with finding out about the problem situation. This involves learning and reflecting about the problem situation,

understanding the richness of the activities in reality and contextualizing the specific periurban problems in a global (or holistic) context. This may also involve building rich pictures to structure thinking and debate about the problem situation and analyzing the roles and capabilities of stakeholders.

In accordance with Figure 7.1, the second stage (Phase II, the institutional analysis phase) deals with appreciating the periurban problem situation. It does this by performing the analysis of current reality, as well as analysis of the 'social', 'political', economic, environmental, and the historical aspects of the periurban problem situation.

This stage should also involve several public participation meetings or workshops[41] focusing on particular groups or particular periurban land issues resulting from the institutional analysis (also known as the cultural analysis in soft systems terminology) and determination of:

- land tenure and land administration objectives;
- land tenure and land administration requirements; and
- options for meeting the land tenure and land administration requirements for periurban environments.

The final stage, Phase III in Figure 7.1, deals with the logic-based analysis of the operational aspects of the periurban land problem. This involves:

- identifying and selecting relevant human activity systems;

[41] This approach was used during the fieldwork in South Africa when doing research for the preparation of the operational framework document for post-settlement interventions [Tomkova, *et al.*, 2005]. To solicit relevant stakeholder views and perceptions, stakeholder consultation meetings were set up with various groups such as NGOs and CBOs, government departments and parastatals, donor agencies and private sector, and land restitution beneficiaries. From these various workshops and public participation meetings, differing worldviews and perceptions were captured and these provided a deeper understanding of the land issues.

- developing conceptual models of relevant land tenure and land administration activities that helps in structuring thinking and debate about periurban land tenure and land administration objectives and requirements identified in the second phase;
- comparing conceptual models with the real world situation – this involves the use of formal questioning as in Appendix II, seeking views from external sources and identifying possible activities missing from the derived model;
- evaluating changes to relevant activity systems in terms of the three Es: efficacy, efficiency and effectiveness thus helping to reveal any weaknesses in the activity system requiring improvement action; and
- recommending appropriate changes and taking improvement action to any land tenure and land administration system.

Figure 7.2 below, also based on soft systems methodology, depicts a specific problem-solving system for periurban land problems in southern Africa.

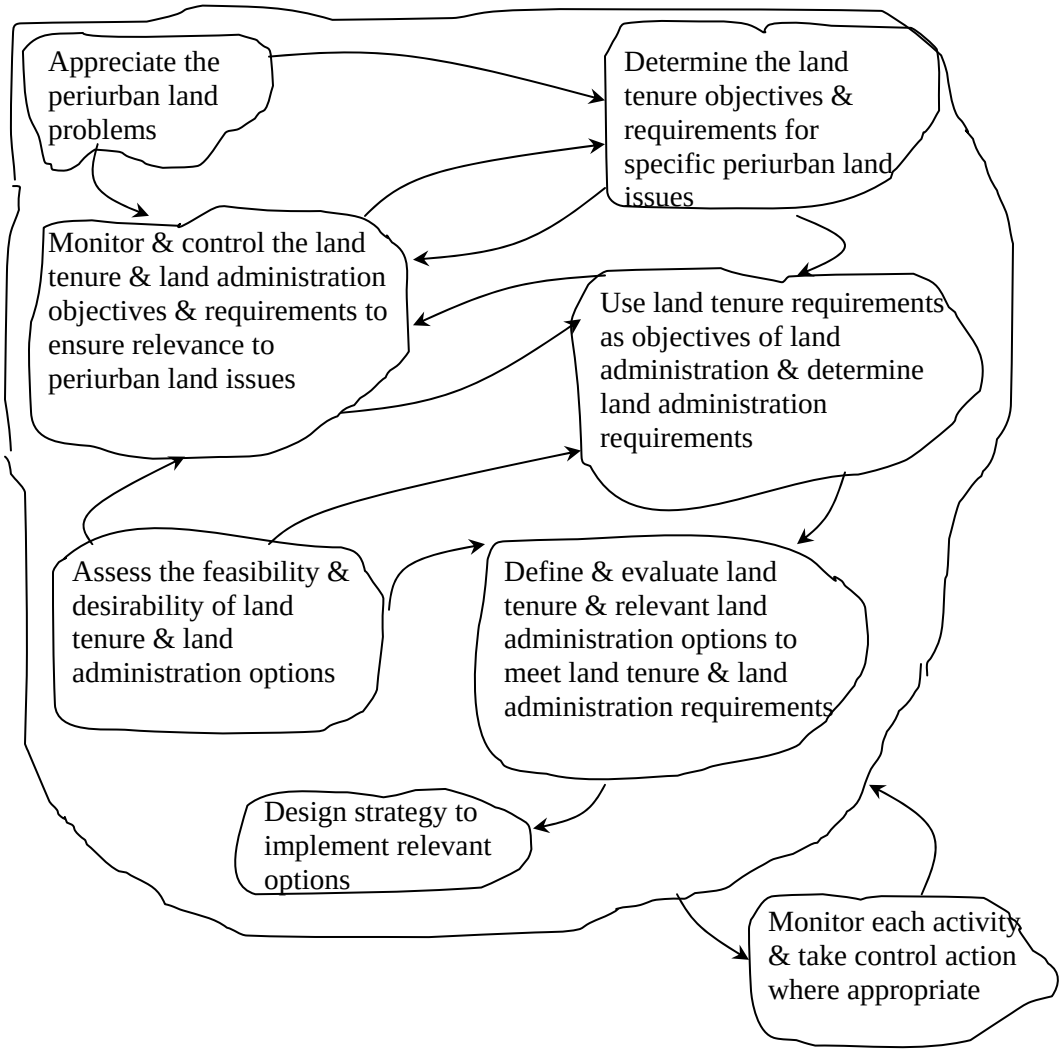

Figure 7. 2: A specific problem-solving system for periurban land problems

7.4 Designing Strategies & Taking Action to Meet Land Tenure & Land Administration Requirements in Periurban Areas

The strategy as to how the implementation process should be designed takes place once a set of desirable and feasible changes have been assembled. It is a matter of determining what actions are necessary to intervene in a periurban problem situation. An examination of alternative 'hows' should be made during the evaluation to determine whether the recommended changes are acceptable or not. Action that will lead to improvements must also be related to whatever structural or procedural changes are necessary to meet the recommendations for change [Wilson, 1984].

Soft systems methodology does not, in general, support the implementation of activities other than in the following context: the fundamental idea of the entire process (i.e., inquiry into the problem situation) is the emergence of ideas for improving the situation that was considered to be problematical to begin with. The implementation of a design strategy (or improvement action) can only take place once changes that are desirable and feasible for both parties have been agreed upon.

In the context of periurban land problems, the improvements might involve changes in the way the land administrators perform their tasks, or clarifying and sharpening the understanding by land administrators of the periurban problem or the analysis of the intervention strategy. Design strategies might also involve changing the implementation process of a proposed or ongoing land tenure or land administration reform. Strategies might also involve the implementation of a technical solution, e.g., introduction of a rural-based GIS-land inventory system to improve land information management.

The important thing to remember when designing strategies to meet the land tenure and land administration requirements is that the proposed changes have to be agreed upon by all parties in keeping with the organizational procedures and to instil a feeling of "ownership" of the ideas. It would be unrealistic, however, to expect that the complete set of changes would be acceptable [Wilson, 1984]. The bottom line is that, in order to design strategies that can be implementable, desired changes must meet at least two criteria: they must be systemically desirable; and they must also be feasible (culturally, economically, practically, etc.) in a particular periurban setting.

The need to implement the recommended changes can be seen as another problem within the same situation, to which SSM can be applied as a design aid. Figure 7.3 illustrates a generalized implementation strategy of land administration system.

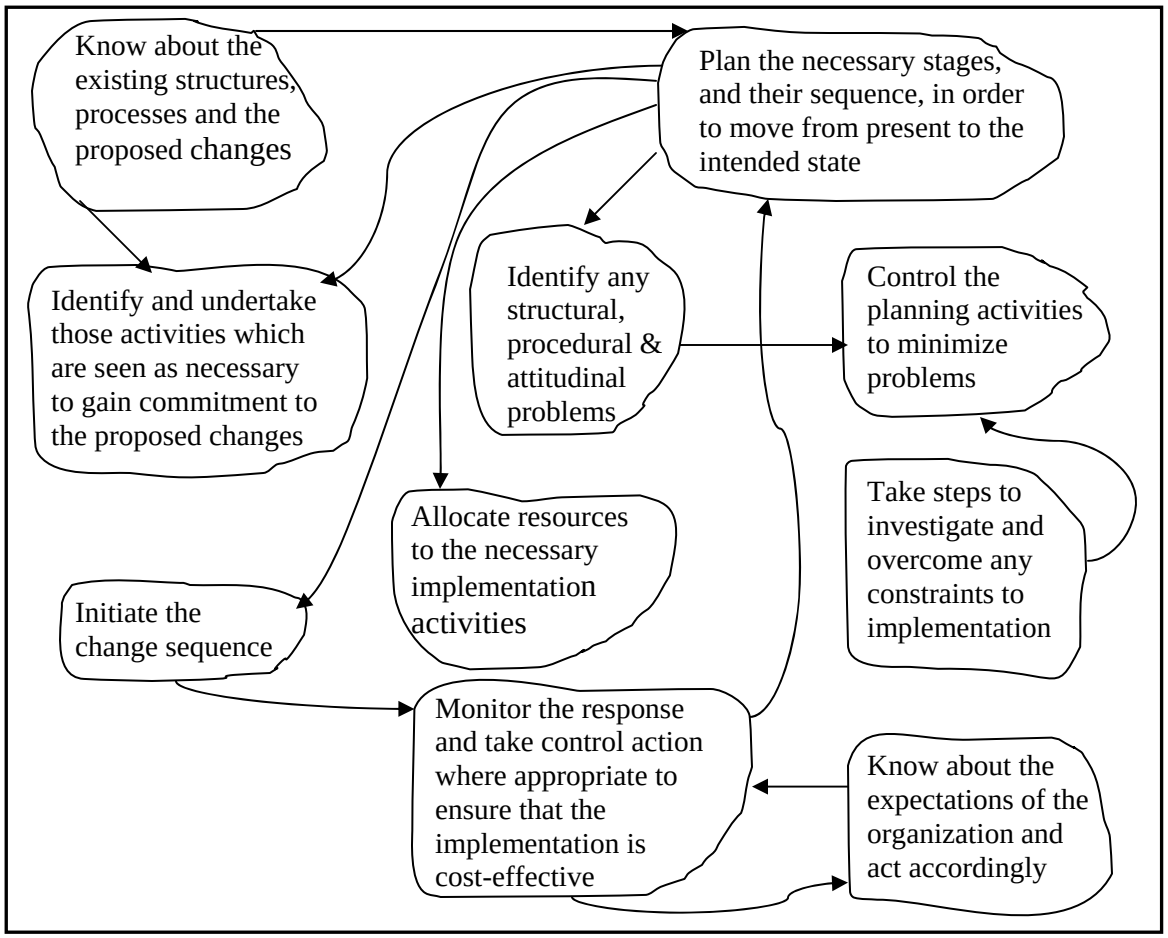

Figure 7. 3: Generalized Implementation Strategy to Meet Land Tenure & Land Administration Requirements [Wilson 1984: 84]

7.4 Implementation of an SSM-based Strategy

Three primary factors need to be considered during the implementation of a strategy to meet land tenure and land administration requirements in a periurban environment. These factors are:

- identification and selection and stakeholders;
- organizational structuring or design of the process; and
- definition of the goals of the process.

Identifying and selecting stakeholders: The identification and selection of relevant stakeholders is not an easy process. The following questions can be used to guide the process of identifying and selecting key stakeholders:

- What criteria should be used in the selection of relevant stakeholders?
- Who should get involved in the workshops and public meetings for soliciting potential stakeholders?
- In what roles should the stakeholders be involved?
- How are stakeholder expectations going to be managed?
- How many stakeholders should participate in these public or stakeholder meetings/workshops?

The above questions show the complexity of applying the soft systems approach in a real world situation.

Organizational structuring: In addition to the identifying and selecting stakeholders is the issue of organizational structuring or design. The following questions can guide the process of organizational design, e.g.:

- Where are these workshops or public participation meetings going to take place?
- When should these public participation meetings take place?
- How are conflicts of interest between stakeholder groups going to be managed?
- How do you keep these meetings on track?

- How do you manage limited resources, (e.g., people's time) and keep costs low?

Defining the goals of the process: This last issue involves defining ways to ensure that the goals of the process are reached. Examples of questions to guide this process are:

- Whose goals are they (or should they be)?
- How do you ensure that the goals of the process are reached?
- How do get the right people involved in the workshops to ensure the goals can be met?
- Should the goals be redefined (i.e., be evolutionary) as new information is acquired?

Figure 7.4 (following page) illustrates the steps to be followed graphically.

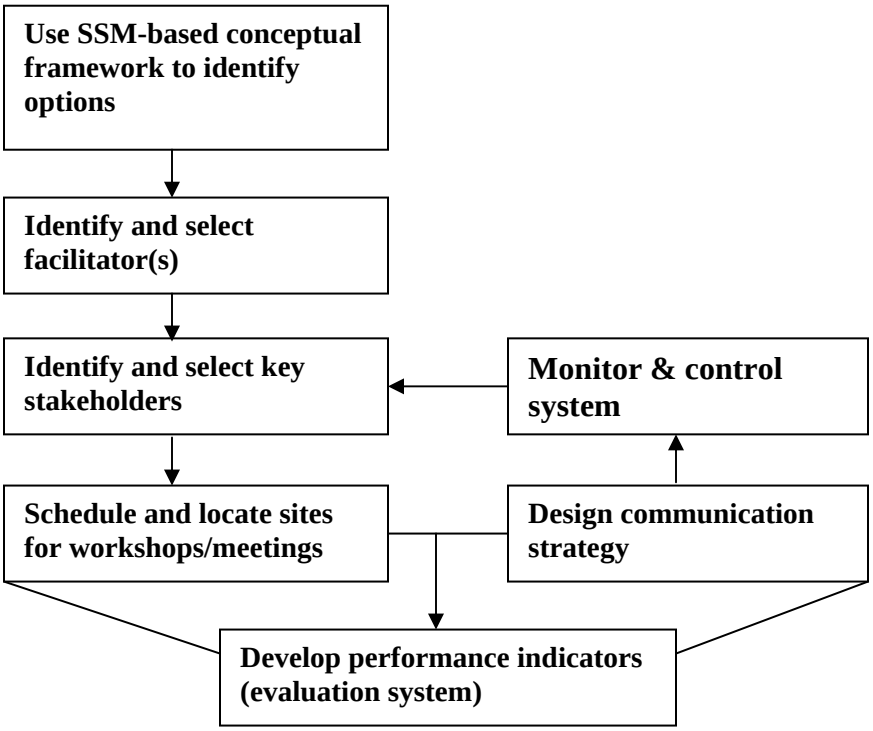

Figure 7. 4: Steps to be followed in implementing a strategy

7.4.1 Benefits of SSM-based conceptual framework

The United Nations Conference on Africa has long realized the need to improve knowledge and understanding of the periurban land problems in sub-Saharan Africa over half a century ago, but governments in the region still do not really know how to go about addressing the periurban land problems. The SSM-based conceptual framework is a good choice to address the periurban land problems in many respects. In particular, it is strongly problem-oriented and is well-proven after many years of application in a number of different areas [Mingers and Taylor, 1992]. For instance, the process of building rich pictures and activity system models in SSM (see Appendix II), serves to clarify and sharpen understanding of the periurban problem situation by analyst(s) and stakeholders. With this framework, land administrators and policymakers can develop an evolutionary plan and define possible incremental changes for managing such complex, fuzzy, and ill-defined periurban land problems.

A major benefit of this conceptual framework is that it can provide structure to the periurban land problems in that it demonstrates intuitiveness, flexibility, creativity and provides an organic methodology for modelling periurban land problems and analyzing land tenure and land administration requirements. Thus, it allows for the broadening and narrowing down of the problem situation (e.g. an activity system or subsystem can be analyzed independently in greater detail). It also structures thinking of the analyst (land administrator) and the stakeholders as well as the different activities in a periurban problem situation. The framework produces a more holistic view of the periurban situation, thus enabling a concentrated study of issues before synthesizing the problem

and coming up with a solution. It should however, be mentioned that these comments could apply to many structured methodologies.

The next most important benefit of using SSM-based conceptual framework is that it leads to greater understanding of the different worldviews, roles, values, norms, standards, and interests of users and beneficiaries in a periurban situation. The importance of recognizing different perspectives and worldviews is a central pillar of SSM, one that is critical to its success in a problem situation. Since conflict is endemic in periurban environments, the framework allows the debate about the problem situation to be centred on the models, not the people – a very valuable strategy of reducing conflict in a periurban environment. In addition, the issue of land is a politically sensitive subject all over the world including southern Africa and one of the major benefits of this framework is in capturing emotive issues as well as "facts". It can capture the different perceptions of socio-cultural, political, ritual, mythic, religious variables, etc., necessary for resolving the customary periurban land problems.

The majority of periurban land problems fall into the category of 'wicked' or 'soft', ill-structured problems. According to Wilson [1984: 94], the problem immediately becomes 'soft' if there is any uncertainty or no consensus about what is needed. Throughout the southern African region, the periurban problem situation can be regarded as highly complex, and it is extremely difficult to identify a specific problem with clear objectives to be addressed. This is due to abrupt tenure transformation, high demand for land, and a high rate of social change coupled with weak land tenure arrangements and land administration systems. Given the periurban problem situation, the conceptual framework developed in this thesis can handle the problem description better so as to

fully explore and accommodate the rich information in the problem situation, while using hard systems methodology to concentrate on a specific worldview, and transforming it into a technical specification. The problems which soft systems methodology seek to address correspond well with customary periurban land problems in southern Africa and elsewhere.

Another advantage of using the soft systems approach is that it recognizes different meanings and interpretations in a particular periurban problem situation which can be suppressed in the interest of developing a single land tenure model or land administration system. Using the soft systems methodology to address the periurban land problem provides a process and a structure for incremental improvements to such situations, which involves the participation of all actors (both users and beneficiaries) in a continual cyclic feedback. This cyclic learning process enables comparison between what is realized and what is intended, or what impact has been brought to the established systems and what cannot be realized.

In general, SSM focuses on understanding the problem situations, before developing solutions [Avison and Fitzgerald, 1995]. SSM is basically a systems improvement technique that is useful in identifying opportunities for change by enabling a better understanding of a problem situation among stakeholders [Bustard, He and Wilkie, 2000]. SSM provides all those involved, including the facilitator(s), with the means to understand and deal with the problem situation.

Another benefit of this SSM-based framework is that it is not prescriptive for particular kinds of periurban problem situations. Because periurban problems vary from city to city within a jurisdiction, and between jurisdictions, land administrators facing

similar situations may adopt different approaches to meet their land tenure and land administration requirements. The main reason is that each situation is most likely to be unique.

In summary, an SSM-based conceptual analytical framework, as identified by Bustard *et al*., [2000: 287] speaks for itself as it:

- incorporates cyclic learning or feedback, i.e. the comparison between what is realized or intended, or what impact has been brought to the existing system(s);
- appreciates the richness, dynamism and complexity of the problem situation and is open to change, i.e. very flexible;
- recognizes different perceptions, worldviews, norms, values, meanings and interpretations in a particular situation, which can be suppressed in the interest of developing a single land tenure or land administration system;
- handles problems so as to fully explore and accommodate the rich information in the problem situation, while using hard systems methodology to concentrate on specific point of view, and transforming it into technical specification; and
- involves users and beneficiaries of the system and builds consensus among stakeholders.

Soft systems methodology as a problem-solving methodology also forces the problem-owner and problem-solver to:

- confront the problem situation head-on;
- focus on relevant and key critical issues;

- think and study systematically the problem situation as opposed to what would otherwise be a directionless investigation that cannot be evaluated; and
- offers a structured approach to understanding ‘messy’ periurban land problems.

7.4.2 Implementation Issues

The very things about soft systems methodology (SSM) that are beneficial can sometimes also be causes of its limitations. SSM, more than most methodologies, is very dependent on the particular interpretation and biases of those who use the approach. It can be difficult to teach and to train others in both systems thinking and in the modelling of the human activity systems, especially if the analyst is relatively inexperienced in using SSM. It might take a while before the participants start thinking in systems terms. This might cause the result to be ‘thinner’, than it would be if the approach to investigating the periurban problems were more in the form of direct questions and answers.

The process of SSM is iterative and the analyst that leads it is not expected to follow a fixed set of procedures. This can present problems. It does not produce the final answer, but accepts that enquiry is a never-ending process [Checkland, 1985; Checkland and Scholes, 1990; Bustard, Kawalek, and Norris, 2000]. There is a risk that the final version of the model might be politically compromised and not represent possible ideological conflicts between the different parties in the problem situation. One of the fundamental ideas of SSM is that it should locate these issues and represent them in the models as well. If too many compromises are made, then the holons will not represent the true nature of the complexity in the problem situation [Avison and Fitzgerald, 1995].

Even though the use of the methodology gives a better understanding of the problem situation, it can be difficult to achieve an agreed statement of the problem situation due to

cultural and political issues depicted in Figure 3.7 in Chapter 3. The iterative process of debate and modification should draw out the different ideologies and conflicts.

It is important to discuss the way the real world is perceived together with a group of people that represent all key stakeholders or role players. In periurban environments, there are many potential stakeholders: various government departments, local periurban governments, traditional authorities/chiefs, land boards, land councils, customary landholders, private sector, NGOs and civil society, and religious leaders. Gathering the relevant stakeholders can therefore be very difficult [See, for example, Barry, 2002]. If the participants in the study are not representing all potential stakeholders, the 'whole' is more difficult to establish.

The discussion and debate around the problem situation and potential improvements are necessary to get the whole picture. Involving all potential users and beneficiaries in the process is time-consuming and resources hungry. This is one of the limitations of the soft systems approach. Furthermore, people with more power and access to resources may possibly have an intimidating effect on the less privileged members of society. Women who may not be accustomed to speaking in public because of tradition and may become even more marginalized in the process (see also Barry, 2002; FAO, 2002; World Bank, 2005a). A separate meeting for women can be arranged to allow for a non-threatening environment for discussion and to allow for feedback to the recommended land tenure and land administration changes for periurban areas [World Bank, 2005b]. In addition, the timing and place of meeting can be crucial to the degree of public participation as either the scheduling or the place of a meeting may be inconvenient for women or other specific groups. Also, because of power differentials, some affected

people may think that it is better to stay quiet and let others that are more vocal do the talking. This might cause the final version of the conceptual model to be distorted, i.e., the model might end up representing something that is not entirely the true representation of periurban situation.

Another limitation of SSM, in this particular problem situation, is that its strongest characteristic is also one of its weaknesses. The inquiry has to involve the existing current situation. Since SSM emphasize the notion of researching and characterizing the human activity system, it does not offer an obvious connection to technical design issues [Galal and Paul, 1999]. SSM is also a methodology that is based on a social view. This entails that focus is on the desirable and feasible changes, as the major characteristics for meeting land tenure and land administration requirements for periurban areas. Since the land tenure and land administration systems already exist, it is also important to explore how well these systems fit the tasks performed and what is intended by the proposed system. This would also signify that a socio-technical view of the situation would also be beneficial in order to improve the situation. Just the social systems approach of SSM would not be as extensive as a combination of both a social and a socio-technical view, which has the advantage of deepening the understanding of the periurban land problems.

Other issues which can be considered beyond the above factors may include capacity building and land use conflict prevention and resolution.

Capacity building in land administration. Capacity building can be defined as "the development of knowledge, skills and attitudes in individuals and groups of people relevant in design, development, management and maintenance of institutional and

operational infrastructures and processes that are locally meaningful" [Enemark, 2003]. The key aspects of capacity building in land administration are the establishment of sustainable land administration systems and sufficient human resources to operate the system, in both the public and private sectors. Capacity building in land administration is often viewed in the narrow context of human resource development. Although human resource issues are critical in land administration, there is need to broaden capacity in land administration to include the development of institutional infrastructures for implementing sustainable land policies (see Figure 7.5 for an example of a conceptual framework for capacity building in land administration).

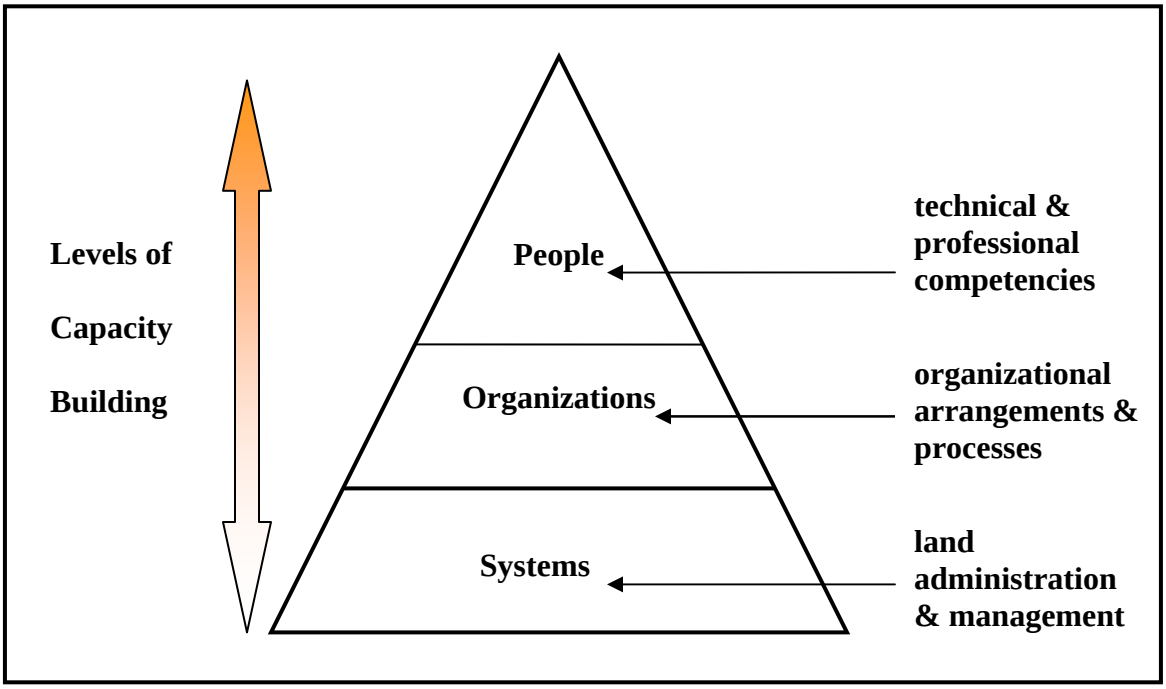

Figure 7. 5: A conceptual framework for capacity building in land administration

Land administration authorities should not only be efficient, but they also need to be effective in carrying out programmes that tackle the main challenges of equitable land allocation and management of land information for development and administration.

Doing so requires the ability to analyse social, economic, political and environmental situations across sectoral boundaries, as well as the ability to develop innovative land tenure arrangements. Land administrators further need the knowledge to set priorities, e.g. of defining short- and medium-term as well as long-term objectives. This means that education and training must be aimed at local conditions. Figure 7.6 shows an example for strengthening land administration capacity to meet the land tenure and land administration requirements for periurban areas.

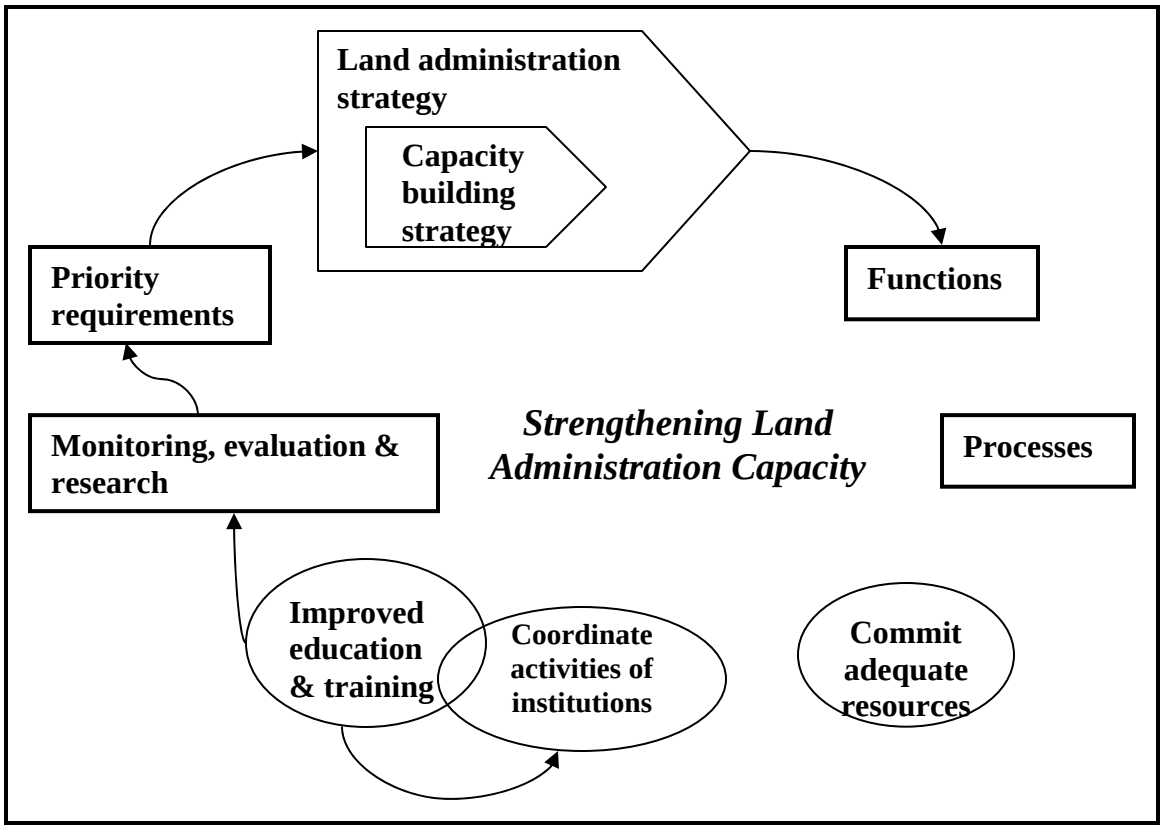

Figure 7. 6: A model for strengthening land administration capacity

Capacity building in land administration should have the following objectives:

- develop capacity building strategies, particularly locally to ensure relevance and obtain institutional support, which are integrated with urban development and other sectors of the economy;
- commit adequate resources for capacity building;
- coordinate activities of institutions charged with capacity building so as to strengthen linkages between actors in land administration; and
- give high priority to monitoring, evaluation, impact assessment and research

***Land use conflict prevention and resolution*.** Land use conflicts are endemic in most periurban environments in sub-Saharan Africa. Since the issues surrounding periurban land conflicts are complex, often requiring an inter-disciplinary approach, it is necessary to use conceptual and theoretical frameworks that embrace those characteristics: systems thinking and concept mapping to model periurban land problems. Issues such as corruption and power politics can, however, distort any systematic approach to conflict resolution.

7.4.3 Evaluation of SSM-based implementation strategy

As already pointed out, the SSM-based implementation strategy will be evaluated using the criteria of:

- ***efficacy*** ("Can the SSM-based implementation strategy work?");
- ***efficiency*** ("Can results be achieved with minimum use of resources?"), and
- ***effectiveness*** ("Can it meet the short-term as well as the long-term goals of the process?").

In addition to the “3Es”, other possible evaluation criteria that could be used are inclusiveness, participation, flexibility and objectivity.

Efficacy: The participative element of the SSM-based implementation framework can render the process cumbersome, as it is time-consuming and resource hungry. In the context of southern Africa where resources (financial, technical, etc.) are extremely limited, a fully participative approach might be difficult to achieve. For instance, managing large workshops is potentially threatening, as it requires experience in managing stakeholder expectations as well as expensive facilitation skills. In some instances, quicker results might be required and leaner workshops/meetings with representation from various stakeholders might be the only way forward.

Efficiency: The SSM-based implementation strategy relies heavily on consensual decision-making through public participation meetings and workshops. Managing large workshops would require a lot of resources in terms people’s time and expensive facilitation processes.

Effectiveness: All relevant stakeholders should define both the short-term and long-term goals. For example, the short-term gaols of periurban areas could entail reforming the legal processes; education campaigns and collecting relevant information about periurban land issues. Long-term goals might include provision of infrastructure and services, affordable housing and security of tenure. These processes are inherent in the design strategy presented in this chapter as in Figures 7.1 to 7.4.

CHAPTER 8:

CONCLUSIONS AND RECOMMENDATIONS

> *Life itself is a constant adaptation. In every culture, new forms of land tenure have been invented to serve new social needs. It is now our turn to make our conceptualisations of solutions change as rapidly at least as the [peri-] urban areas for which we make proposals [Doebele, 1987: 22]*

Chapter 8 summarises the research conducted for this dissertation, which investigates the modelling and analysis of periurban land problems in southern Africa. It begins with the summary of the research findings, which are drawn from the findings of Chapters 2 to 7. This summary is followed by an evaluation of the research findings, which includes an evaluation of the strengths, limitations and recommendations emanating from this study for further research. Chapter 8 then continues with a discussion of possible research contributions and concludes this dissertation with some final remarks on the soft systems-based conceptual framework developed in this dissertation.

8.1 Summary and Research Findings

8.1.1 Overview of the research

An overview of four customary tenure reform theories in sub-Saharan Africa was carried out in Chapter 2. This included the Replacement Theory, the Anti-Market Theory, the Traditionalist Theory, and the Adaptation or Evolutionist Theory of customary tenure reform approaches. It was concluded that while the adaptation theory of customary tenure reform was the most realistic of the four theories reviewed, they each do not reflect the reality of the actual land tenure arrangements. This is largely due to the misconceptions

of customary land tenure systems, conflict between statutory and customary law (legal pluralism) and the lack of social stability of customary periurban environments, as discussed in Chapter 1.

The general goal of this dissertation was to clarify and sharpen the understanding of periurban land problems and design a strategy for meeting land tenure and land administration requirements for periurban areas in southern Africa. To this end, the research developed in Chapter 3, a soft systems methodology-based (SSM) conceptual framework to model, analyse, compare and evaluate periurban land problems in three southern African countries (See Appendices II and III).

Because periurban land problems vary considerably within jurisdictions, and between jurisdictions, SSM was found to be the most appropriate methodology to design the conceptual frameworks. The conceptual framework and evaluation criteria were then applied in the Botswana case study (Appendix II) in analysing and modelling periurban land problems. The major conclusion of this research is that the research goal can be achieved by developing a conceptual evaluative framework that incorporates the different perceptions of the real-world, cultures, norms, standards, goals, needs and interests of both the local communities and government; by clearly defining what the periurban land problems are, and then analysing, modelling and comparing the periurban land problems currently facing the three countries. The following four objectives were used to achieve the above goal:

- to identify and analyse land tenure and land administration objectives and requirements for customary periurban areas in southern Africa;
- to develop and design criteria for evaluating land tenure and land administration options for customary periurban environments in southern Africa;

- to design and develop a conceptual analytical framework for identifying, analysing, modelling, comparing and evaluating customary periurban land problems and options in southern Africa;
- to design and develop a strategy for meeting land tenure and land administration requirements for customary periurban areas in southern Africa;

8.1.2 Research findings

The conceptual evaluation framework that was developed in Chapter 3 integrated the ideas of legal pluralism, planning theory, cadastral systems (from a geomatics engineering perspective), and soft systems engineering to deal with periurban land problems associated with insecurity of tenure, weak and fragmented land administration systems. The three-country case studies provided the theoretical background and comparatives for periurban land problems. The four main periurban problems (lack of infrastructure and services, tenure insecurity, inadequate land use planning, and inadequate access and management of land information) were all addressed by using soft systems approaches in the conceptual framework.

For instance, by first appreciating and understanding the periurban land problems, it was possible to address in Chapters 4 and 5 the analysis of periurban land tenure and land administration objectives and requirements. The application of soft systems methodology was explored using Botswana case study (See Appendix II) to model and analyse periurban land problems. The conceptual framework allowed different conceptual models comprising different human activity systems and/or sub-components to be developed, and permitted each activity system in a model to be assessed for its efficacy, efficiency and effectiveness.

In Appendix II (the Botswana case study), the land tenure and land administration reform models were found to be of two main types

- an issues-based analysis model, that of increasing access to land for housing; and
- a primary task analysis model, that of improving the management and administration of tenure change in a periurban environment.

These two main models were involved in analysing and recommending changes for some or all of the following activities and/or subsystems of customary periurban land tenure:

- recognise legal & tenure pluralism;
- improve access to land for housing;
- design simple and affordable tenure options;
- improve ability to access credit;
- improve security of tenure;

In terms of land administration, some or all of the following activities or systems/subsystems were analysed:

- revise legal and regulatory framework;
- make land use policies more effective;
- decentralise land administration activities;
- improve legal enforcement of Land Board decisions;
- design long-term strategy for development of periurban; and
- increase Land Board transparency &accountability in land allocation.
- train Land Board members & officials on new concepts of land development;
- revise compensation provisions for acquiring customary land;
- strengthen implementation of physical plans; and

- establish mechanisms to promoting the protection of the environment.

The models developed in Appendix II were tested using the criteria of efficacy ("Is the program working and is it sustainable?"), efficiency ("Is it money well spent?"), and effectiveness ("Is it meeting the short-term and long-term objectives, and how do you know?") to compare each conceptually modelled activity with the existing real world situation. The criteria were found to be generally useful performance indicators of the relevance of the conceptually modelled human activity system. It was concluded that the conceptual framework is useful for appreciating, understanding, identifying, modelling and analyzing periurban land tenure and land administration options that are flexible, efficacious, effective, and equitable. Social facts such as political and economic considerations however, tend to make it difficult to implement and take effective action and control of the recommended changes. The suggested refinements of the conceptual framework should focus on incorporating hard systems methodology (i.e. the socio-technical approach to problem-solving) formulated to cope with aspects of social reality such as conflict, contradiction, power, coercion and high rates of social change in periurban environments.

The theoretical background and comparative analysis further identified periurban land problems in two southern African countries, Malawi and South Africa that could provide some lessons for periurban Botswana. Appendix III analysed issues pertaining to periurban land issues in Malawi and South Africa. In these two case studies, the application of soft systems methodology-based conceptual framework was limited to the institutional/cultural analysis phase. A number of issues are discussed in these case

studies, together with the analysis of intervention strategies undertaken by respective government or authorities.

8.1.3 Research contributions

The United Nations Conference on sub-Saharan Africa over half a century ago has noted that there is a need to address the periurban land problems. While the periurban land problems have long been recognised by policymakers, academics, social scientists, particularly land use planners and anthropologists, other fields, including cadastral studies/geomatics engineering, have failed to recognise and address the customary periurban problem adequately for various reasons. In the case of cadastral studies/geomatics engineering discipline, technology was seen as the solution to the periurban problem (e.g. cadastral surveying, geographic information systems, high resolution remote sensing imagery, and global positioning systems), and the thinking goes, that once a periurban area has been planned and surveyed the problems would completely disappear. While some emphasis has been placed in understanding the institutional aspects of land tenure and land administration in general (e.g. McLaughlin, 1971; Dale and McLaughlin, 1988; Nichols, 1993; Barry, 1999; Dale and McLaughlin, 1999; Mulolwa, 2002; Steudler, 2004), little attention was devoted to understanding: social and political aspects (including the technical, environmental, economic issues, etc.) of customary periurban land problems; the nature and pattern of periurban land tenure arrangements, periurban land use dynamics, and power/authority structures, periurban tenure transformations and prevailing conflicts between customary and statutory tenure systems would be required if effective action can be taken. More thought has therefore been placed on intervention strategies such as new land tenure options and improving

land administration operations through the use of modern spatial technologies, rather than trying to understand and analyse the periurban land problems, as a first step towards resolving the problematical situation. Lacking this understanding, modern spatial technology cannot offer a sustainable and lasting solution to the periurban problem. As Denman and Prodano [1972] noted over three decades ago, there is a need to understand and resolve periurban land problems before developing any systematic land use or resource use policies. This thesis has attempted to address this need by incorporating ideas from legal pluralism, planning theory, geomatics engineering and soft systems engineering, to develop conceptual frameworks that can assist policymakers, land administrators, planners, project administrators, and other stakeholders to better understand the differing perspectives and worldviews underlying the periurban land problems. In this way, the SSM-based conceptual framework clarifies and deepens the understanding of periurban land problems, which should help facilitate feasible and desirable changes in land tenure and land administration, flexible enough to accommodate the periurban problem situation.

The benefits of this research is that it links ideas from anthropology (legal pluralism), urban planning theory, cadastral studies/geomatics engineering and soft systems engineering, in an attempt to achieve an integrated (holistic) solution, and ensures its success through the achievement of a "*true*" consensus among participating stakeholders. This characteristic of the conceptual framework permits the underlying periurban land-related problems highlighted in this research to be addressed. These periurban land problems were those of lack of infrastructure and services, lack of access

and poor management of land information, unplanned land developments, and the associated problems of security of tenure due to customary tenure in transition.

It was found that incorporating the social and political aspects of land tenure and land administration, the conceptual framework allows the periurban problem to be appreciated, understood, described, modelled, analysed and compared taking into consideration the differing social perspectives and worldviews. While it was revealed in Appendix II that the conceptual models developed for periurban Botswana case study cannot be exported wholesale to other countries, but experiences with issues pertaining to periurban land problems can be usefully drawn upon. As West [1988:120] has emphasized, “There can be no universal solution, as the choices necessarily reflect the historical traditions of the various states, the current balance of power and their political options”. In some jurisdictions, customary tenure has been severely weakened by colonialism and the newly independent governments. Despite the differences amongst countries in southern Africa, it is concluded that the SSM-based conceptual framework developed in this research is a useful tool for clarifying and understanding periurban land problems.

However, the use of the framework is not limited to periurban land problems only, nor to countries in southern Africa only. The framework was applied to the periurban environments as result of Canadian International Development Agency (CIDA) sponsored project on land administration issues in southern Africa between 2001 and 2002. It should be stated that the research initially included Zimbabwe and Kenya, as well as other countries in the region. However, time, security concerns and the logistics of acquiring in-depth information and participation, led to the selection of three countries

(Botswana, Malawi and South Africa), as there was funding available. The inherent flexibility (i.e. it is open-to-change) of the SSM-based conceptual framework makes it a good choice for modelling and analysing periurban land problems in southern Africa with its unique history, culture and traditions. The framework can also be used by any jurisdiction wishing to embark on land tenure or land administration reforms. The framework is therefore potentially suited for analysing land tenure requirements as well as land administration requirements for periurban environments in any jurisdiction, irrespective of whether it has customary tenure or not. As already pointed out, the framework can subsequently aid in the design and implementation of acceptable changes to meet the periurban land tenure and land administration requirements.

The conceptual analytical framework can be useful for analysing land management reform requirements and issues in any jurisdiction; and for subsequently designing and implementing land policies to meet the social and economic needs of periurban environments. Since both land management and land policy reforms were not addressed in this research, further research on using the framework to aid analysing, comparing, designing, implementing and evaluating land management and land policy reforms is required.

For any land administration system to be effective and systematic, it must consistent, within the existing limitations of knowledge [Garlauskas, 1975:190]: (1) visualise all processes in total perspective; (2) recognise and understand any processes or problems in the structure and its component relationships; (3) be able to manipulate or otherwise deal with the interdependencies characterising the process or operation of the whole; and (4) be able to design, implement, and test the land administration system which would serve

as a means to manage any whole. This thesis promotes the idea that effective land administration can be accomplished only through multi-disciplinary knowledge and inter-disciplinary approaches. This means land administration specialists must be superior "generalists", with the ability to synthesize knowledge from many disciplines to arrive at the best alternatives to land administration decisions. To achieve this novel objective, this thesis has drawn from many fields such as anthropology, urban land economics, soft systems engineering and cadastral studies/geomatics engineering to develop the fundamental principles and evaluation criteria; thus demonstrating the multi-disciplinary nature of the periurban land problems. Most importantly, this research recognises that most land administration approaches, even presently, are only in the multi-disciplinary stage of evolution, which is often confused with interdisciplinary. The emphasis should now be placed on inter-disciplinary approaches to prevent the domination of traditional disciplines evolving narrow approaches resulting in partial solutions. The complexity of periurban land problems mandates soft systems approaches to optimise overall achievement of solutions. To a large extent, this research recognises the contribution of geomatics engineering, which integrates engineering skills with the social science skills in furthering knowledge and understanding of the highly sensitive and complex customary periurban environment.

8.2 Evaluation of Research Findings

8.2.1 Research strengths

The strength of this research is that it was able to develop and design a flexible, intuitive and organic methodology (i.e. SSM-based analytical framework). The methodology developed in this research is flexible and not prescriptive in that it does not provide

ready-made answers to periurban land problems in southern Africa. In this research, a set of guidelines (design strategy) is provided in Chapter 7 to help problem-owners and problem-solvers (e.g., land administrators, policymakers, local authorities, central governments, etc.) to resolve periurban land problems in a culturally feasible and systemically desirable manner. In this way, the SSM-based framework, developed and designed in this research, provides a flexible and organic process for modelling, analysing, comparing, evaluating and understanding the complexities involved in implementing any strategy to meet the land tenure and land administration requirements. It was established in this research that the strengths of the SSM-based approach of being problem-oriented lends itself to the diverse and dynamic periurban problem situations.

A second strength of this research is that it was able to apply the soft systems methodology to periurban problem situations and in the process expose the limitations and complexities associated with using the soft systems approach. A set of guiding principles was therefore developed in Section 7.4 to help in the application of the methodology. These were identified as:

- the identification and selection of stakeholders;
- the organisational structuring or design of the process; and
- the definition of the goals of the process.

8.2.2 Research limitations and recommendations for further research

The nature of the research makes it rather difficult to repeat the findings, as it involves complex and unique situations of periurban environments that are always changing. The research dealt with the dynamic social world of periurban environments, and as such conventional scientific methods of explaining, predicting and testing theory employed in

natural sciences are inappropriate. This means the benefit of scientific methods (i.e., that research findings are repeatable) cannot be precisely achieved in a social systems science because the problems involve social and political issues that are ever changing. As an alternative to repeatability of the findings, emphasis should be placed on the **retraceability** of the research, as opposed to the repeatability of the research findings. Further research is therefore recommended for issues regarding **retraceability** of the research. Other radical and critical methodologies for validating and verifying the research findings are also required.

SSM-based frameworks have little so to say about how the improvement in a problem situation should be achieved and provide no guidance on the recommended incremental changes [Bustard, Kawalek, and Norris, 2000]. But Wilson [1984:83] counters this argument by saying, "The need to implement [changes] can be seen as another problem within the same situation, to which the methodology can be applied as a design aid". ***More research is required to clarify this situation.***

The application of the SSM-based conceptual framework in the three-country case studies was only tested conceptually without any direct input from various stakeholders in periurban areas. ***Further research efforts should aim at applying the SSM-based conceptual framework to real world periurban land problems in southern Africa***. Topics requiring further examination in the experiences of the three-country case studies are [Tabaijuke, 2004]:

- need to examine how the current land policies and land use regulations impact on customary periurban environments;
- need to improve our understanding of periurban land problems;

- need to understand the incentives which foster illegal land dealings in customary periurban areas;
- need to develop appropriate planning models for customary periurban settlements;
- need to develop appropriate land tenure models for periurban areas; as well as the
- need to develop innovative land administration models appropriate to customary periurban situation.

The research was limited by the scarcity of data on the land tenure and land administration requirements for periurban environments, e.g., empirical data on the nature and pattern of periurban land tenure arrangements, nature and pattern of periurban land use dynamics, and informal land transactions is not well documented in the research. The complexity and political sensitivity of the topic meant that other information could not be accessed, and people sometimes refused to be interviewed for fear of intimidation and personal security. Even visiting some of the study sites was impossible due safety concerns. This resulted in the research being based more on questionnaire surveys, interviews of senior government officials and academics and less on the actual land tenure and land use arrangements existing at the time. The issue of personal security varied from jurisdiction to jurisdiction with some areas being no-go areas, especially in South Africa. ***It is therefore recommended that future research be conducted on incorporating empirical data on the existing nature and pattern of land tenure arrangements and periurban land use dynamics into the conceptual framework. This will provide a more complete picture and understanding of the customary periurban land problems.***

It is reassuring that the value of soft systems approaches is now becoming better recognised in the land administration community (e.g. McLaughlin, 1971; Nichols, 1993; Barry, 1999; Rakai, 2005). By taking a soft systems approach, the land administrator is seeking to find a way of appreciating the complex relationships that affect change, resisting the urge to ignore soft factors that are difficult to control and yet trying to preserve sufficient rigor and thoroughness in the work [Bustard, Kawalek and Norris, 2000:xvi]. The use of formal questions to compare and evaluate each activity model with specific periurban issues or tasks in Appendix II, allowed for some degree of controlled comparisons to take place, as well preserving some rigor and thoroughness in assessing the recommended changes. The method of testing the conceptual models was not dealt with in greater detail in this dissertation, and therefore the criteria and overall evaluation technique need to be more specific and thorough. ***Further research should concentrate of improving the performance criteria, the use of formal questions, and investigate other critical methodologies, including the use of simulation models, to rigorously compare and evaluate conceptual models within a specific periurban land problem.***

This research developed a conceptual framework to analyse the periurban land problems. However, modern spatial technologies such as high resolution remote sensing imagery, advanced positioning methodologies, mapping, information and communication technologies, spatial decision support systems, unified modelling language, spatio-temporal databases, and GIS, offer the means to simulate the conceptual models. ***Further research investigating the possibilities of incorporating modern spatial technologies in the design and simulation of conceptual models is of interest.*** GIS could be applied in the study of the nature and pattern of periurban land tenure arrangements whilst spatio-

temporal databases could play a major role in monitoring issues and trends in periurban land problems.

There is demand for innovative solutions that can adequately address the periurban land problems in southern Africa and all over the world, for information on lessons learned from other experiences with periurban land tenure and land administration problems. Recent developments in information and communications technologies make this much easier than before. ***Since this involves intellectual property issues, i.e., local knowledge and understanding of the people's need for land and their traditional land rights, further research is needed in this area.***

This research has emphasized the importance of institutional (or cultural in soft systems terminology) (i.e., social and political) aspects of land tenure and land administration in periurban environments. These issues tend to be forgotten in the design of improvements of land administration systems in developing countries; hence the land administration systems' continued failure to address the diverse and the dynamic needs of periurban environments [Mulolwa, 2002]. Because of this shortcoming, this research has developed a conceptual evaluation framework that emphasized both the institutional/cultural and systemic attributes of periurban land tenure and land administration systems. Much of the cadastral studies literature have to a very large extent focussed on the institutional issues of land administration, with very little on addressing the differing perspectives, worldviews, cultures, norms, roles, values, standards, and interests of traditional communities involved. ***Further research is needed to document and register customary tenure in a periurban environment.***

8.3 Final Remarks

The SSM-based conceptual framework, with its emphasis on continual cyclic learning, building of rich pictures, and its reliance on user involvement through stakeholder participation, presents an innovative way of trying to appreciate, understand, define and analyse the periurban land problems. The SSM-based framework offers the benefit of promoting systemically desirable and culturally feasible land tenure and land administration options to meet the land tenure and land administration requirements of periurban areas throughout southern Africa and beyond. However, in order for the conceptual framework to maintain rigour and thoroughness, further research into incorporating hard systems methodologies, i.e., **the socio-technical approaches, for validating and verifying the models are required**. In attempting to (1) model periurban land problems, (2) analyse the land tenure and land administration requirements, (3) evaluate the land tenure and land administration options, and (4) develop and design a strategy to meet the land tenure and land administration requirements in periurban areas, this research is very timely and has provided an initial contribution to clarifying and improving the understanding of the periurban land problems through the application, comparing and testing of SSM-based frameworks using the three country case studies. The next logical step of this research is the implementation of conceptual frameworks in a real-world situation in a customary periurban setting using the design strategy developed in Chapter 7. To ensure successful implementation of the land tenure or land administration reform models, further research would be required.

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Tribal Land Act, 1970 [Chapter 32:02]
Town and Country Planning Act, 1988

APPENDIX I.

CASE STUDY ON EVALUATION OF LAND ADMINISTRATION REFORMS IN BOTSWANA

> *No country has yet succeeded in developing regulations for the whole of this area; no country has yet proposed a true reform of the land law. Even in countries such as Madagascar, Mali, Guinea, and Ivory Coast where chapters of the future Civil Code have already been developed covering family law, the preparation of a real property law has had to be postponed.* [Blanc-Jouvan, 1972:217]

The major of objective of any land tenure policy reform in the land administration field is to ensure that land is utilized efficiently and effectively in a manner that serves the social, economic and political interest of the nation. From this perspective, land policy is defined as a course of action expressed through legislation instituting administrative procedures to be followed when controlling access, use, and the transfer of land. The focus of this section is to analyze the important directions in which land administration reform has been achieved in Botswana with the ultimate goal of highlighting its potential for emulation in other southern African countries.

I.1 Harmonization of Statutory and Customary Law

In most African countries, the greatest challenge in urban land development is to ensure that urban land is utilized effectively and efficiently in the interest of the nation and to eliminate the conflict between customary tenure/customary law and statutory tenure/state law. Some of the objectives of state law in land administration are:

- to define the property rights of the state in land;

- to define methods by which land may be put at the disposal of individuals; and
- to organize procedures for the granting of official recognition to the existence of property rights in land.

Basing on the above objectives, the state has found reason to justify the replacement of customary tenure with statutory tenure. In contrast, the objectives of customary law with regard to land administration are:

- to ensure cohesion and group solidarity;
- to prevent land from becoming an object of speculation, as is too often the case in western societies; and
- to ensure free access to land to all members of the group.

In introducing land law reforms in Africa, Blanc-Jouvan has warned that for the new law to succeed:

> *[I]t must be deeply rooted in tradition; if not, it would run the risk of not being accepted by the populations and thus of not being applied. … A recognition between the fundamentals of traditional law and those of modern law is clearly important for the development of a new law [Blanc-Jouvan, 1972:229].*

In trying to reconcile the two land tenure systems and land laws, Blanc-Jouvan pointed out a number of problems that:

- The two systems are so different that their reconciliation frequently raises serious difficulties and conflicts especially around the periurban environments.
- There is a tendency of the statutory law to predominate over customary law.
- Customary land rights are considered too complex, too vague, and too imprecise.

Despite these perceptions on customary tenure, the approach taken in Botswana in harmonizing customary and statutory tenure has been inspired by the fact that "property

has a social function and that the state cannot remain indifferent to the manner in which property rights – especially rights in land – are used" [Blanc-Jouvan, 1972: 234].

In Botswana, the approach taken in reforming land administration has involved the formulation of new land tenure rules that have general application over diverse systems of land tenure generally in operation. It has also meant the gradual and cautious approach in devising new land administration systems that affect different categories of land holders, current land use practices as well as measures for enforcing and controlling the distribution of property rights in land.

The need for harmonizing statutory and customary law, statutory and customary tenure has been reiterated throughout this thesis and will be alluded to in defining the land tenure and land administration requirements for the periurban environments in chapters 4 and 5. The approach followed in the Kenyan land tenure reform, has been influenced by the replacement theory (see Chapter 2). The objective of the replacement theory is to grant private individual titles to all customary landholders by converting customary tenure into freehold through the machinery of land titling and registration procedures. This chapter will, however, deviate from the replacement approach by concentrating on Botswana's adaptation approach to illustrate ways to harmonize land tenure systems in order to improve equity in controlling and distributing land.

Figure I.1 shows where the two systems are with respect to individual countries in sub-Saharan Africa. The ideal is to move from the bottom half of the figure up. It is, however, important to note that there is no presumption that the only way for the customary system to progress is to move from the right to the left.

PROCEDURES / DECISIONS	STATUTORY SYSTEM	CUSTOMARY SYSTEM
Rule-based	• *South Africa* • *Botswana* • *Malawi* • *Kenya* • *Zimbabwe*	• *Botswana* • *Tanzania* • *Uganda* • *Zambia* • *Zimbabwe*
Discretionary	**STATUTORY SYSTEM** • *Ghana* • *Zambia* • *Kenya* • *Swaziland* • *Lesotho*	**CUSTOMARY SYSTEM** • *Malawi* • *South Africa* • *Lesotho* • *Swaziland*
	Market	**ALLOCATIVE PROCESS** **State**

FIGURE I.1: An initial framework for harmonization of land tenure systems

I.2 Botswana's Land Tenure Reform

Since independence in 1966 Botswana has strongly rejected in principle the expansion of the western freehold tenure concept as an inequitable means of distributing both rural and urban land. This stems from the fact that freehold land allocation based on financial ability to purchase residential plots excludes the majority of the citizens from owning land, or alternatively, permits only the urban elite to afford to buy and develop land. In this regard, non-freehold forms of tenure concepts were devised under the *Tribal Land Act* of 1968 and the *State Land Act* of 1970 to address the fundamental question of equity in the distribution of land for residential, commercial and industrial investment. Both acts

provided the general machinery of land administration of both rural and urban lands, with the *Tribal Land Act* setting out to provide for the gradual transformation and remodelling of the customary tenure. This customary tenure reform facilitated access to and use of customary land in both periurban and rural areas through new statutory land administration institutions called Land Boards and new land tenure innovations while providing for traditional forms to be retained. This approach to customary tenure reform predates de Soto's arguments by over three decades [de Soto, 2000].

In addition, Botswana established a land tribunal to hear appeals from decisions of the Land Boards that administer customary land tenure and is recently embarking on plans to establish a second tribunal to cover other land forms of statutory tenure. The Botswana tribunal system is exemplary since "it goes out of its way to be user-friendly even being prepared to hold hearings in people's houses when a litigant is too old or frail to make the journey to court" [McAuslan, 2002: 26]. In many countries in the region, especially Uganda, these judicial bodies suffer from several defects:

- not truly independent;
- under-resourced;
- treated as second class bodies of dispute settlement; and
- not given adequate premises to operate effectively.

I.3 Customary Land Tenure Management

> *The desires of the people are not for new and radical forms of land tenure but rather for easy access to land for citizens of Botswana, their ability to utilize it as an instrument of development and at the same time the retention of such developed land as a family asset to be passed on from generation to generation. Tribal land tenure possesses many of the characteristics meeting such desires. [Government of Botswana, 1983:2]*

I.3.1 Grants of land rights under Customary Law

The *Tribal Land Act* provides for the issuing of three basic forms of tenure in customary land in all settlements other than the townships: a grant of customary land rights to all citizens of Botswana (irrespective of color or gender) residing in towns and villages; the grant of land rights under the "received" Common Law (Anglo-Roman-Dutch Law of South Africa) for residential and commercial purposes in such villages; and a grant in ownership or freehold[42]. Figure I.2 shows an example of simplified land allocation process under customary tenure. The grant of Common Law leases was designed for the innovative section of the society wanting to deal in their land rights as well as to cater for foreigners. Since the Land Boards have never allocated land in ownership, two basic forms of tenure are generally provided for under customary land in all settlements apart from the townships.

Although the reform was not meant to transform the customary tenure pattern, it has indeed altered the procedures of land allocation as well as the nature and pattern of land occupation in the rural and periurban settlements. First, the statutory Land Boards in the administration of tribal lands replaced the chiefs and the ward heads. Secondly, the act introduced the democratization of land allocation and its control.

The objective of the act was to preserve customary tenure principles with the exception of replacing its administration by chiefs with statutory administrative bodies. However, the customary tenure was thoroughly transformed under the Land Boards.

[42] The grant in ownership has never been issued to any individual since the inception of the Land Board system and it can now be allocated to the State only.

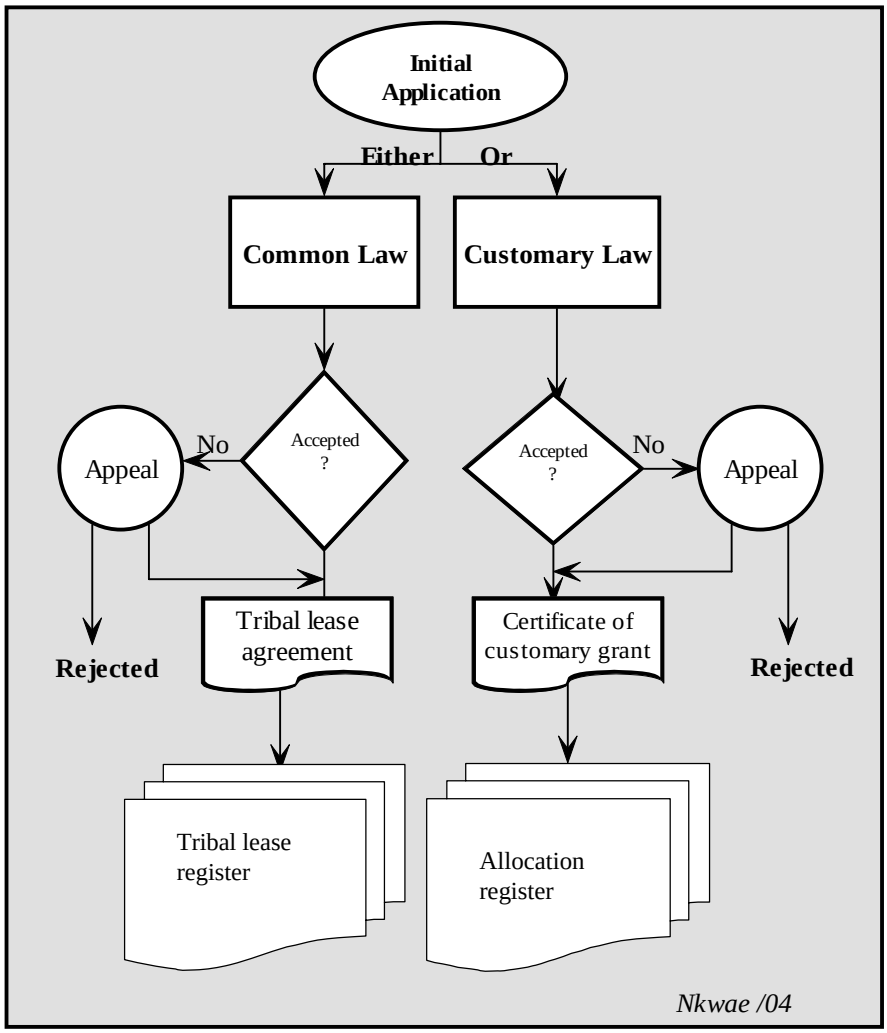

FIGURE I.2: A simplified land allocation process under customary tenure

An applicant is expected to identify land and to submit an application indicating its particulars which involves the preparation of sketch plan. This implies that the Land Board "may not be in a position to allocate on the basis of existing local knowledge of land occupation in the area" [Ng'ong'ola, 1992:153]. That has been found to encourage unplanned land development, overcrowding of wards in the villages, multiple or excessive land allocations. But since the Land Boards did not have knowledge of the nature and pattern of land occupation within their areas of jurisdiction, they were forced to rely on the knowledge or sometimes memory of the ward heads in land allocations. In

addition, land is allocated to the individual as opposed to the customary allocations to wards and families. The land allocations are confirmed and evidenced by a Board resolution and a certificate of customary land grant. The only situation under which the Boards exert their full allocative authority is when demarcating unoccupied land in the periphery of the expanding settlements to accommodate new households or reassigning of abandoned plots to applicants to prevent the village from degenerating.

The grant of customary land rights is heritable in accordance with the customary law of inheritance and is granted in perpetuity; thus this form of tenure provides a secure tenure for private investment and development (see Figure I.3 showing recently constructed modern houses built by indigenous villagers in Mogoditshane village). In addition, the *Tribal Land Act* stipulates the following rules for the cancellation of the customary land grants:

- when the holder is no longer eligible to hold land under the provisions of the act;
- failure to observe land use restrictions;
- land required for public use;
- ensure fair and equitable land distribution;
- use of land in contravention of the customary land law;
- failure to cultivate or develop land within a specified period.

In reality, the Land Board almost never cancels any land grant such as for residential or arable allocation.

The replacement of the chiefs' political authority with statutorily elected bodies has had advantages and disadvantages. The benefits of the new land administration system are that it introduced clarity and certainty in the allocation of customary land.

FIGURE I.3: Photograph of recently completed house in Mogoditshane village

For instance:

- It provides an express grant of a clearly demarcated parcel of customary land confirmed and evidenced by a Board resolution and a certificate of customary land grant issued to the applicant and a record of the grant kept at the Land Board registries.
- It provides for security of tenure with no ambiguity and certainty on the part of the holders that they will be able to enjoy, bequeath, or assign their investment in improved housing.
- The grant allows for the voluntary transfers of individual customary holdings and sales amongst citizens[43].

[43] The Land Board is informally involved in such transactions.

- The relatively egalitarian distribution of customary land has been maintained, since land allocations are free. At the same time, the act allows for the conversion into a Common Law lease, which is fully negotiable.

One of the objectives of any land tenure system is equity. Under customary tenure, access is granted equally, fairly and freely to all socio-economic groups. The benefits of certainty and clarification of the terms of customary land transfers has accelerated the emergence of periurban land transactions in terms of the rental market alleviating the housing shortage in the cities which could not be met by government and private markets. However, due to the low economic base, lack of infrastructure and services and the functional simplicity of the periurban settlements, the size of the rental market is not fully developed.

The adoption of the Land Board system in other jurisdictions with rapidly urbanizing areas and periurban settlements similar to Botswana could offset the need and future expense of land adjudication, cadastral surveying and land use planning. Since the demarcated plots are on planned and surveyed layouts future land registration is inexpensive. The advantage of this approach is to further pre-empt the need to convert customary tenure into other forms of tenure as the only means for eliminating the ambiguities and uncertainties, boundary disputes and the insecurity associated with the lack of recording of customary land grants.

Despite the success of the Land Board system in Botswana, there are many problems and the model needs constant adjustment to meet the social and economic demands of rapidly urbanizing areas.

- It has failed to eliminate the misconceptions associated with customary tenure such as tenure insecurity.
- Like other land administration systems, it is beset with capacity problems. Apart from legal innovations, the system requires professionals such as land surveyors, land economists, physical planners, computer technicians, and lawyers who are conversant with customary and statutory land laws. In addition, financial, technical, administrative, logistical and other resources required by the Land Board to carry out its responsibilities are badly under-estimated[44].
- The Land Board system suffers from lack of legitimacy and authority, which the chiefs and other tribal authorities enjoyed by virtue of their political positions.
- There is need for land information management. Because of inadequate land records on land allocations the Land Board still relies on the knowledge of the ward heads for information about local land occupation. The Boards members are also forced to undertake costly site visits, which could mean spending several days away from the office. Many of the periurban land problems have as their root cause, lack of information on the extent and nature of the land allocation prior to the Land Board system. As Ng'ong'ola asserts:

> *One problem that severely undermined the Botswana system was the failure to provide, initially, for the* ***recording and capturing*** *under the system of all subsisting customary land rights. This meant that land boards started operating without full knowledge of the extent of their powers and duties and jurisdiction* [Ng'ong'ola, 1999:16, emphasis added].

Furthermore, in the periurban areas,

[44] See, for example, Republic of Botswana [1983]. Also Land Boards have budget ceilings on how much they are allowed to spend.

> *The land boards have difficulty in identifying the genuinely needy from among the many applicants and of finding land to allocate to them. Time and resources are wasted and illegal activities go unchecked* [Adams *et al.,* 2003].

- With increasingly high land values in the periurban areas, the integrity of the Land Board members is often called into question[45].
- Failure to adequately compensate customary rights holders for arable land has been identified as one of the root causes of the land management problems facing the periurban areas [Adams et al. 2003:63]. There have been calls for over two decades for the law to recognize the market value of periurban land.

I.3.2 Grants of land rights under Common Law

Under the "received" Common Law of Botswana, the *Tribal Land Act* provides for grants of ownership and leasehold interests. To date, no individual has ever been issued with a freehold interest on customary land and only leases have continued to be issued.

The act provides for two types of Common Law leases. The first is a short lease terminable on a month's notice for land not exceeding five acres. The second type is a long-term lease granted for any type of interest including residential, commercial, and industrial uses. The long-term lease is registrable at the Deeds Registry Office if accompanied by an approved survey plan and is fully negotiable. This part of the act is in line with the land legislation's objective of "modernizing" customary tenure.

The introduction of Common Law leases in customary land formalizes the trend throughout sub-Saharan Africa and other developing countries of converting customary land into individual private property rights. Figure I.4 shows an example of simplified

[45] In the 1990s the government was forced to institute a Presidential Commission of Enquiry into periurban land problems and revealed rampant corruption among members of the Land Board.

process for converting customary tenure into Common Law leasehold. Prior to this land tenure innovation, developments in periurban land markets were fraught with problems because of the incidence of “redeemable sales” and the ambiguity and uncertainty surrounding customary tenure. Land investment and development in urban housing by both strangers and foreigners was a precarious undertaking because the terms of the sales were not usually specified. This tenure innovation has made it possible to allocate to citizens and foreigners land for residential and commercial purposes breaking down the tradition that leaseholds can only be issued under a statutory tenure regime.

A grant of land rights under Common Law can be issued for both undeveloped and developed land on customary land. However, the act stipulates that transfers cannot be made to foreigners without the consent of the Land Board, restricting the development of a free land market in the periurban areas. But such stipulation should not be viewed as unnecessary since the Land Board still retains the residual title to the land, and therefore they should have a say in future land sales or change of user. With transactions involving citizens such as mortgaging, pledging, change of user, and the use of such land as other forms of collateral, the Land Board consent is not required.

On termination or if the lease is not renewed on expiry of the lease period, all improvements and immovable property on the land including the buildings reverts to the Land Board as trustee of the land without compensation.

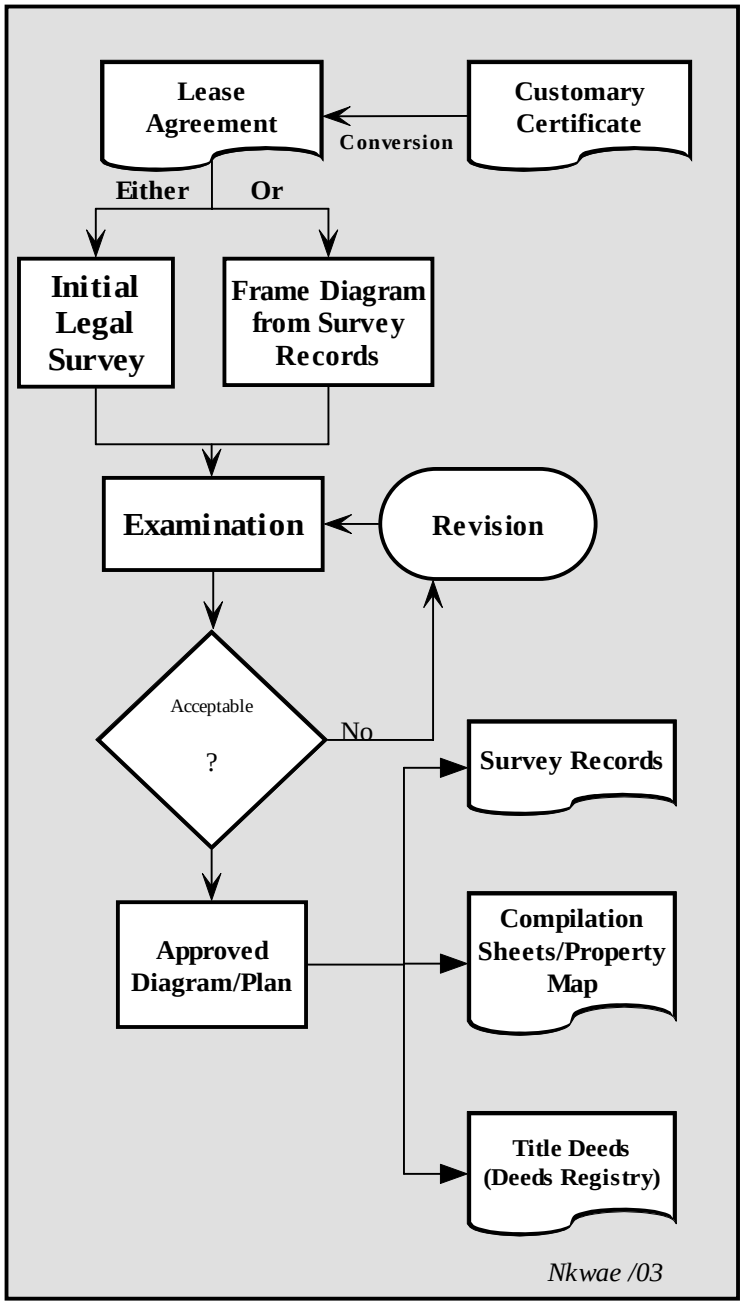

FIGURE I.4: A simplified process of converting from Customary Tenure into Common Law leasehold

I.4 Statutory Land Tenure Management

I.4.1 Freehold

Freehold tenure exists in towns and rural areas as a legacy of the country's colonial past. It is now considered inappropriate to grant freehold title as it deprives the state of any future voice in the ownership of the land unless it is compulsorily acquired. As an alternative to this tenure regime, especially in situations where the people had become used to the strength and security of freehold titles, the government decided to issue Fixed Period State Grants, which are in essence long leaseholds fully capitalized at the time they are granted. This means the lease payment is paid for upfront. In addition, the certificate of rights tenure was introduced to serve the needs of the urban poor.

I.4.2 Fixed-Period State Grant

This type of tenure, also known as deed of fixed-term grant and fixed-price grant, is a tenure form similar to freehold where the State holds a right of reversion. It was originally designed to facilitate the development of the copper-nickel mining town of Selibe-Phikwe in the early 1970s and was later extended to other urban areas. Thus, unlike the holder of customary tenure and COR grant, the fixed-period state grant (FPSG) holder acquires a land title which is registrable and freely transferable through inheritance, sale, mortgage, pledge, loan, etc., once the land is fully developed[46]. The grant for commercial and industrial development is generally 50 years and that for residential various from 50 to 99 years for foreigners and citizens respectively. At the

[46] Until the land has been completely developed according to the stipulated development covenant as stated in the deed, Urban Development Policy of 1978 indicates that the law forbids the holder to deal in such undeveloped land other than the state [Republic of Botswana, 1978].

expiry of the grant period, the land together with the *unexhausted* improvements reverts to the state without compensation. The FPSG is an urban equivalent of a Common Law lease on customary land.

The most negative aspect of this tenure regime is that the grant is not renewable, nor there is no provision in the *State Land Act* which addresses this tenure issue. According to the Presidential Commission on Land Tenure of 1983, the date of expiry of the first FPSGs is the year 2022 and to avoid the running down of the urban investments, negotiations for the grant renewal should start at least by 2007, 15 years before their expiry date. Bruce states that early negotiation is necessary to pre-empt a situation whereby (i) grant holders may run down or neglect their investments before the interest is extinguished, or (ii) may allow the attractiveness of the estate as security for the holder to depreciate with time, causing financial institutions to limit loans and recovery time on such loans to time remaining in the grant period [Bruce, 1981: 18]. The disadvantage is that in the latter part of the fixed period state grant, investment in property declines as its negotiability is reduced leading to a depreciation of the asset [Temane, 1983].

Despite the shortcomings, both the urban elite and financial institutions readily accept the FPSG for land investment purposes as a secure form of tenure. This is because there is no consent requirement for mortgaging and selling of the property once the standard development covenants have been complied with, and the banking institutions readily accept it as collateral. In addition, the government is gradually acquiring freehold farms around urban centres and converting them into state land and allocating it to private individuals on a fixed-period state grant basis. This is done through the process of compulsory acquisition and through open market purchases. The aim of Botswana's

urban development policy is to enable social interest as opposed to the open market to determine the distribution of land. Figure I.5 shows an example of the state land allocation process on the basis of the fixed-period state grant.

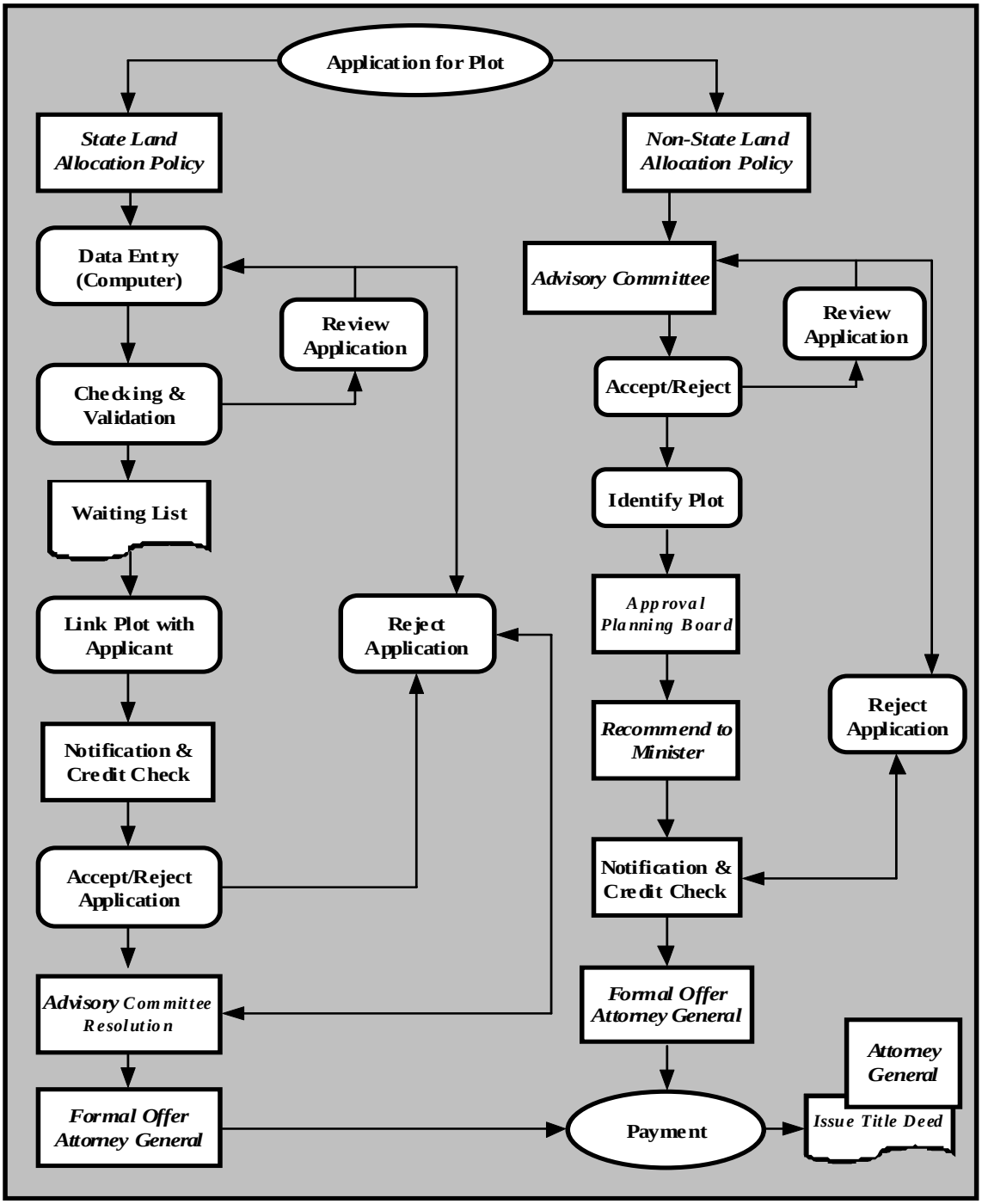

Figure I.5: Example of State land allocation process in urban Botswana (c1995)

I.4.3 Leasehold

Leaseholds vary from as little as one month up to 30 years, which is the highest possible lease period. Leaseholds are generally used for commercial purposes. The availability of many tenure options increases people's choices as to which tenure regime can best meet their development and investment needs. The renewal option solves the problem of the property falling into disuse or depreciating in the latter part of the lease as is anticipated to be the case with the expiry of FPSG if no action would be taken.

I.4.4 Certificate of Rights

This urban land tenure innovation was developed in the 1970s to cater for the urban poor as a land tenure alternative to curb squatting in Botswana's urban centres. The Certificate of Rights (COR) specifically provides the holder with a secure tenure in order to use and develop the land, even though ultimate ownership rests with the state (see Figure 8.6 for COR land allocation process under the new affordability criteria). The strength of this tenure option lies in having averted the squatter problem in Botswana's urban centres of Selibe-Phikwe and Gaborone. Due to its success, the COR was extended to other towns like Francistown, Jwaneng, Kasane and Ghanzi. The same concept has now been extended into the rural and periurban areas to improve the housing conditions. In theory, the COR is mortgageable if registered at the Deeds Registry Office.

The COR replaced the temporary occupation permits in State Land and lies half-way in the customary and statutory tenure continuum. It is administered by the town and city council under the Self-Help Housing Agency (SHHA). The success of the SHHA program can be attributed to two factors:

- The State owns most of the land in the urban areas, thus affording it the opportunity to allocate demarcated lots on planned layouts serviced with roads, water supply facilities and storm-water drains.
- The implementation of the SHHA program was not constrained by compulsory acquisition procedures and the hold-outs of negotiating private compensation payments.

The COR was therefore developed with the sole objective of providing a basic serviced plot with a simple, flexible, adaptable, affordable, and secure form of tenure to the poorest elements of the urban society. The original COR tenure avoided the technical and legal complications and costs associated with cadastral surveying and land registration. Where surveyed layouts were produced, the surveying and registration costs were kept to a minimum and were borne by the State. The COR holders acquired a *usufructuary* title to use land in perpetuity, even though the ultimate ownership of the land remained with the State. The main objectives of COR are:

- ***Simplicity***. The scheme was designed so simply that the holders could easily understand it. It also avoided the costs, technical and legal complications associated with issuing of legal titles.
- ***Security of tenure***. The security of tenure depended on three conditions: regular payment of subsidized monthly service charges to the city council, payment of building materials loans and complying with the minimum development standards. Although the city council had the power to cancel the COR grant for

breach of those conditions, they were difficult to enforce due to capacity and political constraints. The implementation or the promise of

  - upgrading the infrastructure and services like electricity, telephone and sewer lines further strengthened the security of this land tenure regime.

- ***Negotiability***. Occupation of COR was perpetual and inheritable. In addition, the holder can pledge, cede, assign and transfer the acquired plot with the consent of the town/city council.
- ***Flexibility and adaptability.*** Flexibility in adapting to the social, economic and political pressures in rapidly urbanizing areas is an important objective of this tenure regime. The COR has generally been quite responsive to demand as compared other urban land markets since it is controlled by the government.
- ***Equity.*** It has the advantage of promoting greater equity in the allocation of land for housing. It has facilitated access to land by the financially weaker sectors of the urban society. On the gender perspective, more women had access to plots than men, an indication of high participation by women.
- ***Increases in government influence over land markets.*** The unorthodox planning of mixing various income categories in the same area removes the glaring disparities in environmental qualities common in most developing countries. The COR plots stand side by side with high income housing. It has flattened the land value curve, thus no sharp peaks and valleys associated with up market and poor neighbourhoods.
- ***Affordability.*** Plots are generally allocated for free depending on the income of the applicant. The contribution of free land, the provision of basic infrastructure

and services, accessible building materials loans made COR a viable proposition for the urban poor.

- ***Access to services.*** Plots are provided with basic services such as roads and water supply facilities, electricity and sewer lines. The COR occupy plots in central locations and thus enjoy access to services such as schools, taxis and public transport.
- ***Access to credit.*** The COR was designed to access credit in any financial institution in Botswana but that objective was not met because banks perceived COR as an insecure form of tenure since any transaction had to involve the third party, the municipal authority. They viewed it as a temporary form of tenure, which could be revoked by the state at any time. To the banks, the level of servicing was at an unacceptable minimum. However, the subsidized, low interest loans guaranteed by the government from the Botswana Building Society solved the credit problem.
- ***Tenure conversion.*** For the holder of COR to convert to FPSG, the following conditions should be satisfied: cadastral survey of plot for P1000; arrange a water connection for P600 equivalent to a minimum monthly wage; and payment of registration fees at the Deeds Registry if the property is worth over P20, 000. To date, only 7.5% of 27143 plots have been converted to FPSG, as the cost of tenure conversion is prohibitive for many poor households [Yahya, 2002].

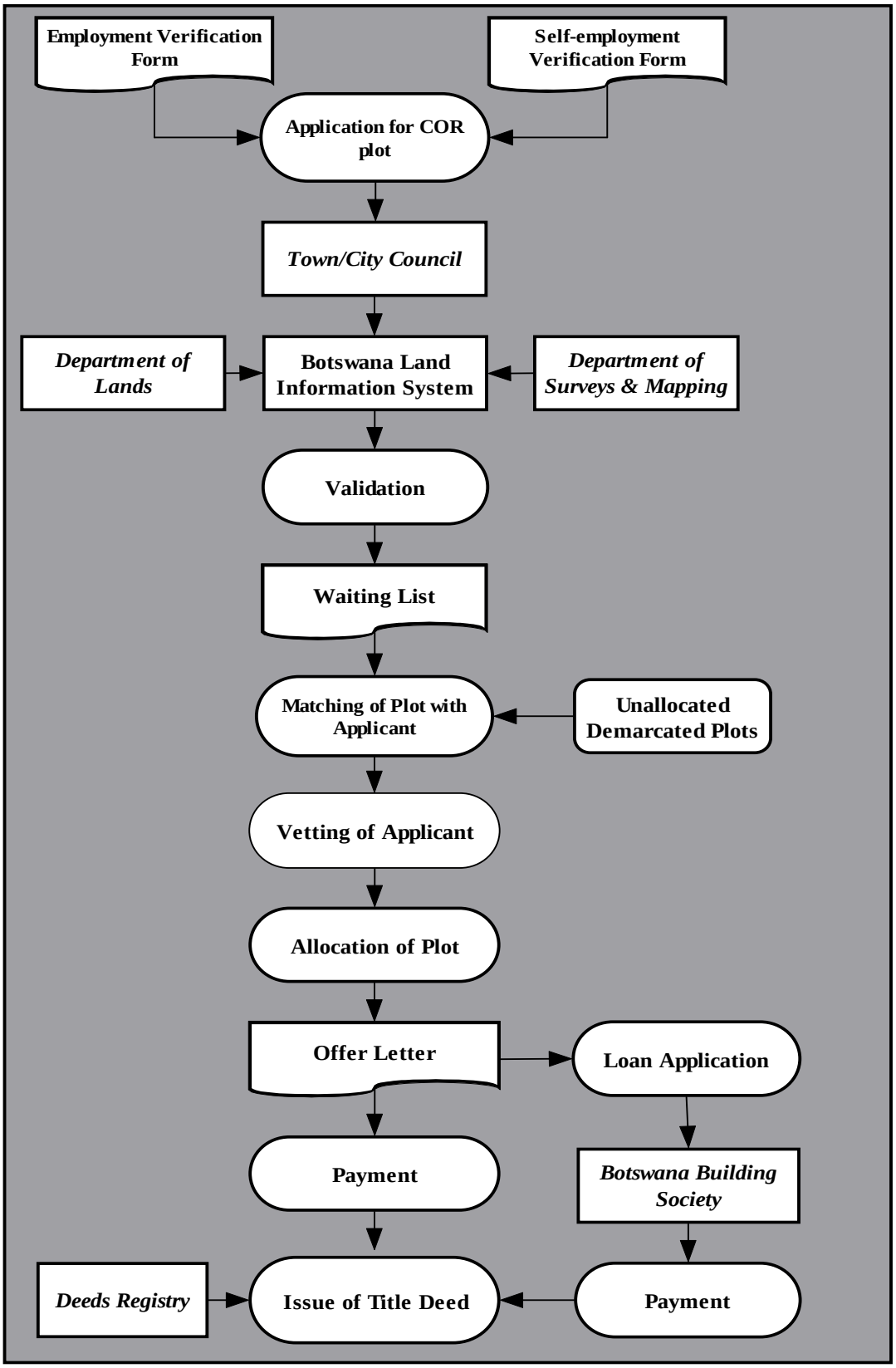

Figure I.6: Example of COR plot allocation process (c. 1995)

- Also, the plot holders perceive COR as a very secure tenure and the conversion to FPSG is not seen as priority due to its stricter development covenants.
- ***Cost recovery.*** The government recovers costs by charging COR holders a subsidized monthly service charge with the main component of the levy being the recovery of the costs of recurrent service provision and a small contribution towards the recovery of site and servicing costs.
- ***Local administration.*** The scheme was designed for ease of running by being as accessible as possible to the urban poor. The municipal authorities through ward offices provided support services and the democratically elected ward committees have helped to solve local problems thus maintaining social harmony and stability in the SHHA neighbourhoods. Disputes against council decisions can be appealed to the Minister of Housing. Inheritance disputes are handled by the city council. Disputes generally involve unauthorized development, non-payment service levy and failure to pay the building materials loans.

Although the implementation of COR has been successful in Botswana, it is still overburdened with the administrative and political problems. Cost recovery is a major problem. Capacity issues in the collection of service levies are yet to be resolved. As Yahya stated:

> *Apart from the legal innovations, it is also necessary to find ways of counteracting the severe shortage of key professionals such as land surveyors, physical planners and conveyancers* [Yahya, 2002:208].

There is need to tackle the problem of access to credit as examples in Kenya and Tanzania show that it is possible to safeguard the interest of creditors without

undermining the municipal authority's right to enforce the collection of monthly service charges. Temane [1983], the Presidential Commission on Housing Policy Report [Republic of Botswana, 1982] and the Report of the Botswana Presidential Commission on Land Tenure [Republic of Botswana, 1983] have indicated that the generally low credit-worthiness of the COR holders, most of whom earn below the median income of P1500, is partially responsible for the disinterest shown by the financial institutions in this tenure regime.

I.6 Summary of Botswana's Land Tenure and Land Administration Innovations

The various land tenure options available in Botswana provide a uniform land administration system for a fair and equitable distribution of land in both rural and urban settlements. Table 3.1 provides a summary of the land tenure types and their property rights contents. In customary land, the Land Board system follows statutory land allocation procedures that simplifies and formalizes the customary rules and practices pertaining to indigenous tenure regimes. These rules were designed to incorporate the egalitarian principles of customary tenure, which provides for fair and equitable access to land for individual investment decisions. To accommodate new land use concepts in the social as well as the economic contexts, the Common Law lease was introduced to cater for the more innovative sections of society by eliminating the ambiguities and uncertainties constraining the voluntary transfer of customary land rights. At the same time, it allows for equal opportunities in the access to land by clan members, non-clan members, strangers, and foreigners. Both customary land rights grants and Common Law leases allow for the coordination of orderly land development in villages in terms of the

Town and Country Planning Act. In meeting these challenges, land use plans must be approved by the Town and Country Planning Board as in urban areas, plans are later demarcated and surveyed in accordance with the *Land Survey Act* to enable sound management of the land resource.

In the townships, the *State Land Act* also provides for the equitable distribution of land between different income groups. The FPSG, COR and leaseholds are the standard tenure instruments available to the private individuals and companies for land development and investment. However, COR limits access to land to the urban poor.

In the original proposals for the issuing of COR, three categories of applicants were contemplated:

- ***Type I COR***. This was mainly designed to curtail the mushrooming of squatter settlements in the urban centres. It was supposed to be an annual tenancy for basic housing structures.
- ***Type II COR***. This was to be granted to the lower income groups whose income did not exceed P1, 500. The group was expected to meet the minimum development standards and also qualify for a subsidized monthly service charge from the municipal authority. Technical assistance from the SHHA program and a building materials loan accompanied this land development initiative.
- ***Type III COR***. This proposal aimed at the middle-income group, who could afford the high land servicing standards closer to the high-income neighbourhoods.

With this approach it was envisaged, would lead to innovative investment in housing and other commercial activities with FPSG reserved for the high income group. However,

during its implementation, only type II COR was issued. However, this approach excludes those urban poor without any source of income.

The fixed-period state grant caters to the land needs of the low, lower middle, upper middle, and the higher income categories. The pricing policy of serviced lots varies according the different income categories as follows:

- ***Category A***. This covers first-time buyers of residential lots by the low and lower middle-income groups. The pricing policy is affordable prices varying according to income.
- ***Category B***. This covers first-time buyers of residential lots falling in the upper middle and high-income groups. The allocation criterion is full cost recovery, which includes cost of land acquisition, land servicing, and administrative costs.
- ***Category C.*** It includes applicants for commercial and industrial lots, second time buyers for residential lots as well as developers of three or more lots.

In this way, Botswana aimed to achieve the fair and equitable distribution of land for urban development and investment opportunities.

Due to the desire to harmonize the different land tenure systems, freehold was reduced to FPSG, which became the accepted tenure option for investing in urban land. Once the requirements of the development covenants are fulfilled, FPSG unlike COR no longer requires the consent of the third party before it could be transferred through mortgaging or selling. Since the FPSG is a form of long leasehold, its transfer is limited to the remaining portion of the lease period.

Table I.1: Summary of Land Tenure Types and Property Rights Contents

Type of Tenure	Customary Tenure		Statutory Tenure			
	Customary land grant	**Common law lease**	**Freehold**	**Fixed-period state grant**	**Leasehold**	**Certificate of rights**
Nature of Title	Perpetuity and security depends on continuous use	Fixed period with option of renewal, 50 and 99-year leases	Perpetuity; state power of eminent domain	Fixed period, 50 and 99 year leases	Fixed period	Perpetuity based on set conditions by municipal authority
Permitted uses	Residential, arable & grazing	Residential, commercial and industrial uses	Residential, commercial and industrial uses	Residential, commercial and industrial uses	Mainly commercial uses	Residential development only
Access to land	Limited to citizens only	Both citizens and foreigners for various uses	Price discrimination; controlled by free market	Controlled by state with preference to citizens	Controlled by free market	Controlled by state; restricted to urban poor
Ownership Transfer	Limited to citizens only; sale to aliens prohibited	Sale to aliens requires consent of Land Board	Freely transferable in urban areas; farms require consent of state	Freely transferable	Freely transferable	Transfer requires consent of municipal authority
Rental market	Permitted among citizens; small market	Free market	Free market	Free market	Free market	Undeveloped market due to low economic base

Botswana is an exemplar in the southern African region in providing different tenure options for urban development based on equity as opposed the free market objectives. Its land administration infrastructure was set up to implement its social land policies to cater for the different sections of societies in both the rural and urban areas. In pursuing these objectives, the land administration capabilities in the various sectors were stretched to the limit. For instance, the municipal authorities responsible for administering the COR tenure, the Department of Town and Regional Planning, the Department of Surveys and Mapping, the Department of Lands dealing in land allocations, the Deeds Registry and the Land Boards were faced with severe capacity constraints. The COR grants faced the problem of "fronting"[47] as urban poor transfer the COR plots to rich speculators and developers. The Land Boards especially in periurban settlements faces an even tougher battle of combating lawlessness as they lack both the technical and administrative capacity to address the periurban land problems. Therefore, in considering Botswana's land tenure and land administrative innovations, these weaknesses would need to be evaluated given the resource implications required when introducing new land tenure regimes and new land administration institutions.

I.7 Analysis and Conclusions

I.7.1 Analysis

[47] Fronting or 'dummying' has several definitions but it can be used in land allocations to refer to the application for a plot by a person who has neither the intention nor the resources to develop/buy the piece of real estate, but is fronting for somebody who does not qualify due to land allocation policy restrictions but has the capital to purchase the plot.

The role of politics. Because land tenure reform is a politically sensitive and complex, institutional change is a slow process which could take decades to complete. Successful reform depends on the existence of constitutional and legal frameworks and also public consultation and awareness campaigns as undertaken in Botswana. Botswana's policymaking is a very rigorous process compared to other approaches in the region as shown in Figure I.7 and can take up to 2 years to complete.

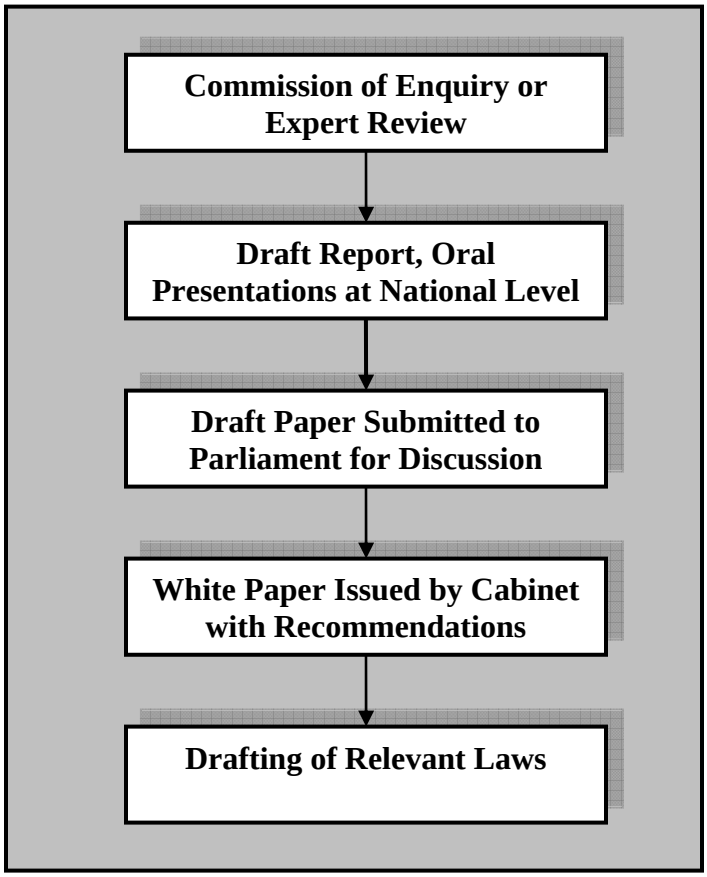

FIGURE I.7: Policymaking process in Botswana

This policy approach is in stark contrast with developments in Lesotho, Namibia, Swaziland, Zambia, and Zimbabwe where policymaking is seen as a Cabinet task. The general weakness of these countries' approach is the lack of consistency and collective

decision-making and land policy often reflects short-term political objectives.

Authority systems. The land tenure reform in Botswana has been flexible and gradual with regard to customary structures of authority. This was informed by the realization that widespread departures from existing structures are rarely feasible, and therefore the undemocratic powers of chiefs in land administration was phased off gradually. In contrast, South Africa, Lesotho and Zimbabwe have vacillated over the role of chiefs in customary land. And also, several countries in the region have unsuccessfully tried to imitate Botswana's Land Boards: Uganda, Namibia and South Africa. One of the reasons they failed is because reform models of this nature should pay particular attention to implementation and capacity issues especially the technical, legal, administrative and the financial requirements.

Re-engineering land administration systems. In most southern African countries land administration systems have generally failed to perform the functions for which they were designed. Apart from Botswana which has started over three decades ago, the land administration functions still remain the most neglected factor in land reform especially in South Africa, Kenya, and Zimbabwe. Recently, there has been a paradigm shift in land tenure policy reform towards the appreciation of the central role of land administration in the African land question. The reasons for this paradigm shift are:

- Statutory land administration systems have generated a situation of a large, unproductive, corrupt and inefficient bureaucracy.
- The problems of poverty and under-development in rural Africa are exacerbated by statutory administrative interventions aimed at suppressing customary law and indigenous production systems.

- The legal framework has generally favoured the development of statutory tenure regimes at the expense of their indigenous counterparts, a move influenced by the replacement theory.
- Land resources are unevenly distributed between gender, social class, and geographical regions.
- The periurban land problems have weakened the customary land authority structures.

The resolution of these land problems will require the re-engineering of land administration systems as well as the fundamental reconstruction of land administration infrastructures. In redesigning these systems Okoth-Ogendo suggests the following components to be built into the new systems [Okoth-Ogendo, 2002].

- simplified legal frameworks;
- simple land allocation and registration procedures;
- efficient administrative processes;
- improved technological services;
- user-friendly dispute settlement arrangements; and
- business-like procedures.

I.7.2 Conclusion

Although systems of land administration cannot be exported whole to other countries, experiences in dealing with innovative land tenure options, innovative land administration systems and the harmonization of statutory and customary land tenure systems can be usefully drawn upon. The Botswana case study highlights these experiences:

- The importance of democratic development in land administration, its successes and failures. Countrywide consultation with the ordinary citizens may be time-consuming, stressful and costly but it is essential for the success of any land tenure and administrative reforms.
- The flexible and gradualist approach of land tenure policy reform is an important lesson to the whole region. It shows that radical land tenure changes which are not pursued in coordination with social and economic changes.
- The need to carry out thorough and informed research before any policymaking and land law reform can be embarked upon. Research or expert review enables governments to test and verify assumptions, evaluate the costs and benefits of the proposed policies and reforms.

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APPENDIX II

A SOFT SYSTEMS STUDY OF PERIURBAN LAND PROBLEMS IN MOGODITSHANE BOTSWANA

A case study is presented of the periurban village of Mogoditshane 5km from Gaborone, the capital of Botswana (shown in Figure II.3). This research draws upon several years of experience as government land surveyor in Gaborone and the fieldwork conducted in June to August 2001.

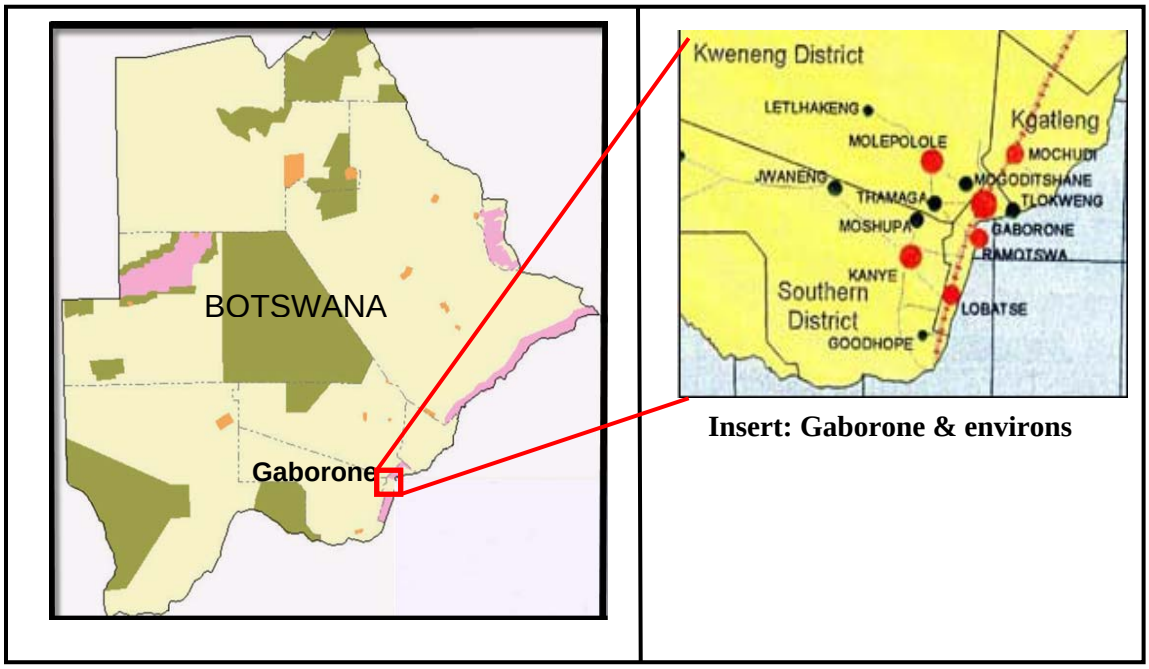

Figure II. 1: Locality Map of Periurban Village of Mogoditshane [after MLGLH, c.1993]

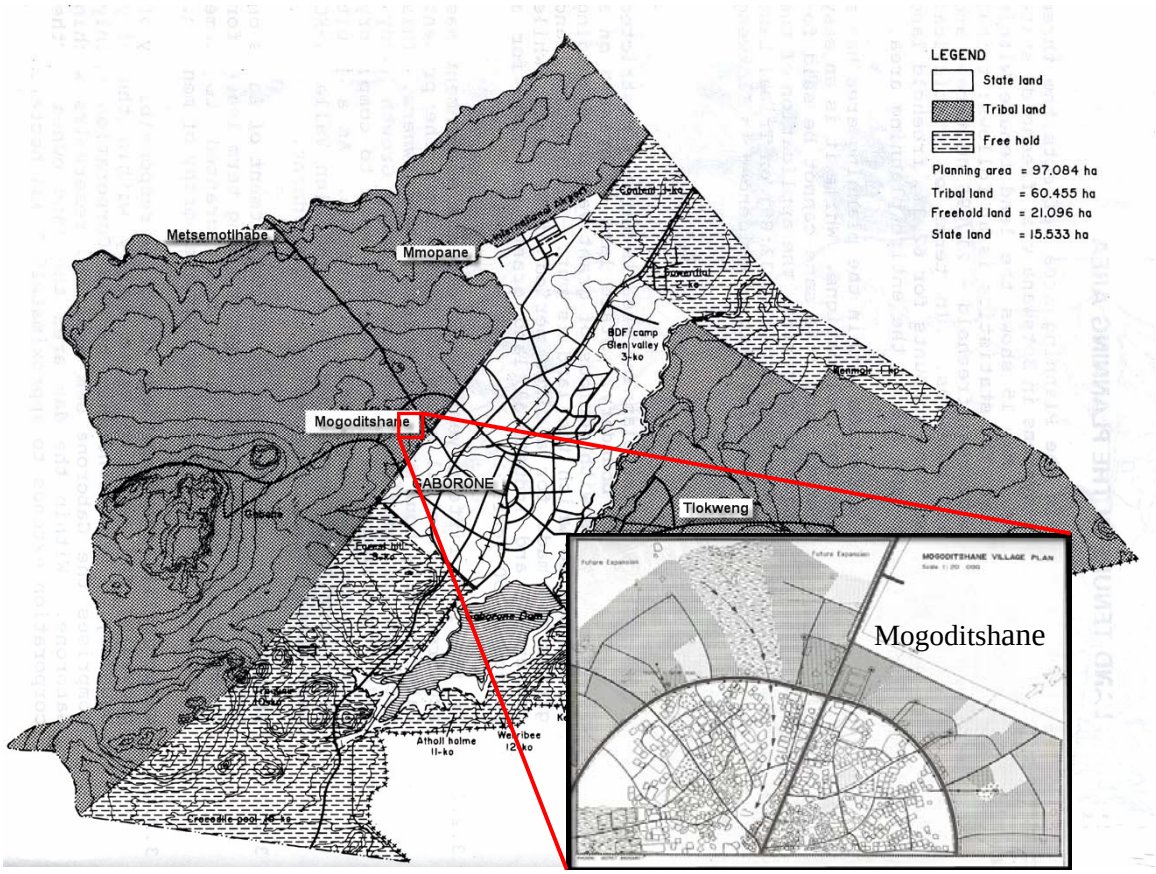

Figure II. 2: (Continuation of Figure II.1) Map of Greater Gaborone Planning Area showing customary periurban areas [after MLGL&H, c.1993]

II.1 Historical Background and Origin of Mogoditshane Land Problems

The periurban village of Mogoditshane and others have experienced high population growth rates in the last two decades. Mogoditshane recorded an average growth rate of 13.9% per annum over 20 year period from 1970 to 1990, about $1^1/_2$ times the growth rate of the capital Gaborone of 8.4% per annum over the same period. At such a high growth rate, it meant Mogoditshane was doubling its population almost every 3-4 years.

The high growth rate of Mogoditshane in the 1980s had enormous planning implications for this periurban village. It also had potential to be politically explosive with widespread national implications. As result, the government in the early 1980s declared Mogoditshane a planning area in order to arrest the situation. But land use plans

and controls never materialized due to weak local government implementation capacity. Compared to other customary periurban settlements in the country, there was no doubt that Mogoditshane was facing tremendous pressure on land and the government was forced to intervene.

The events leading to the Mogoditshane land crisis can be traced to both external and internal factors [Government of the Republic of Botswana, 1992a, 1992b; MLGL&H c1993]. For instance, between 1981 and 1984, the Land Board froze the allocation of residential plots while the Village Development Plan was awaiting final approval by the District Council. This was followed by yet another freeze on residential plot allocations from 1989 and 1991. While there was a moratorium on land allocations, illegal land subdivisions and illicit sales thrived and this precipitated a Presidential Commission of Inquiry into land problems in Mogoditshane and other periurban areas in 1991. The finding of that report revealed a total of 841 illegally acquired plots during the suspension periods [Republic of Botswana, 1992a]. These illegally acquired plots had enormous planning implications as earlier envisaged.

Furthermore, Mogoditshane and other periurban settlements were at the receiving end of pressure from city of Gaborone. The freeze in land allocations in Mogoditshane coincided with the freezing of land and housing allocations in the city due to the prolonged drought in 1987. For instance, the Self-Help Housing Programme, which houses over one-half of the low-income urban households, was suspended pending government review; the Department of Surveys & Lands suspended its land allocations since there were no serviced plots being produced; and the Botswana Housing Corporation which supplies various types of housing to all income groups also suspended

its housing projects due to drought. With housing and land increasingly difficult to obtain, and also tightly regulated within Gaborone, Mogoditshane and other periurban settlements offered a "safety valve" even though the land was unserviced. In addition, the poorer neighborhoods of Old Naledi, Bontleng and Broadhurst in Gaborone were facing dire housing stress and serious over-crowding. This meant that the demand for housing land in Gaborone was very high. For example, it was not uncommon for an applicant to wait for over 10 years to buy a residential plot. In 1987, the government initiated an Accelerated Land Servicing Land Programme in an effort to speed up the delivery of plots but this measure did not go far enough to meet the high market demand. To put this into perspective, the Report of the Working Group set up in 1987 to facilitate the provision of serviced land found out that [MLGL&H, c1993:68]:

- *on average, the Department of Surveys and Lands received 4 applications for every plot advertised in Gaborone;*
- *in June 1987, the Botswana Housing Corporation had a waiting list of 20,000 applicants in Gaborone; and*
- *housing backlog at Self-Help Housing Agency offices for site and service plots (for low income group) in Gaborone were 6,127 applications.*

Although these figures were probably exaggerated, due to double and sometimes triple applications, the high rentals prevailing at the time bore testimony to the overheated land market and probably still the highest in the region.

Mogoditshane and other customary tenure settlements surrounding the city were the only options for absorbing the land demand, due to the negotiability of land allocation rules under customary law. Mogoditshane became symbolic of periurban land problems because its residents, compared to those of other settlements such as Tlokweng, were less hostile to migrants from towns and other rural villages. The land settlement in Mogoditshane ran far ahead of land use planning, land surveying and land information

management and hence the village developed largely in an unplanned manner [Molebatsi, 2004]. Although the government foresaw the problem a decade earlier, it could do little due to lack of capacity and resources.

II.2 Modelling of Periurban Land Problems Using Soft Systems Approach

One approach of modelling periurban land problems as suggested by the SSM-based framework developed in Chapter 3 is to involve stakeholders and technical approaches to improve understanding of the periurban problem. Using a soft systems methodology to articulate the periurban problem provides a formal vehicle to observe and explore dysfunctions in periurban land tenure and land administration systems as well as the needed changes, i.e. structural, procedural and attitudinal changes. With SSM, periurban problems can be modelled and analysed, current land tenure and land administration systems can be adapted to resolve the periurban problem. To achieve this, SSM uses conceptual models to clarify and sharpen understanding of the problem, formulate and model the problem, and define clearly what the needs and requirements for periurban areas are. The technical approaches in periurban areas need to be complemented with the social systems approaches in order to succeed is illustrated by Figure II.3

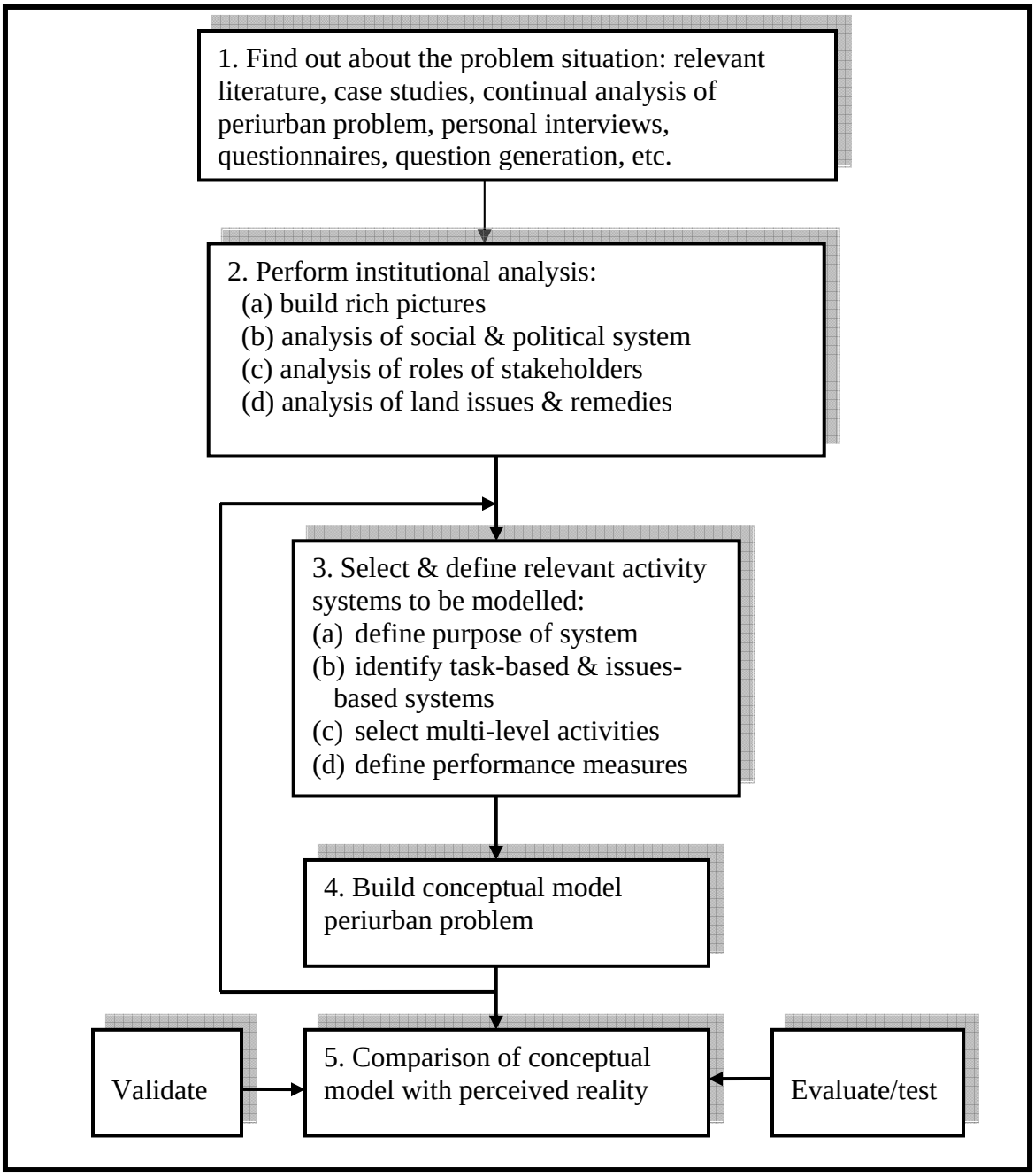

Figure II. 3:Steps in modelling periurban land problems

II.2.1 Finding out about the Problem

In accordance with the framework developed in Chapter 3 and depicted in Figure 3.6 and 3.7, the finding out stage in this research was satisfied by the literature review, field visits, case studies, informal interviews and discussions, and questionnaires. When

exploring a problem situation it is important that neither the worldviews of the land administration specialist nor a specific structure is imposed upon the situation [Checkland, 1981; Checkland, 1985]. Although it is not possible to totally separate the questions being asked from the land administration specialist's perspective, it is vital that the questions should not lead the investigation in a predefined direction. The exploration process should be flexible and adaptable to the people and the circumstances of the problem situation [Checkland, 1981; Wilson, 1984]. It is important to gather as many perceptions of the problem situation as possible from a number of people involved in the problem situation. As a tool for this gathering of views, Checkland and Scholes [1990] found useful to make the initial expression of the problem situation by building 'rich pictures' as a starting point in the exploratory discussion about the problem situation.

II.3 Cultural Analysis

II.3.1 Building rich pictures

The use of rich pictures is the initial stage of the cultural analysis phase. A rich picture is a much better way of representing the problem than the use of prose. Representing the periurban problem pictorially using SSM (rich pictures) is more helpful in understanding and structuring the periurban problem situation.

The rich picture, as shown in Figure II.4, expresses in a condensed way relationships in a periurban problem situation in Botswana, which would require much prose to explain.

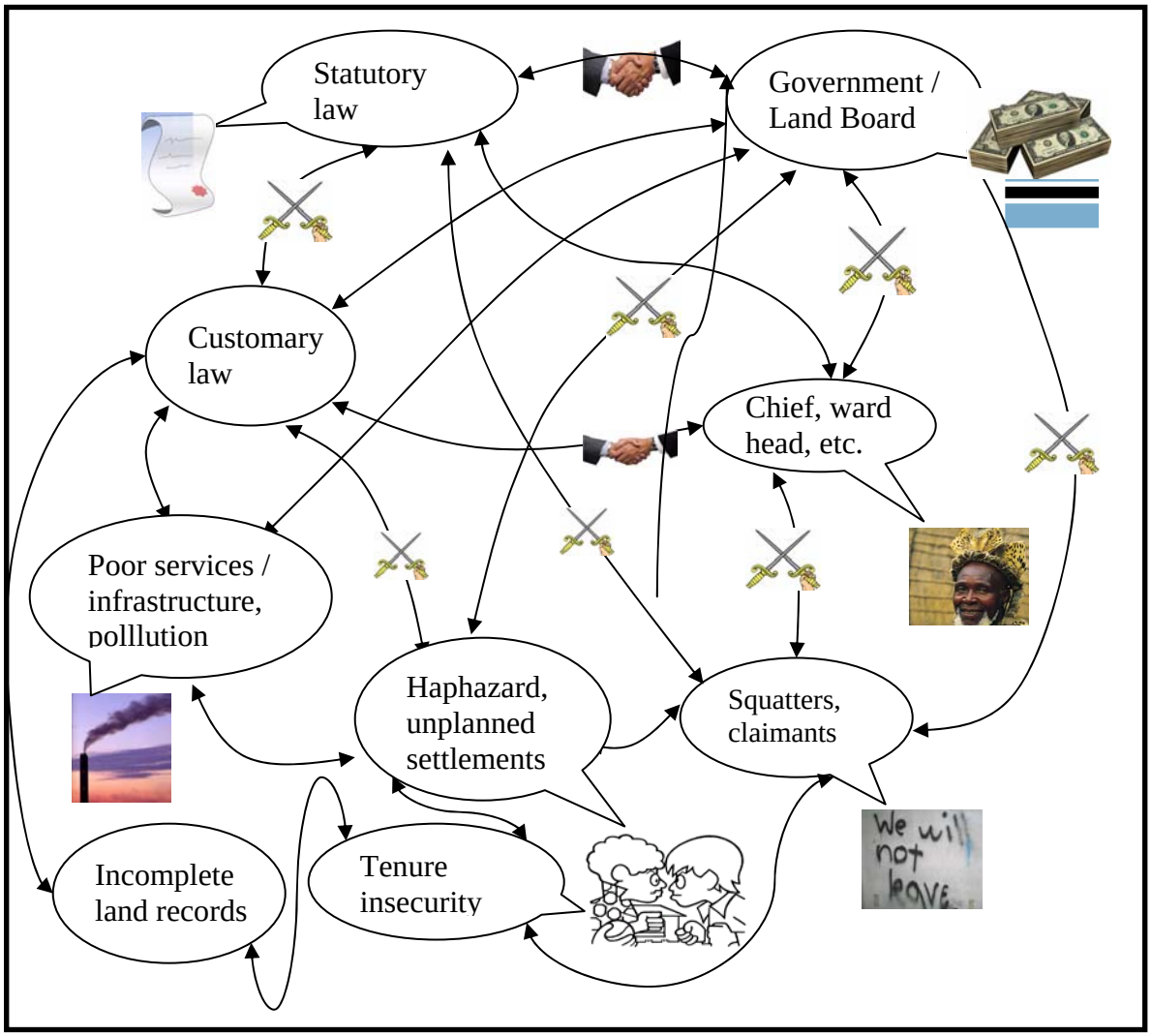

Figure II. 4: An Example of a Rich Picture of Periurban Problem Situation

These pictures and drawings were developed after studying the periurban problem situation in Mogoditshane and also interviewing the relevant stakeholders and visually inspecting the area. Therefore, they depict the current land issues and tasks pertaining to land tenure and land administration system in Mogoditshane. The above periurban rich picture forms the basis for debate among relevant stakeholders and helps generate better understanding of the periurban problem. Based on the generation of rich pictures, the

roles of users and beneficiaries are established and analyzed in the both the social and political contexts.

II.3.2 Social and Political Analysis of the Problem

Using the conceptual framework developed in Chapter 3, the social and political aspects of traditional and contemporary land tenure systems in Botswana will be analysed.

II.3.2.1 Botswana's Land Administration System before the Land Boards

About four decades ago, land administration in the tribal areas was in theory undertaken by the chief under very strict customary rules. For example, the chief apportioned blocks of land to the sub-chiefs in the villages, the sub-chief would in turn re-distribute land to ward heads whose duty was to allot land to individual family heads, and family heads apportioned land to themselves and members of their family (see Figure II.5).

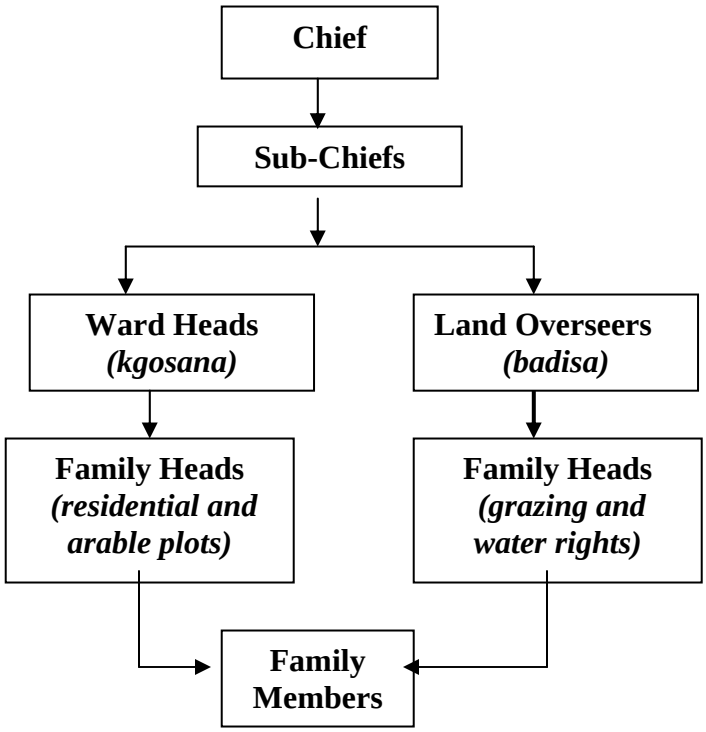

Figure II. 5: Customary Land Administration Structure in Botswana

This decentralized land administration system was very tight and efficient because those who were given the responsibility to oversee land could easily manage their areas, which were only small parts of a larger unit [Machacha, 1982]. In cases where there were no ward heads, especially at the cattleposts (*meraka*), the Chief would appoint as his representative a land overseer (*modisa*).

The following elements are characteristic of the customary tenure system in Botswana and other sub-Saharan African countries:

- every person has the right to land for residential, cultivation and grazing by virtue of his or her membership in some social group;
- individuals have security of tenure, i.e., the right to remain in occupation undisturbed;
- land rights are inheritable;
- individual group has the choice to cancel non-members' rights to land, and can in certain cases, reallocate land not cultivated or underutilized.

Schapera [1943: 44] described the occupation and use of land in Botswana's tribal territories as being governed almost entirely by customary law[48]. In tribal areas:

> *…the Chief controls the allocation of land and assigns a residential area, a separate arable tract and grazing land to each of the wards in his capital. The holding of each ward is controlled by the ward head who must provide for all the households under his authority. Every family is entitled to land for residential and agricultural purposes and the head of the family assigns plots to his descendants.*

[48] Group membership or tribal affiliation was the determining factor in gaining access to land. However, outsiders also gained access through various ways: marriage, paying tribute to the chief, loan, etc. Another point to note is that since land was administered under customary law which is unwritten, there were no land allocation records were kept.

The land tenure structure common to most ethnic *Tswana* groups followed a concentric ring pattern. In the centre was land earmarked for residential and a considerable distance away from home—the 'lands' or arable areas which "may be as far as 30 miles from the village and although generally restricted to certain regions may, in arid conditions, be widely scattered" [Dale, 1976:211]. The grazing and hunting areas would then stretch from the edge of the arable areas to the point where they met the boundary of another village or tribe.

The Batswana[49], like other traditional societies elsewhere around the world, had no precise set of rules for demarcating the various land tenure categories. The different land uses varied according to the needs of society. For instance, if more land was required for residential purposes, the next step was for arable land to be converted into residential. Similarly, if more land were needed for arable agriculture, land from the grazing areas would be equally appropriated. The same would apply for grazing and hunting areas.

Once individuals were allotted occupation and use rights for residential and arable, they exercised exclusive rights over those land parcels. Individuals did not acquire outright ownership rights (in the western sense) but they enjoyed the use rights in perpetuity and the usage rights. The community[50] "retained the reversionary interest in the unlikely event of the land some day falling vacant" [Frimpong, 1993:387]. The right to occupy and use land, despite the fact that it was inalienable outside the group, was nonetheless very secure as it was inheritable, perpetual, and transferable for a consideration amongst group members.

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[49] People who live in Botswana are referred to as Batswana (plural) and Motswana (singular).
[50] Bentsi-Enchill (1965:123): In traditional Africa … the title theory is that the allodial or ultimate ownership of all the land of the community is vested in the State or the community.

Land disputes arbitration was handled by the same land administration authority structure that handled the land allocation (see Figure II.5). In cases of land disputes, an individual would first take the dispute to the family head and if not resolved the dispute would be taken to the ward head or headman (sometimes these two positions would be held by one person), then an appeal would be considered by the sub-chief or section head before being submitted to the paramount chief.

Acquiring Residential Land: For administrative purposes, a tribal territory was divided into sections and wards. A section was composed of several wards (an equivalent of a sub-district) to be administered by a headman whilst a ward was headed by a wardhead.

The ward was a geographically based administrative system, consisting of physically declared boundaries. The ward was laid in a semi-circular arrangement (horse-shoe shape), with the *kgotla* (traditional assembly), cattle-kraal in the centre and the ward head's residence in the centre. Individual families would occupy land in a semi-circular fashion. According a prominent scholar on Tswana property law and land tenure, Isaac Schapera:

> *In appearance the Tswana village is typically a cluster of small circular hamlets separated from one another by narrow lanes or broad roads. Each hamlet is inhabited by a single ward or sub-ward, and their number varies with the size and organization of the population* [Schapera, 1970: 26].

These sections and wards divided the tribal territory into small physical entities. When settling at a new territory, the chief would choose a centre place for a *kgotla* (traditional assembly place) and then allocate himself land for residential and cultivation purposes. Then his advisers and close relatives would be allocated residential land near

him. The next in line would be allocation of land according to wards. The ward head would in turn allocate enough land to individual heads of households and reserve some land for future expansion. The heads of households would allocate building sites to their wife or wives, sons, grandsons and close relatives.

Acquiring Arable Land: Different partitioning rules were applied when demarcating arable land. For instance, cultivation areas were allocated according to soil fertility, clay-loamy soils being the most preferred. The other factor taken into consideration in the allocation process was the ease of cooperation with neighbours. Contiguous fields would be allocated to people of the same blood relations. However, it was common practice for strips of land to left between fields as this was designed to serve several farming strategies [Wynne, 1986: 366]:

- *Buffers of land between blocks of land served as a grazing area for cattle kept near the fields in the growing season. This served the dual purpose of grazing the plowing oxen and milk cows.*
- *These undeveloped portions can be used by existing households on a rotating basis, and kept as commons from which to gather wood, building material such as poles and thatching grass, hunting, and collection of veldt products.*
- *The space between the fields acts as a land bank, and could be divided into equal shares to meet future land expansion and helps in terms of coping with unanticipated future land needs of returning daughters after divorce, widows, and other landless relatives.*

Acquiring Grazing Land and Access to Hunting Areas: With regards to grazing and hunting areas, there were no exclusive usage rights; land resources here were considered to be common property for the benefit of all group members. Pastoral/hunting areas were generally divided into administrative districts and the chief appointed land overseers, whose permission was needed in order to keep cattle or hunt in an area. This is against

the generally held view about Africa tenure that pastoral lands are open access; but in essence they are regulated common property.

In these grazing and hunting areas, individuals established cattleposts (*meraka*). These cattle posts did not confer any permanent use rights like residential and arable. However, any man wanting to sink a well or build a dam had to seek permission from the chief and would have exclusive right over the water it contains as well as grazing rights around a specified radius (current set at about 5 mile radius). The reason behind the exclusive grazing rights around a borehole was to guard against land degradation due to overgrazing. The establishment of cattleposts with borehole or water points has led to the individualization of grazing areas to specific individuals as the 5 mile radius is "generally respected to be within the exclusive use of one who holds the cattle post" (Frimpong 1986, p.60, footnote 51). This practice began in the 1930s with the drilling of boreholes funded by the colonial British government [Schapera, 1943].

The new independent government of Botswana in 1966 felt that the system of land administration needed to be 'modernized' to promote 'social and economic development' of all citizens of Botswana [Ng'ong'ola, 1992].

II.3.2.2 Botswana's Land Administration after the Tribal Land Act

The *Tribal Land Act* of 1968 introduced fundamental changes in the administration of customary land by replacing the traditional land authorities (chiefs, sub-chiefs, ward heads and family heads) with elected district Land Boards (see organisational structure of the government of Botswana depicted in Figure II.6 following page). The Act vested all land in the respective District Land Boards in each tribal territory.

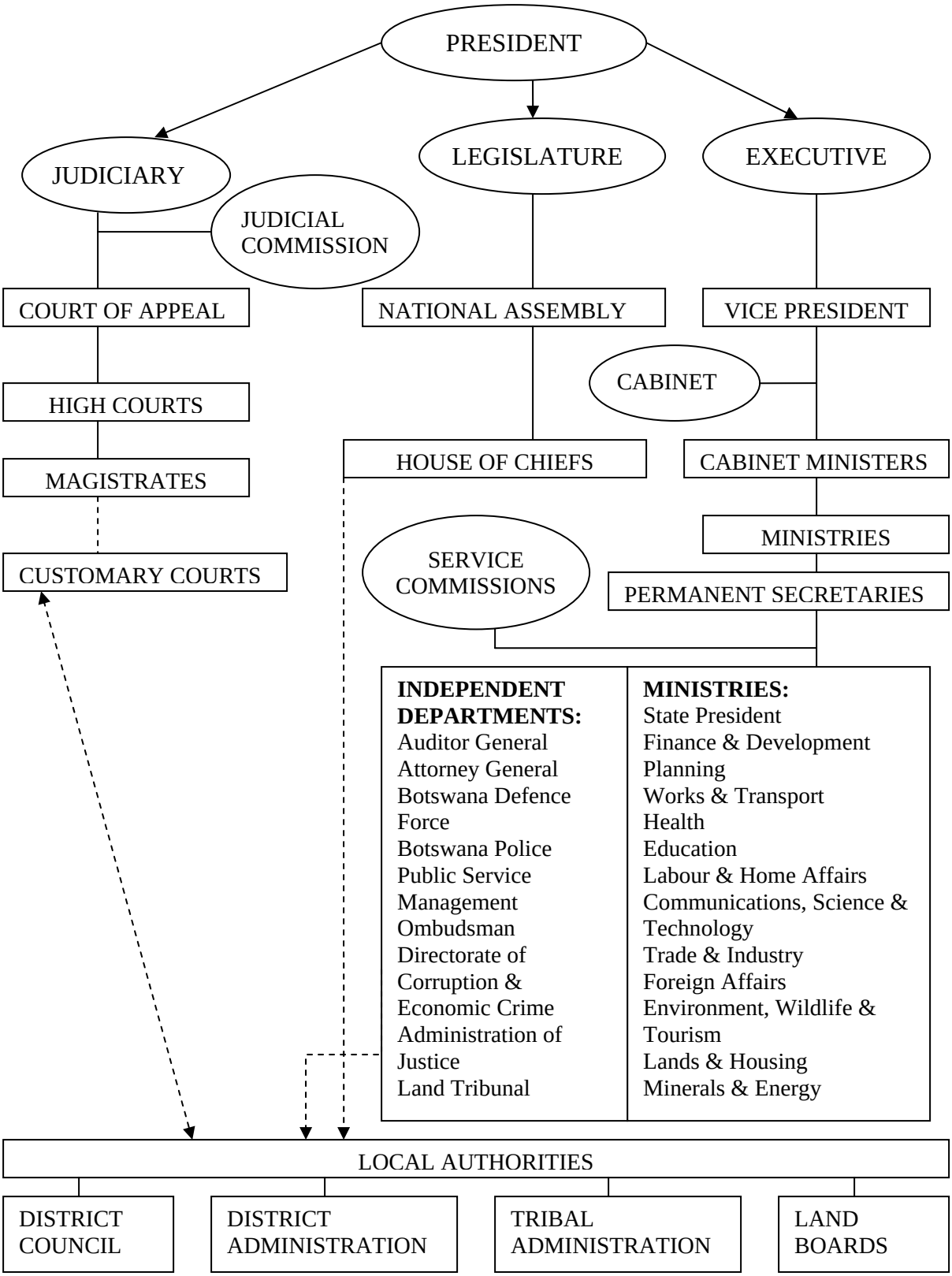

Figure II.6: Botswana Government Organizational Chart [after MFDP, 2003]

The Land Board holds the land "in trust for the benefit and advantage of the tribesmen of that area and for the purpose of promoting the economic and social development of all peoples of Botswana" [sub-section 10(1), *Tribal Land Act 1970*]. Thus, the Act ended the exclusive use of all tribesmen and now the word "tribesmen" has been replaced with a gender neutral word "citizen". The land administration reform was an attempt by the newly independent government to modify the customary land tenure system. For instance, the Act now makes it possible for common law interests—freehold and leasehold to be acquired in the tribal areas. These common law interests were unknown in a customary tenure arrangement. The Land Board functions may include the allocation of land rights, both customary and common law land grants; settle land disputes and hear appeals from subordinate land authorities; maintenance for land records; and cancellation of any grants of land rights as elaborated in Box II.1 and Box II.2.

Box II.1 Structure and function of Botswana's Land Boards [from Mathuba, 1999]

The Land Boards were established in 1970 as local institutions, but governed by broader national land policies. There are 12 Main Land Boards and 37 [now 38] Subordinate Land Boards. The latter were creates in 1973 to assist the Main Land Boards. Land Boards are of the four local government bodies in Botswana – the others being local Councils, the Tribal Administration and the District Administration. While the Land Boards have sole authority over land, they work closely with other local authorities and relevant departments. The Land Boards fall under the Ministry of Local Government (are now to be relocated to the relevant Ministry of Lands and Housing), which controls and coordinates their activities and other parts of the local administration. The Ministry provides them with financial support, in the form of grants, and provides logistical and technical support.

With the aim of improving land administration, the *Tribal Land Act* (TLA) 1968 vested in the Land Boards all former powers of the chiefs in relation to land. The powers of the Main Land Boards include the following:

a) granting rights to use land;
b) cancellation of rights to use land, including grants made prior to operation of the TLA;
c) imposing restrictions on the use of tribal land;
d) authorizing any transfer and change of use of tribal land;
e) determining land use zones;
f) hearing appeals from Subordinate Land Boards, and
g) maintenance of land records.

Box II.2 Botswana's customary land tenure under the Land Boards [from Adams *et al.* , 1999]

The Tribal Land Act, 1968, provided for the establishment of representative Land Boards and transferred all the land-related powers of chiefs to these. The functions of the boards include the allocation of land; imposing restrictions on the use of land; authorising change of use and transfer; and the resolution of land disputes. Tribal land belongs to the people. Individuals are granted rights to use some parts of the land. It may be held by the Land Boards, or by individuals or groups as customary grants, or under leasehold. The land may also be allocated to the state for public purposes. Although land holders do not 'own' land, they have exclusive rights to their holdings which can be fenced to exclude others. Grazing land and land not yet allocated are used communally. The Land Boards grant land rights under both customary and common law.

The holders of customary rights for residential and ploughing purposes enjoy a variety of rights guaranteed by a customary land grant certificate which are exclusive and heritable. Those granted customary rights are entitled to a certificate of customary land grant. According to Tribal Land Act, once these rights are acquired they cannot be cancelled for any just cause.

Common law leases for non-customary land use (i.e. residential, commercial and industrial) are limited in time and subject to eventual reversion to the community. They can be registered under the Deeds Registry Act and are mortgageable and therefore transferable without the Land Board's consent. Common law leases are granted for 99 years for residential purposes, for 50+50 years for commercial and industrial purposes in villages; and for commercial grazing and ploughing land.

Key changes which have been introduced since 1970 include: the exclusion of other people's animals after harvesting and the fencing of arable lands; relaxation of the restrictions on land allocation to allow independent allocations of land to all adults; the replacement of the word 'tribesmen' with 'citizen' in the Act, the charging of a price (agreed between seller and buyer) for transfer of developed land; the introduction of common law residential leases for citizens, foreign investors (50 years), commercial grazing, and for commercial arable farming (15+15 years).

Although the Botswana Land Board model is often cited as the model for sub-Saharan Africa, it is also heavily criticised by both politicians and members of the public in Botswana as Box II.3 illustrates.

Box II.3 Botswana's Land Boards: accountability, criticisms and change [from Mathuba, 1999]

The Land Boards have been criticized by members of the public. Members of Parliament and Members of the House of Chiefs for a number of shortcomings.

- The Act was considered inadequate to deal with the needs of modern society because it enshrined principles of tribal land
- Board procedures are cumbersome and cause unnecessary delays in land allocation, as well as in the settlement of land disputes because of lengthy procedures involving the need for ministerial approval appeals;
- Boards are unable to enforce either their decisions or provisions of the Act.

Originally, each Main Land Board had six members representing the District Council (Councillors), in the Tribal Administration (Chief) and the Ministry of Local Government, Lands, and Housing. The composition of membership has varied over the years and the numbers have increased. In 1989, both chiefs and councilors were removed from membership under an amendment to the Tribal Land Act in order to make the Boards have twelve members while Subordinate Land Boards have had ten. Five are democratically elected by the people at the Kgotla (traditional assembly or meeting place). Another five members are nominated by the Minister of Local Government, Lands and Housing. The members elect the chairperson amongst themselves on a yearly basis. The two additional members on the Main Land Boards are *ex officio* members who represent the Minister of Commerce and Industry and the Minister of Agriculture. Their role is to advise Board members on matters related to their respective Ministries.

The Minister of Lands is responsible for the overall operation of the Boards, and is answerable to Parliament. As the Minister nominates five of the Board members, so can he dismiss them.

The Tribal Land Act was further amended in 1993. The wording has changed such that land rights are now vested in the Boards for "the benefit of Citizens of Botswana' rather than for the "Tribesmen of the area", to the effect that they are now required to manage land in the national interest rather than more local tribal interests. The duties of the Boards have now been expanded to include authorization of change of use and land transfers, and Ministerial consent is no longer required. The amended Act has also made it possible for the Land Boards to cancel customary land rights they have granted, in cases where land has not been developed within the prescribed period or in accordance with the purpose for which it was granted.

Those who feel aggrieved by a decision of the Land Board may now either take their case to the new Lands Tribunal system set up in 1997, instead of the lengthy process of appeal to the Minister as before.

Box II.4 show the land tenure arrangements found in periurban environments in Botswana.

Box II.4 Land tenure categories in periurban areas of Botswana

Customary rights acquired through inheritance or gift. These rights are held by indigenous villagers as well as by people who have been assimilated into the village community. These rights were originally acquired by clearing and claiming unoccupied land and later by inheritance or gift. Indigenous customary rights are considered locally to be as secure as freehold.

Customary rights through allocation by Land Boards. Many people including 'immigrants'[51] are now receiving rights by this means. Rights are allocated to all adults who are citizens of Botswana over 18 years of age irrespective of gender or ethnicity free of charge. The rights are very secure. Foreigners are not eligible for customary land rights.

Common property rights. These are unoccupied customary lands in the village that are used for various purposes such as grazing, firewood, collection of wild products, etc. In literature, these village lands are erroneously referred to as open access even though the customary land authorities or the statutory Land Boards control and manage access to these land rights. Land disputes usually arise due to the over-exploitation of natural resources.

Customary land rights acquired through borrowing or renting. This is widespread in most periurban areas because of shortage of accommodation in the city. Thus new economic opportunities have provided important incentives for customary landowners to develop their land for rental accommodation.

Customary land rights acquired through extra-legal transactions. *Because of shortage of accommodation in urban areas, an increasing number of urban people obtain plots for residential and investment purposes in this way. Many of these extra-legal land transactions are illegal as customary land cannot be sold[52] and therefore these rights are insecure. The unauthorised subdivision and selling of customary land is major source of conflict between the customary landowners and government.*

Common law leases (leasehold). These kinds of leases were introduced in the 1980s to meet the demands of the land market in customary tenure areas. At the time when they introduced in customary tenure areas, they were major innovation. These common law leases, as they are referred in Botswana, allowed customary tenure to be mortgaged. Foreign investors are eligible to obtain common law leases for residential, commercial and industrial uses.

Certificate of rights. This form of tenure was designed for the urban poor in early 1970s and its allocation has been terminated and replaced with fixed period state grant. It was used in the upgrading of the periurban squatter settlement of Naledi in the late 1970s. One of the successes behind COR is its simplicity and affordability by the urban poor and it has been able to curb the mushrooming of squatter settlements in Botswana's urban centres.

Freehold. Freehold tenure in Botswana exists as a relic of colonialism. There are freehold farms surrounding the urban centres of Gaborone, Francistown and Lobatse. Since the late 1970s the government has stopped allocating freehold rights and replaced it with fixed period-state grant, a form of a 99-year leasehold.

Squatter rights. The last category is the most insecure periurban tenure type. It is widespread in periurban environments. Its insecurity is characterised by demolition, eviction orders, litigations, violence and open clashes. The squatter rights can be 'owner-occupiers' or 'tenants'.

[51] The word "immigrant" means citizens of Botswana who are not members of a particular kinship group.

[52] The official and legal position in Botswana and throughout sub-Saharan Africa is that customary land has no value and therefore cannot be sold. The non-recognition of the value of vacant land thus ignores the reality of the periurban land market, as it exists today.

II.3.2.3 Institutional analysis – Analysing the Roles of Stakeholders

Section II.2.2 analysed the socio-political aspects of land tenure systems in Botswana. This section completes the cultural analysis phase of the conceptual framework developed in Chapter 3 by analyzing the intervention strategies from the perspective from the roles and capabilities of stakeholders play in resolving periurban land problems. Since the success of any intervention strategy is greatly dependent on the roles of stakeholders, Checkland and Scholes [1990] have emphasized the need to list exhaustively all probable stakeholders and then group them, in order that the differing worldviews can be gained from stakeholders.

According Checkland and Scholes [1990], any intervention strategy purporting to resolve any periurban land problem, can be structurally viewed using the following three roles:

- **Client or actor:** The person who wants or causes the intervention to take place.
- **Problem-solver**: The client could also be the problem solver. In the context of periurban, the problem solver is whoever wants to do something about the problem situation, e.g. academic researcher, Land Boards, central government, etc. The problem solver in this case identifies the periurban land tenure and land administration requirements as well as the resource requirements for resolving the problem.

- **Problem-owner**: The problem owner is the person(s) or institutions uneasy about the problem. These players are important because the have the potential to delay, derail, or sabotage the process by withdrawing moral and political support, resisting any proposed changes or by withholding any financial support. The problem owner could also be the problem solver, and this often means that the first selected relevant activity looked at is 'the system to do the study' [Checkland and Scholes, 1990].

Checkland and Scholes [1990] suggest that the problem solver should prepare a list of problem-owners, roles of client(s) and other problem-solvers. For instance, in the context of periurban, the three roles can be identified as follows:

- **Client:** Land Board, central government, individuals/groups, local politicians
- **Problem solver:** Land Board by speeding up land allocation, Chiefs/land tribunal for dispute resolution management, central government by providing financial and political support, district council by providing infrastructure & services, Department of Surveys & Mapping by providing required land information, Department of Town & Regional Planning responsible for conducting land use surveys and production of physical plans, Deeds for the transfer and registration of rights, Department of Land for policy guidance, Police for law and order and academics by providing research & expertise.
- **Problem-owners**: This list could include Land Boards, local community, traditional authorities and central government as they have the potential to stop any intervention strategy. In the context of periurban, central government & Land Board are identified as the main problem owners the nature of any intervention strategy.

II.3.2.4 Analysis of Current Problems & Remedies

This section concludes the cultural analysis phase of the soft systems methodology. Much publicity was given in Botswana to periurban land problems in the 1980s and 1990s especially the uncontrolled land development of the Mogoditshane[53] village and the

[53] The name Mogoditshane in Botswana is now synonymous with periurban land problems, i.e. illegal land dealings, unauthorized land developments, haphazard layouts and conflict between customary law and

periurban land problems, which later became the subject of the Presidential Commission of Inquiry in 1991. As the Kgabo Commission Report asserted:

> *In Mogoditshane and other neighbouring villages people do as they like with land. They subdivide masimo, change use to residential plots, sell and allocate plots without the involvement of any lawful authority [1992a:.v]*

According to the Commission, the periurban land problems were a result of:

i. Botswana Housing Corporation had a waiting list of over 20, 000 and could not help.
ii. Department of Surveys &Lands and Department of Town & Regional Planning had no plots to offer.
iii. Self-Help Housing Agency was frozen and could not help.
iv. The Land Board activities were frozen.
v. Ministry of Local Government, Lands &Housing failed to give proper guidance to all its agencies to meet the plight of these houseless people.

Because of the extenuating circumstances surrounding illegal land transactions, the Commission recommended that:

> *The form and severity of punishment must, in the interest of justice, take cognizance of mitigating factors if any…all wrong doers had no other alternative plots available on which to build houses. All agencies had turned their backs on these houseless people who legitimately had secured jobs in towns and had no opportunity to build a decent future for themselves and their families [Kgabo Commission, 1991:79-80].*

Many recommendations for land tenure and land administration reforms were made after the findings of the Kgabo Commission Report. The Government White Paper No. 1 of 1992 provided an analysis and possible remedies to the following identified problems:

Lawlessness. According to the *Tribal Land Act* of 1968, customary land can only be conveyed by the Land Board through a lease. On the contrary, the field owners sell their *masimo* or subdivide fields and sell individual lots (40 x 40m) at prices ranging from P2,

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statutory law. The Presidential Commission on *Land Problems in Mogoditshane and other Periurban Villages*.is often referred to by the name of its Chairman, Mr Englishman Kgabo, as the *Kgabo Report*.

500 to P5, 000 per plot. According to the Kgabo Commission these illegal land dealings are motivated by delays in land allocation by the Land Board, rising land values, high demand for land by the urban poor and poor compensation offered by the Land Board/Government.

Low compensation. The field owners complain that the amount of compensation offered is too low as compared to the open market rate. The government/Land Board on the other hand argues that it cannot pay full market rate, as the land is not owned by field owners, and in any case customary land **cannot** be sold. The government increased the compensation rate for customary land three times and that still fell far below the open market rates. What the government offered was 40 times below open market, hence the problem of illegal land subdivision continues.

Influx of people into periurban villages. The high prices for accommodation and serviced plots in Gaborone were the driving forces for people to seeking customary land in Mogoditshane. It was quicker and cheaper to acquire land in Mogoditshane than in Gaborone.

Illegally acquired land. Those individuals who had acquired land illegally, as identified by the task force in 1992 were to pay a minimum penalty fee of P5, 000 per 1, 600m^2 plot. By April 1999 only 99 of the 3000 people identified by the task force had paid [Habana, 2000]. The P5, 000 fine was a trade-off for being given a customary certificate from the Land Board. This exercise failed because the customary claimants expected the field owners to pay the fine, since they had bought the plots from them.

Loopholes in the Tribal Land Act. There some misinterpretations of some sections of the *Tribal Land Act* such as section 10(2). They claimed that they acquired land rights

before the establishment of the Land Board; and therefore owned customary land in "personal and private capacity". In 1990 landmark case of *Kweneng Land Board v. Kabelo Matlho & Pheto and others*, the Kweneng Land Board sought the intercession of the courts to evict to evict some land occupiers in Mogoditshane (Nkoyaphiri) whom it identified as "illegal" land occupiers. In this case, the Land Board identified Kabelo Matlho as an illegal customary land occupier. The Attorney General (Botswana) countered the Kweneng Land Board argument and concluded that,

> *The only difference … between customary ownership of land and common law ownership of land is that the former does not require registration, whereas the latter does. Thus customary ownership is the equivalent of unregistered freehold title subject to the usual planning and land use restrictions.* [cited in Ng'ong'la 1992: 159]

The above case provides ample illustration of the dangers of trying to understand African land tenure concepts using western or imported legal systems and the equating of customary tenure with freehold tenure was flawed.

Gender discrimination in the Marital Act & Deeds Registry Act. According to Kgabo Commission, the Kgatleng Land Board and other Land Boards rejected applications for lease from married women because of the provisions of the two acts that perceive women who are married in community of property as minors. In addition, Land Boards also denied married women customary grants even though they are not registrable, and instead ask women to seek consent from their husbands.

Lack of enforcement. A task force assisted by 9 police officers and land surveyors was set up to identify illegal land developments and monitor illegal land developments. The task force was powerless to stop further illegal developments as they could only issue warnings.

Ineffective land allocation processes & procedures. Local Land Board Office was created to speed the land allocation procedures, but it could not cope up as the list of applicants requiring land increased from 20,000 to 30,000 in 2001.

Influx of people into periurban areas. Mogoditshane remained the fastest growing settlement at an average annual growth of 16.4% in the country [Kgabo Commission, 1992]. Its population increased from 1, 075 in 1970, 3,125 in 1980, 14, 212 in 1991 and almost tripled in 2001to 38,819 [Nkambwe and Totolo, 2004; Molebatsi, 2004].

Alleged corruption by Land Board officials. According to the Kgabo Commission Report, some Land Board members were alleged to issuing customary certificates in return for payment.

Ineffective land use policy. Preparation of detailed parcel layouts have been difficult to implement as land surveyors were denied access by land occupiers to survey and place pegs on the ground; and applications for subdivision permits and changes of use were neglected by *masimo* (fields) owners. Regularizing unplanned settlements such as Mogoditshane has proved very costly, and would also entail significant cultural and political costs [MLGL&H, c1993: 120; Fourie, 2004].

As part of Government White Paper recommendation, a lands tribunal was set up to resolve customary land disputes.

Those involved in illegal land dealings involved *masimo* owners who sold plots to individuals. They claimed that they owned land in perpetuity and therefore they could sell it, subdivide it, or even convert to other land uses without the consent of the Land Boards [Habana, 2000]. Also, because of the non-delivery of the formal land administration system in Gaborone and the fact that leading public figures were involved, individual

masimo owners felt that they were justified in their actions. The involvement by two senior cabinet ministers in Mogoditshane land problems made the Commission to adopt a tough stance: "Tribal land is our land, it is not to be sold…we have to be ruthless. If people have acquired land illegally they have to suffer the consequences" [Kgabo Commission Report, 1992: v & 72].

In 2001 during the fieldwork, government began to take stern action against illegal subdivision by demolishing houses (See Figure II.7 below for houses marked for demolition).

Figure II. 7: Examples houses marked for demolition usually painted with a red cross

II.3.2.5 Summary of the Periurban Land Issues

In summary, the issues discussed by the *Kgabo Commission Report* and confirmed by the fieldwork indicate that the following are yet to be resolved in Botswana's periurban villages, particularly Mogoditshane in order to meet the land tenure/land administration requirements for periurban. The issues as depicted in Table II.1 are divided into land tenure and land administration issues.

Table II.1: Land tenure & land administration for periurban areas

Land Tenure Issues	Land Administration Issues
Discriminatory land-related legislation	Decentralised land administration systems
Recognition of legal/tenure pluralism	Legal enforcement/illegally acquired land
Effective land use policy	Training of Land Board members & officials
Improved access to land for housing	Increasing Land Board members transparency & accountability
Simple & affordable tenure options	Revision of compensation provisions
Ability to access loans/credit	Comprehensive land use planning
Security of tenure & protection of customary tenure	Influx of people into periurban villages
Improved environmental management	Environmental protection

The "packaged intervention strategies" instituted by the Botswana Government White paper No. 1 of 1992 have had marginal successes, as evidenced by the escalation of the extralegal land subdivisions and sale of plots in periurban areas after the Kgabo Report. These resulted in conflict between government and customary land claimants, most markedly in Mogoditshane. These interventions failed because they were increasingly viewed as top down imposed approaches by central government, and not driven by or responsive to local opinion [Farvaque and McAuslan, 1992; Molebatsi, 2004]. For these approaches to have succeeded, the recommended changes by the government must be systemically desirable and culturally feasible.

II.4 Selecting and Identifying Relevant Activity Systems

The purpose of this section is to identify systems relevant to resolving periurban land problems discussed in section II.3.4 to be modelled in section II.5. The issues identified were classified into land tenure and land administration issues. This section focuses on land administration requirements or activity systems based on the issues identified in section II.3.4. The relevant land administration requirements/options will then be selected

and defined. These selected land administration options will be conceptually modelled in section II.5.

II.4.1 Identification of relevant activity systems

Based on the identified land tenure/land administration issues, it is possible to select and define relevant activity system necessary to resolve particular land tenure or land administration-related problems. For instance, in order to resolve the land tenure and land administration issues raised in Section II.4, one or more of the following options for reforming land tenure and land administration systems will need to take place (see Figure II.3):

i. revise legal and regulatory framework;
ii. recognise legal & tenure pluralism;
iii. make land use policies more effective;
iv. improve access to land for housing;
v. design simple and affordable tenure options;
vi. improve ability to access credit;
vii. improve security of tenure;
viii. promote long-term strategy for development for development of periurban; and
ix. increase Land Board transparency &accountability in land allocation.

And in order to carry out the above activities, the following land administration related activities will also need to take place (see Figure II.4):

i. promote optimal and sustainable use of land;
ii. decentralise land administration activities;
iii. improve legal enforcement of Land Board decisions;

iv. train Land Board members & officials on new concepts of land development;

v. revise compensation provisions for acquiring customary land;

vi. strengthen implementation of physical plans; and

vii. establish mechanisms to promoting the protection of the environment.

II.4.2 Selecting issues-based and primary task relevant activity systems

In soft systems methodology, there are two types of human activity systems that lie at opposite ends of the spectrum. It should be noted that the distinction between issues-based and primary task systems are not absolute. At one end is the primary task system that deals with existing institutional arrangements, and aims at improving the institutionalized arrangements within an organization. Primary task systems exist in the real world and are easier to map to reality. On the other end is the issues-based human activity system that requires innovative solutions, and thus draws from innovative concepts and mental processes that may not exist in a formalized real-world situation.

Sometimes thinking in terms of task-based and issues-based human activity systems can pose a problem of a 'blinkering' effect on the thinking process. Therefore, in order to move the thinking process forward to the next level, the use of metaphors maybe employed in dealing with "conservative thinking, premature judgement of solutions and politically difficult situations" [Davies and Ledington, cited in Checkland and Scholes, 1990:33].

Section II.4.2 indicates that issues-based systems such as issues of access to land for housing; ability to access credit; etc.; will need to be addressed using innovative concepts and processes. Section II.4.2 also indicates that a task-based system should be developed to revise land use policies, to revise the legal and regulatory framework, etc. Because of

logistical reasons, only two systems identified in Section II.3.4 will be selected for modelling, as the case study might be too big. One issue-based system will deal with poor access to land for housing whilst the other selected task-based system will focus on the task of making land use planning more effective in a periurban environment.

II.4.3 Selection of Relevant Multi-level Activity Systems

The previous sections have shown that the transformation processes required to resolve periurban land problems are concerned with the reform of the current customary land administration system into a new (or reformed) land administration system (Figure II.7). This is intended to improve access to land for housing for the urban poor, and to make the current land use policy more effective in customary periurban areas.

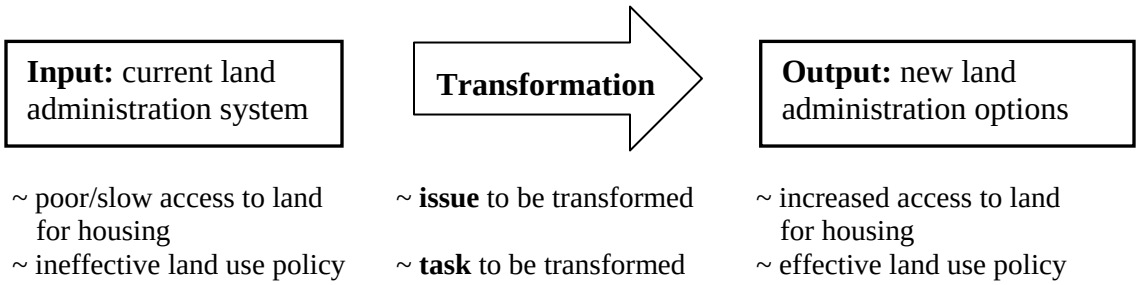

Figure II. 8: Transformation process for land administration issues & tasks

The transformation process depicted in Figure II.8 shows two systems to be modelled, one based on the land administration issue to be resolved—that of improving access to land for housing by the urban poor—and the one, the land administration task to be transformed – that of making the current land use policy to be more effective. Each relevant activity system consists of a set of sub-systems linked together to form the whole primary system, and exhibiting together the emergent properties of the primary system as a whole.

In selecting some hopefully relevant activity systems or sub-systems (or options for reforming land administration) to model, there are in principle at least three levels, those of the sub-system, primary system and the wider system level (See, for example, Figure II.9 & II.10). The selection of the primary activity systems or sub-systems depends on the relevance to the periurban land administration issues or tasks to be addressed.

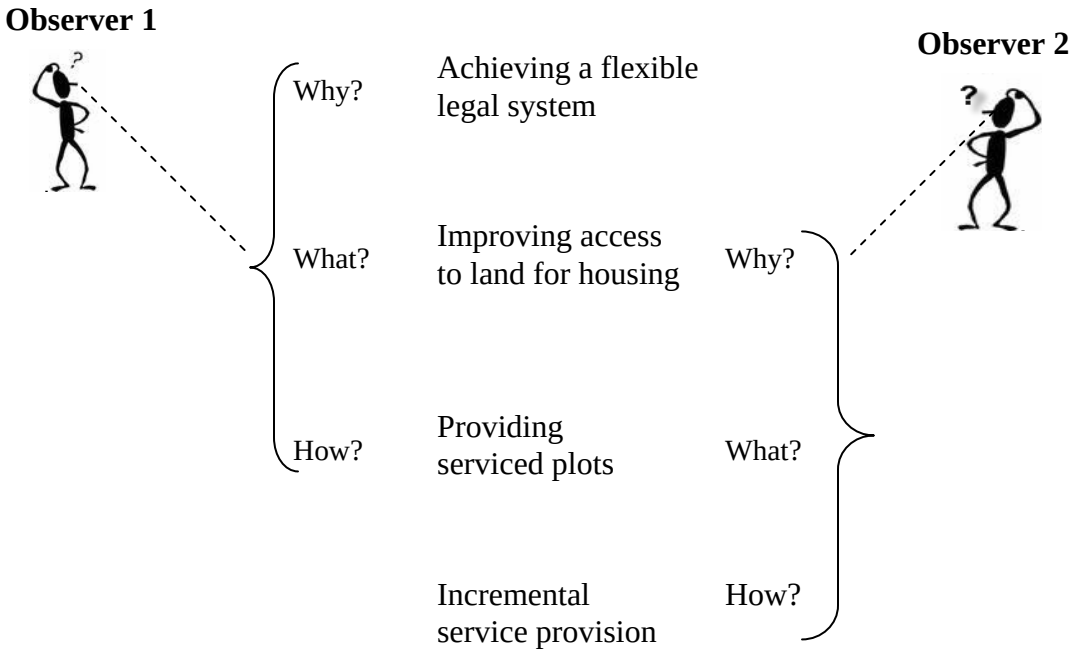

Figure II. 9: Overview of Multi-level Perspectives

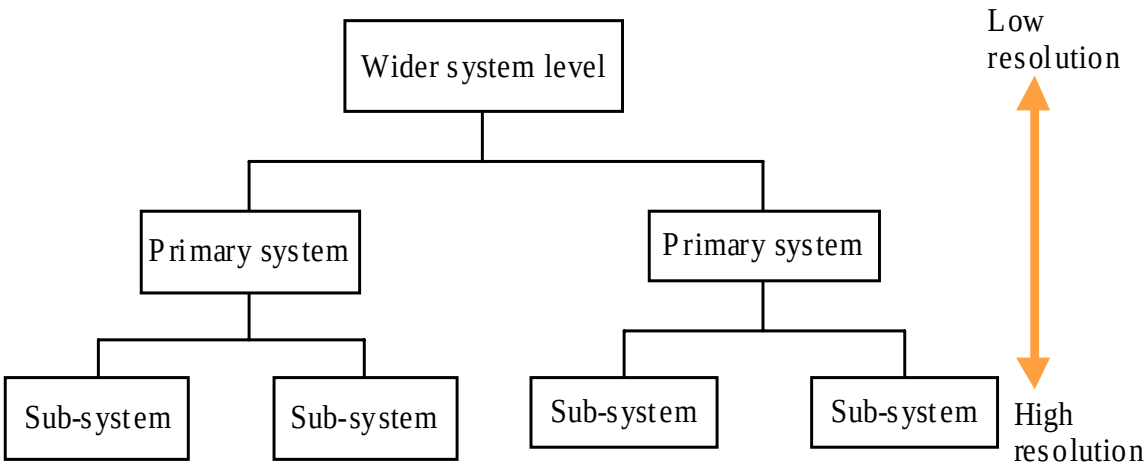

Figure II. 10: Selecting Relevant Multi-level Activity Systems (continuation of Figure II.9)

As noted earlier, in sections II.3.4, in order to be able to carry out the required transformation process, one or more of the following land administration options for reforming land administration system will need to take place (see Figure II.11, following page):

1) revise legal and regulatory framework;
2) recognise legal & tenure pluralism;
3) improve access to land for housing;
4) offer simple and affordable tenure options;
5) improve ability to access to credit;
6) improve security of tenure;
7) make land use policy effective;
8) promote optimal and sustainable use of land;
9) build capacity in Land Boards administration;
10) improve dispute prevention & resolution; and
11) increase accountability & transparency of Land Board members.

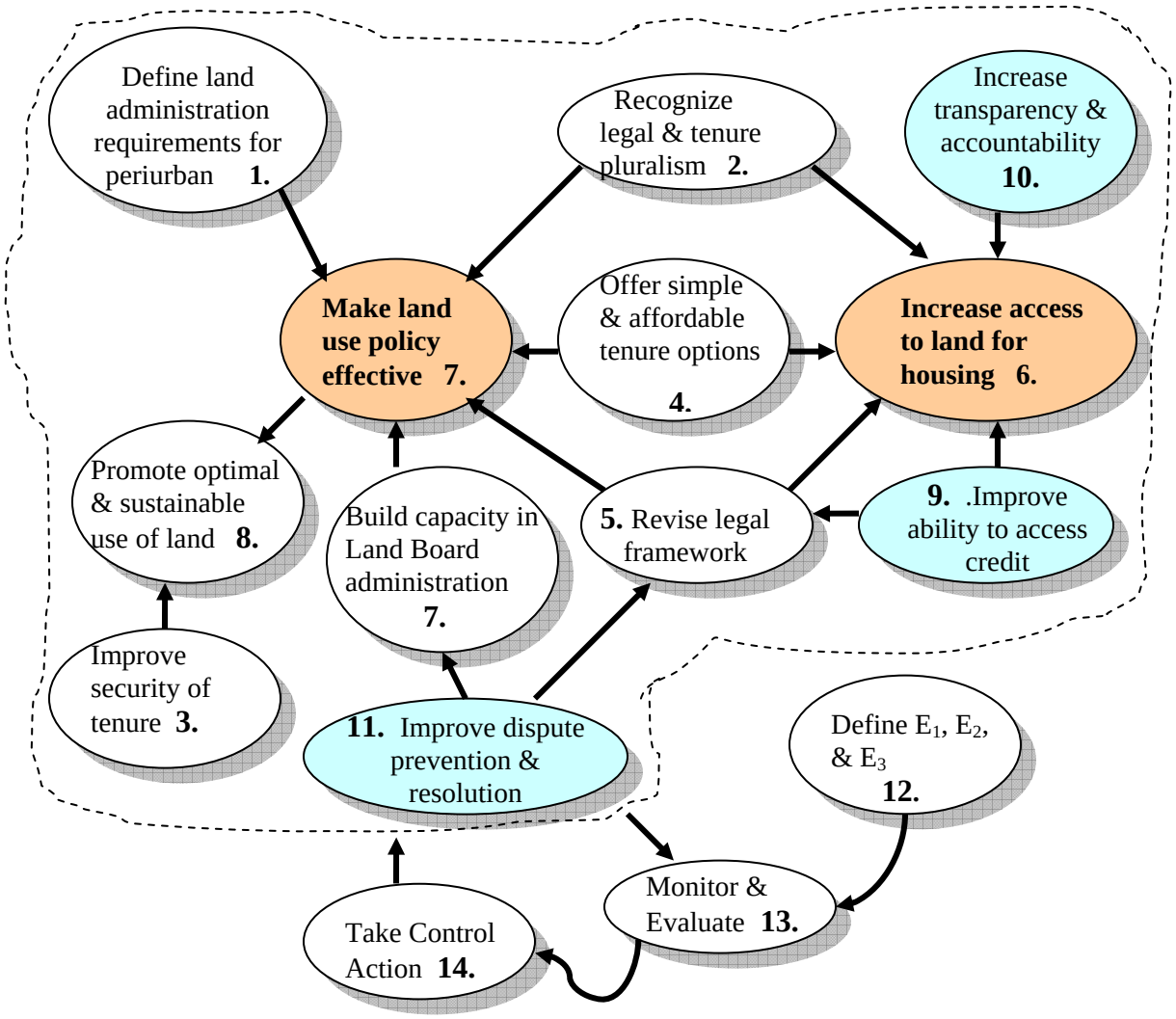

Figure II. 11: Overview of Land Administration Activity Systems

II.4.4 Definition of the Purpose (Root definition) of Relevant Activity System

Once the relevant activity systems have been selected for modelling, the next step is to clearly define the main purpose of these relevant systems using root definitions. A root definition is similar to a hypothesis or a mission statement that expresses the purpose of the system [Checkland and Scholes, 1990]. It ensures that any conceptual modelling to be

done addresses the periurban land administration requirements. According to Checkland and Scholes [1990], the main purpose of a relevant system can be expressed in three ways:

- as a transformation process diagram as in Figure II.8;
- as a single expression; or
- as written statements.

In the first approach, the purpose of the activity system can be defined as a transformation process in which an entity, the 'input' is transformed into a new entity called the 'output' [Checkland, 1999]. Figure II.9 depicts the associated input, transformation process and the output in the context of land administration issues and tasks to be addressed in periurban environment. The system to be modelled can be defined by an expression such as "*a system to do P by Q in order to contribute to achieving R*", where P is the transformation process; Q is the means to achieve the required transformation; and P is the goals and aspirations of the problem-owner [Checkland, 1999]. And lastly, the purpose of the system can be defined by written statements.

Defining the main purpose or vision of an activity system forces the problem-solvers to focus very clearly upon the identified periurban problems and to ask searching questions about their understanding of the problem. It is therefore important to involve all stakeholders to comment upon root definitions as this has the potential to reveal tensions, conflicts or differences of opinion. It also ensures that the selected relevant activity system(s) is the one that the organization recognizes that it needs; hence root definitions form the basis for conceptual model building. Agreement by all stakeholders on the main

purpose of the selected activity system determines whether to abandon the system, or to proceed to the next stage, the conceptual model-building phase.

As noted in Figure II.7, two activity systems were selected for modelling, one issues-based—that of improving access to land for housing—and the other one a primary task-based system—that of making land use policy more effective. The root definitions of the two selected activity systems to be modelled were defined as follows:

A new land administration system or option concerned with improving access to land for housing, in keeping with differing worldviews, values, norms, goals and aspirations, in order to promote greater equity and environmental sustainability of customary periurban environments.

Root Definition for System to Increase Access to Land for Housing

An effective land use policy concerned with comprehensive land use planning; incremental provision of infrastructure & services, environmental protection, in order to facilitate sustainable development of customary periurban environments.

Root Definition for System to Make Land Use Policy more Effective

The next section defines the criteria for evaluating the performance of the conceptual models to be developed.

II.4.5 Measures of Performance

The complex periurban land problems require simple and flexible land administration options that are capable of adapting to rapidly changing situations. This means that any proposed solution to the periurban land problems must meet this condition. In soft systems methodology, this condition can be met by building conceptual models of relevant human activity systems as sets of linked activities, with feedback loops.

These activities are also linked to other sets of activities that monitor and provide feedback for taking control action if necessary (the monitoring and control phase). In monitoring and taking control of a problem situation, it is therefore necessary to define the performance criteria of a human activity system as a whole. The monitoring and control phase is made up of two components: the 'monitoring' component as defined by the selected performance criteria; and the 'take control action' component that depends on the feedback from the monitoring component before recommending possible control action [Checkland, 1999].

As noted in Chapter 3, sections 3.6 and 3.7, the monitoring and control phase depends on three performance criteria:

- ***Efficacy:*** Does the transformation process produce the required results?
- ***Efficiency:*** Is the transformation process sustainable in terms of resource constraints?
- ***Effectiveness***: Does the transformation process contribute to both the short-term and long-term goals of the organization?

Fulfilling the above three criteria validates the conceptual model and shows that it is consistent. Testing the conceptual models prevents the modelling from being restricted to the system level only, and enhances the problem-solver's thinking and understanding of the problem [Checkland, 1999]. In this way, the understanding of the periurban problem is improved.

II.5 Conceptual Model Building of Selected Relevant Systems

Section II.3.4 has identified the periurban land issues and tasks that currently exist in Gaborone environs, particularly in Mogoditshane. Section II.4 selected and defined relevant land administration activities (or options) that could be modelled to improve

understanding and demonstrate the application of soft systems methodology in dealing with complex periurban land problems identified in section II.3. This section will now develop conceptual models of the two relevant activity systems that were selected in section II.4.2.

The two systems selected and defined in section II.4.2 can be modelled conceptually in Figures II.12 to II.14, to show which activities/systems or sub-systems would be needed to achieve the transformation specified in the root definitions; and whether they are dependent or independent of each other. The conceptual models depicted in Figures II.12 to II.14 are not models of the real periurban problem situation. They are instead process diagrams showing a minimum set of processes, which are required to achieve a transformation specified in a root definition. The process diagram acts as a conceptual or intellectual device that provides structure for exploring, thinking, understanding and debating the problematic periurban land situation being addressed. The conceptual model provides accounts of a periurban situation based on declared worldviews or perceptions that can be used to stimulate discussion about the real problem and desirable changes [Checkland, 1999].

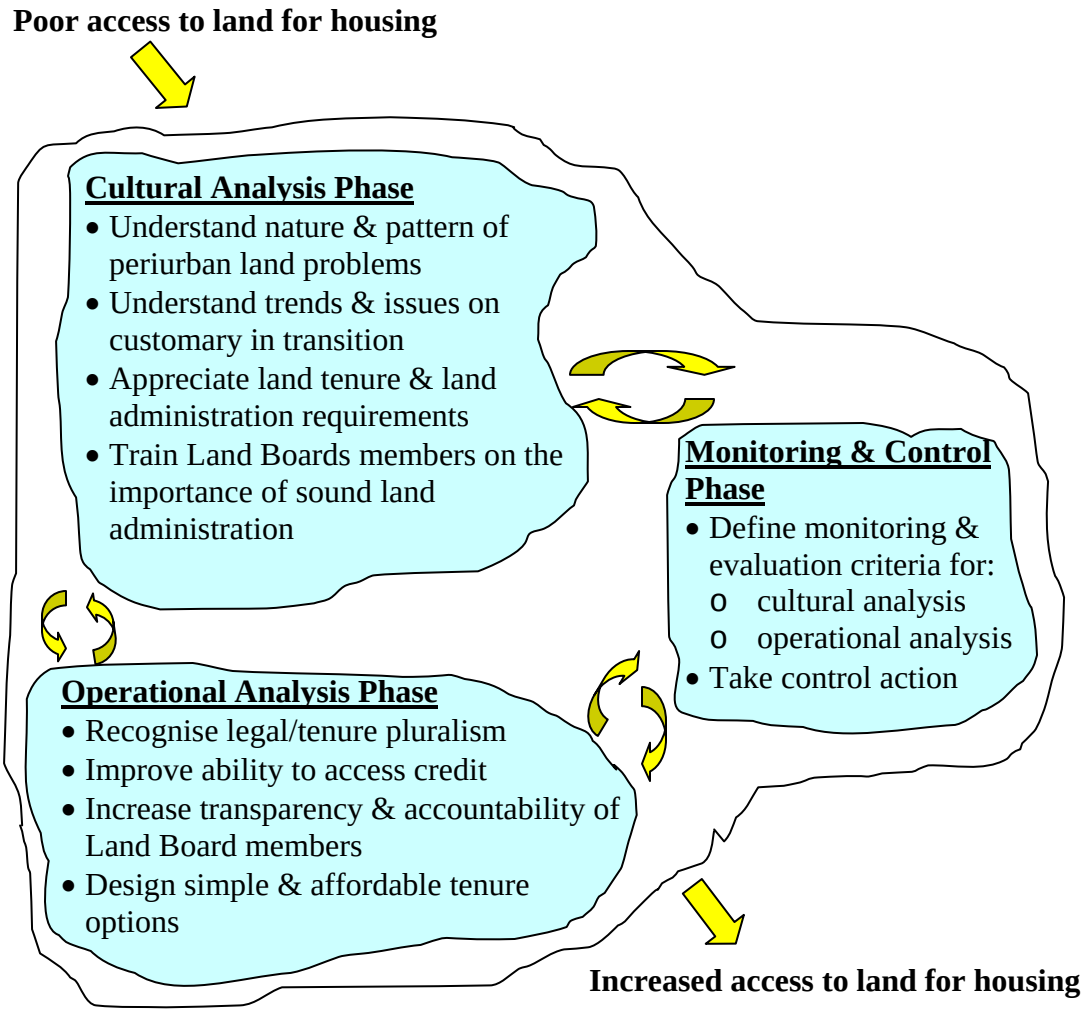

Figure II. 6: Conceptual Model of System to Increase Access to Land for Housing in Periurban Villages in Botswana

Figure II.13 above outlines the main activities of a conceptual model of a system to 'increase access to land for housing'. It should be noted that the conceptual model has been completed at a much-generalized level (low resolution). Each activity identified in the Cultural and Operational Analysis phases will itself need to be expanded at a higher level of resolution (more detail). Thus under Operational Analysis, the sub-system (or local system) 'review legal and regulatory framework' may entail the establishment of more than one sub-sub-systems to deal with the local activity, e.g., identify loopholes,

conflicts and overlaps in the land acts; understand the land acts; etc. Also, in Monitoring & Control Phase, local systems will require different sub-sub-systems to deal with the activities of monitoring and taking control action in each of the activities in the Cultural and Operational Analysis systems.

Figure II.14 (following page) outlines generalized conceptual model of a system to 'make land-use policy effective'. The above model is also of a very general nature and it be further broken down into sub-systems, sub-sub-systems, etc. till the analyst reaches system

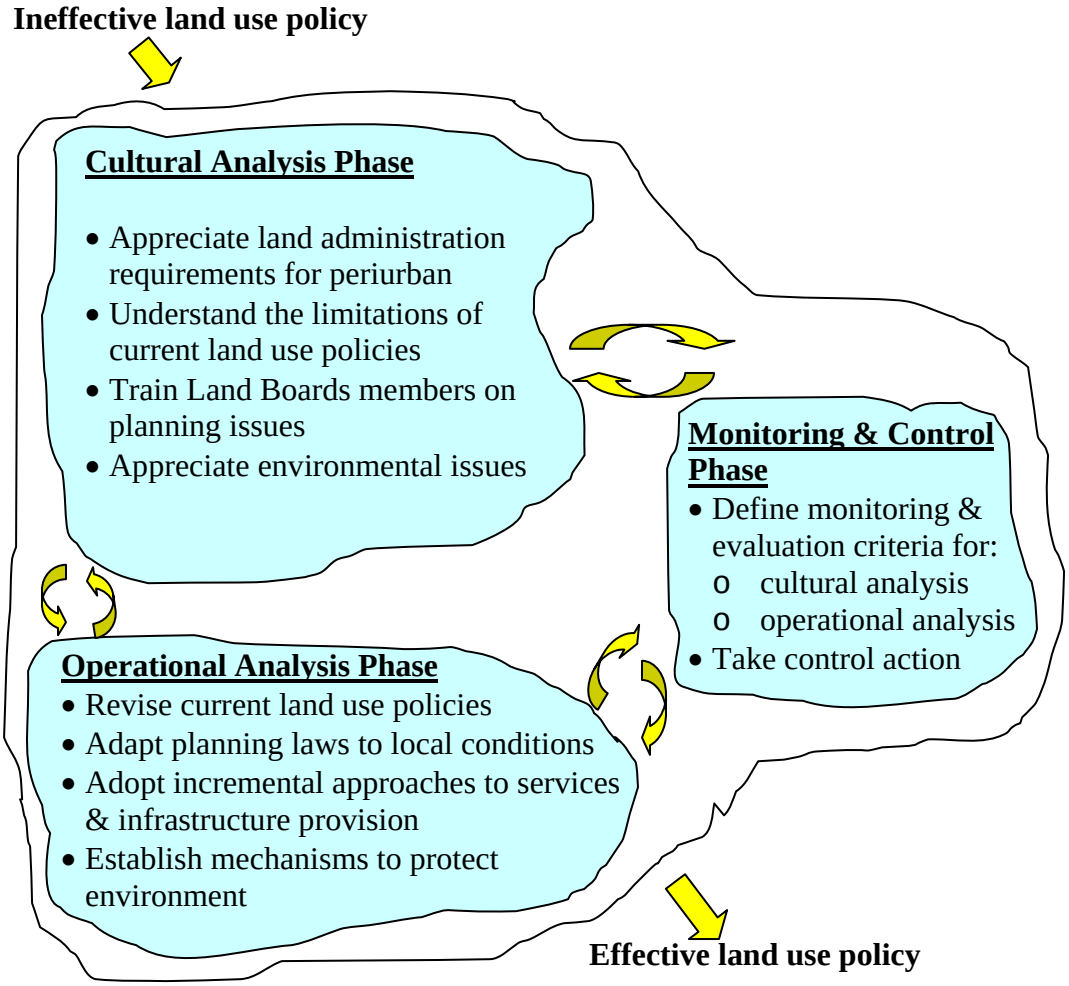

Figure II. 13: Conceptual Model of System to Make Land Use Policy Effective

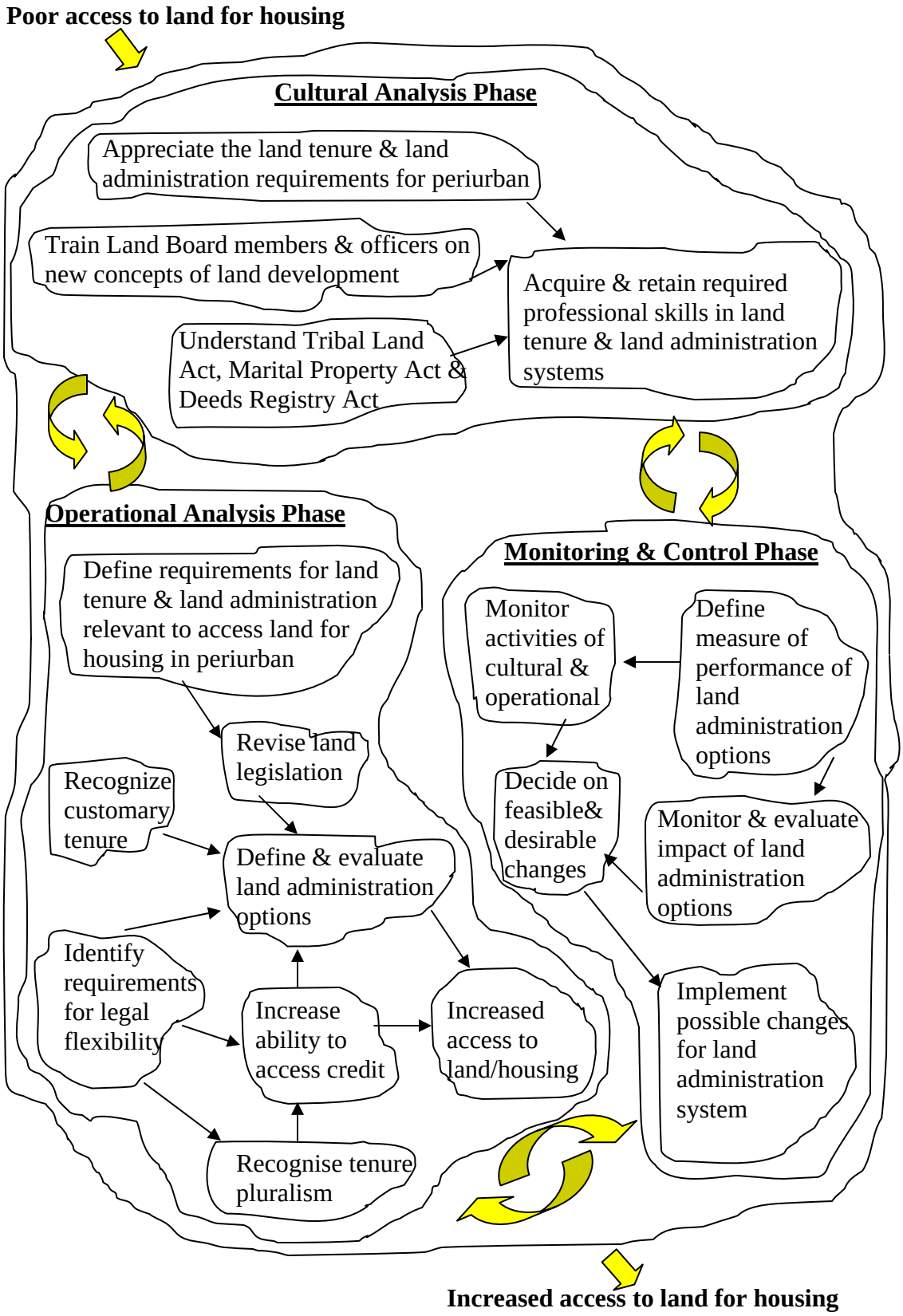

Figure II. 7: System to Increase Access to Land for Housing Modelled in More Detail

components. A similar analysis can be undertaken in opposite direction till the analysis reaches larger entities taken to be environments.

It should be noted that both systems do not operate in isolate but are dependent on systems at the wider system level, as in Figure II.14. Based on these models, three levels are therefore in place for the periurban environment—the wider system level, the primary system and the sub-systems. According to Figure II.10, three levels are identified as follows: at the upper and wider system level are 1, 2, 3, 4, 5 and 8; at primary system level are 6 and 7; and at sub-systems level, 9, 10 and 11. Figure II.13 shows in greater detail a conceptual model of a primary system to 'increase access to land for housing', by expanding Figure II.12.

II.6 Comparing Conceptual Models with Perceived Reality

This section is the final step in the application of soft systems methodology to modelling periurban land problems. The purpose of this section is to test the conceptual land administration reform model by comparing it with what exists in the periurban real world situations. Comparison of conceptual models with the problem situation provides a means of clarifying the periurban problem by opening up a structured and coherent debate/discussion about a problem situation. In this research, comparison of conceptual model with reality is used as a source of questions to ask of the existing periurban problem situation and the answers to those questions clarifies the understanding of the periurban land problems. This is achieved by questioning the various worldviews and perceptions of the periurban land problems.

The debates around periurban land problems may be conducted by a variety of ways appropriate to a particular situation, e.g., stakeholder consultation, workshops, meetings,

one-to-one interviews or through dialogue carried over a period of time [Checkland, 1999]. All these techniques were used in this research.

In soft systems methodology, four techniques are usually used in comparing the conceptual model with the perceived reality. These are: (1) general discussion about the nature of the models; (2) formal or ordered questioning; (3) (historical) reconstruction of a sequence of events according to a conceptual model and then comparing this sequence with what actually happened; and (4) overlay of conceptual model with the model of reality to show 'mismatch' [Wilson, 1984:75; Checkland, 1999:178-179]. In this thesis, the second method of formal questioning was selected since it is the most popular in the soft systems literature. The following questions were developed to query the existing periurban problem situation:

- Does the activity exist?
- How is it done and who is responsible?
- How is it judged?

In this research, responses to the formal questions were obtained directly through informal interviews with Land Board chief executives, land surveyors, planners, researchers/academia, lawyers and donor agencies; and also indirectly through visual impression of the areas, survey questionnaires and literature review. The summary of the comparison of conceptual model with reality are shown in Table II.2.

Table II.2: Comparison of Conceptual Model with Perceived Reality

Activity in conceptual model	Does the situation exist?	How well is it performed and who is responsible?	How is it judged?	Comments
1) recognise legal & tenure pluralism	Yes, through the Tribal Land Act	Fairly well through the Tribal Land Act & Deeds Registry Act	E_1: yes; E_2: no/yes; E_3: yes	Legal/tenure pluralism offers choice but may affect efficiency
2) improve security of tenure	Yes, the through Tribal Land Act	Generally very secure as protected by Constitution & Tribal Land Act	E_1: partly, excludes other groups E_2: yes; E_3: yes	The biggest threat is government evictions & demolitions; insecure rights of hunter-gatherers, women
3) improve access to land for housing	Yes, ongoing on all periurban areas	Fairly well ~ declare periurban settlements planning areas; detailed layouts by Planning and Survey Departments	E_1: partly, slow process but better than formal system; E_2: yes, land is barely serviced; E_3: partly meets the objective	Lack of services still a big problem for periurban
4) offer simple tenure options	Yes, ongoing	Fairly well ~ gradual approach	E_1: partly, limited land supply; E_2: uncertain; E_3: yes, more equitable	Need to find long-term innovative solutions
5) improve ability to access credit	Yes, ongoing	Cautious & gradual approach by Land Boards/Central Government	E_1: partly, high levels of poverty E_2: yes, source of concern; E_3: partly	Undeveloped financial markets
6) make land use policy effective	Yes, ongoing	Not very effective	E_1:?; E_2: ? E_3: source of concern	Capacity constraints; unaffordable development standards
7) improve dispute prevention & resolution	Yes, a Land Tribunal has been set since 1992	Fairly well ~ the Land Tribunal with chiefs resolving dispute a local level	E_1: yes; E_2: uncertain; E_3: yes, less cases going to the High Court	The Land Tribunal currently hears cases on customary tenure; Chiefs hear disputes at local level.
8) build capacity in land administration	Yes, ongoing	Certificate, Diploma & Degree programs local universities & abroad	E_1: yes/no; E_2: training abroad expensive & may not be relevant; E_3: partially	Need to develop a Centre for Land Administration to address capacity issues
9) increase accountability & transparency	Yes, ongoing	Fairly well ~ free elections of Land Boards members; the Board can sue & be sued	E_1: ?; E_2: ?; E_3: source of concern	This will instil credibility and confidence in the Land Board system
Performance criteria for evaluating conceptual model:				
E_1: Efficacy – measured by asking 'Does the system work?' (yes/no/partly) E_2: Efficiency – measured by asking 'Does the result justify the amount of resources used?' (yes/no/partly) E_3: Effectiveness – measured by asking 'Does the system meet both the short and long-term goals?' (yes/no/partly)				

II.7 Testing Comparison Results

Table II.3 provide a summary of interpretation of comparison of results.

Table II 3: Evaluating the Desirability/Feasibility of Activities the Conceptual Model

How will it be done?	Systemically desirable?	Culturally feasible?	Possible action
i) recognise legal & tenure pluralism	Yes	Yes/No	This should be done on a continual basis to meet the changing needs of society; other might oppose change
ii) improve security of tenure	Yes	Yes	Remove threat from eviction/demolition by government; recognise other tenure options, e.g. hunter-gatherer rights
iii) improve access to land for housing	Yes	Yes	Speed up land delivery
iv) offer simple tenure options	Yes	Yes	Design innovative solutions; recognise other tenure options
v) improve ability to access credit	Yes	Partially	The urban poor are generally risk-averse.
vi) make land use policy effective	Yes	Yes	This a very challenging task at the moment due to capacity constraints
vii) improve dispute prevention & resolution	Yes	Yes	Necessary to improve credibility, efficiency & confidence of the system
vii) build capacity in land administration	Yes	Yes	Need to establish a Institute for Land Administration to service country/region
ix) increase accountability & transparency	Yes	Yes	Need to clarify concerns of lack of transparency & accountability in Land Board system
Criteria for evaluating desirability & feasibility of activity system:			
Systemic desirability: measured by performance question 'Are recommended changes relevant to the systems and subsystems that comprise the Botswana periurban problem as a whole?' (yes/no/partially) **Cultural Feasibility:** measured by performance question 'Are the recommended changes meaningful within the periurban Botswana situation, e.g. worldviews, values and aspirations and culture? (yes/no/partially)			

II.8 Conclusion and Discussion

Systemic desirability involves making sure land administration resources for periurban environments are adequate and logical as well as creating mechanisms for monitoring and

control to ensure effectiveness. Such measures may include capacity building in land administration, flexible zoning regulations, comprehensive land use planning and control. The low educational background of Land Board members makes it difficult for them to understand the nature of work they are called upon to perform. The slow land delivery process in urban and periurban in releasing residential plots leads to frustration on people hence they start allocating themselves plots in areas earmarked for future developments.

Cultural feasibility involves making sure changes are socially and politically acceptable and not driven by logic alone. Stakeholders need to understand and recognise informal and customary tenure institutions and incorporate them into *de jure* institutions in order to enhance security of tenure and better management of periurban land. Lack of local community participation in the land administration process creates gaps between the public and the Land Boards and as result people feel it is useless to express their needs because they are never met. When stakeholders accept changes as systemically desirable and culturally feasible, then SSM process is complete.

The modelling and analysis of the periurban land problems in Botswana has identified the strengths, weaknesses and risks inherent in the land tenure and land administration processes. This, in turn, leads to ability to determine whether the processes are effective in achieving their goals and objectives, and to identify significant causes why periurban problems continue to exist despite effort to eliminate them. These provide drivers for prioritizing improvement for periurban land tenure and land administration processes. There is no prescription on how to resolve the periurban land problem. Not only is the situation in periurban environments changing fast and uncertain, but also the fact that conflict, law and order problems prevail.

Intervention strategies to address periurban problems may create more confusion than what already exists at the moment. Strategies should be designed to deal with the unintended outcomes of any land tenure or land administration options in the periurban environment.

In this kind of uncertain environment, soft systems methodology provides an ideal framework for exploring and understanding the processes of generating understanding of the periurban problem. SSM provides a way of formulating and structuring the processes for generating understanding of the periurban problem situation and continually devising recommendations for possible courses of action of desirable and feasible changes. SSM can contribute to clarifying the periurban problem, reducing conflict through stakeholder participation, and instilling in customary landholders and government officials a positive attitude. In periurban environments that are undergoing abrupt tenure transformations, the methodology provides a suitable framework for modelling periurban problems that are difficult to define clearly and for which no clear set of objectives can be agreed upon.

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APPENDIX III

MANAGEMENT OF PERIURBAN LAND PROBLEMS: WHAT CAN BE LEARNED FROM MALAWI AND SOUTH AFRICA?

Chapter 3 has provided a conceptual framework for modelling periurban problems for improved understanding and framing of issues through a soft systems approach. The framework was subsequently applied in Appendix II in the case study of periurban Botswana to further improve our understanding of customary periurban land problems through the construction of conceptual models, which were rigorously tested. Once the foundation for understanding the periurban problem was laid, the study proceeded to address the periurban land tenure and land administration requirements, which is necessary for the design of a strategy for meeting land tenure and land administration requirements for periurban environments in southern Africa.

In this case study, issues pertaining to periurban land problems will be analysed in the last two country case studies of Malawi and South Africa. The application of the soft systems methodology-based framework will be limited to the institutional/cultural analysis and the distribution of power in the development of alternative land tenure and land administration models for periurban environments.

III.1 Introduction

In accordance with the conceptual framework developed in Chapter 3, this case study will limit itself to the institutional (cultural) analysis of the periurban problem situation in Malawi and South Africa. The institutional analysis will focus on three stages: (1)

analysis of the intervention; (2) 'social system' analysis; and (3) 'political system' analysis. The analysis of the intervention entails three roles: (1) the list of clients or beneficiaries of the proposed land reform; (2) the list of problem solvers (e.g. government department, land tenure/land administration specialist, NGO, traditional authority structures, etc.), (3) the list of problem owners (customary land claimants, field owners, government departments, traditional authority structures, etc.). The social system analysis entails brief descriptions of the competing and conflicting worldviews, roles, norms, values and aspirations with respect to periurban land tenure and land administration arrangements.

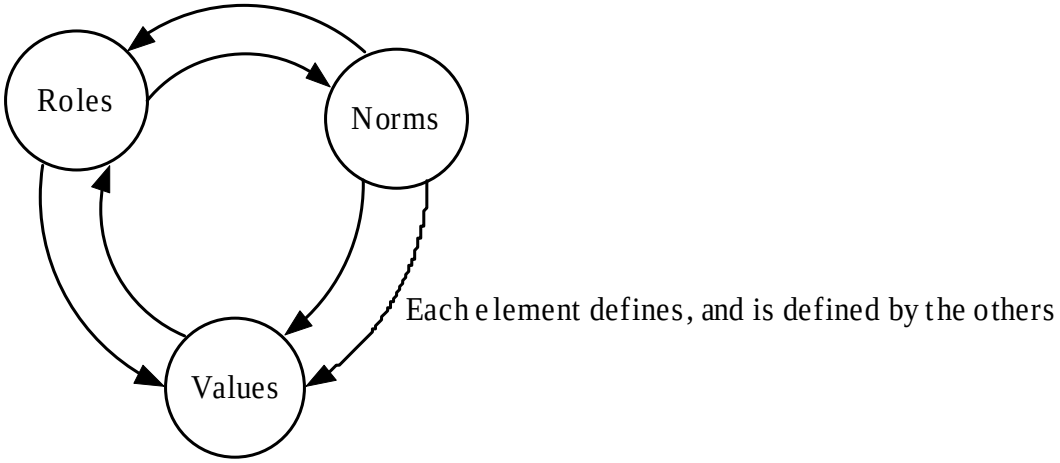

Figure III.1: A model of the 'social analysis' system [after Vickers, 1965; cited in Checkland and Scholes, 1990:49]

A model developed by Vickers [1965] (see Figure III.1) will used to guide this institutional analysis. This model is relevant to periurban situation because it assumes a continually changing interaction between three elements: roles, norms and values.

The political system analysis is based on the principle that any relevant human activity system will always have a political dimension to it and politics is defined as the process by which differing interests reach accommodation [Checkland and Scholes,

1990]. In the context of periurban of Botswana, Malawi and South Africa, all stakeholders will have different interests, goals and aspirations and managing those competing and conflicting interests is the business of politics and those accommodations ultimately rest on the dispositions of power. Therefore, the institutional analysis complements the work of selecting, naming and modelling relevant human activity systems going on simultaneously in the logic-driven stream of systems thinking.

III.2 Periurban Zones as Contested Terrains in Malawi

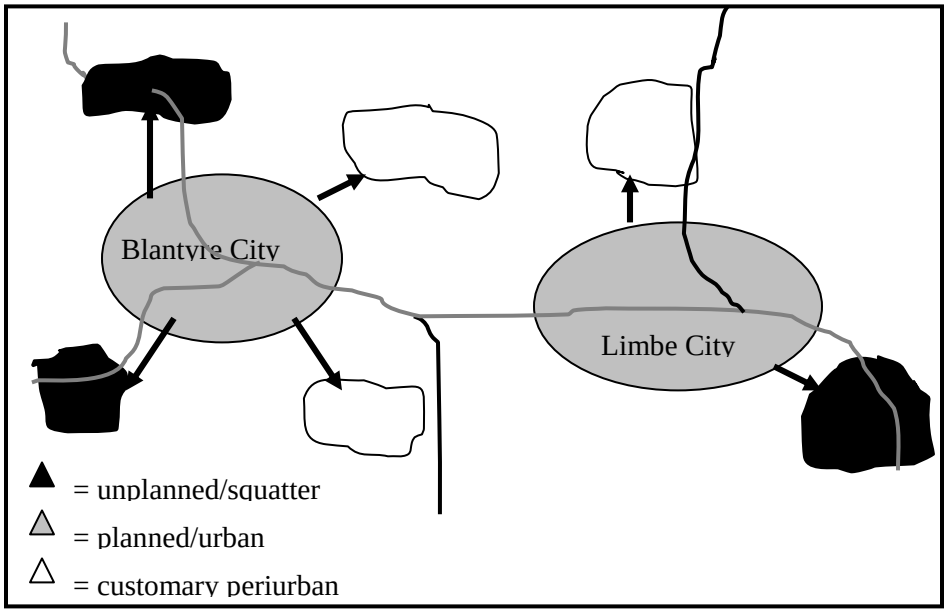

Figure III.2: City of Blantyre encroaching into periurban environments

In Malawi, similar to other African countries, the legal distinctions between customary (tribal), private and public land have contributed to creating the conditions for periurban land problems around cities. Figure III.1 is an example of periurban environments around the city of Blantyre, Malawi. The colonial government's policies of indirect rule and urban management in Malawi had sought to exclude indigenous populations from towns, and as such offered Africans little or no opportunity to acquire

land in urban areas. Africans coming to towns looking for employment opportunities were forced to seek accommodation in periurban areas, outside of the municipal boundaries, where access to land for housing was still governed by customary land allocation systems. These areas are different from the municipal areas in that they lack basic social services and infrastructure. These areas are often confused with squatter settlements because of their physical appearance and poor quality of housing. While squatter settlements have no legal tenure status, customary tenure is perfectly legally.

Several factors contribute to the periurban problem in Malawi and these are [Ahene, 2000:60; Enemark and Ahene, 2002]:

- natural population increase, especially in the southern part of the country;
- rural to urban migration;
- speculative holding of periurban plots and lack of infrastructure and services results in artificial shortages of urban development land;
- costly and bureaucratic procedures for land allocation in urban areas;
- high building standards that are unaffordable to the poor majority;
- lack of effective monitoring and control of land development and zoning regulations;
- squatting in periurban areas has become frequent and violent;
- problems of land scarcity manifesting themselves through land degradation, increased land tenure security, and land use uncertainty;
- high land values in periurban resulting in the *de facto* privatisation of access to customary land, and therefore making access to land more restrictive; and

- general mismanagement of customary land in periurban evidenced by under-utilization of land, illegal land transactions and developments, unplanned or unregulated buildings indicating lack of land use planning and control.

When the rural population in Malawi are fleeing poverty in the rural areas migrating to towns, it was in the customary periurban villages that access to land for housing could be found easily and cheaply through informal land subdivision and illegal land dealings, in breach of customary land allocation rules. Evidence of unregulated development can be witnessed around periurban areas of cities of Blantyre, Lilongwe, Mzuzu, Zomba and the Lakeshore areas.

The government's response to this periurban problem was to incorporate the periurban villages into the city limits. But even with the extension of municipal boundaries and planning regulations, "many communities continued to treat land in periurban areas as if it was still customary land, building regulations were generally ignored, leading to a proliferation of sub-standard structures" [Ahene, 2000:24]. One of the reasons why this problem continues to exist is the limited capacity in planning, surveying and valuation departments resulting in inadequate monitoring and enforcement of land development covenants. Enemark and Ahene have noted the following challenges in implementing Malawian land policy:

> *Currently Malawi has only 26 qualified physical planners, 20 land valuation professionals and 12 licensed land surveyors in the entire country. As a consequence, most land development activities occur without planning or land management intervention. This is evident by the overwhelming deforestation outside protected national parks and conservation areas, the large number of sporadic rural developments, unplanned settlements and poor management of the urban environment*. [Enemark and Ahene, 2002: 9]

And further,

> *The lack of trained personnel is seen as the main barrier for implementation of the new land reform policy. The short-term capacity needs are assessed in details. In total the deficit is around 400 professionals and 800 technicians just to fill the vacant position in the public sector. This includes about 150 technicians and 100 professionals at national level and about 700 technicians and 300 professionals at the local government administrations. By including the private sector, the long-term needs are more than double*. [Enemark and Ahene, 2002: 9]

Another example of weak planning capacity is also found around the periurban lakeshore areas. As a result of inadequate monitoring and enforcement:

> *Cottage/hotel development along the waterfront and associated fencing has not abated, resulting into obstruction of public access and use of local beaches by local communities* [Government of Malawi, 2002: 25].

The consequences of these uncontrolled periurban land developments are many. For instance, uncontrolled waste disposal leads to increased water pollution and environmental damage of the lakeshore; land speculation fuels illegal and unauthorised developments thus encouraging urban sprawl; urban sprawl increases the cost of delivering services, and creates artificial shortage of development of land.

Land administration sectors in Malawi, like in Botswana, are fragmented and uncoordinated and this impact negatively upon periurban land management (See, for example Figure III.2).

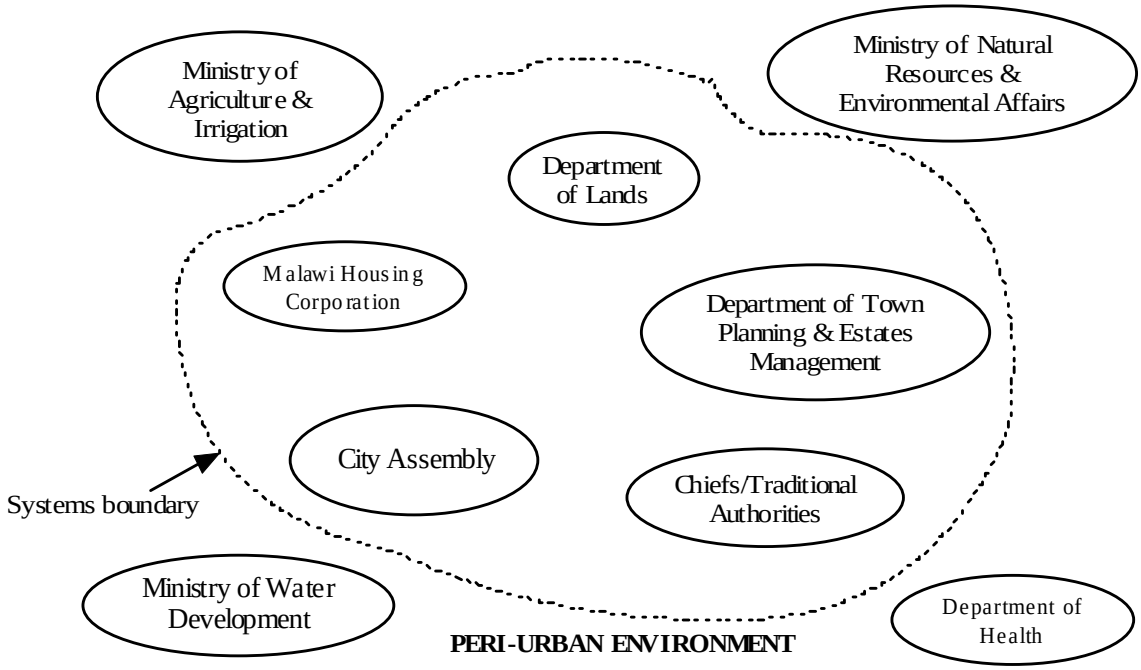

Figure III.2: Case study of periurban Malawi

According to the 1965 *Land Act*, customary land 'ownership' was removed from the chiefs and now vests in the President in trust for the community. The Department of Lands administers land on behalf of the President but the chiefs still retain the real authority over its administration. This creates an even serious problem when a periurban settlement is incorporated into the municipal area, with the City Assembly supposed to play a major role in land administration and service delivery without the real authority. To make matters worse, there is no coordination with other government departments. For example, the Department of Health sometimes issues licences for sites without the consulting with the Department of Town Planning & Estates Management. The chiefs as key stakeholders of the periurban problem are also not consulted in any land administration decisions. Chiefs, in turn, allocate land without regard to planning regulations, and the Planning Department views these land allocations as 'squatters',

whereas under the eyes of the chief they are seen as legitimate land occupiers under customary law. Some chiefs, because of greed engage in illegal land dealings in periurban areas. Because of the prevailing atmosphere of mistrust, periurban environments in Malawi are experiencing tensions between customary and statutory tenure systems. For example, conflicts between customary and statutory land allocations in periurban Malawi have created the following problems [Ahene, 2000: 59]:

- Uncertainty in the tenure and use of [periurban] land, which is enclosed within the urban boundaries as well as administrative conflicts between the urban authorities and traditional authorities of the enclosed villages.
- Excessive extension of planning areas stretches the limited financial, material and technical resources of urban assemblies over large areas. This lowers their ability to effectively manage planned development and to provide needed services.
- The traditional sector of the urban area is particularly disadvantaged as they are subject to the by-laws of the planning authority without receiving all the services of the urban authorities.

To ensure that land disputes and conflicts of interest are not created in the process of expansion of municipal boundaries, there is need for effective customary tenure formalisation strategies.

The ingrained colonial views in policymakers' minds that customary tenure needs to be extinguished in order to pave way for social and economic development is demonstrated by the way the *Town and Country Planning Act* handles the expansion or creation of new towns. The act assumes that by declaring a periurban settlement a planning area, customary tenure is automatically extinguished. It does not lay down

procedures for extinguishing or formalising customary rights and also offers inadequate compensation for customary land. Because procedures for formalising customary are not followed, the traditional authorities have continued to allocate use and occupation of land rights not conforming to planning regulations [Ahene, 2000]. This situation has led to chiefs viewing the Land use planning measures with apprehension and mistrust.

The biggest challenge facing periurban Malawi including Botswana and South Africa is that of lack of capacity in land administration. There very few planners, land valuation specialists, and land surveyors and even those that are available their skill base is low. There are limited training opportunities in the country to train land administration personnel. To increase land administration capacity especially at the local level, there is need for decentralisation of land administration activities. Planning in the rural and periurban areas has been done in an ad-hoc basis [Government of Malawi, 2002]. At the moment, land use planning is being done and monitored from the headquarters and this results in no local land use plans in periurban areas.

As in the case of periurban Botswana (see Appendix II), this case study is based on derived from information collated from the literature, field experience, and from informal interviews, meetings and discussions with those involved with customary tenure and its administration in periurban environments.

III.3 Periurban Transformations in South Africa

In South Africa, like most post-colonial African states, the legal distinctions between customary, private and state have contributed to creating the prevailing periurban land problems of settlements outside the municipal boundaries and formal regulatory control. The British policy of indirect rule and land use planning and regulation had sought to

exclude indigenous African populations from white urban centres, and offered them no opportunity to acquire land in urban areas. This policy of indirect rule was consolidated in 1913 with the passing of the *Black Land Act* segregating blacks to *Bantustans* or reserves in the North American case.

These policies were later formalised by the apartheid ideology in 1948, whereby African urban workers were housed in periurban areas known as 'black townships', where the law forbid them from owning land [Dubow, 1989; Maharaj, 1997]. In some cases, there were rural villages lying outside the periphery of the municipal limits, and there access to land was governed by tribal, customary tenure arrangements. With the mass exodus of people from all over rural South Africa in search of jobs in urban centres, these customary periurban areas offered easy access to land for housing. The situation in South Africa was made more complex in 1948 with the formalisation of the apartheid ideology and further weakening of customary tenure in periurban areas. Both the black townships and customary periurban settlements generally lacked the local government capacity to facilitate comprehensive land use planning and the provision of services was done in a very rudimentary manner. The colonial and apartheid policies were all geared at impoverishing the indigenous populations and in consequently be forced to work for very low wages in the farms, mines and factories.

After the multi-racial elections in 1994, the South African government was faced with a mammoth task of reversing land problems created by the colonial and apartheid policies. In addition, the complex periurban problem has to be addressed after many decades of neglect. Huge financial and technical resources are now required to address the apartheid-induced imbalances. At present, South Africa faces administrative, financial

and technical capacity constraints in all land administration sectors. In addition, South Africa's land administration system similar to Botswana and Malawi is still uncoordinated and fragmented (see Figure III.3).

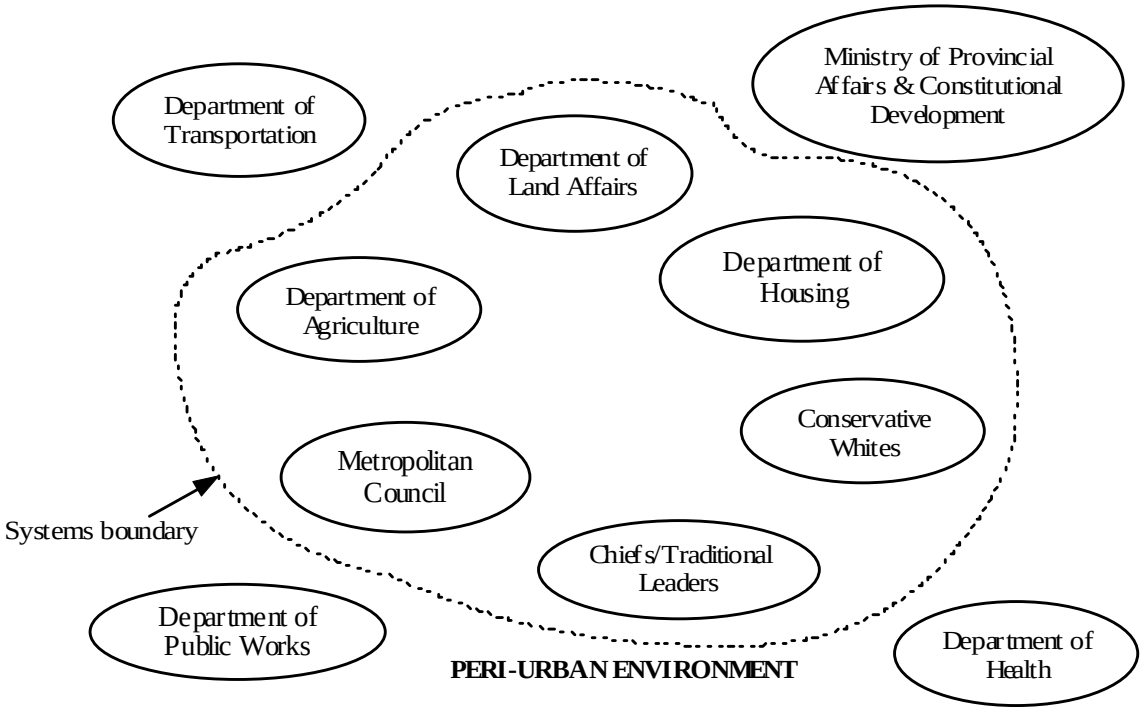

Figure III.3: Case study of periurban South Africa

The key challenges facing South Africa's urban and periurban areas include [Royston 1998, citing RSA, 1995: 3]:

- integrating cities, towns, and periurban settlements previously separated through apartheid spatial planning;
- rebuilding dormitory townships, informal settlements and low income inner city residential areas;
- reducing disparities in infrastructure and providing social services;
- providing affordable shelter and security of tenure; and
- transforming local authorities into effective accountable and transparent institutions.

In addition, urban and periurban areas are faced with:

- an estimated housing backlog of 1.5 million units;
- an estimated 1.5 million urban informal housing units requires upgrading to meet the minimum building standards;
- about 13.5% of all households (1.06 million households) currently live in squatter settlements on the customary periurban areas.

Rapid population due to natural increase and rapid rural to urban migration has continued to create enormous pressures on periurban land [Royston, 1998]. On close examination of the South African periurban problem is the fact that there is no clear strategy for periurban areas, land delivery, informal settlements and land invasions [Sadiki and Ramutsindela, 2002; Giraut and Maharaj, 2002].

In my fieldwork, many of these periurban settlements are faced with extreme overcrowding, high densities, and high levels of crime, poor levels of infrastructure and social services provision, widespread pollution and environmental degradation. As the sketch map of Greater Nelspruit (Figure III.4) shows, there are pockets of informal settlements near and inside the customary periurban areas.

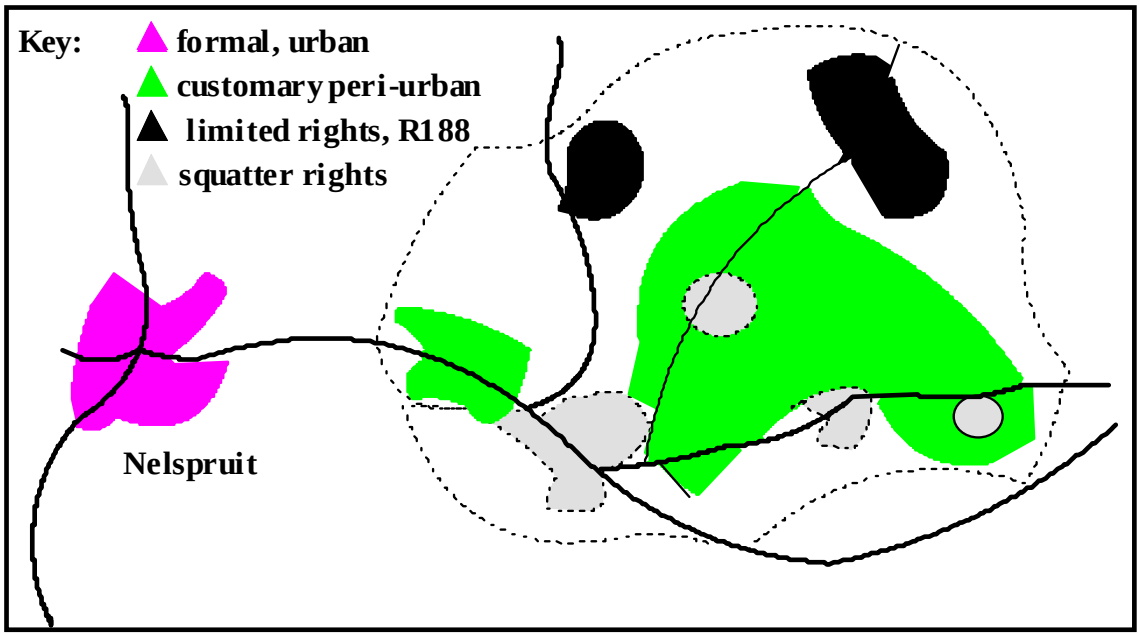

Figure III. 4: Greater Nelspruit and its Environs in Mpulanga Province of South Africa [after Ambert, 2002]

A number of policies and legislations have been passed in an attempt to address urban and periurban land problems. These are depicted in Table III. 3.

Table III.3: Legislation, policies and programmes impacting on periurban problem

When	What	How
1993	The Upgrading of Land Tenure Rights Act	Provides for the upgrading of various forms of tenure
1994	Local Government Transition Act (LGTA)	Provides the regulatory framework within which local government transition could take place to allow the integration of previously segregated periurban local authorities.
1994	National Land Reform Programme	Intends to redistribute both residential and commercial agricultural land to the poor
1994	Land Restitution Act	To restore land to owners who were forcibly removed since 1913 Black Land Act
1995	The Masakhane Campaign	Aims at normalising periurban governance; accelerating service provision and ensuring that users pay for the services consumed; addresses service delivery and financing issues.
1995	The Municipal Infrastructure Programme (MIP)	Addresses immediate backlogs in the delivery of infrastructure services by aiming at ensuring that all communities have access to basic

		services within the next 10 years
1995	The Extension of Municipal Infrastructure Programme (EMIP)	Issues a once-off grant funding to rehabilitate, upgrade and provide new municipal infrastructure to meet basic needs of communities
1995	Development Facilitation Act (DFA)	Facilitates speedy release of land; assists all local authorities including periurban local authorities to formulate land development objectives/municipal planning; established Land Development Tribunals to adjudicates land development applications
1995	Municipal Infrastructure Investment Framework (MIIF)	Provides a national policy framework for the provision of municipal infrastructure
1996	Communal Property Association Act (CPAA)	Enables communities or groups to acquire, hold and manage property under a written constitution
1997	White Paper on South Africa's Land Policy	Establishes legally enforceable rights to land; builds a unitary non-racial system of land rights; and allows people to choose preferred tenure system.
1998	White Paper on Local Government	A plan for the new system of local government developed by the Ministry of Provincial Affairs & Constitutional Development; provides a foundation for new developmental local government system.
1998 & 2000	Local Government: Municipal Demarcation Act 27 of 1998; Municipal Structures Act 117 of 1998 and the Municipal Systems Act 32 of 2000	All municipalities including periurban local authorities are forced to formulate integrated development plans (IDPs) i.e. formulation of strategic plans for development
2004	Communal Land Rights Act (CLRA)	Gives legal recognition of customary and other communal land tenure systems; provides for administration of customary tenure and structures; makes provision for conflict management, dispute resolution structures and processes.

It is shown in Table III.3 that the implementation of legislations, policies and programmes for regulating and improving the periurban environments has been ongoing in a number of national and provincial institutions. Royston [1998] and Barry [2002] have observed that progress has been hampered by inadequate land information, conflict,

local politics, lack of capacity, bureaucracy and other factors. Periurban management in South Africa is extremely complex and approaches such as soft systems methodology developed in Chapter 3 are required to address the situation. From research carried out in South Africa, periurban local authorities suffer from lack of support framework from national government. This calls for legislations, policies, programmes, strategies, protocols and capacity building to be devised at various levels of government. In addressing the periurban problems, periurban regularisation and improvement should be addressed as a component of a much broader periurban/urban development management process [Barry, 2002].

III.4 Analysis and Conclusions

It should be understood that customary tenure is dynamic, and that it differs from place to place, and that new rules and structures are evolving all the time. This means that periurban problems will differ between countries and even within countries there will be different sets of periurban land problems due to: competing and conflicting worldviews, history, roles, norms, values, goals and aspirations. For example South Africa has a very different history of settlement patterns compared to Botswana and Malawi. This means that there can be no single and simple solution to periurban land problems and “one size fits all” approach will not work. Therefore, there is need to understand the underlying issues of periurban so that appropriate interventions can be applied.

Some of the challenges facing periurban areas are: corruption by land administration officials, failure of the current periurban planning system to recognise the cultural values of land, the existing power differentials in periurban areas, conflicts between customary

law and statutory law, and the need for cooperation and coordination of all land administration sectors. At present, the periurban land administration sectors are fragmented in all the three-country case studies.

In Chapter 1 it was stated that customary periurban tenure lacked certain features that causes it to be unstable as compared to rural and urban. In this regard, action needs to be taken to stabilise customary tenure in periurban environments. Rather than replace customary tenure with a statutory system, an adaptation strategy should be followed [Bruce et al 1994; Barry 2002]. Innovative land administration practices such as alternative dispute resolution mechanisms should be established.

In southern Africa, one the biggest problem facing the acquisition of customary periurban land for development purposes is the low compensation rate offered by the government. However, there is movement in Botswana towards rectifying the problem of low compensation and such developments should be encouraged throughout the region.

Botswana and South Africa have established elaborate structures to provide adequate social services and infrastructure in periurban areas. To sustain these municipal services, there is need to introduce property taxation in customary periurban areas even though such moves have been vigorously opposed in the past. The enquiring process of soft systems methodology should be employed to improve our understanding of why the introduction of property taxation has been opposed in the past.

There is still a lot gaps in our understanding of periurban land problems. Such gaps in knowledge may include [Tabaijuke, 2004]:

- need to examine how the current land policies impact on customary periurban environments;

- need to deepen our understanding of periurban land problems;
- need to understand the incentives which foster illegal land dealings in customary periurban environments;
- need to develop appropriate planning models for customary periurban areas;
- need to develop appropriate land tenure models for customary periurban; and
- need to develop innovative land administration models appropriate to customary periurban.

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