Land tenure management systems in informal settlements

A case study in Nairobi

Antony O. Lamba
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This thesis is dedicated to the memory of Kennedy Onyango Lamba

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Abstract

Individuals are not informal, their actions and activities are. Nor do those who operate informally comprise a precise or static sector of society. They live within a grey area which has a long frontier with the legal world and in which individuals take refuge when the cost of obeying the law outweighs the benefit - Hernando de Soto

Formal land administration systems in developing countries have failed to cope with the wide range of land rights that have evolved under non-formal land tenure arrangements. Urban informal settlements in particular pose a challenge to existing land administration infrastructure in these countries. The tenure types, land rights and spatial units found in such settlements are inconsistent with the provisions of existing land law. Conventional land administration approaches can not work in these settlements. The settlements are left out of the urban development planning process as no land information is officially collected in them. This neglect often leads to low security of land tenure and poor living conditions due to lack of basic urban infrastructure and services.

Spatial and tenure regularisation in urban informal settlements is a topic of increasing significance in cities in developing countries. Lessons learnt so far show that the process of regularisation relies on the availability of reliable land information. Both spatial (land/structure type, location, size, identity, density, pattern, etc) and attribute (land/structure ownership, occupation, etc) information in informal settlements are important to the success of regularisation programmes. These lessons also indicate that it is important for the regularisation process to build on the land tenure arrangements that exist on the ground, to forge links between local tenure rules and statutory land regulations and to develop innovative land administration tools that fit the realities in these settlements.

This research investigates the land administration tools that are used to regulate land tenure systems in informal settlements in the city of Nairobi. First, a city-wide survey was conducted using a questionnaire to get an insight into the current situation of the informal land development sector in Nairobi. A settlement level case study was then carried out. The case study investigated the tools (actors, rules and procedures) used in the collection, maintenance and use of land information in three selected informal settlements. The final part of the research involved the development of a framework for assessment of the performance of land tenure management systems in informal settlements. The case study findings are used to test the assessment framework by using a scoring method.

Some of the main findings of the research are: informal land tenure systems are acceptable and legitimate for the needs of informal settlement residents; land ownership records in informal settlements are accurate, up-to-date and complete; unconventional procedures for land administration are used to meet the immediate shelter needs in the settlements; local expertise is lacking in cases where technical procedures need to be upgraded; informal land tenure management systems seem to perform better where a regularisation process is ongoing.

Key words: land policy, land management, land administration, land information, informal land tenure, informal settlements, regularisation, assessment

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List of acronyms

CBS	Central Bureau of Statistics
CKRC	Constitution of Kenya Review Commission
CLO	Crown Lands Ordinance
DFID	Department for International Development (UK)
FIG	Federation Internationale des Geometres (International Federation of Surveyors)
GIS	Geographic Information Systems
GLA	Government Land Act
GTZ	Gesellschaft fur Technische Zusammenarbeit (German Organisation for Technical Cooperation)
GUO	Global Urban Observatory
IT	Information Technology
KENSUP	Kenya Slum Upgrading Programme
KfW	Kreditanstalt fur Wiederaufbau (German Development Bank)
LAA	Land Adjudication Act
LCA	Land Consolidation Act
LGRA	Land Group Representatives Act
LTA	Land Titles Act
MDG	Millennium Development Goal
MoLS	Ministry of Lands and Settlement
MoLG	Ministry of Local Government
NCC	Nairobi City Council
NGO	Non Governmental Organisation
NHP	National Housing Policy
NISCC	Nairobi Informal Settlements Coordination Committee
NLP	National Land Policy
PID	Preliminary Index Diagram
PPA	Physical Planning Act
RIM	Registry Index Map
RLA	Registered Land Act
RTA	Registration of Titles Act
SDI	Spatial Data Infrastructure
SSS	Site and Service Scheme
STDP	Small Towns Development Project
TLA	Trust Land Act
UDD	Urban Development Department
UN	United Nations
UNHSP	United Nations Human Settlements Programme (UN Habitat)

1. Introduction

1.1. The challenge of informal land tenure

Formal land administration systems in many countries are not satisfying the needs of society at an appropriate level. The evidence and reasons for this situation are manifold and various in different parts of the world (Molen, 2002a; Molen, 2003b; Williamson, 2001b). In developing countries, these formal systems are based on statutory land law inherited from the colonial era or imported from Western jurisdictions. These systems are centralised, expensive, inflexible and involve complex legal requirements and technical procedures (Augustinus et al., 2004; Molen, 2003b). They are inaccessible to many people especially those in rural areas and low-income residents of urban areas. The poor economic performance and weak institutional frameworks in these countries can not sustain these systems at a satisfactory level. The low levels of cadastral coverage - 10% in developing countries and less than 1% in Africa - clearly illustrate this point (Deininger, 2003; Fourie, 2001b).

The phenomenon of legal pluralism - where land in some parts of the country is officially registered and administered under statutory land law while other parts remain unregistered and subject to non-formal tenure rules - has been observed in many developing countries and more so in Africa. This is a result of the failure of formal land administration systems to cope with different forms of non-formal land tenure. Alternative land rights have evolved under non-formal tenure arrangements in the unregistered areas. These rights include customary rights (mostly) in rural areas and informal rights in informal settlements. Under both customary and informal tenure systems, the conventional land administration approaches can not work well. New land administration approaches and tools are required (Augustinus, 2004; Fourie et al., 2002). A number of African countries have started land reform processes to address the issue of land rights in customary areas and informal settlements. They are experimenting with innovative legal, administrative and technical tools to regularise land rights in customary areas (Delville, 2004; Durand-Lasserve, 2004; Mwebaza, 1999; Tembo and Simela, 2004) and informal settlements (Christensen, 2004; Nordin, 2004).

Land tenure management systems in urban informal settlements, for instance, have evolved in response to a need for alternative means of access to land and shelter for the urban poor. Such systems provide alternative land delivery and tenure through simplified procedures that are accessible, user friendly and affordable. Already, up to 80% of all urban land delivery in developing countries is through informal means (UN/FIG, 1996b).

Informal land development presents a number of challenges to the urban land management process. Where the informal land tenure systems are not recognised by the authorities, they do not provide sufficient tenure security to residents of informal settlements (UNHSP, 2003a; UNHSP, 2004a; UNHSP, 2004b). Since they are not part of the official urban management system, little or no land information is collected in the settlements and they are left out of the urban development planning process (Sliuzas, 2004 p. 3; UNHSP, 2002). Yet these settlements are home to increasingly large proportions of urban populations in developing countries. There is a need for regularisation of informal settlements. Many approaches for regularisation have been tried with different levels of success. Such approaches include titling, legalisation and/or formalisation of tenure and physical upgrading of informal settlements. These approaches usually aim to forge links between the formal and informal land management systems. Regularisation processes often require legal, administrative and/or

technical adjustments to the formal land administration system. It is encouraging to note that national land policy approaches to informal settlements are generally shifting from policies that threaten tenure security (e.g. eviction, neglect, involuntary resettlement) to positive policies that support regularisation of these settlements (UNHSP, 2003a pp. 128-132).

This research is concerned with identifying and describing the tools (actors, rules and procedures) that are currently being used to regulate land tenure in urban informal settlements. It also attempts to evaluate the suitability of these tools to collect, maintain and use land information to provide and improve tenure security in these settlements and to support the regularisation process.

1.2. Defining informal settlements

A clear definition of informal settlements is hardly available. Many synonyms have been used in literature to refer to informal settlements. These include spontaneous, irregular, unplanned, marginal and squatter settlements. Some literature have used the terms slums and informal settlements interchangeably (UNHSP, 2003c). While a clear definition for informal settlements is still elusive, some organisations have given descriptions of informal settlements and slums.

The UN Habitat categorises informal settlements into two (UNHSP, 2003a pp. 82-83):

- Squatter settlements - settlements where land and/or buildings have been occupied without the permission of the owner
- Illegal land development - settlements where initial occupation is legal but where unauthorised land developments have occurred (e.g. change of land use that breach zoning plans, building extensions without building permits, subdivisions without regard to services and infrastructure, etc).

The UN Commission on Sustainable Development, UN-CSD (1996) provides a similar description. According to the Commission, informal settlements refer to: residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim, or which they occupy illegally; and/or unplanned settlements and areas where housing is not in compliance with current planning and building regulations i.e. unauthorised housing.

On slums, UN Habitat has adopted an “operational” definition that describes slums as an area that combines, to various extents, the following characteristics (UNHSP, 2003a):

- insecure tenure i.e. no protection from arbitrary and/or unlawful eviction
- inadequate access to basic urban services especially water and sanitation facilities
- non-permanent structures built with non-durable building materials
- insufficient living area i.e. overcrowding
- location on hazardous land

The term slum appears to have different usage in the developed and developing countries. In the developed countries, it is often used to describe formal housing whose condition has deteriorated due to neglect and which is progressively occupied by lower income groups. In the developing countries, however, the term is used to refer to low-income, densely populated settlements that lack basic services and infrastructural amenities. The term informal settlement, on the other hand, is mostly used to denote the tenure status of a residential area.

Since this research is primarily concerned with land tenure, the term informal settlement is preferred. The definition of informal settlements that is adopted for the purposes of this research is: *settlements in which the initial occupation of land is done without the permission of the legal land owner.*

1.3. Research problem

The three statements below describe the research problem. The statements specifically refer to the situation in Kenya.

1. There is little effort to understand informal land tenure systems and their potential role in the improvement of tenure security and/or the regularisation process in informal settlements

2. There is no coordinating mechanism to regulate actors in the informal land development sector, to clarify their mandates and to use the land information that they collect and maintain to integrate informal settlements in the formal urban planning process

3. The capacity of informal land tenure management systems to collect and maintain land information that can be used in the regularisation process is not known

1.4. Research aim, objectives and questions

The aim of this research is to assess the capacity of informal land tenure management systems to collect, maintain and use land information to provide secure land rights and to support the regularisation process in informal settlements in Nairobi.

The objectives of the research and the questions to be answered by the research are:

Objective 1 - To understand the nature of informal land tenure systems
Question 1 - What is the nature of informal land tenure systems?

i. Who are the main actors in the informal land tenure system?
ii. How is land access and delivery organised in informal settlements?
iii. What tenure categories and land rights are found in informal settlements?
iv. How are informal land rights transferred?
v. How are land disputes solved in informal settlements?

Objective 2 - To describe the land information management system in informal settlements
Question 2 – How is land information in informal settlements collected, maintained and used?

i. Which land information is collected in informal settlements?
ii. Which methods are used to collect this information?
iii. How is this information maintained?
iv. What is this information used for?

Objective 3 - To define an assessment framework and use it to assess the performance of land tenure management systems in selected informal settlements
Question 3 - How can the performance of informal land tenure management systems be assessed?

i. What is the nature of the systems that regulate land tenure in informal settlements?
ii. What are the strengths and weaknesses of these systems?
iii. Which opportunities and threats influence these systems?
iv. What criteria and indicators are suitable to assess the performance of these systems?
v. Which methods can be used for the assessment?

1.5. Conceptual framework and scope of research

This research is based on three concepts:

1. Legal plurality – Formal land administration systems based on Western land laws have failed in developing countries and can not be applied successfully in some parts of these countries without adjustment. Normative rules from non-formal tenure systems have evolved and operate in parallel with formal land law (see Fourie, 1998; Fourie, 2001b; Molen, 2002a; Molen, 2003b).

2. Transaction costs – Formal land administration systems as practiced in developing countries are centralised, expensive and inflexible and involve complex legal requirements and technical procedures. For these reasons, land transactions in these systems are very costly and only benefit those with economic and/or political influence. Those who can not access the formal system look to alternative opportunities outside the formal system to transact their land business (see Molen, 2004; Soto, 1989; Zevenbergen, 1999; Zevenbergen, 2000)

3. Regularisation – Non-formal land rights and tenure regulation systems do not offer the residents of informal settlements sufficient tenure security to make decisions that can improve their livelihoods. For the improvement of tenure security, informal land rights and regulatory systems need to be recognised by the legal system (see Augustinus et al., 2004; UNHSP, 2002; UNHSP, 2004a).

The scope of this research is restricted to the land ownership component of land administration. Specifically, the research focuses on four land ownership aspects in the context of informal settlements – land access and delivery, land (ownership) information management, land transfer and land dispute resolution. Institutional arrangements (actors, rules and administrative procedures) and land information systems (collection, maintenance and use) are treated as cross cutting issues across these four aspects. Land tenure security is considered to be a principle objective of land tenure management in informal settlements.

The geographical setting for this research is the city of Nairobi. The focus of the empirical part of the research is on three selected informal settlement communities in Nairobi. The research investigates the land tenure management systems as practised within the three informal settlements. The research makes a fundamental assumption that the regularisation of land rights will remain an important objective of the residents of these informal settlements.

1.6. Justification for the research

The total number of people living in informal settlements worldwide is estimated at 924 million, representing one third of the world's urban population (UNHSP, 2003a p.14). The United Nations Millennium Declaration described the growth of informal settlements as the global challenge of the new millennium and set a specific target of achieving "significant improvement in the lives of at least 100 million slum dwellers by the year 2020". The United Nations Human Settlements Programme (UN Habitat), the body responsible for the implementation of this target and for monitoring global progress towards it, has focussed its attention on upgrading of urban informal settlements and institutional strengthening of local government in urban areas. The organisation uses two major campaigns to push its agenda: the global campaign for secure tenure and the global campaign on urban governance.

In developing countries, informal settlements account for a substantial, and growing, percentage of urban populations ranging from 10% in Cape Town to 90% in Addis Ababa (Abbott, 2001). The high rate of urbanisation is a key factor in the proliferation of informal settlements in these countries. Other

factors include poor economic performance, household poverty and lack of affordable housing (UNHSP, 2003a p.17). The highest rate of urbanisation in the world is in Africa where 87% of population growth in the next two decades will occur in urban areas. Most of the new urban dwellers are likely to be poor inhabitants of informal settlements. In sub-Saharan Africa, 72% of the urban population already lives in informal settlements (UNHSP, 2003c).

In Kenya, poverty alleviation has become the central theme of national development policy. Among the main strategies in poverty alleviation efforts is tenure regularisation in urban informal settlements through slum upgrading. The implementation of slum upgrading programmes depends very much on the availability of reliable land information. The capacity of informal land tenure management systems to generate and maintain land information that can support such interventions in informal areas is of considerable importance. In Nairobi, a city of 3 million people, informal settlements are home to 60% of the city's population (Mitullah, 2003 p. 11).

1.7. Prior research

Research on land management in urban informal settlements is reviewed here with special reference to research efforts in Africa. Most of the research findings presented here suggest that informal land management systems are essential components of the wider urban land management sector which should be strengthened. They see these informal systems as mechanisms to complement the failing capacity of formal systems to supply adequate and secure urban land.

On the failures of formal land administration systems, Rakodi (2002) states that, in some respects, informal land supply systems work better than formal ones and they could even contribute to improvements in overall land administration. She discusses the failures of various African cities to apply formal rules to land supply. She analyses how such failures lead to formal rules being ignored and formal procedures being bypassed. "Real" rules that are understood and mutually accepted by actors in the informal land sub-market emerge. These rules subscribe different procedures and are enforced by different actors but are linked to and bear resemblance to the formal rules. These rules constitute the informal land management institution. She discusses some approaches to dealing with informal tenure systems that have been used in various parts of Africa (e.g. dismantling, informal recognition and integration of informal systems into the formal system). She concludes that formal land administration systems in African cities are neither effective nor appropriate in their present form. She also notes that informal tenure systems are inefficient, wasteful, discourage infrastructure development and complicate land administration systems. She recommends that government policy should emphasise working with actors in the informal land sector and recognise and modify informal rules which govern property relations in that sector.

Kombe and Kreibich (2002) also observe that the deficits of the formal land management sector have been largely compensated by the increasing importance of an informal subsystem. They report on the actors, norms, procedures and competence in informal land regularisation using empirical evidence from a study of informal settlements in Dar es Salaam. The findings of the study were: land transactions are highly decentralised and are authenticated by government officials at grassroots level; there are remarkable achievements in spatial regularisation in informal settlements; the capacity of social regularisation to withstand externalities arising from the informal land market is weak. They emphasize how the informal land management institution is closely linked to the formal one. They also use the results of the study to argue against the notion that informal settlements are illegal.

Majale (2002) examines informal land tenure systems and regularisation of informal settlements. He outlines the current status of informal settlements in Nairobi and examines the main land ownership issues in the settlements. He points out the existence of some differences in ownership rights and

security of tenure between settlements. He discusses the implications and advantages of land tenure regularisation policies on different stakeholder groups in the informal land development scene. He recommends: provision of tenure security in informal settlements through innovative models rather than the bureaucratic and expensive titling procedures; establishment of appropriate, transparent and accountable administrative and regulatory arrangements for the implementation of regularisation programmes; decentralisation of land management authority to community level; research focussing on innovative land surveying and registration techniques suitable in informal settlements.

On the importance of reliable land information for urban management, Nzioki (2002) recognises the general lack of land information and inappropriate land information management systems as major constraints to the achievement of effective urban land management in both formal and informal areas in Kenya. He cites the gaps in land-related data and information collected by a wide range of government and non-government agencies and the difficulty in maintaining it and distributing it to stakeholders. He also sees the need for creation of a new corporate culture of sharing information between agencies. He argues the case for an urban land information system and outlines the institutional, technical and resource requirements for successful implementation of such a system for urban land management.

Drawing from research work in Namibia, South Africa and Mozambique, Fourie (1998) argues a case for locally based land administrators. She recommends the establishment of integrated local land information systems based on elements of both formal and informal systems. Such also recommends the establishment of local land offices that would form the locus where the formal and informal systems of land tenure become integrated over time. She concludes that this arrangement could: bring an informal land delivery system into the wider urban management system; adapt the existing urban management system, wherever possible, to local-level norms and standards; link the local community and the professionals and the various authorities involved in the land delivery process.

Nordin (2004) uses a study in Zambia to illustrate the role of appropriate technology and the use of local knowledge to collect, manage and use land tenure information in urban informal settlements. The study is based on the Urban Land Management Project carried out in Chaisa informal settlement in Lusaka between 2000 and 2003. The purpose of the project was formalisation of land rights for the owners of structures in the informal settlement. The project made use of GIS tools and aerial photography to capture adjudication data into a digital spatial database. Some observations from the project were: lack of spatial data (existing cadastral index maps do not include informal settlement building structures); lack of attribute data (there were few written records and the information had therefore to be collected using questionnaires); unique identifiers for occupiers (occupier was, in most cases, not the owner of the structure); quality of data (to get reliable data, cooperation of the residents is vital and it is necessary to verify field data). One of the conclusions from the study was that, in any upgrading project, it is very important that the question of security of tenure is tackled before any infrastructure is put in place.

The effect of legalisation of informal tenure has been studied by Chome (2002). He uses case study methodology to explore the impact of formal title registration on household behaviour and spatial structure patterns in informal settlements in Blantyre City in Malawi. Among his findings are that: informal land transfer and development procedures have persisted even in titled settlements; the introduction of title registration in one settlement was inconsistent with the stage of land tenure relationships; formal land administration systems can exist alongside informal ones; and an increase in property-related investment leads to the desire for legal security from formal registration of title. He recommends a land management approach that preserves the advantages of the existing informal system while pursuing the official land management policy objectives.

1.8. Research design and thesis structure

This thesis is presented in 7 chapters as follows:

- Chapter 1 describes the main characteristic of informal settlements – informal land tenure – and presents a working definition of informal settlements. This is followed by the definition of the research.

- Chapter 2 outlines the theoretical framework for the research. The key concepts underlying the research are elaborated. Trends and comparisons as well as future visions for land administration systems are illustrated using examples from different parts of the world. Although the chapter deals largely with formal land administration practice, implications and possible application of land administration processes in informal environments are presented where they are appropriate.

- Chapter 3 describes the situation of land policy formulation, land management and land administration in Kenya. Informal land tenure systems in Kenya are introduced and informal settlement upgrading efforts in Kenya are given special attention.

- Chapter 4 is about the methodology adopted in this research. This chapter introduces the fieldwork location and explains the methodological approach and field data collection methods used in the empirical part of this research. Emphasis is placed on the case study carried out in three informal settlements in Nairobi.

- Chapter 5 presents the fieldwork findings, the methods used for data analysis and the results of the analysis.

- Chapter 6 presents the development of a framework for the assessment of the performance of land tenure management systems in informal settlements. The case study findings are used to assess the performance of the land tenure management systems in the three case study settlements.

- Chapter 7 presents the conclusions and recommendations of the research.

Figure 1.1 shows the design followed in this research.

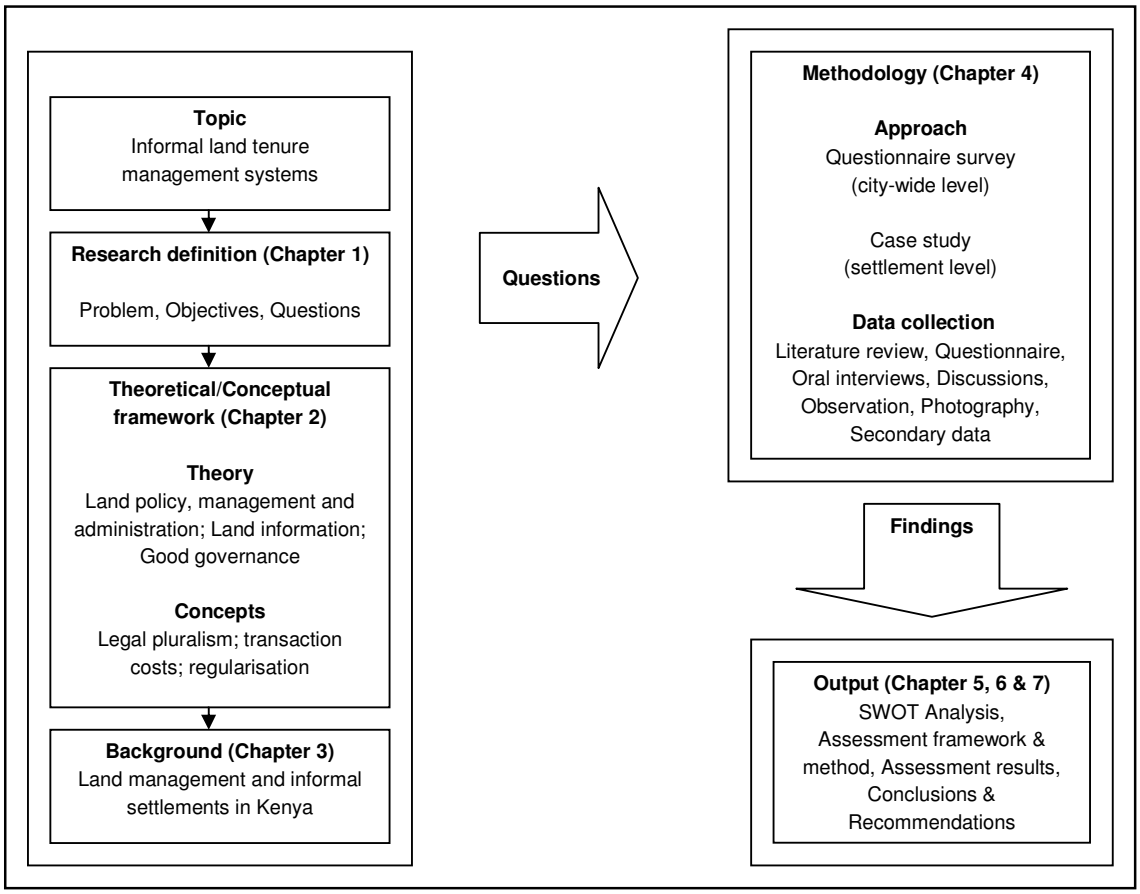


Figure 1.1 Research design

2. Land policy, land management and land administration

Different approaches have been used to describe the relationship between land policy, land management and land administration. While some experts have viewed land management as encompassing land policy and land administration (Dale and McLaughlin, 1988 p. 4), some have seen it as distinct from land policy and land administration (Steudler and Williamson, 2002). Yet others see land administration as a key component of land policy (DFID, 2002; Molen, 2001b; Williamson, 2001a). The three concepts – land policy, land management and land administration - have been placed in a hierarchical scheme by Dale and McLaughlin (1999b p. 13). Barry and Fourie (2002) suggest that they are complementary sub-systems whose hierarchy is not always distinguishable.

From a system performance perspective, Steudler and Williamson (2002) describe a hierarchical "land business" structure with three management levels:

- Land policy level – Land policy is concerned with the definition of the rule of law and the use and ownership of land i.e. the objectives of the land business
- Land management level - Land management is about controlling the processes that put land resources to good effect i.e. land business strategy
- Land administration level - Land administration includes the functions involved in implementing land policy i.e. land business operations

This scheme provides a good description of the relationship between land policy, land management and land administration. It can, however, be improved by emphasising the interdependent nature of the three components (e.g. considering information flow) rather than their hierarchical relationship (see Figure 2.1).

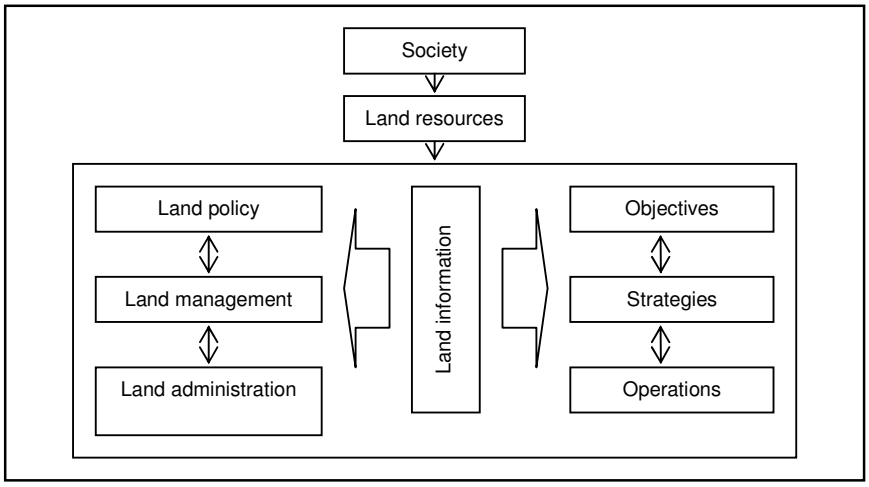


Figure 2.1 Management levels in the land business
Source: adapted from Steudler and Williamson (2002)

2.1. Land policy

Land and the way governments deal with land is, in all countries (whatever stage of development they are in), an important topic of government development policy (Molen, 2001b). Land policy consists of socio-economic and legal prescriptions that dictate how the land and the benefits from the land are to be allocated. It relates to economic development, equity and social justice, environmental preservation and sustainable land use (UN-ECE, 1996). The implementation of land policy has a lot to do with institutional arrangements such as the organisational framework of land administration, enforcement of land laws and the allocation and monitoring of land administration mandates in the public sector.

2.1.1. Land policy instruments

There are various instruments that can be used to implement land policy. Molen (2002b) identifies four main instruments for implementing land policy: improving land tenure security; regulating land markets; land-use planning; and land taxation. For implementation, these instruments depend on land administration tools. These land policy instruments can interact and influence each other and may be used by governments to determine the distribution of land, to regulate landed property values, to control the development and use of land and to create revenue from the use of land. Examples of the use of these instruments include:

- the use of land taxation regimes to encourage certain types of land use e.g. high taxes imposed on idle land may result in more intensive land use
- measures to improve land tenure security may be taken to facilitate a more vibrant land market e.g. improvements in land registration
- land ownership ceilings may also be used to break up large land holdings and improve land use and distribution
- the use of land registry to impose and enforce restrictions on land transactions e.g. to prevent undesirable land sales

2.1.2. Land policy reform

The relationship between humankind and land is of fundamental importance to every society and is evident in the land policy that the society adopts. Ting and Williamson (1999) have outlined the evolution of “humankind – land” relationships from the agrarian revolution through the industrial revolution to the present time. They identify four broad evolutionary concepts of land based on humankind – land relationships (ordered from past to present):

- land as a symbol and source of wealth that can be used for fiscal purposes
- land as a commodity in the land market
- land as a scarce resource whose use should be well planned
- land as an agent of social equity that can be used to promote the society’s environmental and other interests

The drivers and/or objectives of land policy reform include economic, socio-political and ideological trends (Burns et al., 2003). Socio-political drivers for land policy reform include the correction of historical injustices and the improvement of equity in land distribution (e.g. Guatemala and South Africa). Economic drivers include poverty alleviation. They are associated with donor-led project-type land sector institutional reforms in developing countries (e.g. Tanzania and Zambia).

Land policy reform programmes implemented by governments over the years have also followed regional trends. Dale and McLaughlin (1999b) provide examples from post-colonial Africa (tenure shift from customary system to individual freehold title) and the transition economies of central and eastern Europe (re-privatisation of land through restitution and first-time private ownership of formerly state-

owned land). Examples of more recent regional land policy reforms are presented by Molen (2003b). These include:

- Industrialised countries – from a purely privatised land tenure systems to the inclusion of public and native (group) land rights
- Central and eastern Europe – from fully nationalised land tenure systems to private and minority group tenure
- Latin America – reforms towards neo-liberal policy of mass privatisation and individualisation of property rights
- Africa – legislative reforms including innovative tools to speed up the land registration process

McAuslan (2000) identifies five overlapping phases in the evolution of land policy in Africa in terms of the interaction between formal western land law and indigenous land law:

1. Acquisition – the acquisition of territory by colonial powers in the late 19th century and the assumption of full rights of jurisdiction over all land in the territory
2. Destruction – the displacement of customary land law by formal land law
3. Reconstruction – the adaptation of customary land law to suit the ends of colonial powers
4. Substitution – the adoption of policy reforms in the mid-1950s towards security of tenure based on individual freehold tenure for indigenous populations
5. Integration - the attempts by particular countries to develop new common land law from the disparate parts of existing law to remove the notion of a hierarchy of land laws

Land policy reforms may be categorized according to the instruments that are used for their implementation e.g. legal and/or administrative tools. Examples of legal land policy reforms include:

- Nationalisation of land – About half of the countries in sub-Saharan Africa nationalised all land and converted freehold to leasehold tenure soon after independence (Payne, 1997; Rakodi, 2002). Nationalisation is particularly susceptible to poor land records. Generally, land rights records are only created when public land is alienated for the first time to private ownership.
- Legalisation of non-formal tenure - Many countries in Africa have recently given legal recognition to customary tenure as well as to the institutions administering it. However, implementing these laws remains a major challenge. For example, Uganda's Land Act of 1998 provides adjudicatory mechanisms for the acquisition of individual customary titles and the conversion of such titles to freehold (see Box 2.1).
- "Gender aware" policy - The question of gender has been brought to the forefront of land policy debate at the global level, not least by UN Habitat's Global Campaign for Secure Tenure and international development cooperation agencies (Deininger, 2003; DFID, 2002; UNHSP, 2003b). Toulmin and Quan (2000b) note that new legislation in many countries is improving the opportunities for women to own property.

Administrative reform in land policy may take one of the common forms of administrative reforms in public management (Garibay, 2001):

- Delegation - transfer of central government functions to parastatal agencies
- Deconcentration - transfer of state power and functions to central government local agencies
- Devolution - transfer of functions to autonomous governmental levels (includes decentralisation)

Burns, Grant *et al* (2003) identify seven administrative reform options that can be used to strengthen land administration systems depending on local conditions:

- Strengthening a centralised formal land administration system (common in developed countries)
- Decentralising the formal land administration system
- Strengthening and centralising an existing decentralised formal land administration system (requires ready access to computers, Internet and reliable telecommunication systems)

- Strengthening an existing decentralised formal land registration system
- Promoting a significant role for community/customary authorities in a decentralised land administration system
- Transferring an existing land administration role from community/customary authorities to a strengthened decentralised government
- Strengthening existing community/customary land administration systems

Box 2.1 Land Sector Strategic Plan (LSSP) - Uganda

The Land Sector Strategic Plan (LSSP) received Cabinet approval for implementation in 2002 to "guide the administration and optimal use of land resources". It is designed to provide operational, institutional and financial framework for implementation of sector-wide reforms and land administration including the implementation of the new Land Act of 1998.

The main features of the LSSP are:

- systematic adjudication and demarcation processes that are cheap and pro-poor (transparent and fair)
- customary tenure is now formally recognized by the new land law – customary land owners may acquire a certificate of customary ownership that is convertible to freehold
- communities may form Communal Land Associations and manage common land under a Common Property Management Scheme
- tenants on registered land can apply for a certificate of occupancy for the land they occupy
- spouses and children must consent to transactions in land on which they live and derive sustenance
- decentralisation of land administration to district land offices, sub-county land tribunals and parish land committees

Some of the difficulties already experienced with the implementation of the LSSP are:

- the new Land Act envisaged a gigantic land administration establishment (45 district, 962 sub-counties and 4517 parishes) beyond the available human and financial capacity
- new land law was enacted without the structures to enforce its provisions creating an institutional vacuum that has become a major source of insecurity and conflict (there have been two amendments already to the Land Act concerning handling of land disputes and streamlining of administrative structures)

Source: (Oput, 2004)

The implementation of land policy reform is critical. Many land reform programmes have faltered at the implementation stage. Toulmin and Quan (2000b) cite the expense (e.g. an estimated US $ 400 million to run land reform programme under Uganda's Land Bill) and long-term nature (e.g. it took 10 years to finalise work on preparation of new Land Bill in Uganda) as possible causes of implementation failures. They observe a number of implementation approaches that have been used in Africa:

- Consultation process through commissions of inquiry (Zimbabwe, Tanzania) and national conferences (Namibia, Niger)
- Legislative debate incorporating civil society (Uganda, Tanzania, Mozambique)
- Pilot programmes (land distribution in South Africa, registration of customary rights in Niger)
- Nationwide programmes establishing new structures (Land Boards in Botswana, *Communes Ruralles* in Mali)

2.2. Land management

According to Dale and McLaughlin (1988 p. 4), land management is about decision making and the implementation of decisions about the use of land resources. It entails the processes which allocate land resources "over space and time according to the needs, aspirations and desires of man and within the framework of his technological inventiveness, his political and social institutions, and his

legal and administrative arrangements". It includes the formulation of land policy, the organisation of land administration arrangements and the management of land information.

Drawing from this definition and the land business scheme described by Steudler and Williamson (2002), land management can be seen to play a coordinating role between land policy and land administration. Its objectives are to fulfil the environmental, economic, and social goals of land policy by planning, promoting and controlling efficient land use through the process of land administration. This definition is adopted for the purposes of this thesis. This coordinating role of land management is depicted in Figure 2.2.

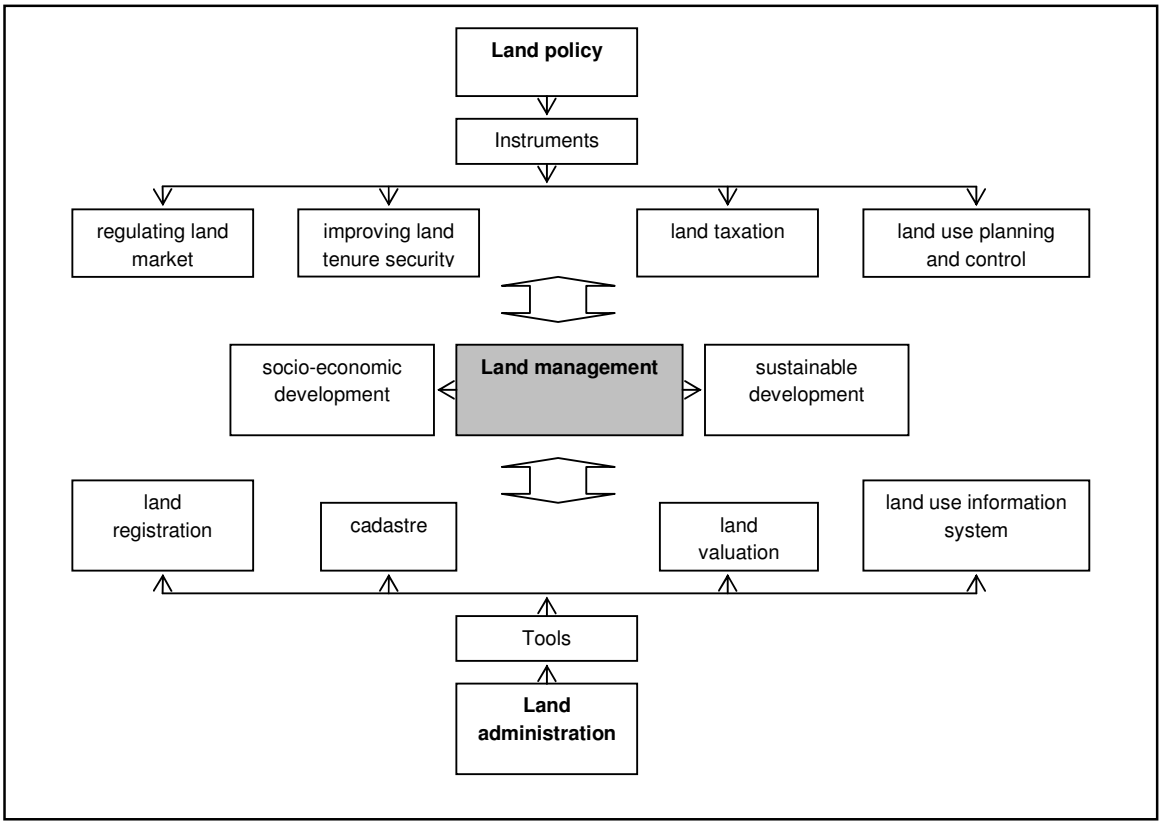


Figure 2.2 The coordinating role of land management

2.3. Land administration

The UN Economic Commission for Europe (1996) defines land administration as ''the processes of determining, recording and disseminating information about the ownership, value and use of land when implementing land management policies.

Dale and McLaughlin (1999a p. 10) view land administration as a combination of routine processes that include "regulating land and property development and the use and conservation of the land, the gathering of revenues from the land through sales, leasing, and taxation, and the resolving of conflicts concerning the ownership and use of the land".

Steudler, Rajabifard *et al* (2004) describe land administration in terms of its functions. They divide the functions of land administration into four components (see Figure 2.3):

- Juridical – land ownership
- Regulatory – land development control and land use planning
- Fiscal – land taxation
- Information management – integral component fulfilling the information requirements of the other three components

All three definitions mention the key components of land administration as land ownership, land use, land valuation and land information management. They are essentially similar and are adopted *as is* for the purposes of this research.

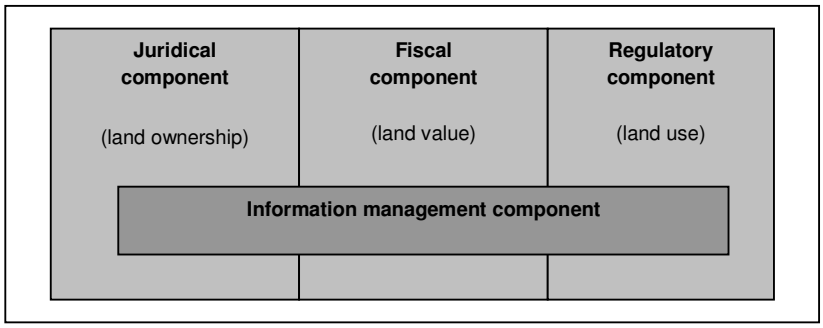


Figure 2.3 The four basic components of land administration
Source: Steudler, Rajabifard *et al* (2004)

The main challenge of land administration system is to support the implementation of land policy. It makes use of various tools to operationalise land policy instruments. The essence of a land administration is its land information system. The completeness, accuracy and currency of the information in the system determine how well the land administration system will serve society. The two main tools that are used to generate and maintain land information are cadastre and land registration. They are described in detail in Sections 2.3.3 and 2.3.4 respectively.

2.3.1. Land administration systems

A land administration system comprises:

- Legal framework –land policy and land laws
- Administrative framework - financial, technical and human capacity; service delivery
- Organisational framework and infrastructure – enabling technology; land information production processes; flow of land information

Every jurisdiction adapts land administration arrangements to suit its own history, culture, political and economic environment. Different jurisdictions have adapted different legal frameworks for their land administration system. These include (Burns et al., 2003): dual systems in former colonies; “third country” imported systems (e.g. the Torrens title system from Australia); mixed systems (e.g. the system in Philippines has a Spanish and American colonial legacy and use the Torrens system); unified systems based on formal land law (e.g. the Basic Agrarian Law in Indonesia); integrated systems (e.g. Philippines and Bolivia); unified systems based on customary law (Uganda and Mozambique); systems that do not recognise customary rights (e.g. Thailand); and religious systems (e.g. Islamic systems in the Middle East).

The design of land administration systems is very critical to its performance and sustainability. Land administration systems should be flexible enough to meet the evolutionary developments in society. The design should allow for gradual migration from simple to more complex systems instead of immediately focusing on the highest achievable cadastral accuracy and individualisation of title (Molen, 2002a; Molen and Lemmen, 2004). The decision to embark on a certain type of land administration system and the level of complexity and accuracy should be determined by the purpose the system has to serve. Land administration systems may be designed to focus on one or more objectives e.g. it may focus on maximisation of revenue through land taxation or on stimulation of land market operations. The minimum requirements to be met by the system should be clear. The system should also reflect the needs and aspirations of the people for whom it is designed. Burns, Grant *et al* (2003) and Molen (2003b) provide comparative analyses of different types of land administration systems around the world. Their analyses are summarised in Table 2.1.

Table 2.1 Comparison of land administration systems

	Legal framework	**Administrative framework**	**Organisational and infrastructural framework**
Western Europe, North America, Australia, New Zealand	• Policy review on information laws e.g. access to information, costing and pricing of services/products • Problems with registration of public and native land rights	• Centralised system architectures • Functional restructuring and reviews • Service improvements e.g. customer focus • Cost recovery • 100% cadastral coverage	• Efficiency in service delivery e.g. electronic access to products and services • Trends towards integrated land information infrastructures
Central and Eastern Europe	Problems with management of minority tenure rights	Improved land information systems	Incomplete land registers and cadastral coverage
Latin America	Neo-liberal land policy	• Ineffective decentralisation of land administration • Varying cadastral coverage (e.g. 5% in rural Guatemala; 50% in Ecuador)	Struggling with implementation of land redistribution reforms
Africa	• Legal pluralism • Widespread communal and informal tenure systems • Conflicting and overlapping land laws • Innovative land reforms	• Lack of financial, human, technical resources/capacity • Inefficient land administration systems • Minimal cadastral coverage (1% average)	• Inefficient (lengthy and costly) service delivery with manual systems • Poor land information infrastructures
Asia and Middle East	• Islamic land law in Arab countries • Varying legal frameworks e.g. nationalisation in China; dual tenure system in Thailand; no land registration in Vietnam	• Ineffective decentralisation of land administration (with the exception of Thailand) • Varying cadastral coverage (e.g. 10% in Cambodia, 64% in rural Turkey)	Problems with land classification (private/public land) and establishment of boundaries in forest and national park areas

2.3.2. Land administration system reforms

Land administration systems in many countries are not performing their mandates at an appropriate level. Molen (2003b) cites some of the reasons why many countries are encountering serious difficulties with the development of appropriate land administration systems:

- flimsy institutional frameworks
- ineffective enforcement of the legislation
- legal concepts of land ownership which are incompatible with the local land tenure
- excessively complex legal and technical procedures
- the lack of sufficient funds for investments in capacity, structures and tools

Land administration systems all over the world are reviewing their functional structures and undergoing major legislative and administrative changes. They are doing this in response to different internal and external drivers. In the developed countries, the major drivers for reform are advances in geo-information technology (GIT) and the associated demands from customers for improved service delivery. Reforms include electronic land administration e.g. electronic lodgement and processing of cadastral and registration documents, digital management of records and electronic distribution of products and services through the internet. In the developing countries, the main drivers for reform are the need for regularisation of non-formal land rights. Reforms here mainly include innovative legislative and administrative adjustments to accommodate and accelerate the registration of individual and group rights in customary land and informal settlements.

A number of principles have been recommended for the design of good/better land administration systems (FIG, 1995; UN/FIG, 1996; UN/FIG, 1999; UN-ECE, 1996). Williamson (2001a) cautions on the contextual realities to be considered in any attempt at prescribing best practice for land administration systems. He notes that:

- land administration ‘‘best practice’’ evolves over time and varies from country to country in response to national and global drivers
- every country requires a range of different strategies depending on the humankind to land relationship in each individual region in the specific country
- the stage of economic development of the specific country has a major impact on the appropriate form of land administration response, and what can be considered ‘‘best practice’’ for the individual country
- many land administration ‘‘best practices’’ are often influenced by either western common law or civil code (and increasingly by customary law); an attempt should be made at describing good land administration systems from a generic perspective

While Molen (2003a) recognises that the land administration systems of each country exhibit differences in their objectives, organisation and significance, he contends that the wishes of land administration customers are virtually identical in every country. Based on this contention, he presents six “proven” models for change:

1. Alignment of strategic and operational aspects of land administration organisations with information and communication technology (ICT) i.e. the improvement of performance by adopting the correct approach to the opportunities offered by ICT
2. Compliance with customer needs by paying attention to customer service and relations
3. Satisfaction of customers by matching their experience (with land administration products and services) with their expectations
4. Management of customer expectations by adopting the correct product development approach to provide value for money, good service, speedy and easy access to products and wide product selection

5. Achievement of cost recovery by the determination of the relationship between the prime cost of products/services and their pricing
6. Installation of quality assurance guarantee systems at planning, management and operational levels

When designing land administration improvements, sustainability of the intervention strategies is very important. Burns, Grant *et al* (2003) explain three dimensions of sustainability: technical, financial and public confidence:

- Technical – ability to fund on-going materials and maintenance of technology, recruit and keep the necessary staff to use the technology and have a backup strategy if the technology fails
- Financial - appropriate fee and tax structures, effective collection of fees and taxes and alternatives for service delivery
- Public confidence – avoid high fees and charges, inaccessible systems, complex rules and procedures and lack of awareness of laws, rules and procedures.

2.3.3. Cadastre

The process of land administration needs complete, accurate and reliable information about the ownership, use and value of existing land and its resources. Cadastres play the ‘‘book-keeping’’ role for this information within the wider land administration and land management systems. The cadastre is considered to be the core of a land administration system (Steudler, 2004; Williamson, 2001a).

The International Federation of Surveyors, FIG (1995) defines a cadastre as a parcel-based and up-to-date land information system containing a record of interests in land (e.g. rights, restrictions and responsibilities); it usually includes a geometric description of land parcels linked to other records describing the nature of the interests, and ownership or control of those interests, and often the value of the parcel and its improvements.

Steudler (2004) quotes the definition for cadastre adopted by the UN Ad-Hoc Group of Experts on Cadastral Surveying and Land Information Systems: “A methodically arranged public inventory of data on the properties within a certain country or district based on a survey of their boundaries; such properties are systematically identified by means of some separate designation; the outlines of the property and the parcel identifier are normally shown on large-scale maps”.

Dale and McLaughlin (1999b) define a cadastre as a technical record of the parcellation of land in a territory, usually represented on plans of suitable scale.

While the FIG definition includes a record of interests in land i.e. land registration records (presumably from a unified cadastre perspective), the other two definitions do not. All three definitions describe a cadastre as a land information system. They also identify two essential components of a cadastre:

- parcels – boundaries in the real world i.e. on the ground
- geometric description of land parcels – models of the real world i.e. objects and identifiers on a map

The idea that a cadastre is inherently based on a parcel is debatable. The spatial boundaries of land units to which rights may be attached do not have to conform to the definition of a cadastral parcel. Examples of identifiable land units to which such rights are attributable can be found in different parts of the world e.g. communal grazing lands in Africa where the spatial extent and use rights change with seasons. Fourie, Molen *et al* (2002) (Fourie et al., 2002)(2002) have criticised the use of definitions of land administration systems and/or cadastre that are based on the parcel.

Cadastres can be classified according to the primary purpose for which they have been developed:

- Juridical – to support the registration of legal land rights
- Fiscal – to support property valuation for land taxation purposes
- Multi purpose – to support the integration of cadastral information with other related land information e.g. natural resources, physical infrastructure, etc

Cadastral processes

Cadastral processes constitute the activities necessary for access to land and land delivery. Access to land refers to the opportunities that are available for one to acquire any form of land rights. Land delivery refers to the channels that are used to supply land for various uses and the technical and legal procedures that are necessary to support the process.

The processes involved in cadastre may vary in nature and/or procedure between land administration systems. However, four common cadastral procedures are recognisable in many parts of the world:

- Adjudication – This is the authoritative ascertainment of existing rights in land. Adjudication is usually the first component of the land delivery process before first registration. Adjudication does not alter existing rights nor create new rights. It can be carried out either as a systematic (compulsory, area by area) or a sporadic (voluntary, on demand) process.

- Demarcation – This is the marking of boundary limits of each unit on the ground. Physical objects (monuments) may be placed on the ground to clearly indicate the boundaries. Boundary definitions should meet the requirement of providing evidence of the location of recognized land units. The nature of boundaries that is adopted determines method of demarcation. Boundaries are categorised into two: fixed/precise boundaries (accurately surveyed boundaries that can be reliably re-established from previous survey records in cases of dispute) and general/approximate boundaries (boundaries that are determined by relaxed survey methods or no survey at all and that depend on ground evidence in cases of dispute).

- Surveying – This is the actual ground measurement of cadastral land units. Cadastral surveying is normally conducted under statutory regulations. The regulations stipulate the methods and standards of accuracy for different kinds of survey. The requirements for demarcation determine the conduct and accuracy of survey.

- Mapping – This is the geometric description of cadastral land units. The basic requirement of cadastral mapping is to provide a sufficient specification of the location of a land unit (or object). An index (i.e. a spatial framework) that is based on the earth's surface is necessary for this purpose. Aerial photographs provide suitable indices for cadastral mapping in many countries because land units can be identified by reference to terrestrial features using simple photo interpretation methods. Land object definitions without any reference to the earth's surface can use other means to meet the demands of providing evidence of the location of land objects. Any sort of geo-reference that is recognised by a community will meet the demands of specifying a land object.

Cadastral reform

Many of the land administration system reforms around the world (see Section 2.3.2) involve changes and/or improvements in cadastral processes and records. Many documents have been prepared with recommendations for improvement of cadastral systems (Bogaerts, 1999; FIG, 1995; UN/FIG, 1996; UN/FIG, 1999; UN-ECE, 1996). Others have even provided a vision for the cadastres of the future (Kaufmann and Steudler, 1998). These documents are intended to be used as guidelines for the

establishment of new cadastral systems or improvement of existing systems. Among the main issues addressed by these documents are:

- Administrative options e.g. unified vs. separate cadastre and registration functions; centralised vs. decentralised cadastre; commercialised/corporatised/privatised cadastre; role of private practitioners, professional bodies and NGOs in cadastre; regulation of responsibilities, accountability and quality assurance.

- Legal options e.g. provisional titles; strata, cluster and community titles; indefeasibility of title; adverse possession; compulsory land acquisition; protection of different interests in land e.g. ownership, leaseholds, easements, shares in real properties, group rights, rights to apartments, rights to jointly owned facilities, etc; copyright and cadastral data protection.

- Technical Options e.g. computerisation of cadastre; data conversion; updating and upgrading of cadastral data content; cadastral data records backup e.g. by microfilming and/or video imaging; data integration based on common geodetic framework e.g. of topographic and cadastral databases; re-engineering of manual cadastral systems; establishment of National Spatial Data Infrastructure.

Future cadastres

The FIG is facilitating further developments of the cadastral concept. Two developments that stand out are:

- Cadastre 2014
- Core cadastral domain data model

Cadastre 2014 is a conceptual vision for cadastral systems of the future. It is the result of a study that was undertaken by a working group of FIG Commission 7 between 1994 and 1998 (Kaufmann and Steudler, 1998). The objective of the study was to develop a conceptual framework of cadastral systems in 20 years time from 1994. Cadastre 2014 consists of six statements that embody this conceptual framework based on current trends in cadastre:

1. Cadastre 2014 will show the complete legal situation of land, including public rights and restrictions
2. Cadastre 2014 will abolish the separation between maps and registers – technically (perhaps institutionally as well)
3. In Cadastre 2014, cadastral mapping will be dead; long live modeling – modern technology provides vast opportunities
4. In Cadastre 2014, “paper and pencil” cadastre will have gone - digital technology will be necessary for improved performance and service delivery
5. Cadastre 2014 will be highly privatized; public and private sectors will work closely together - the private sector will help to improve efficiency, flexibility and innovative solutions while the public sector can concentrate on supervision and control
6. Cadastre 2014 will be cost recovering – the considerable investments in cadastre need to be justified

The statements of Cadastre 2014 have drawn critical comments from various sources. Some of the comments that have questioned the validity of the statements include:

- Cadastre 2014 focuses too much attention on technical issues at the expense of institutional and administrative aspects (Williamson and Ting, 2001)
- the wide differences between the cadastral systems of developed and developing countries will expectedly lead to equally different perceptions of Cadastre 2014 (Molen, 2003b)

- Cadastre 2014 was compiled on the basis of questionnaires distributed to countries that possess modern cadastral systems and, consequently, is not sensitive to the situation in developing countries (Tuladhar, 2004)

The trend for cadastres (as a key component of land administration systems) is that they are evolving into land information systems within an information technology environment. This is, in turn, shaping the evolution of the Spatial Data Infrastructure (SDI) concept as a key component of land administration infrastructures (Williamson and Ting, 2001). This trend requires a standard data model that can provide a basis for "SDI-compliant" cadastral system development and easy "SDI-based" communication between different cadastral systems. Recent efforts in the development of a core cadastral domain model form a landmark in the evolution of the cadastral concept. An important aspect of this development is that emerging forms of land objects, land rights and legal subjects are being incorporated in subsequent versions of the model based on experiences in both developed and developing countries (Lemmen et al., 2003; Oosterom et al., 2004).

2.3.4. Land registration

Land registration is the process of recording recognised interests in defined land units. In addition to documenting the nature and spatial extent of interests in land, registries also enable the transfer of such interests, provide evidence for the resolution of land disputes and information for a variety of other public functions (Dale and McLaughlin, 1999b). The basic elements of land registration are the registrable land unit i.e. the land object, the legal person to whom rights are assigned i.e. the legal subject and the relationship between the land and the legal person i.e. the property rights (Henssen, 1995). Figure 2.4 illustrates these three basic elements.

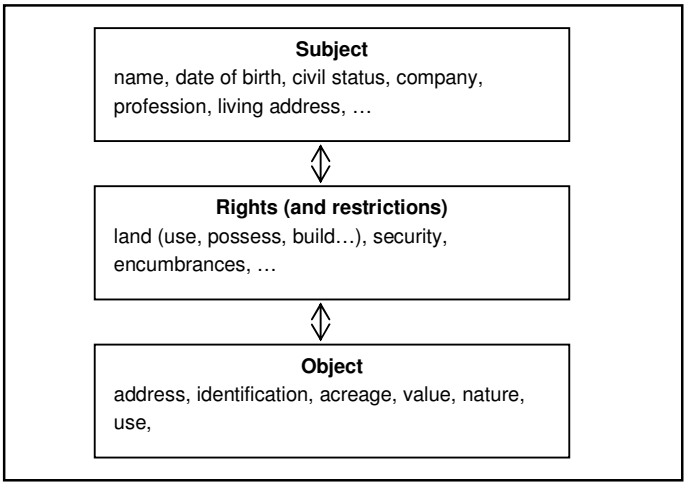


Figure 2.4 The basic elements of land registration
Source: adapted from Henssen (1995)

The land object in land registration is the basic unit of cadastral record. In parcel-based cadastral systems, the basic spatial unit is the parcel. A parcel can be defined as the spatial extent over which homogenous property rights are recognised. In other systems (e.g. customary tenure areas and informal settlements), other forms of spatial units are used (Fourie et al., 2002). Point parcels – where a single point within an identifiable structure is surveyed and coordinated – have been suggested for informal settlements (Molen and Lemmen, 2004).

The legal subject may be a person, a company, the state, a municipality, a trustee or other parties that may hold property rights as sole proprietors, jointly or in common with others. Individual property rights are preferred where high population densities, vibrant and accessible land markets and other factors justify the costs associated with it. In other contexts (e.g. pastoral communities), group rights are preferable.

Property rights describe the use to which land may be put, the length of time during which the rights are valid and the manner in which some or all of these rights can be transferred to other parties. Property rights range from the most robust that allows (almost) unrestricted use of land (e.g. freehold tenure) to the most insecure which may not be registered (e.g. squatting). The various property rights that lie within this range vary in the extent to which they allow the rights to use, occupy, enjoy, benefit from, develop, dispose of and restrict others from land. These rights are accompanied by responsibilities and/or counter rights which may allow other parties to make certain use or to restrict the owner's use of the land.

Some of the basic functions of land registration include:

- Security, protection and enforcement of property rights - A registration system gives security of property rights when it provides complete, current and accurate information. A key premise of registered property rights is that rights holders can depend on the state (or other registry authority) to enforce their rights when they are violated or threatened. Registry information can be reliable only if people use the registration system. If new land owners do not register land transfers, registry information will not reflect the reality on the ground and property rights will no longer be secure.

- Land transfer - Land transfer refers to the disposition of some or all of one's property rights to another party. Land transfer may be through sale, inheritance, gift or other modes supported by the norms, practice or legal provisions in a community at a given time. Land registration supports land markets through the facilitation of land transfers. The challenges of land registry with respect to land transfer are illustrated by the questions (Lemmen, 2005) : how does one know that they are buying land from the real owner or the only owner?; how does one know that the land is free of encumbrances?; how can the possibility that the land is sold twice to different persons at the same time be avoided? Palmer (1998) views land transfers as agreements involving security and risk. Security has to do with the protection of interests in land during and after a transaction while risk arises where there exists asymmetry of information between parties in a transaction. Risks associated with imperfect information and protection is heightened in informal land markets. He identifies three problems in such transactions:
  - Screening problem - determining the extent of risks faced by each party in a transaction
  - Incentives problem - ensuring that each party in a transaction honors all conditions of the deal
  - Enforcement problem - compelling parties to adhere to the agreement

- Land dispute resolution – Land disputes often arise between the state and groups of land of landowners or private persons, between groups and private persons or between private persons. Land disputes may have different causes/sources e.g. errors in registration, fraudulent transfers, succession conflicts, etc. Land registration records help in the resolution of land disputes by providing evidence of boundary location and/or land ownership. The resolution process may take a legal or an administrative approach.

Systems of land registration

There are three basic types of land registration:

1. Private conveyancing – Land transactions are handled by private arrangement and the state has little or no role. Professional intermediaries may be used to oversee the transaction. Such intermediaries may even maintain registries for their area of operation. The only security of transaction comes from the integrity of intermediaries and may be supplemented by title insurance. The government may have access to information on the changes in land rights.

2. Registration of deeds – The basic unit of registration is the deed. A copy of the deed of transfer is deposited in a public registry. The time of entry in the registry is logged and the deed instrument indexed and archived. Registration of deeds is a passive system i.e. the contents of the deed documents are not verified by the registry staff. Professionals (e.g. lawyers, notaries) are normally used to prepare and lodge the deed documents and are responsible for the correctness of the deed information. This registration system offers substantial security of title and reduces opportunity for fraud especially where deed registration is compulsory. Registration of deeds does not prove title. It only provides evidence of an isolated transaction. Deed registration systems may be voluntary or compulsory.

3. Registration of title – Interest in land is registered as proof of title and a title certificate is issued. Registration of title is an active system i.e. the state plays an active role in examining land transactions including transfer documents. Title registration systems may be sporadic (selected areas) or systematic (area by area). Many jurisdictions use the so called Torren's system. The Torren's title registration model is based on three main principles (Dale and McLaughlin, 1999b p. 38):
    - Mirror principle – the register reflects accurately and completely the interests in land; there is no need to look elsewhere for proof of title
    - Curtain principle – the register is the sole source of title information; there is no need to examine the history of title
    - Insurance principle – the state is responsible for guaranteeing the reliability of the register; the state provides compensation to those injured by errors or omissions in the register

Land registration systems have different characteristics in different jurisdictions. There are deeds systems that provide certainty in rights (e.g. South Africa). Some jurisdictions have no cadastral system and depend on private land registries and title insurance arrangements (e.g. some states in USA). There are title systems that operate without state guarantee (e.g. Indonesia). Some title systems have elements of a deeds registration system (e.g. Thailand where a dealings file is maintained for every parcel. While some jurisdictions have 100% land registration coverage with compulsory registration of deeds (e.g. the Netherlands), others have land registration systems covering urban areas only (e.g. Ghana and Zambia).

Where formal land registration is practiced, certain principles have been formulated to improve the performance of the land registration function and its impact on the land market and economic development. Dale and McLaughlin (1999b pp. 39-42) discuss five criteria for assessing the performance of land registration systems:

- Coverage – the more parcels that are registered, the more effective the registration system (may imply the need for compulsory registration)
- Quality control – the more reliable the information that is held in the registry, the more useful the system (requirement for certification of documents and modern information management techniques)

- Currency – keeping the information in the registry up to date so that the register reflects the actual situation on the ground
- State guarantee – e.g. the Torren's system features a positive warranty of the information in the register (as well as a negative warranty against the effects of anything that is not in the register)
- Indemnification – compensation of anyone suffering loss because of an error in the register

Henssen (1995) prescribed four basic legal principles of land registration (either deeds or titles):

- Booking - the creation or change of a real right is not legally effected until the creation or change is booked (entered) in the land register
- Consent - the real entitled person who is booked as such in the register must give his consent for a change of the entry in the land register (unless the change is legally sanctioned by a court of law)
- Publicity - the legal registers are open for public inspection, and protected by law
- Specialty - the concerned legal subject and land object must be unambiguously identified

There is current debate on the feasibility of formal registration in customary tenure areas and informal settlements in developing countries. Indeed one of the terms of reference for FIG's Commission 7.1 is to identify the requirements and circumstances under which customary and informal land tenure should be formally registered. The direction of this debate seems to be that non-formal (e.g. customary and indigenous rights) and informal land rights are eligible for recording where man - land relationships are commonly recognised and considered as being legitimate within the relevant social setting. The rules for allocation, acquisition and transfer should, however, be known and equally applicable. This offers opportunities to integrate statutory, customary and informal arrangements in a land administration system. Some countries are already experimenting with differentiated land registration systems whereby lesser land rights are registered under new registration laws and are eligible for upgrading on the fulfillment of certain requirements (see Box 2.2 for an example).

Box 2.2 The Flexible Land Tenure System - Namibia

The proposed flexible land tenure system is an upgradeable property registration system to improve the security of tenure in urban informal settlements. In this system, three registries are responsible for the registration of different tenure types:

- Starter title - inexpensive and simple form of initial registration which provides a degree of security of tenure; individual tenure in a communal context; a tool for land management at the local government level; provides a record of households occupying land in a defined area; underpins a system of fair land taxation; a rational basis for planning the layout of the area; a basis for further upgrading of tenure
- Landhold title - intermediate registration; individual tenure; registered in a computer based landhold title registry; adjudication, land survey and mapping of the plots undertaken by land measurer; transactions processed by a land registration officer; title capable of being sold, mortgaged, donated and inherited;
- Freehold title - existing deeds system

The achievements of the proposed system so far are:

- Consultative workshops and pilot testing (1995-6), final proposal (1997)
- Cabinet approval (1997)
- Land rights office opened in Oshakati (1998)
- Flexible Urban Land Tenure Bill and Regulations final version ready (2004)
- Training of para-professionals (land measurers and land registration officers) started at the Polytechnic of Namibia

Despite various efforts by the Ministry of Lands, Resettlement and Rehabilitation, there are still a number of institutional, technical, legal and financial issues that have delayed the implementation process beyond the consultation and design phase.

Source: Christensen (2004)

2.4. Land tenure

FIG (1995) and the German international technical cooperation agency GTZ (1998) define land tenure as the relationship between people and land that is embodied in land rights and restrictions. Payne (2001) defines land tenure as the mode by which land is held or owned, or the set of relationships among people concerning land or its product. Rakodi (2002) defines tenure in common law terms as a collection of rights, each of which is a relationship between persons and organisations as to land.

These definitions emphasise the person – person and/or person - land relationships that underpin the concept of land tenure i.e. the character of this relationship that derives from the rights or interests that persons (or organisations) have in land. This research will consider land tenure to be the social contracts by which individuals or groups acquire, hold or transfer rights in land.

2.4.1. Land tenure systems

Land tenure systems are those legal, contractual or customary arrangements whereby individuals or organisations gain access to economic or social opportunities through land. The precise form of tenure is constituted by the rules and procedures which govern the rights and responsibilities of both individuals and groups in the use and control over the basic resource of land. Land tenure systems exist through different norms. They can exist through customs and traditions or through legal provisions of statutory law. These norms form the basis for land tenure typology. Payne (2004) observes that land tenure types are not distinct but overlap to form a continuum ranging from illegal occupation through to full property ownership. He, however, identifies five major land tenure types (Payne, 2001):

- Customary tenure - In such systems, land is regarded as sacred and man's role considered being one of stewardship i.e. to protect the interests of future generations. The allocation, use and transfer of land are determined by the leaders of the community according to its needs, rather than through payment. With urban expansion, this system has become subject to commercial pressures.

- Private tenure - This system is based on individual title to land and permits almost unrestricted use and exchange of land and is intended to ensure its most intense and efficient use. Its primary limitation is the difficulty of access by lower income groups.

- Public tenure - The concept of public land ownership is largely a reaction to the perceived limitations of private ownership in that it seeks to enable all sections of society to obtain access to land under conditions of increasing competition. In socialist countries, all rights were vested in the state, while in capitalist countries, it may be restricted to a narrow range of public requirements such as strategic or communal uses.

- Religious tenure – This system is based on religious norms (e.g. Islamic religious land tenure is the traditional form of tenure in Islamic countries).

- Non-formal tenure – This system includes a wide range of categories with varying degrees of legality or illegality. They include regularised and un-regularised squatting, unauthorised subdivisions on legally owned land and various forms of unofficial rental arrangements.

Land tenure, viewed as a continuum of all possible man-man-land relationships, is not static but evolves with time. Molen (2002b) describes land tenure evolution in three time horizons:

- Long term – Land tenure changes that are influenced by the history, culture and ideology of a society

- Mid to short term – Land tenure changes occurring in response to societal needs. The drivers of such changes include secure access to land (e.g. for the poor), acquisition of land for public purposes and recognition of indigenous rights creating new forms of land tenure (e.g. native titles in Australia, USA, Canada and New Zealand, and communal titles in SA)
- Changes within the existing land tenure framework – These include changes brought about while enforcing land policy and land laws (e.g. transfer of land rights on the market, land use planning interventions, formalisation of land rights, integration of different tenure systems and implementation of land reform programmes)

2.4.2. Land tenure security

Secure land tenure refers to an assurance that an occupier of land will continue to occupy the land and benefit from the resources of the land without the threat or risk of involuntary removal, and that they can only be evicted by means of a known and agreed legal procedure which must be objective, equally applicable, contestable and independent. In practice, tenure security can never be absolute. It can never be measured directly because it cannot be defined objectively. To a large extent, security is what people perceive it to be.

Formal registration of property rights (including state guarantee and enforcement) is considered by some as one instrument for improving tenure security. According to Oosterom, Lemmen *et al* (2004) registration of existing land tenure may impart a given added value to land tenure: the certainty offered to the persons possessing registered rights that those rights will remain in force until such time as they might be revoked in a legal and comprehensible manner. The term legal within this context is to be understood as any system of standards and values that offers transparency, reliability and predictability to the relevant community (including those in non-formal tenure systems). The doctrine of secure property rights rests on 3 beliefs (Palmer, 1998):

- Economic development – economic development is stimulated when people can easily defend their rights against the claims of others
- Social stability - secure and clear property rights can be easily defended preventing property disputes and resolving others
- Resource management - information about land and holders of property rights allows government agencies to manage land resources better, and to enforce environmental and social regulations more effectively.

The drivers for improving security of land tenure are mainly to be found among the urban and rural poor, and vulnerable groups (indigenous people, women, etc). Because of this, many governments are trying out new forms of land tenure by choosing innovative approaches and inventing simple rights to land that are relatively easy to assign (see Box 2.2)

2.4.3. Global campaign for secure tenure

The global campaign for secure tenure is one of the signature campaigns of UN Habitat. The overall development objective of the campaign is to improve the conditions of people living and (often) working in informal settlements in major urban centres of the world by promoting security of their residential tenure. The campaign has several approaches (UNHSP, 2004a):

- negotiation as an alternative to forced eviction
- establishment of tenure systems that minimise bureaucratic lags and the displacement of the urban poor by market forces
- recognition of slum dwellers and their organisations as genuine partners; promotion of partnerships with all levels of government
- a strategic entry point for upgrading and regularising informal settlements, and promoting affordable shelter policies

The campaign has been placed in the context of two major global agenda:

- Habitat Agenda - providing “adequate shelter for all”
- Millennium Development Goals – the "Cities without Slums" goal to improve the lives of at least 100 million slum dwellers by the year 2020

The campaign is directly linked to the concept of urban citizenship (through the other UN Habitat campaign - the global campaign on urban governance). According to the concept, certainty of tenure can solidify the right of slum dwellers to access public resources and improve their livelihoods. The emphasis is put on the case for women who often lack the right to inherit or own land. The campaign should be seen as a long-term initiative that aims at promoting legislative reforms, sustainable and affordable shelter policies and the adoption of instruments that include efficient and reliable methods of recording and updating property rights.

2.5. Land information

2.5.1. Land information

Policy makers, land administrators and individual citizens all have a need for land information and make significant use of spatial data on a day by day basis (Dale and McLaughlin, 1988). In both the public and private sector, land information is a prime requisite for decision making. This assertion relies on the premise that information reduces uncertainty. The quality of information (i.e. completeness, accuracy, currency and fitness for use) is directly related to its value and the effectiveness of the decision making process where it is used.

Land information comprises attribute, spatial and temporal information about land objects, land/property rights and the people who hold those rights. Attribute information refers may refer either to personal information about the legal subject(s) or the rights they hold e.g. name, date of birth, address, personal/corporate identity number, group membership, marital/corporate status, description of rights, etc. Spatial information refers to geographical information about land objects e.g. area (size), boundary coordinates, elevation, land use/cover, etc. Temporal information may include information about the duration of rights in land, seasonal changes in permitted land use, and spatial changes over time, etc. Land information may be produced in form of paper or digital maps, databases, digital models (e.g. digital terrain models), written documents (e.g. certificates of ownership, lease, occupation, etc), images (e.g. satellite images, aerial photographs, etc). The provision of land information is the responsibility of the land management/administration organisations. Apart from the use of land information for decision making at the policy and/or management level, land information is also used in routine land administration activities e.g. dispute resolution and land transfer.

2.5.2. Land information systems

An information system may be defined as a combination of human and technical resources, together with a set of organising procedures, which produces information in support of some managerial requirements (Dale and McLaughlin, 1988 p. 8). Such a system has mechanisms for collecting, storing, maintaining, processing data and retrieving and disseminating information that can be used for decision making. Figure 2.5 shows the elements of a land information system.

Land information systems (LIS) are the interaction between people, data, technology and procedures that controls the flow of land-related information in organisations to support production and service delivery. The purpose of a land administration system (e.g. improving tenure security, basis for land taxation, implementing land use control, etc) will determine the type, format, amount and quality of land information that the system will collect, maintain and distribute i.e. the design of the land information system. The intended function of the LIS (strategic planning, management control, operational control) will also determine the focus and the type of the information system.

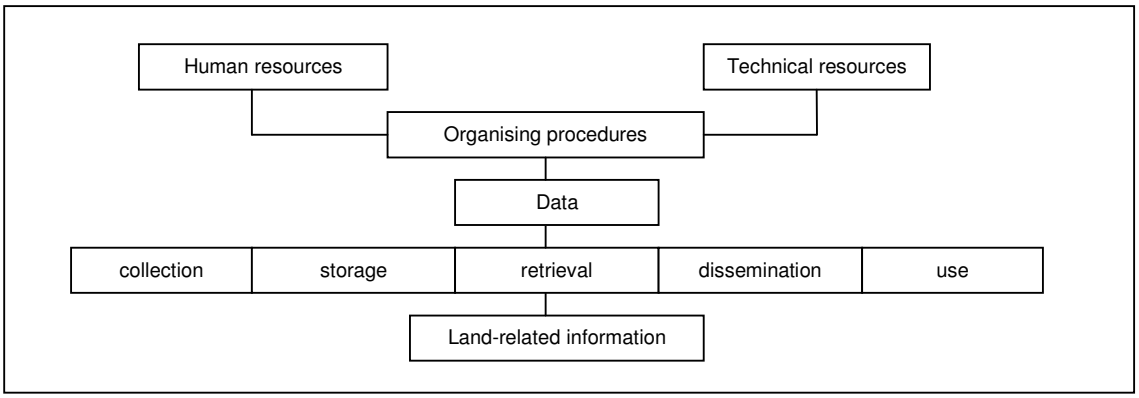


Figure 2.5 Elements of a land information system
Source: Dale and McLaughlin (1988)

Land information systems may be manual or computerised. The advantages of computerised systems are:

- less storage of data due to physical compaction of data
- easier and quicker access and manipulation of data
- easier analyses (e.g. layering) using geo-referencing tools
- data integration – (e.g. merging attribute and graphical datasets)
- data sharing using networks between distributed databases

The design of a land information system will determine its effectiveness. Some of the important considerations for the design of a LIS are:

- the requirements of the users and stakeholders
- flexibility to accommodate anticipated future developments
- data sharing mechanisms i.e. using standardised data models and software formats

A land information system can be evaluated according to various criteria:

- User satisfaction
  - affordability of products and services
  - responsiveness to the information needs of its users
  - system accessibility and availability
  - information dissemination (mode and reliability)
  - data usability and relevance
- Data
  - efficiency of data capture, maintenance and processing
  - data completeness, currency, consistency and accuracy (integrity)
  - quality of data protection e.g. legal rights of access, intellectual property rights
  - physical safety of data i.e. data back-up, warehousing, storage/archiving
  - availability of both data and service metadata e.g. data quality labelling
- SDI readiness
  - level of data conversion (including availability of conversion information)
  - standardisation of database structure and contents

- Administrative issues
  - data redundancy e.g. through duplication of data collection
  - sustainability e.g. capacity building in technical expertise, change management on restructuring/re-engineering

2.5.3. Land information management

Land information is a public good. It needs to be properly managed just like other resources. Land information management strategies are concerned with the effective management of the land information resource to achieve specific objectives and to improve decision making. These objectives may include improvements in cadastral coverage, data content, data reliability, data access, integration of data, etc. These improvements can, in turn, contribute to the achievement of cadastre and land registration goals e.g. better cadastral coverage, improved security of tenure, etc. Land information management tasks at any level include:

- determining the internal and external requirements of land-related information products and services
- examining how the land information is actually used in decision making
- strategic planning (priorities, goals, strategies, action, performance evaluation and monitoring)
- institutional aspects
- continuously improving the land information system (e.g. re-engineering)

Spatial data infrastructures

Executive Order 1994 of the US President defined spatial data infrastructure (SDI) as the technologies, policies, standards and human resources necessary to acquire, process, store, distribute and improve utilisation of spatial data. SDI initiatives around the world have evolved in response to the need for cooperation between the users and producers of spatial data in providing an environment where this data can be shared.

The basic idea behind spatial data infrastructure is that it should provide easy access to distributed databases for people and organisations who need data for their own decision making processes (Molen and Welter, 2004). In this sense, spatial data infrastructures serve three main functions:

- forum for access to data in remote databases e.g. internet, clearinghouse
- mechanisms for sharing of data e.g. metadata, exchange standards
- tools for integration of distributed datasets e.g. data standards

SDIs entail a substantial component of digital information technology. They are essentially based on the information technology and communication qualities of the internet. Modern land administration systems are increasingly relying on data in digital format. In developed countries land administration organisations, like other public organisations, are under increasing pressure to provide all services electronically (i.e. e-government). The development of SDIs is faster in countries with widespread internet connectivity. A critical issue in SDI development in this regard is interoperability (of data, software, and information). The handling of digital data from different sources necessitates the definition of data models that can enable interoperable sharing of data. Efforts are underway to define a standard data model for the cadastral domain to be used in the SDI context (see Section 2.3.3). The most important components of SDIs, however, are the spatial data and the people that handle it. The availability and accessibility of key datasets (also called fundamental datasets) is central to the success of any SDI. These datasets are usually in the public domain and, therefore, governments play big role in SDI initiatives worldwide. The expertise to develop and maintain the various technical components of SDI is a critical issue especially in developing countries.

2.6. Good governance in land administration

Pieterse (2000) compares three approaches to good governance as defined by the World Bank, UNDP and UN Habitat:

- World Bank - Good governance is epitomised by predictable, open, and enlightened policy making (i.e. transparent processes); a bureaucracy imbued with a professional ethos; an executive arm accountable for its actions; a strong civil society participating in public affairs; and all behaving under the rule of law.
- UNDP - Governance can be seen as the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It comprises mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate differences. Good governance is, amongst other things, participatory, transparent and accountable. Good governance ensures that political, social and economic priorities are based on a broad consensus in society and that the voices of the poorest and the most vulnerable are heard in decision-making over the allocations of development resources.
- UN Habitat - Good governance can be defined by how well a population, its representatives and agents, identify and deal with major social, economic and environmental issues that stand in the way of improved quality of life for all citizens.

Rakodi (2003) defines good governance as the interactive relationship between and within government and non-governmental actors featuring joint action, a common purpose, a shared framework of values and rules, continuous interaction, and the desire to achieve a collective benefit which cannot be achieved by either acting separately. She attributes the criteria for good governance to political theories of liberal democracy and the organisational theories of the new public management.

These definitions indicate the essential tenets of good governance:

- transparency and accountability
- participation of civil society in public affairs
- efficiency and effectiveness in the delivery of public services.
- rule of law

The concepts of good governance and civic participation are based on the participation of three main groups of actors – government, the private sector and civil society – and on the assumption that decisions are made based on the complex relationships between these actors and on the reconciliation of their sometimes competing priorities. Decision-making and reconciliation require transparent and complete information and only an informed civil society can participate in this process. This is especially important for land-related information.

Some elements of good governance with specific reference to land administration are (GTZ, 1998; McCall, 2003):

- Guarantee and respect of basic rights – provision, protection and enforcement of equitable and secure property rights including respect for cultural rights and local norms of tenure and indigenous/local knowledge
- Separation of powers – non-interference of politics with the executive mandates of land administration organisations
- Legality and legitimacy of the land administration regime – constitutionality and legality of organisational mandates and land laws
- Independence of judges – objectivity of land law enforcement and court decisions in land disputes

- Appeal – the possibility and right of appeal
- Accountability and transparency - responsiveness to the demands of the users of the system including widespread access to land information at an affordable price
- Effectiveness and efficiency – competence of staff in attainment of goals while meeting user needs (service levels and costs)

2.6.1. Global campaign on urban governance

The global campaign on urban governance is the second signature campaign of UN Habitat (see Section 2.4.3). The development goal of this campaign is to contribute to the eradication of poverty through improved urban governance (UNHSP, 2002). The campaign is run in the context of the implementation of the Habitat Agenda goal of "sustainable human settlements development in an urbanizing world." At the conference, the world's attention was drawn to the massive urbanisation process taking place in the world and the shifting focus of development policy to urban areas. According to the campaign, humanity's future is decidedly urban.

The campaign theme – inclusiveness – reflects the campaign's vision and strategy. The vision is to realize the "inclusive city," a place where everyone, regardless of wealth, gender, age, race or religion, is enabled to participate productively and positively in the opportunities cities have to offer. The concept of inclusiveness links this campaign to the global campaign for secure tenure.

The other main pillar of the campaign is decentralisation. It seeks to increase the capacity of local governments and other stakeholders at grassroots level to practice good urban governance.The campaign focuses attention on the needs of the excluded urban poor and the vulnerable groups among them e.g. women, youth, religious and ethnic minorities.

The strategies for implementation of this campaign include:

- normative debate - to develop and promote the fundamental principles of good urban governance
- advocacy – to raise awareness of practising principles of good urban governance
- capacity-building - through the operational activities of UN Habitat regional offices, global programmes and partners
- knowledge management - lessons learned used to develop new tools for good urban governance

2.7. Institutions and transaction costs in land administration

The theory of institutional economics recognises that the assumptions of neoclassical economics (buyers and sellers have perfect information on goods; market transactions are costless; and supply responds easily to demand) are invalid in real market situations. It suggests that, for a market to function well, appropriate ground rules are needed.

Institutions are defined as the humanly devised constraints that shape human interaction. They are composed of formal and informal rules, and the enforcement characteristics of both i.e. the *rules* of the game in society. Together with the technology employed, they determine the cost of transactions and production (North, 1992).

A distinction is made between institutions and organisations. Organisations are defined as groups of individuals bound by a common purpose i.e. the *players* of the game. The constraints imposed by the institutional framework determine the kind of organisations that come into existence. These organisations will devise ways of enhancing their survival in the face of competition, normally by trying to minimise their transaction costs.

Transaction costs are the sum of costs incurred in operating an (economic) system. The organisation of the system determines how costly it is for the actors to transact. When transaction costs are significant, institutions matter. The three variables that determine the cost of transactions are (North, 1992): utility (i.e. the value of the attributes of the products, services or performance of the system), competition (i.e. size of the market in which to transact) and enforcement (of agreements).

The theory of institutional economics can be applied to the practice of land administration (Molen, 2004; Zevenbergen, 2002). The institution of land rights in any country operates as a system under some rules (formal and/or informal). These institutions necessarily attract certain organisations (e.g. public organisations, private practitioners, professional bodies, etc) and other actors (e.g. landowners). Institutions and transaction costs in land administration are best illustrated by the conveyancing of land rights. Land transactions in the formal or informal land markets involve rules, organisational systems and costs. The cost of transacting in the land market will depend on the prescriptions of the rules, the number and roles of the organisations and the certainty with which the land rights are held. The level of transaction costs normally determines whether people will continue using the formal land administration system (e.g. to register their land rights or to access the formal land market) or seek alternative ways to transact in their land rights.

In developing countries, for example, land transactions can be burdensome and time-consuming, driving transaction costs very high. The causes of high transaction costs in these countries include:

- complex, expensive and numerous technical, legal and administrative procedures
- reliance on a litigious approach in dealing with land disputes rather than administrative processes
- revenue objectives of land administration organisations are not balanced by the capacity of those participating in the market to pay
- separate registration and cadastre organisations leads to additional effort and expenses for users of the system
- poor records and record management increase costs in time spent in accessing information

2.8. Regularisation

Regularisation is the process of transforming informal settlements from settlements with insecure land tenure and poor living conditions into officially recognised parts of the city. Regularisation measures are usually initiated by public authorities in urban areas. (Mertins et al., 1998) distinguish two approaches of regularisation: juridical (or tenure) regularisation and physical (or material regularisation).

Tenure regularisation is concerned with legal recognition of informal settlements. Examples of tenure regularisation tools include:

- Formalisation – This refers to the political and administrative acknowledgement or recognition of informal settlements and the absorption of such settlements into the formal city. This may include actions such as gazzetement of settlement areas as “urban renewal” zones or enactment of anti-eviction laws. Such actions include the settlements in the official process of urban planning and expose settlements to urban economic opportunities that can improve their livelihoods.
- Legalisation – This refers to the process of providing legal backing to the tenure system in informal settlements. This can be achieved through the maintenance of legal records of land rights at the community or municipal level. This process may require legislative and administrative adjustments.
- Titling – This refers to formal adjudication, cadastral survey and registration of individual or group rights in the legal land register and the issuance of certificates of title.

Physical regularisation is concerned with the material creation and/or improvement of physical infrastructure including shelter, social amenities and basic urban services such as education, health, water and sanitation facilities, sewage and drainage systems, etc. This is sometimes referred to as physical upgrading.

Regularisation programmes are increasingly being used by national and local governments to improve tenure security in urban informal settlements. Planning for these programmes must necessarily have a strong land tenure information component. The collection of land tenure information normally takes the form of an enumeration exercise. Existing tenure information may also be used. This can be very useful to the regularisation process in terms of time and financial savings. However, where existing land tenure information is used, the information should be reliable (accuracy, currency and completeness). A conceptual model of the relationship between land tenure information requirements, tenure security and the various regularisation tools is shown in Figure 2.6.

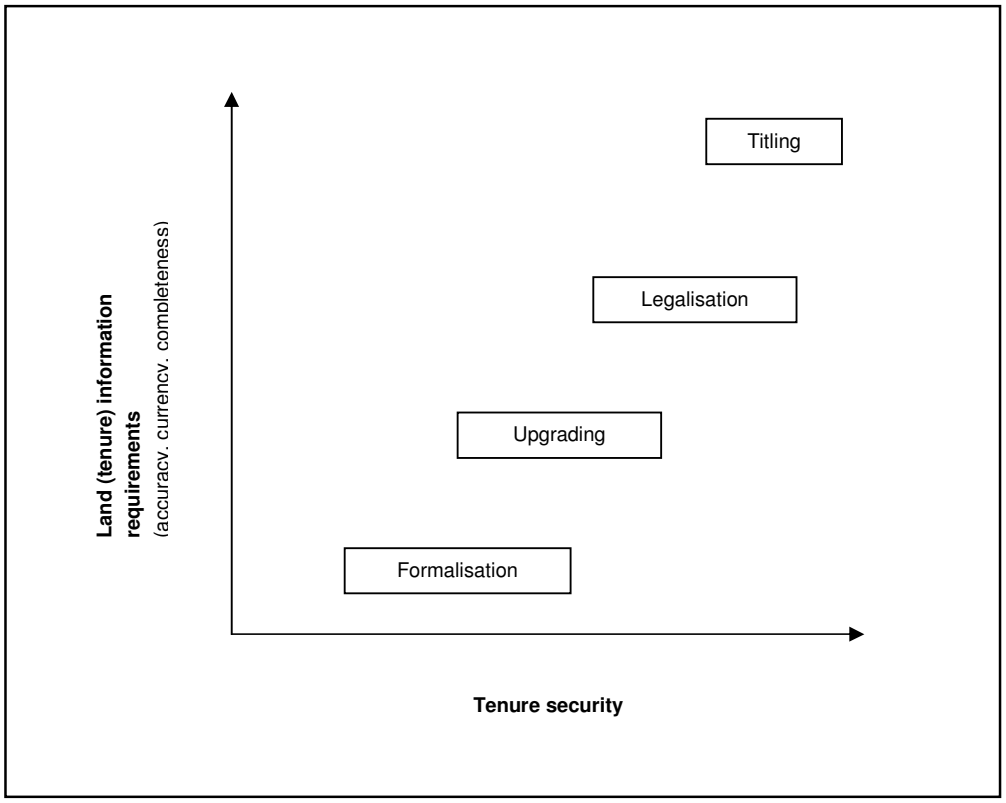


Figure 2.6 Regularisation, land information and tenure security

3. Land management and informal settlements in Kenya

3.1. Background

The Republic of Kenya covers an area of approximately 583,000 square kilometres. The country lies between 3 degrees North and 5 degrees South of the Equator, and between 33 and 42 degrees east of the Greenwich Meridian. It borders Ethiopia to the north, Somalia to the east, the Indian Ocean to the south-east, Tanzania to the south, Uganda to the west and Sudan to the north-west (see Figure 3.1). The altitude ranges from 0 metres to 5,199 metres above mean sea level. According to the 1999 census, Kenya's population was estimated at 28.7 million.

Figure 3.1 Republic of Kenya
Source: University of Texas Libraries

Kenya was a British colony from 1890 until independence in 1963. The colonial economy was based on commercial agriculture. The colonial period was characterised by the settlement of foreigners on extensive agricultural farms referred to as the “white highlands”. Local people were displaced and either relocated to “native reserves” as peasant farmers or became squatter workers on the settler farms. Thus the colonial land tenure system led to social segregation and inequitable distribution of land. This colonial history formed a lasting legacy on land management in Kenya.

3.2. Land policy

3.2.1. Colonial land policy

The first land regulations in Kenya were published in 1891. These regulations formed the formal framework for land administration. These rules provided for 21-year leases. In 1897, a new set of land regulations were issued under which the colonial administrator could grant land occupancy certificates for periods not exceeding 21 years. The maximum lease period was later changed to 99 years.

There are two land laws that defined the course of land policy in Kenya:

- Crown Lands Ordinance of 1902 (CLO 1902) – This law empowered the Commissioner of Lands to grant leases on Crown land. Such leases were to exclude land in the actual occupation of native villages. The Commissioner could also grant freehold titles to parcels up to 1000 acres, 99 year leasehold titles and temporary occupation licenses for up to 5 years. This Ordinance did not deal with the question of the extent of indigenous land rights.

- Crown Lands Ordinance of 1915 (CLO 1915) – This law repealed CLO 1902 but all the leases acquired under CLO 1902 were retained. Africans were restricted within native reserves and could not own land outside these reserves. All land in the protectorate (including the native reserves) was declared Crown land subject to the Governor’s power of alienation. This resulted in the loss of ownership and land rights for indigenous populations. They effectively became tenants at the will of the Crown.

In 1933, the Carter Land Commission was set up by the colonial government in response to land grievances from the indigenous populations. It’s purpose was to investigate these land grievances, assess the land needs of indigenous populations, determine the nature and extent of indigenous land claims and define the status of the white highlands. The commission recommended that:

- the Governor be empowered to make available certain areas of Crown land for indigenous use
- all indigenous rights relating to land outside the native reserves be extinguished and the boundaries of the native reserves, the white highlands and the African leasehold areas be re-defined

As a result of the Carter Commission, the Native Lands Ordinance was passed in 1938. This law made provision for additional land for native reserves and removed them from Crown land. The white highlands were administered by a White Highlands Board while native lands came under a Native Lands Trust Board.

The history of land policy in Kenya, like in many former colonies in Africa, was characterised by the interaction between western land law and African customary land law. The colonial experience in Kenya introduced a dual land law system with customary tenure in native reserves and statutory tenure in the white highlands and urban centres.

3.2.2. Land policy reform

Kenya has had three major land reform programmes:

- Individualisation of land tenure
- Land redistribution
- Alienation of public land

Individualisation of land tenure

The report of the Royal Land Commission on East Africa in 1955 (also known as the Swynnerton Plan) was the landmark document that signalled a land policy shift from customary tenure to individualised freehold tenure for indigenous populations in Kenya. This followed land-related unrest in the native reserves which triggered a political uprising in the early 1950s. The plan aimed to stimulate agricultural productivity and the growth of a land market in the native reserves. The plan also observed that increased productivity in African agriculture would reduce the clamour for redistribution of land especially in the white highlands.

Individualisation of land tenure in the former native reserves (now called trust land) has been carried out through a systematic adjudication programme since the 1950s and is still ongoing. The programme involves the determination and recording of land rights previously held under customary tenure. The process entails:

- ascertainment of individual/household rights (adjudication)
- determination of the spatial extent of the rights (demarcation)
- ground survey using aerial photographs
- preparation of preliminary index diagram and adjudication record (collectively referred to as the land adjudication register)
- preparation of registry maps
- registration and issuance of individual title
- maintenance of registry records

Individualisation of land tenure is implemented through the following laws:

- Land Consolidation Act of 1959 (LCA) – used for adjudication of existing rights in “consolidation areas” where fragmentation is deemed to be excessive
- Land Adjudication Act of 1968 (LAA) – used for adjudication of existing rights in “enclosure areas” where parcels are not severely fragmented

The adjudication and consolidation processes result in agricultural parcels on freehold tenure. Registration is done under the Registered Land Act (RLA). Any subsequent dealings on such agricultural parcels are transacted under the Land Control Act. By 1999, more than 1.5 million titles covering 8 million hectares had been issued under the individualisation programme (Njenga, 2004). The programme has not been successful (its coverage represents 14% of the total trust land area in Kenya). Among the problems with this programme have been prolonged and numerous land boundary and ownership disputes which have delayed progress in the adjudication process in many areas. Currently, the backlog of disputes stands at over 20,500 cases.

Land redistribution

This programme has been implemented through 3 strategies:

- settlement schemes
- subdivision of company and cooperative farms
- registration of group ranches

The settlement programme started by the colonial administration was inherited by the independence government. Settlement schemes were set up to accommodate the landless who had been displaced either by the application of colonial land laws or by tenure reform in native reserves, and those who were squatting on white highlands outside the reserves.

The government bought land from departing white settlers at market price on a willing-buyer willing-seller basis. A corporate body, the Settlement Fund Trustees (SFT), was established under the Agriculture Act for the purpose of providing loans to the new indigenous settlers for purchasing the settlement plots from the government. The loans are repaid over a stipulated number of years. This programme was funded by the British government, the Commonwealth Development Corporation and the World Bank. So far, 418 settlement schemes have been established country-wide covering more than 1 million hectares (Mwenda, 2001).

Another strategy for land redistribution is the subdivision of company and cooperative farms and registration of individual titles. Demarcation sheets are prepared following ground subdivision survey. Maps for registration are prepared by tracing the demarcation sheets. Individual titles are registered under the RLA. The farmers maintain their own records of group members and shares. By 1999, 2,700 such farms covering 2.2 million hectares had been registered and issued with titles (Mwenda, 2001).

The subdivision of ranches is carried out for registration of group rights in ranches mainly in pastoralist areas. Identification of ranches is done on 1:50,000 series topographical map sheets and registry maps prepared by direct tracing from the topographical sheets. These maps are called registry index maps-range (provisional). Group titles are issued to group representatives while a list of the names of group members is kept in a group register under the Land Group Representatives Act of 1968 (LGRA). 387 ranches have been registered to date covering more than 2.5 million hectares (Njenga, 2004).

Alienation of public land

Land tenure reform on public land has involved the transfer of public land rights from the state or local authority to individuals. The alienation of public land started with the colonial government through the Crown Lands Ordinance of 1902. Leasehold grants of up to 99 years may still be issued on government land by the Commissioner of Lands for development purposes under the Government Lands Act (GLA). More than 230,000 (mostly) leasehold titles to public land have been issued over the last century (Mwenda, 2001). Local authorities may also “set apart” portions of Trust land and request the Commissioner of Lands to issue letters of allotment to individual allottees for development purposes under the Trust Land Act of 1939 (TLA).

3.2.3. National land policy formulation process

Land issues have been at the centre of Kenya’s political scene for a long time. There is widespread dissatisfaction with the land management system. The dissatisfaction is caused by issues such as: irregular allocation of public land; numerous, outdated and complex land laws; corruption and inefficiency in the land administration system; irregular allocation of public land; insecure land tenure and ineffective mechanisms for the resolution of land conflicts; and the management of informal land developments.

Kenya does not have a clear and coded national land policy. The national land policy formulation process represents the latest efforts in the formulation of a national land policy including the harmonisation of land laws in Kenya. The need for a comprehensive national land policy to provide a framework for the use, access and conservation of land in Kenya has been influenced by three recent developments (MoLS, 2004):

- Report of the Commission of Inquiry into the Kenya Land Law and Tenure Systems (Njonjo Land Commission) submitted in 2002
- Economic Recovery Strategy for Wealth and Employment Creation Programme 2003-2007
- Draft Constitution submitted by the Constitution of Kenya Review Commission (CKRC) in 2004

Among the major findings and recommendations of the Njonjo Land Commission were:

- There is a lack of coordinated policy for the development and administration of both rural and urban land. There are too many land registration Acts that cause confusion. The fees charged for land survey, registration and transactions are too high while some are not authorised. The Commission recommended major changes in the process of procurement of title to land to improve legitimacy of the process and the sanctity of title
- Kenyans have lost confidence in the land administration system mainly due to the grabbing of public land, the concentration of power over land matters in the office of the Commissioner of Lands and corruption in the Ministry of Lands and Settlement. The Commission recommended a re-categorisation of land and devolution of land administration under a new institutional framework that would be independent from central government
- Customary land law has a great influence on land management but the current land laws do not sufficiently accommodate it. The Commission recommended that customary land law be codified and applied in formal land management.

The Economic Recovery Strategy for Wealth and Employment Creation Programme 2003-2007 unveiled by the new government in 2003 commits the government to develop an action plan for implementation of the recommendations of the Njonjo Land Commission (MoLS, 2004).

The Constitution of Kenya Review Commission (CKRC), set up to draft a new constitution for Kenya, presented a draft constitution which was adopted at a National Constitutional Conference in 2004. Although the draft constitution has not yet been passed by Parliament, it provides a framework on which to build a national land policy. It commits the government to define and keep under constant review a national land policy on the following principles (CKRC, 2004):

- equitable access to land and associated resources
- security of land rights for all land holders, users and occupiers
- sustainable and productive management of land resources
- transparent and cost effective administration of land
- sound conservation and protection of ecologically sensitive areas
- the discouragement of customs and practices that discriminate against women's' access to land
- encouragement of communities to settle land disputes through recognised local community initiatives

The National Land Policy (NLP) formulation process was established in 2004. The specific objective of the NLP formulation process is to ensure the maintenance of a land administration and management system that will provide (MoLS, 2004):

- all citizens, particularly the poor, with the opportunity to access and beneficially occupy and use land
- economic, socially equitable and environmentally sustainable allocation and use of land
- efficient, effective and economical operation of the land market
- appropriate regulatory arrangements for the productive and sustainable use and equitable distribution of land

The NLP formulation process observes that the national land policy should address the values that the society seeks to promote in addition to the specific components of the land question. The principles to govern the national land policy are outlined as follows (MoLS, 2004):

- Access to land – equitable access to land and security of land rights; economic and social empowerment of the poor and landless to gain access to land
- Land ownership – define and categorise terms and incidents of land ownership; formulate innovative land rights that reflect progressive social values
- Control of land – controlling authority to regulate land in public interest; protection of individual land rights including fair and prompt compensation for loss of such rights
- Land use – application of integrated land use management system that includes planning and community participation
- Land management – use of a modern land information system that guarantees accountability, transparency, efficiency and cost-effectiveness in land administration; independent, expeditious and just resolution of land disputes
- Land markets – protection of minority group land rights against land market forces through state intervention; promotion of a land market that encourages investment

The NLP formulation process aims to produce the following outputs (MoLS, 2004):

- a framework for the establishment of proper land administration and management systems and a functional land information system
- a framework of harmonised, simple and cost-effective land laws
- mechanisms for ensuring gender equity in land allocation and ownership, and for resolving land disputes
- a legal and institutional framework for securing land tenure including customary tenure and common property resources
- mechanisms for the protection and conservation of the environment
- guidelines for the regularisation of the informal land development sector

3.3. Institutional arrangements

3.3.1. Legal framework

There is no clear and comprehensive land policy in existence in Kenya. Access, use and conservation of land and its resources has followed occasional policy and strategy papers, directives and/or circulars approved by the cabinet for implementation at ministry level. The National Land Policy (NLP) is currently under formulation (see Section 3.2.3). The proposed NLP is anchored on four main pillars: equitable access and allocation of land; economic and environmentally sustainable use of land; efficient and effective operation of the land market; and an appropriate regulatory framework for implementation of the policy.

The current constitution mentions the right of every individual to own property (including land) in any part of the country. Section 75 provides legal protection of such rights. The constitution also refers to the legal provisions for the alienation of public land in trust areas. All matters on land tenure and land administration are left to individual land laws. The proposed draft constitution gives much more guidelines on the management of land and property. Chapter 7 of the draft constitution (on Land and Property) is dedicated to the management of land and land resources.

The legal framework in the land management sector in Kenya is characterised by numerous pieces of legislation. There is no unified land statute. The various laws and administering authorities are shown in Figure 3.1.

Table 3.1 Legal framework for land management in Kenya

Function	Legislation	Administering authority
Land adjudication and consolidation		
1.Enclosure areas	Land Adjudication Act	Director of Land Adjudication & Settlement / Director of Surveys/ Chief Land Registrar
2.Consolidation areas	Land Consolidation Act	Director of Land Adjudication & Settlement / Director of Surveys/ Chief Land Registrar
Land redistribution		
1.Settlement	Registered Land Act	Director of Land Adjudication & Settlement / Settlement Fund Trustees/Director of Surveys
2.Subdivision of company and cooperative farms	Registered Land Act	Director of Surveys/ Chief Land Registrar
3.Group ranches	Land Group Representatives Act	Director of Surveys / Chief Land Registrar
Alienation of public land		
1.Government land	Government Land Act	Commissioner of Lands (on behalf of the President)
2.Trust land	Trust Land Act	Commissioner of Lands (on behalf of local authority)
Cadastre		
1.Survey	Survey Act	Director of Surveys
2.Mapping	RLA / RTA / LTA / SPA	Director of Surveys
3.Apartments	Sectional Properties Act	Director of Surveys
Land registration		
1.Conversion areas	Registered Land Act	Chief Land Registrar
2.Non-conversion areas	Registration of Titles Act	Principal Registrar of Titles
3.Parts of Coast region	Land Titles Act	Recorder of Titles / Land Court
4. Sectional properties	Sectional Properties Act	Chief Land Registrar
Land use planning and control		
1.Religious land (Muslim)	Waqf Commissioners Act	Kadhi's Court
2.All other land	Physical Planning Act	Director of Physical Planning / Chief Executive Officer (Local Authority)
Land taxation / revenue collection		
1. Land tax	various	various
2. Land fees	various	various
Land transfer		
1.Agricultural land	Land Control Act/RLA	District Commissioner/ Chief Land Registrar
2. Non-agricultural land	Registered Land Act / Registartion of Titles Act	Chief Land Registrar / Principal Registrar of Titles
3.Land registered under Crown Lands Ordinance/Land Titles Ordinance	Indian Transfer of Properties Act	High Court of Kenya
Land dispute resolution		
1.Ownership (fixed boundary)	(various)	High Court of Kenya
2.Ownership (general boundary)	Land Dispute Tribunals Act	Magistrate's Court
3.Boundary (fixed)	Survey Act	High Court of Kenya
4.Boundary (general)	Registered Land Act	Chief Land Registrar
Environmental conservation	Environmental Management & Coordination Act	National Environmental Management Authority

3.3.2. Land administration organisations

Formal land administration activities in Kenya are largely restricted to government departments in the Ministry of Lands and Settlement (MoLS). Apart from outsourcing arrangements in the preparation of development plans and the conduct of cadastral surveys, all other land administration activities are carried out by the government.

The preparation of development plans for subdivision, amalgamation and other land developments is carried out by private physical planners who are registered by the Physical Planners Registration Board. Such development plans are submitted to the local authority and the Director of Physical Planning for approval as per the Physical Planning Act. After approval, development plans may be used for survey. The preparation of local and regional development plans is the responsibility of the Department of Physical Planning.

The Survey Act provides for the conduct of cadastral surveys by licensed surveyors who are duly licensed by the Kenya Land Surveyors Board. Such surveys are carried out under the guidance of the Director of Surveys (who is also chair of the Board). Survey documents must be submitted to the Director of Surveys for approval and authentication before the records can be used for registration. The establishment, maintenance and expansion of the geodetic control network (both horizontal and vertical) and base mapping are the sole responsibility of the Department of Surveys. The department collaborates with the Department of Adjudication and Settlement and the Department of Lands in the process of land adjudication and consolidation for registration of individual title.

Land inspection and valuation (for the purposes of land alienation, lease extension, official transfer, land revenue collection, etc) and land registration are the responsibilities of the Department of Lands.

3.3.3. Administrative framework

Each of the departments in the Ministry of Lands and Settlement has offices in the provincial and district headquarters. While they are not merged into one organisation (e.g. cadastre and land registration are handled separately in the Departments of Surveys and Lands respectively), there is some coordination between them in terms of data sharing.

The MoLS departments are funded fully by the government budget. Budget allocations are decided based on the departmental work plans. Revenues collected by way of “appropriation-in-aid” are remitted directly to the Exchequer. No amount may be spent at the point of collection. There is no correspondence between the cost of production (and service delivery) and pricing of products i.e. no attempt at cost recovery.

Public land management organisations in Kenya have a very poor reputation with regard to public administration and governance. Some of the main complaints about land management in Kenya include:

- extortion of unofficial fees
- irregular allocation of public land for speculative purposes
- incompetence e.g. poor land information management systems
- inefficient and ineffective service delivery

3.4. Land administration system

3.4.1. Cadastre

The cadastral system is responsible for the process of formal access and delivery of land. The official channels for land delivery in Kenya include: adjudication; resettlement; allocation of public land by central government or local authority; inheritance; and/or purchase.

The cadastral process for land delivery is long and can be very expensive. The process for land allocation by the government, for example, can take several years and involves many steps in different offices. A typical case of land allocation of an urban parcel is depicted in Appendix 1.

Formal land ownership information consists of boundary definitions and cadastral maps that support registration of parcels. In Kenya, two kinds of cadastral boundaries are used:

- Fixed boundaries – These are boundaries that are described by accurate survey methods. Monumentation of fixed boundaries is specified by the Director of Surveys. It consists of coordinated concrete markers at turning points of rectilinear boundaries. Natural features may also be adopted as curvilinear boundaries.
- General boundaries – These are boundaries that are described by physical features (hedges, rivers, cliffs, etc). These boundaries are surveyed by relaxed survey methods.

In fixed boundary areas (mostly urban), precise surveys are carried out. The output from such surveys is survey plans and computations that are examined and approved by the Director of Surveys. Where registration is under the RTA (Torren's system), the surveyor prepares deed plans with respect to each individual surveyed plot and these are used to support registration. Where registration is under the RLA, registry index maps (RIMs) are prepared by the Director of Surveys to support registration.

In general boundary areas, relaxed (approximate) surveys are carried out. General boundary surveys were introduced along with the land reforms for individualisation of land tenure. The aim was to speed up the issuance of individual title to land owners and to realise as much cadastral coverage as possible in the former native reserves. The output for these surveys is registry maps to support registration. Mutation sheets are produced on subdivision, amalgamation and other procedures which require amendments to the registry map. Registry maps differ in terms of production techniques, content and accuracy. They are discussed below.

Interim registry index maps

Interim registry index maps (RIMs) are used for registration of general boundary parcels pending the production of more accurate maps. These maps are produced through different processes and their quality differs depending on the particular process used. This is because there are no standard specifications for general boundary features. These maps have no grid lines and have an approximate scale only. Examples of interim RIMs include:

- Demarcation maps – These are produced from tracings of allocation plans in consolidation areas. They are prepared by junior survey assistants using approximate ground survey methods (e.g. plane table).
- Registry Index Map (Provisional) – These are produced from tracings of field sheets using ground methods. They are prepared by junior survey assistants. They are used for the subdivision of large company and cooperative farms.
- Preliminary Index Diagrams (PIDs) – These maps are produced by tracing parcel boundaries from enlarged and unrectified aerial photographs of scale (photos enlarged from scale 1:12,500 to 1:2,500). PIDs are the most widely used registry maps in Kenya. Parcel areas and shapes on PIDs are unreliable due to the topographical distortions on unrectified aerial photos.

- Registry Index Map Range (Provisional) – These maps are produced by marking parcel boundaries (normally natural features) on 1:50,000 topographical map sheets. Boundary markers are coordinated by approximate ground methods. They are used to support registration of group rights in rangeland (pastoral) areas. Area calculations from these maps are inaccurate and more precise methods are normally used to determine parcel areas.

Registry Index Maps (RIMs)

RIMs are improved maps produced from interim RIMs. One method of upgrading interim RIMs has been the "refly" method. In this method, maps are plotted accurately by photogrammetric restitution methods from aerial photographs of scale 1:12,500 after the mapping area (over air-visible hedges) is reflown. These maps have been produced at scales 1:2,500 and 1; 5,000. The refly method was abandoned due to its slow speed and high costs. Modern ground survey methods are now used for the production of accurate RIMs in settlement schemes and company and cooperative farms. RIMs are examined, approved and maintained by the Director of Surveys.

Settlement plans

Settlement plans are used in settlement schemes. A topographical base map is prepared at scale 1:2,500 by ground methods. Plot layout schemes are produced on the basis of this map. After approval of the layout plan, settlers are allowed to occupy the plots. When all the plots have been demarcated and have physical boundaries, the area is title mapped using photogrammetric methods at scale 1:2,500. Registry index maps at scale 1:10,000 are produced from the photogrammetric machine plots to support registration.

Sectional plans

These plans are prepared under the provisions of the Sectional Properties Act (SPA), 1987 to support the registration of individual units in apartment buildings. Survey requirements for these plans are similar to those for fixed boundary surveys. In addition, "sectional" plans are prepared indicating the boundaries of each individual unit to be registered under individual rights holders as well as "common" areas to be registered under all the rights holders as proprietors in common. Registration of sectional property rights is done under the RLA.

3.4.2. Land registration

The formal land registration system in Kenya is a positive system based on the registration of titles guaranteed by the state. It is estimated that this system covers 15% of Kenya's land area (author's estimation by data extraction from Mwenda, 2001). The main registry is in Nairobi. Other registries are situated at district headquarters. Registries consist of analogue land registers and archives of registry maps. The system is parcel-based and is regulated by three registration Acts of Parliament:

- Registration of Titles Act of 1918 (RTA) – The RTA was enacted to provide for the transfer of land by registration of titles. Registration under the RTA is effected by the presentation of a deed plan (duly certified by the Director of Surveys) to the Principal Registrar of Titles. High standards of survey are required for a parcel to qualify for registration. This Act is used for the registration of rights in fixed boundary parcels in urban areas. It is based on the Torren's registration system.

- Registered Land Act of 1963 (RLA) – The RLA was enacted to provide land holders with security and proof of title and to make provisions for transfer of interests in land. Registration under the RLA is effected by the presentation of a registry map (duly certified by the Director of Surveys) to the Chief Land Registrar. The Act provides for the registration of both fixed boundary (urban) and general boundary (rural) parcels. It is based on English land law.

- Land Titles Act of 1908 (LTA) – The LTA was enacted to make provision for the registration of successful land claims in parts of the Coast region. It required all persons living in those areas to come forward and prove their claims. A certificate of title was granted by a land court if the claim was approved by the Recorder of Titles.

The land registration system in Kenya is a land information system that serves three main functions:

- registration of land rights and issuance of secure title that can be used as collateral against debts, mortgages, loans, etc
- facilitation of land transfer, transmission and other land transactions
- valuation of land for land taxation and collection of land-related revenue

The operation of the land registration system is not efficient. Backlogs of unregistered land rights, undelivered title certificates and other deficiencies in service delivery are common. For example, a typical land transfer of an urban leasehold parcel can take anything from a few months to several years. The process for transfer of such a parcel is shown in Appendix 1.

3.5. Land tenure

Land in Kenya is categorised in three territorial domains: government, private and trust land. Government land comprises 10%, private land 20% and trust land 70% of the total land area (Mwenda, 2001). Interests in land can be broadly classified into three groups: customary rights governed by customary law, statutory/formal rights governed by statutory law and informal/non-formal rights under informal tenure arrangements. These three types form the predominant land tenure systems in Kenya.

3.5.1. Customary land tenure

This tenure system refers to land ownership practices by ethnic communities under unwritten customary law. The traditional rules under such tenure systems are recognised by the legal system and are upheld to the extent that they are consistent with written land law. The system is mainly practised by communities in rural areas. Some of the characteristics of customary land tenure systems that are common in most of the communities are:

- Individuals or groups acquire guaranteed communal rights of access and use of community land by virtue of their kinship relations
- Rights of control (allocation, use, etc) including access to common areas (e.g. pasture) are vested in the traditional authority of the community
- Proprietary rights are restricted to the benefits and profits resulting from investment of capital and/or labour, and transmission rights (through inheritance)

3.5.2. Statutory land tenure

Interests in land held under statutory tenure are administered and protected by statutory law. Some examples of statutory land tenure forms are:

- Freehold tenure – This tenure confers the greatest interest in land. Ownership rights under this tenure are held in perpetuity. Freehold tenure can result from alienation of public land under either the Government Land Act (GLA) or Trust Land Act (TLA), or through the adjudication process. Freehold rights are governed by the Registered Land Act (RLA) which registers a person or persons as the absolute proprietor(s) of a parcel. Under the RLA, land may be owned by a single person, by two or more persons jointly (each having an unalienable interest in the whole parcel) or as proprietors in common (each owning definite and alienable shares in the parcel). Where the predominant land use requires the registration of large groups under one title (e.g. pastoral areas), the Land Group Representatives Act (LGRA) is used to register communal rights to parts of

communal land (e.g. ranches) in the names of group representatives who are elected by group members.

- Leasehold tenure – This is an interest in land for a definite period of time and subject to the continued fulfilment of specified conditions (e.g. payment of ground rent). Leases may be granted by holders of freehold titles on private land, by the government on government land or by local authorities on trust land. The maximum term of government leases granted in Kenya is 999 years for agricultural land and 99 years for urban plots. Local authorities typically grant leases for shorter periods.

- Public tenure – This includes interest in land by the government for public purposes (e.g. roads, airports, etc), for the operation of government business (e.g. government offices) or land reserved for environmental conservation and related purposes (e.g. national parks, forests, lakes, etc). Land under public tenure is administered under the Government Land Act (GLA).

- Other interests include overriding and beneficial interests that subsist on public and/or private statutory interests. Such interests include easements, wayleaves, licenses and beneficial interests such as "life" interests and interest under trust. A temporary occupation license (TOL), for example, is granted by a local authority on behalf of the central government for a period of one year (renewable). It gives permission for the allotee to make use of vacant public land on a temporary basis. The allotee is not allowed to erect any permanent structures on the land.

3.5.3. Informal land tenure

Informal tenure refers to situations of *de facto* tenure (actual occupation and use of land without a legal basis) where groups of people occupy public or private land without the permission of the land owner. It is also called squatting. Such occupation usually occurs in urban centres where rapid urbanisation outstrips the capacity of urban management systems to deliver sufficient and affordable land and shelter for growing populations. A detailed treatment of informal land tenure is given in Section 3.6.

3.6. Informal settlements in Kenya

3.6.1. The growth of urban informal settlements

The evolution of informal settlements in Kenya can be traced back to the colonial period. During this period, the growth of informal settlements was a result of colonial law (Syagga et al., 2001). The displacement of indigenous populations from high potential areas by the application of the Crown Lands Ordinances (1902 and 1915) and the practice of residential segregation created squatters in the white highlands and urban centres. However, the implementation of the Vagrancy Act of 1922 (restricted the movement of indigenous people outside native reserves) and a policy on demolition of any unauthorised structures under the Public Health Act regulated informal land development in the urban centres especially in Nairobi.

After independence, restrictions on the movement of indigenous populations were removed. This resulted in massive rural-urban migration of indigenous populations looking for employment and other economic opportunities. The urban population in Kenya rose sharply from 747,651 in 1962 to 5,360,917 in 1999. 35% of the total population lived in urban areas in 2001. The proportion of Kenyans living in urban centres has also increased from 5.1% in 1948 to 15.1% in 1979, 18.0% in 1989 and 34.8% in 2000. There are currently 194 urban centres in Kenya, with 45% of the urban population living in Nairobi (Mitullah, 2003).

The high rate of urbanisation has been accompanied by a decline in economic performance. From 7% per annum at independence, the economic growth has slowed to 4% in the 1980s, 2% in the 1990s and 1.2% by 2001(GoK, 2002; Mitullah, 2003). The poor economic performance has led to massive unemployment and deteriorating infrastructure and services in urban centers. This has resulted in the growth of informal settlements.

3.6.2. Land tenure in informal settlements

Land tenure in informal settlements in Kenya takes the form of non-formal *de facto* tenure where land is acquired, occupied and used with or without the permission of its owner (Syagga et al., 2001). Informal settlements are found on both public and private land.

Okoth-Ogendo (1999) has identified 3 major tenure sub-types within informal settlements in Kenya:

- Share ownership – Land is acquired by joint purchase through land-buying companies, cooperative societies, self-help groups etc. Individual members are issued with share certificates.
- Squatting – Land is acquired through invasion of public or private vacant land
- Temporary occupation license – Land is acquired by permission from central government through the local authority for the use of vacant public land on a temporary basis

Land tenure in informal settlements can be quite complex. The NISCC (1997) cites the example of Mathare informal settlement in Nairobi where three different tenure systems exist in parallel: private tenure on land with individual title, group tenure under land-buying companies and squatting on trust land. A common feature of land tenure in these settlements, however, is that most of the residents are tenants who pay rent to the owners of the structures they occupy.

Access to land and shelter in informal settlements in Kenya is influenced substantially by the "provincial administration" system. The system was inherited from the colonial administration and is designed to promote and coordinate the implementation of official government policy from the grassroots (sub-location level) to the provincial level. The system is run by public officials who have considerable powers derived from various laws e.g. chiefs (provincial administration officials at location level) have used the Chief's Act to wield sweeping powers over land allocations in informal settlements.

3.6.3. Security of tenure in informal settlements

The perception of tenure security in informal settlements is generally indicated by the nature of physical development. Syagga, Mitullah *et al* (2001) refer to the UN Habitat for evidence that increased security of tenure in informal settlements in Nairobi has resulted in investments in housing and neighbourhood improvements.

The status of the land occupied by informal settlements has a big influence on security of tenure (Syagga et al., 2001). Where the land is public, the government has responded to the growth of informal settlements in different ways depending on the zoning status of the land. Where the land is reserved for a public purpose other than residential, the government has evicted and/or demolished the settlements to pave way for development of the land. Where the land is zoned for residential development, regularisation of the settlements has been pursued in some cases. Informal developments on private land have been the subject of numerous court cases.

Within the settlements, security of tenure is worse for tenants than it is for structure owners. Structure owner – tenant relationships are highly commercialised and evictions are quite common where tenants default on payment of rent. Recent rent hikes in Kibera and Korogocho informal settlements in Nairobi were the cause of violent disputes between structure owners and tenants.

3.6.4. Informal settlement upgrading

The upgrading of informal settlements has become the official government policy on informal land development (GoK, 2003; GoK, 2004). Upgrading in this context entails several factors (KENSUP, 2001):

- Formal recognition of existing informal settlements e.g. through a moratorium on demolitions and allocations of public land with informal settlements
- Provision of tenure security to residents of informal settlements e.g. through transparent land delivery and tenure systems that ensure direct benefit to the residents
- Improvement of housing, infrastructure and urban services e.g. through participatory physical planning, development of appropriate development standards and regulations, improved access to basic services and amenities
- Improvement of economic opportunities e.g. through settlement-based small scale enterprises

Upgrading of informal settlements may include the formal registration of individual and/or block rights. Individual title is favoured where residents constitute a heterogeneous group of households without ethnic, religious or other connections. Where residents form a homogenous group, block title is favoured. A generic regularisation process for informal settlements (where it is intended to issue individual title to residents) has been developed by the Department of Surveys. It is shown in Box 3.1.

Box 3.1 Generic process for informal settlement regularisation

1. Informal settlement is defined and demarcated
2. Topographical survey by ground survey methods (all man made and natural physical features are surveyed)
3. Census/enumeration to determine genuine residents of the settlement
4. Topographical map is used to prepare a development plan (for determination of the total number of plots and the location/identity of structures to be demolished to allow for the development of infrastructure)
5. Development plan is finalised and approved
6. Demarcation and survey of plots according to development plan
7. Registry index map published to support registration

Source: (Njuki, 2001)

Kenya Slum Upgrading Programme

The Kenya Slum Upgrading Programme (KENSUP) is a joint development policy initiative between the Government of Kenya and UN Habitat. The programme was established in 2000. The objectives and strategies of the programme are (KENSUP, 2001):

- Alleviation of poverty - improvement of livelihoods through income-generating activities, access to micro-credit and community-based financial systems
- Provision of tenure security - formal recognition of existing informal settlements and tenure analysis for purposes of planning intervention process
- Improvement of shelter and basic urban services - private-public partnerships for the provision, improvement and maintenance of housing, infrastructure, services and amenities

The programme is based on the use of participatory approaches which include:

- Institutional framework – a functional framework that includes key public organisations as well as other stakeholders
- Integrated approach – inter-disciplinary initiatives i.e. land administration, public works, economic livelihoods, etc

- Resource mobilisation – pooling of resources by various stakeholders e.g. labour, technical expertise, public/private funds, grants, loans, etc
- Community mobilisation – formation and participation of community-based organisations encompassing tenants, structure-owners, religious organisations, etc
- Strengthening partnerships – collaborative working relationships between community-based organisations and public/private organisations

4. Methodology

4.1. Background to fieldwork location

The city of Nairobi owes its birth to the construction of the Kenya-Uganda railway (KUR) which started in 1896 at Mombasa. The railhead reached Nairobi in 1899. In 1900, the railway headquarters was moved from Mombasa to Nairobi. This move created many settlements around Nairobi and, in 1902, Nairobi became a town. The colonial administrative capital was moved to Nairobi in 1907. Due to rapid growth of the urban centre both in terms of population and infrastructure, the boundary of Nairobi was extended in 1927. Nairobi's area increased from 18 to 77 square kilometres. Nairobi achieved city status in 1950. At independence in 1963, the boundary was again extended to cover 686 square kilometres. Today, Nairobi has a population of about 3 million.

Six main land use categories are identifiable in Nairobi (Mitullah, 2003): central business district (CBD); industrial area; public and private open spaces; public land; residential areas; and undeveloped land. The population distribution of the city is based on land use and income levels. The CBD and industrial area have low population densities. Population densities in residential areas follow a pattern based on income levels. The highest densities are found in informal settlements (densities higher than 1000 people per hectare) and low-income areas mostly in the eastern and north-eastern parts of the city (200-300 people per hectare). The south and south-eastern parts are medium income areas with moderate densities of 30-40 people per hectare. The high income areas are to the west and north-western parts of the city. These areas have low densities of 2-25 people per hectare.

The city of Nairobi has a population estimated at 3 million. The rate of urbanisation is high. The population increased from 827,755 in 1979 to 1,324,570 in 1989 and 2,143,254 in 1999 (Mitullah, 2003). Rural to urban migration has accounted for a substantial portion of Nairobi's population increase. Most of the rural immigrants to Nairobi end up in one of the informal settlements in the city. A recent slum study carried out by Nairobi City Council, UN Habitat and Central Bureau of Statistics reported that 95% of all new arrivals in slums came from rural areas (UNHSP, 2003a). By 1995, there were 134 informal settlements in Nairobi. These settlements were holding a population of 1,116,971 people in 1999, representing 52% of the city's population (Mitullah, 2003).

4.2. Approach

4.2.1. City-wide survey

A city-wide survey of the current situation of Nairobi's informal settlements was carried out during the fieldwork period. The tasks of the survey were:

1. Describing the characteristics (physical, spatial, socio-economic) of informal settlements
2. Identifying the existing tenure systems, opportunities for intervention strategies to improve tenure security and the factors that influence tenure and tenure security
3. Identifying stakeholder organisations and land information management needs

A questionnaire was the main tool used for this survey. The target informants for the purposes of the survey were professionals in different organisations that are located in different parts of the city. The questionnaire was preferred because it is inexpensive and can be used to collect data from a wide

range of respondents in a short time. Other methods used included literature review and discussions. The data collection methods used in the survey process are described in detail in Section 4.3.3. The findings of the survey are presented in Chapter 5. These findings provide answers to research questions 1 and 2.

4.2.2. Case study

A case study was carried out to describe, assess and compare the land tenure management systems in three selected informal settlements; Mukuru kwa Njenga, Kibra Nubian villages and Mathare Section 4A. Six criteria were considered for the choice of case study settlements. These criteria were considered important for their potential influence on land tenure trends and land information management in informal settlements in Nairobi. The criteria were:

1. Age (year of establishment)
2. Background and location
3. Physical size and demography
4. Level of consolidation (vulnerability)
5. Community mobilisation (community-based organisations)
6. Development stage – community developments, upgrading, services, infrastructure, etc

The characteristics of each of the three settlements with respect to these criteria are outlined in Table 4.1.

Table 4.1 Characteristics of case study settlements by selection criteria

Criteria	Mukuru kwa Njenga	Kibra Nubian Villages	Mathare 4A
1. Year of establishment	1958	1918	1963
2. Background and location	Former white settler farm; Invasion of private land; Urban fringe, 8 kms south-east of city centre;	Former forest reserve; Nubian ex-soldiers settled by colonial administration; Peripheral, 7 kms south west of city centre	Squatting on government land; Inner city, 5 kms from city centre
3. Physical size; population; population density	32 Ha; 75,000; 2300 persons per Ha	120 Ha; 200,000 (est.); 1,700 persons per Ha (est.)	17 Ha; 23,000; 1,400 persons per Ha
4. Level of consolidation	Demolition of structures in 1996; Notice of eviction from Provincial Administration in 1999	Formal recognition by local/central government, plans for block titling underway	Leasehold granted by government to board of trustees
5. Community mobilisation	Numerous CBOs e.g. Kazi na Jasho	Kibra Land Committee	Amani Housing Trust
6. Development stage	No survey; No registration; Minimal infrastructural improvements by donor agencies	On-going community-led development	Upgraded – improved infrastructure, security of tenure

The tasks in each of the three cases were:

1. Identify major actors in land tenure management, their source and nature of authority and the administrative structure
2. Identify the nature and source of rules, and how the rules are enforced
3. Describe the procedures for access/delivery of land (and shelter), land survey and mapping, land registration, land transfer and land dispute resolution

The methods used for the case studies were interviews conducted within the settlement communities. These interviews were designed to make full use of local knowledge and experience. The procedures used for the interviews are described in section 4.3.4. The findings of the case study are outlined in Chapter 5. These findings provide answers to research questions 1 and 2.

4.2.3. Assessment

An assessment of the land tenure management systems in the three selected informal settlements was carried out. The assessment framework and the method used for the assessment are outlined in Chapter 6. The assessment provides answers to research question 3.

4.3. Field data collection

Data collection was carried out during a one-month fieldwork period between September 27 2004 and October 27 2004.

4.3.1. Field data collection plan

A field data collection plan was made during the fieldwork preparation period. The plan outlined pre-fieldwork activities, the data collection schedule to be followed, the data collection methods to be used and the resources to be spent during fieldwork.

Pre-fieldwork activities included:

1. Preparing all the tools (i.e. questionnaires, interview sheets and stationery) and equipment (camera, laptop computer) to be used in the field and discussing data collection methods with supervisors
2. Obtaining funds and letters of introduction to ease logistics during fieldwork (e.g. photocopying, e-mailing, transport, permission to collect data)
3. Contacting some potential respondents and discussants to keep them posted on data collection dates and requirements

A data collection schedule was prepared prior to the fieldwork. The schedule was used to estimate the required resources, prepare a budget, to optimize the use of resources and to monitor and adjust data collection activities during fieldwork. The schedule outlined a number of issues:

1. Physical location of data collection activities and availability of respondents – the researcher was familiar with the physical locations of respondent organisations.
2. Requirement of a data collection assistant – 1 data collection assistant was contacted and recruited before the commencement of fieldwork
3. Time frame for data collection including duration and order of data collection – 1 week was allocated for the questionnaire survey, 2 weeks for the case studies and 1 week for data verification and follow-up
4. Supervision – the supervisor was contacted twice (by electronic mail) during the fieldwork period

4.3.2. Literature review

Literature review was used throughout the research period. The purpose for reviewing existing literature was, first, to review the key concepts underlying this research. Further literature review was necessary to gain background knowledge of the study area and to consider and build upon the results and findings of other similar research work. Chapters 2 and 3 draw heavily from the literature review.

4.3.3. Questionnaire

Design

The questionnaire was prepared in two parts:

1. Part I – Land tenure and land tenure information systems
2. Part II – Institutional settings in formal and informal land management systems

This distinction was made because Part II contained questions that required some technical knowledge on the part of the respondent. It was anticipated that not all the respondents would be able to answer those questions. Another reason for the two-part design was that combining all the questions in Parts I and II would result in a very long questionnaire that respondents would find difficult to complete within a reasonable time. The full questionnaire is shown in Appendix 2.

Other elements of the questionnaire design were:

- Listing questions in order of increasing difficulty and place sensitive questions at the end of the questionnaire sections
- Posing open questions as clearly as possible
- Clustering related questions together
- Limiting the number of questions to those that are essential for the purposes of the research
- Repeating one or two questions to check consistency of responses
- Providing enough writing space for open questions

Administration

The questionnaires were targeted at professionals in the public and private sector, and representatives of civil society organisations. The distribution of the questionnaires was done by hand to the respective offices and respondents given about two weeks to complete them. This mode of distribution gave the respondents ample time to complete the questionnaires. The questionnaires were completed on a voluntary basis and the respondents were free to determine the extent to which they would participate in the questionnaire survey (e.g. respondents could complete one or both parts of the questionnaire). Out of 14 questionnaires distributed to representatives of various organisations, 10 were completed and received back. These were from the following organisations:

- Urban Development Department, Ministry of Local Government
- Urban Design and Development Section, City Council of Nairobi
- Shelter Forum – a consortium of civil society organisations involved in land and shelter policy research and advocacy
- Amani Housing Trust – a trust set up by the Catholic Archdiocese of Nairobi to implement and operate a slum upgrading programme
- Kazi na Jasho Self Help Group – a community- based organisation (CBO) working under the provincial administration to offer voluntary services in environmental conservation, security and social advocacy
- Pamoja Trust – a non-governmental organisation (NGO) working with community –based organisations to find solutions to land tenure and shelter problems for the urban poor
- Two Ems Associates - private land consultants

Each respondent was visited a few days after completing the questionnaire for an informal discussion and verification of their responses. This was done to ensure that they understood the questions correctly and that they explain any unclear responses.

4.3.4. Interviews

Interviews were used as the main method of data collection for the case studies at settlement level. The interviews were used to gain in-depth insights into the operations of the land management system in the individual settlements. The interview method was effective. It had a high response rate and follow-up questions and verification of unclear issues could be done "on the spot".

Design

The interview questions were structured in the form of a check list. This was to make sure that the same questions were posed in all the settlement locations to validate subsequent comparative analysis. The questions were also framed to attract open responses in a flexible order to allow for a natural interaction between interviewer and interviewee. The full interview sheet is shown in Appendix 3.

Conduct of interviews

The targets for oral interviews were representatives of community associations/organisations operating from within the settlements. These included:

1. Kibra Land Committee (KLC) – A community-based organisation registered under the Societies Act. The organisation was started by a section of the residents of Kibra Nubian villages to represent the land tenure interests of the minority Nubian community. Its offices are located in Makina village. Two representatives of KLC were interviewed.
2. Kazi na Jasho Self Help Group - A community-based organisation based in Mukuru kwa Njenga informal settlement and registered under the Societies Act. The organisation was started by settlement residents to offer volunteer services in environmental conservation, security and social advocacy in three neighbouring slums – Mukuru kwa Njenga, Mukuru kwa Reuben and Kware slums. Its offices are located inside the Kware chief's camp. Three representatives of Kazi na Jasho were interviewed.
3. Amani Housing Trust (AHT) –The trust is set up by the Archdiocese of Nairobi, the executing agency of the Mathare 4A Development Programme, to implement and operate the slum upgrading project in Mathare 4A. The trust's offices are located inside the project area. One representative of AHT was interviewed.

All the interviews were conducted in the premises of the associations/organisations within the settlements and recorded by a voice recorder. Short notes were also taken during the interviews.

4.3.5. Secondary data collection

Secondary data collection involved searching for and reviewing existing documents and publications with information on the research topic and case study areas. This process was important for substantiation and corroboration of primary data. The main sources of secondary data were:

1. Official policy documents
2. Government of Kenya (GoK) national reports
3. Informal settlement project reports
4. Prior research work (theses, case studies, journal articles, etc)
5. Legislation

4.3.6. Verification and validation of data

Discussions were held with all the respondents of the questionnaire survey and interviews both as follow-up to verify unclear responses and to address issues that were not adequately addressed in the questionnaire and/or interviews. Additional discussions were arranged with other individuals from different organisations on a range of issues concerning informal land development, informal land

tenure systems, efforts to improve land tenure security in informal settlements and the land information that is generated and used by such efforts. The targets for these discussions were public officials and experts with knowledge and experience in land management in informal settlements.

The methods used for field data validation included:

1. Ensuring that key definitions and concepts are as clear as possible
2. Including repeated questions in questionnaires and interviews to check consistency of responses
3. Conducting a thorough background literature review before and during the fieldwork period
4. Explaining the objectives of the research and the potential of the research to improve the existing situation
5. Involving the community, group or individual providing data as much as possible in the data collection process

4.3.7. Limitations of field data collection methods

The data collection methods used during fieldwork were all based on communication between this author and respondents. These kinds of data collection methods have limitations associated with the behaviour of both the author and the respondent during the data collection period. The limitations of communication-based field data collection methods used in this research are:

- Respondents may choose to deliberately answer a question with a response that is inconsistent with their actual beliefs, attitudes or intentions. This happens, for instance, when the respondent is familiar with the objectives of the research and strives to give answers that he deems are consistent with the research objectives rather than the facts
- The presence of the researcher and the extent to which they become part of the community that they investigate may influence the behaviour and responses from the respondents
- Representatives of community-based organisations may feel obligated to give answers that are “politically correct” under pressure from their colleagues or settlement residents

5. Findings and data analysis

5.1. Findings of the questionnaire survey

5.1.1. Current situation of informal settlements in Nairobi

Spatial-physical characteristics

Informal settlements in Nairobi account for the majority of Nairobi's population. Although the spatial distribution of these settlements is fairly even, most of these settlements are either located near sources of employment opportunities e.g. the Industrial Area, or along rivers, dumping grounds, quarry sites and other abandoned or reserved sites which have not been developed. Mitullah (2003) attributes the growth of informal settlements in Nairobi to six factors: pre-independence migration; rural-urban migration and natural population growth; lack of adequate housing provision; resettlement due to new developments; upgrading of slums and/or relocation to new sites; and extension of city boundaries.

Informal settlements in Nairobi are generally of two types: squatter settlements and illegal subdivisions of public and/or private land. They vary in size from a few hectares to hundreds of hectares. Population densities in these settlements are very high e.g. Kibera informal settlement has a population of more than 500,000 residents on 225 hectares. Physical layouts are haphazard making it difficult to plan roads, pathways, drainage, water and sanitation facilities. Other facilities and social infrastructure like schools and health centres are deficient, missing or far off.

Socio-economic characteristics

Rural-urban migration has accounted for a substantial part of informal settlement growth in Nairobi. Most of the rural immigrants to Nairobi end up in one of the informal settlements in the city. A recent slum study in Nairobi (carried out by the UN Habitat, CBS and NCC) reported that more than 95% of all new arrivals to informal settlements were from rural areas (UNHSP, 2003a).

Most of the residents of informal settlements belong to the lowest urban income group. Although many residents of informal settlements work in the formal sector, the majority work in the informal economic sector. The average household income is below KShs. 2,400 (or $30) per month. The structures in informal settlements are made of temporary building materials like mud and wattle, card board or corrugated iron sheets. Most residential units are single rooms approximately 10 by 10 feet in size. They offer little ventilation, security or privacy. Rents are between KShs. 160 and 400 (or $2 and $5) per month with little or no urban services.

5.1.2. Land tenure

Land access and delivery

The supply of affordable land for shelter is minimal. The situation is worse for the urban poor. This is indicated by the very high population densities in informal settlements (e.g. 1,250 people per hectare in Mathare Valley). Another indication of the short supply of land for this category of urban dwellers is

the fact that the existing informal settlements cover only 5% of all the residential land in Nairobi and yet the majority of Nairobi's population live in them.

Most informal settlements are located on vacant government land reserved for environmental conservation or safety purposes or for a specific development project that has not been implemented. Some of these settlements were actually started by the government (e.g. Kibera). Only a few informal settlements are on trust land. This is because the local authority developed low income housing estates and social services on most of the trust land soon after independence. The local authority has also had a reputation for demolishing any encroaching development as soon as it comes up (e.g. in Muoroto). Some informal settlements are situated on private land (e.g. Mukuru kwa Njenga). Such settlements are the subject of perpetual conflict as the allocations are often made without consideration for the actual occupants. The most common methods of access to informal settlements are invasion, inheritance and purchase.

The regulation of tenure in informal settlements is often organised under the provincial administration. The administrative chief uses the Chief's Authority Act and the Public Order Act to regulate access to land and shelter and to resolve land disputes. Allocations are largely discretionary. They are based on political and/or ethnic considerations and commercial interests. The commercialisation of informal settlements is driving the initial costs of allocation higher. It also complicates regularisation efforts by creating commercial interests that are often not consistent with the objectives of regularisation programmes. The opportunities for access are not equal. There is discrimination against minority and/or vulnerable groups (e.g. the poor, orphans, the disabled and the unemployed).

The residents of informal settlements can be divided into two main groups: structure owners and tenants. The structure owners are either the original settlers/allottees (or subsequent generations of the original settlers/allottees) in the settlement or they have acquired land in the settlement through sale. In most settlements, only 10-20% of structure owners actually occupy their properties. The rest are absentee landlords. The structure owners usually have no legal ownership rights. The majority of residents in informal settlements (80–90%) are tenants who pay rent to the structure owners.

Land tenure categories

The most common tenure types in informal settlements are informal/squatting, customary and semi-formal. There are different tenure categories within each tenure type. Table 5.1 shows the various tenure categories and the associated property rights in each category.

Tenure security in informal settlements varies from settlement to settlement. The tenure situation in informal settlements has increased considerably in the last few years (Syagga et al., 2001). The slum clearance policy (through evictions and structure demolitions) of the first three decades after independence has been replaced by a policy of tolerance and upgrading of informal settlements. A number of attempts to improve the living conditions in these settlements have significantly improved the perception of tenure security in informal settlements. Apart from formal titling, there are other actions are seen as equally effective and more realistic in offering tenure security. Such actions include:

- recognition of settlements by the state (in policy statements, official pronouncements, etc)
- moratoria on evictions and demolitions
- rehabilitation/upgrading of settlements
- regularisation of land tenure

Table 5.1 Main tenure categories in informal settlements
Source: Questionnaire survey

Tenure type	Tenure category	Property rights
Informal / Squatting	Squatter owner	B, D, E, Im, In, O/U, R, Sd, Sl
	Absentee owner	B, D, Im, In, O/U, R, Sd
	Tenancy with contract	E, Im, In, O/U, R
	Tenancy at will	E, Im, In, O/U, R, Sl
	Homeless	N
Customary	Islamic religious tenure	Im, In, O/U, R, Sd, Sl
	Swahili customary tenure	B, D, Im, In, O/U, R, Sd, Sl
Semi-formal	Temporary occupation licenses (TOLs)	E, O/U, R
	Temporary standholder permits (TSPs)	E, O/U, R
	Land trust	E, Im, In, O/U, R, Sd, Sl
	Land buying groups/companies	B, D, E, Im, In, O/U, Sd, Sl

B=buy; D=dispose; E=exclude; Im=improve; In=inherit; N=none; O/U=occupy/use; R=restrictions; Sd=subdivide; Sl=sublet;

Land transfer and land dispute resolution

Different procedures exist for land transfer depending on the tenure system in operation in a settlement. In the case of sales, search mechanisms exist for prospective buyers to ascertain the ownership status of land/structures. Land transfers are overseen by group officials, village elders, CBOs, chiefs or other local leaders again depending on the prevailing tenure system. Provincial administration officials (especially chiefs and assistant chiefs) are very influential in land transfers.

Land disputes in informal settlements are mainly caused by non-payment of rent, encroachment, blocking of access roads/paths, double allocation and sale disagreements. Arbitration of land disputes is normally the responsibility of provincial administration officials. They are assisted by hand-picked village elders or headmen. Arbitration relies heavily on verbal evidence from village elders, neighbours and religious leaders. Land disputes may be referred to the Rent Tribunal (rent disputes), the Legal Advice Centre (gender, family and human rights disputes) or even to the police (fraud).

5.1.3. Actors and land information

There are many internal and external actors in the informal land development sector. These actors have different interests. They generate and maintain different kinds of land information according to these interests. The actors can be grouped into stakeholder communities according to their activities and/or interests in informal settlements. Table 5.2 shows the major stakeholders in informal land tenure management in Nairobi. Their activities/interests and the land information generated and/or used by some of the individual stakeholders are also indicated.

Land information in informal settlements consists of land inventories and registration of occupation rights and rights holders. Land inventories are records of all the land within a settlement. They focus on the size and location of contiguous plots and do have ownership and/or occupation data. This information is mostly held in diagrams or paper maps. The inventories normally consist of information such as:

- settlement perimeter measurements
- plot boundary measurements
- plot numbers
- access routes
- physical features

Table 5.2 Stakeholders and land information in informal settlements

Stakeholder community	Stakeholders*	Activities/Interests	Land information
Civil society organisations (CSOs)	Pamoja Trust	• Property rights awareness campaigns • Enumeration in informal settlements	Enumeration data
	Kituo cha Sheria (Legal Advice Center)	• Property rights advocacy • Dispute resolution • Capacity building for CBOs	Land disputes data
	Amani Housing Trust	Shelter and infrastructure improvement	• Settlement development plan • Settlement survey plan • Tenant rental contracts
Community-based organisations (CBOs)	Kibra Land Committee	• Application for communal title • Enumeration • Socio-economic survey	• Settlement development plan • Enumeration records
International development cooperation agencies (IDCAs)	UN Habitat (GUO)	• Coordinating local urban observatory • Funding slum upgrading initiatives	MDG indicator data
	World Bank	Funding slum upgrading initiatives and SSSs	Settlement development plans
Public organisations	Nairobi City Council	• Local taxation • Upgrading programme activities	• Nairobi master plan • Nairrobi structure plan • Nairobi land use plan
	Min. of Lands and Housing	• Identification of land rights holders • Implementation of land/housing policy • Upgrading programme activities	• Cadastral maps • Regional and local development plans • Part development plans
	Provincial administration	• Land allocation • Permission for development • Social control/order	• Occupation registers • Settlement maps
Private sector	Private land owners	• Access to land • Formal development • Speculation	• Legal ownership documents • Land market data
	Professional consultants	• Feasibility studies • Socio-economic studies	Settlement data (technical/socio-economic)
Settlement residents/structure owners	Structure owners	• Collect rent • Protection of investment	Tenancy information
	Residents	• Secure tenure • Access to urban services	Personal data

* selected

The registration of occupation rights and rights holders is a continuous process. It is done during enumeration exercises or during registration of initial land allocations and subsequent land transactions. Enumeration is usually done as part of the socio-economic survey at the feasibility study stage of upgrading or to support community development projects. It can, however, also be done as part of registration for membership of CBOs, to improve social cohesion to resist eviction, to counter illegal allocations or to identify beneficiaries during a regularisation process. Enumerations are normally planned and facilitated by CBOs or NGOs but carried out by or in conjunction with residents. Some information outputs of slum enumeration exercises include:

- a record of slum occupants/structure owners (name, gender, age, education, marital status)
- a record of settlement size, population and number of households
- plot numbering

Most of the land information generated in informal settlements is not used on routine basis. However, it is maintained and used when the need arises. Civil society organisations (CSOs) may use project data to source funding or as reference material for subsequent informal settlement projects. Community based organisations may use land information in cases of land allocation, land transfer and dispute resolution.

There are very few cases of data sharing between organisations. Some of the constraints to data sharing include culture, attitude, suspicion, competition, high rate of changes in informal settlements, differences in purpose of data collection, technical reasons (e.g. no infrastructure for digital data sharing) and political reasons. In general, coordination among stakeholder organisations is weak. Possible reasons for this include:

- stakeholders may have different interests e.g. different political bases
- stakeholder organisations may adopt different approaches and/or analysis of the problem
- inflexible agenda and programme cycles set by international headquarters of international agencies may hinder integration of action plans with other organisations
- stakeholder organisations do not take coordination initiatives as it is time-consuming and requires scarce resources

5.1.4. Institutional arrangements

The current constitution and land laws do not recognise informal settlements or the tenure systems and land rights in these settlements. Because of this situation, the allocation of mandates among stakeholders in informal land development is not clear. Land management activities in informal settlements involve diverse groups with different interests.

There are certain “umbrella” organisations that are at the forefront of land management in informal settlements. One example is the Nairobi Informal Settlements Coordination Committee (NISCC) which was established in 1996 to coordinate all development activities in informal settlements in Nairobi. Although it is set up under the Nairobi Provincial Commissioner’s office, the NISCC is made up of representatives from the private and public sectors, NGOs, CBOs and CSOs. Another example is the *Muungano ya Wanavijiji* (Federation of Slum Dwellers). This is an association incorporating informal settlement grassroots organisations. It emphasises the importance of unity of informal settlement residents in solving common problems.

A number of linkages have been identified between informal land management institutions and official institutions. These include:

- Registration of CBOs informal settlement associations by the Registrar of Societies under the Societies Act to promote security of tenure in the settlements

- Registration of Temporary Occupation Licenses (TOLs) to informal settlement residents to run small businesses within the settlements
- The resolution of informal settlement land disputes (e.g. succession, land sale fraud) in courts of law
- Regulation of land access and resolution of land disputes in informal settlements by administrative chiefs under the Chief's Authority Act and the Public Order Act
- Claims for registration of adverse interests in favour of informal settlement residents on private land under the Limitation of Actions Act

5.2. Findings of the case study

5.2.1. Background of the case study settlements

Mukuru kwa Njenga

Mukuru kwa Njenga is the largest of the three informal settlements in Mukuru Location of Embakasi Division in Nairobi. The other two are Mukuru kwa Reuben and Kware. The settlement is located 10 kilometres from the city centre in the south east fringes of Nairobi between Outer Ring Road, North Airport Road and the Nairobi-Mombasa railway line (see map in Figure 5.1).

The history of Mukuru dates back to 1958 when British settler farmers occupied the land. The farmers were involved in animal husbandry, plantation farming, quarrying and transportation. They employed local African workers in the farms and quarry sites. The workers lived on their employers' properties near their working places. Among the first workers to settle at Mukuru was *Mzee* Njenga who later started the *"kwa Njenga"* (Njenga's place) village on one of the sisal farms. The population of Mukuru increased steadily over the years after independence as more and more people came from rural areas to look for jobs in the neighbouring industrial area and settled in the vast plains after the departure of the expatriate farmers. An informal settlement emerged on the land that now had the official designation of unalienated government land.

With the increasing demand for urban land in the early 1990s, the government granted 99 year leaseholds on Mukuru land to individuals and companies for commercial and industrial use. This was done despite the fact that there were people living on the land. In 1996, the Provincial Administration demolished part of the settlement to pave way for development by the allottees. This action attracted stiff opposition from settlement residents, civil society and human rights organisations. Due to the high population in the settlement, the government appointed a chief for Mukuru location in 1998. In 1999, the Provincial Administration gave a notice of eviction to a section of the settlement on behalf of the government allottees. Again, this attempt to evict the squatters failed.

Today, Mukuru kwa Njenga has a population estimated at about 75,000 people (after an internal enumeration exercise in 2000) living on 32 hectares of land. It is a heterogeneous community (multi-ethnic and including a range of income groups) made up of structure owners, tenants and squatters. The structures are categorised as 55% temporary, 25% semi permanent, 10% permanent and 10% others (Otieno, 2004). The high population has necessitated the establishment of social services such as Embakasi Girls Secondary School (the only girl's secondary school in the whole division), two mosques, several churches and a health centre. Mukuru kwa Njenga is divided into 8 zones (or villages): Wape Wape, Mukuru Community Centre (MCC), Riara, Moto Moto (also known as Dakawou), Milimani, 48, Sisal and Vietnam.

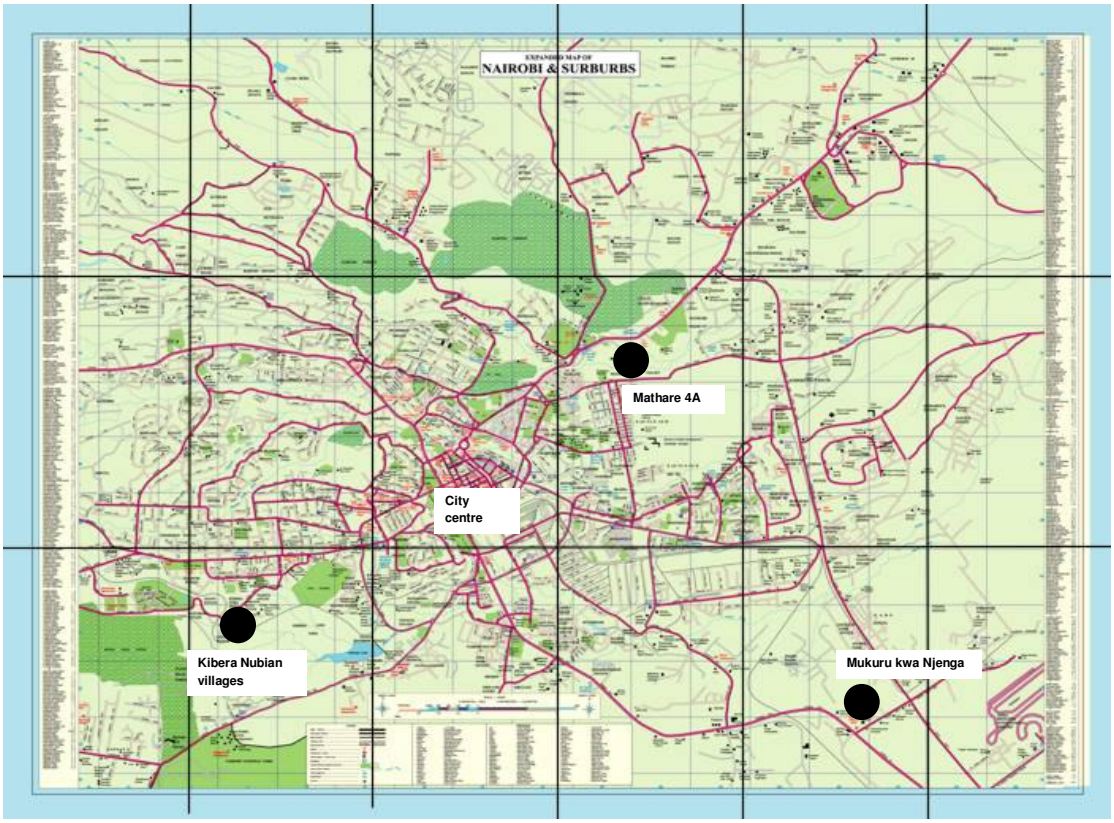


Figure 5.1 Case study settlements
Source of map: Hass Consult, Nairobi

Kibra Nubian Villages

Kibra is a name used by the minority Nubian community (originally from Sudan) in Nairobi to refer to four predominantly Nubian villages: Makina, Kambi Muru, Mashimoni and Lindi. The four villages cover an area of 120 hectares with an estimated population of 200,000.The name Kibra is to be distinguished from Kibera, the sprawling informal settlement area in which the Kibra Nubian villages are located. Kibera lies 7 kilometres south west of Nairobi city centre in Langata Division (see map in Figure 5.1).

The history of Kibra dates back to 1918 when the British colonial administration settled 40,000 Nubian ex-soldiers of the King's African Rifles on 4,180 acres of forest land just outside Nairobi and gazetted it as a military reserve. The First World War veterans named their new home Kibra (the Nubian word for jungle) and settled on the 10 acre agricultural parcels. In 1928, the administration de-gazetted the reserve and re-gazetted it as a settlement reserve. The residents were issued with permits allowing them to live, build a house and cultivate their demarcated parcels of land at Kibra.

A number of events over the years have transformed the original Kibra from a vast agricultural settlement area to a low to middle-income residential area (including Kibera informal settlement). Between 1920 and 1963, the colonial Administration acquired parts of Kibera for the development of government infrastructure and public services e.g. a diversion of the Nairobi-Kisumu railway line was built through Kibera displacing many households (1946 - 1948), the Royal Agricultural Society of

Kenya show ground (1950) and the present Kibera Primary School (1953). After Independence, the Kenyan government acquired huge parts of Kibera mostly for low to medium-cost residential housing development According to a 1971 gazette notice, only 550 acres of the original Kibra land remained unallocated by government. Over the years, people from other communities have settled in Kibra and outnumbered the original settlers. Large tracts of land claimed by residential development projects but left vacant after the developments attracted the commercial interests of officials from the local authority and Provincial Administration who "allocated" them to individuals.

Today, Nubians form a minority group in the Kibera area. Most of them live in the four Kibra Nubian villages. The Nubians have a long history of land rights struggles with the objective of acquiring legal ownership rights to enable land development. The Kibra Land Committee (KLC) is at the centre of this struggle. The KLC was formed in 1999 to bring together members of the Nubian community for the purpose of acquiring formal property rights for the land that they currently occupy. Since 1999, KLC has held numerous meetings with the provincial administration and the Ministry of Lands and Settlement to devise ways of formalising the communal rights of the Nubian community in the four villages. Plans are underway for the regularisation of property rights in the Nubian villages. It is important to note here that Nubians do not have alternative "rural" homes like the rest of the Kenyan ethnic communities. This fact is at the centre of their struggle for formal property rights to what remains of Kibra.

Mathare 4A

Mathare 4A is one of four informal settlements in the Mathare Valley area of Kasarani Division lying on the banks of Gitathuru River between Thika Road and Juja Road. The other settlements are Mathare 4B, Mathare 10 and Mathare North. It is approximately 5 kilometres north east of the city centre (see map in Figure 5.1).

Mathare's history dates back to the period around Independence when a pressure group of colonial era freedom fighters (the Kenya Land Freedom Army) lobbied for political support against the demolition of the informal settlement in Mathare Valley. The new government was using the Public Health Act to demolish unauthorised structures within the city. However, the demolition policy was applied selectively. Mathare Valley received protection from high political circles and was not demolished. This political patronage gave rise to the long-standing legacy of Mathare as a squatter community with *de facto* occupation rights.

Mathare 4A came into prominence in 1992 as one of the first slum upgrading projects in Kenya. The project was started as a pilot scheme in a 3 hectare portion of Mathare 4A following an agreement by the Government of Kenya, the Federal Republic of Germany and the Catholic Archdiocese of Nairobi at a cost of US$ 1.5 million. Upon completion and approval of the pilot project, a separate agreement was signed in 1997 to finance the upgrading of the rest of the settlement at a cost of US$ 6 million. The project started as a joint effort between the Ministry of Public Works and Housing, the local administration, elected political leaders, Nairobi City Council and representatives of the project target population. The project executing agency was the Catholic Archdiocese of Nairobi while the funding was by grant financing from the German agency *Kreditanstalt fur Wiederaufbau* (KfW). The project objective was to improve the general living environment in Mathare 4A without displacing the resident population. This was to be done by providing basic infrastructure, better housing and access to public utilities that are affordable to them (AHT, 2004). The project land was transferred from the government to the Archdiocese as a trustee on a 99 year leasehold basis.

The project was halted in 2000 due to violence and hostilities instigated by the commercial interests of former structure owners and political interests of local politicians. Although the Archdiocese

compensated the original structure owners at the commencement of the project to the tune of US$ 800,000, the Limitation of Actions Act does not recognise any prescriptive rights to persons who take possession and/or usufruct of government land. The upgrading project, now a development programme, resumed in 2003 after long negotiations between key stakeholders. The progress achieved so far include infrastructure development (e.g. 183 water supply and sanitation facilities, bitumen standard main roads with 50 metre maximum walking distance to permanent access design), 2760 stabilised soil blocks rooms, 136 small business *kiosks,* 1 medical centre and 2 kindergartens. Maintenance of the infrastructure and housing is undertaken by the project office using funds from rent income. Today, Mathare 4A has 23,000 people living on 17 hectares.

5.2.2. Land tenure systems

Land rights

In both Mukuru kwa Njenga and Mathare 4A, initial settlement was without the permission of the land owner. In both cases, the residents were squatters on unalienated government land. The land in Mukuru kwa Njenga has since been allocated to private persons. The residents are, therefore, now squatters on private land. In Kibra, initial settlement was under a "tenancy at will" arrangement by the colonial administration i.e. the Nubians were free to settle on the land so long as the authorities did not need it for other uses. Both the colonial administration and the independence government acquired parts of the original Kibra for development without any compensation.

Different tenure arrangements have evolved as a result of various developments in the three settlements: Islamic religious tenure system in the Kibra Nubian villages, a hybrid informal tenure system in Mukuru kwa Njenga and a quasi-formal rental tenure system in Mathare 4A. These tenure arrangements have, in turn, resulted in different land rights and different modes of land access and delivery in the three settlements.

Under the Islamic tenure system in Kibra, the land comprising the four villages is considered communal property and is, therefore, owned jointly by the Nubian community. Access to land is by virtue of kinship. The only property rights available to residents of Kibra are: ownership of structure, use of land for residential and/or business purposes and letting part of one's premises. Islamic tenure rules prohibit the sale of communal land or transfer of land outside the community by other means. The rules also provide for the setting aside of sufficient land for religious purposes e.g. there is a mosque, *madrassa* classrooms and a community cemetery within Kibra. The communal land is entrusted to community elders who have delegated the responsibilities of land administration to the Kibra Land Committee (KLC). The KLC is lobbying the government to register communal title for the four Kibra Nubian villages under the community land trust (CLT) model. The CLT model would confer title on an elected trust body and secure communal land against any further risk of alienation.

In Mukuru kwa Njenga, there are two main tenure types. They are distinguishable by the actors that administer them. One type is administered by the provincial administration. The other tenure type is administered by five self help groups, each with its own areas of operation and officials. To distinguish these two tenure types, they are referred to here as the Chief's tenure system and Group tenure system respectively.

In the Chief's system, the administrative chief is the centre of authority. The chief has appointed eight village headmen (each in charge of one zone) who report to him. The village headmen, in turn, have each appointed several elders reporting to them from the various "areas" in the village. The main features of the Chief's tenure system are:

- plot allocation is subject to the discretion of the chief

- plot owners may rent out structures and remit an agreed amount of rent income to the allocating authority (chief)
- any transfer of rights through sale must be sanctioned by the chief
- individual property rights may be transmitted by inheritance

In the Group system, the elected group officials (chairman, secretary and treasurer) are the land administrators. The officials are assisted by a selected group of local youth. The main features of the Group system are:

- plot owners must be shareholding members of the group and remit annual subscription fees to the group kitty
- shareholding members must inform group officials about their tenants' identities
- share holding members may sell their shares to third parties but the sale must be sanctioned by the group officials

In Mukuru kwa Njenga, owing to the high population density and the consequent scarcity of available space, access and delivery of land largely depends on availability of land for sale or rent. The procedure for land allocation in the Chief's tenure system is shown in Box 5.1 (compare with formal land allocation process in Appendix 1).

Box 5.1 Land allocation process (Mukuru kwa Njenga – Chief's system)

1. Prospective settler reports to chief
2. Chief verifies settler's identity and background and informs village headman
3. Village headman consults area elders for identification of available space
4. Village headman inspects space and advices chief on its availability
5. Chief inspects space and approves it for allocation
6. Settler pays allocation and demarcation fees to chief
7. Demarcation of space by headman and area elders depending on available size
8. Allocated space is assigned the next number in register

Source: Fieldwork

In the Group tenure system, the process of land access and delivery is only possible in the event of a sale. This is because the original allottees settle on all the land that the respective groups acquire and/or purchase on initial acquisition.

In Mathare 4A, the regularisation process has completely changed the tenure system from a non-formal *de facto* (squatting on government land) system to a quasi-formal system with one landlord holding a *bona fide* lease from the government. The tenants have written contracts and legal security of tenure. They, however, have very limited rights (limited to occupation and inheritance only). Also, the rental system is not open to the general public but is restricted to the original residents of Mathare 4A only. The programme executing agency, the Catholic Archdiocese of Nairobi (also the lessee) has set up a trust, Amani Housing Trust, under the Trustees (Perpetual Succession) Act to implement and operate the programme. The Trust is the owner of both the new and the old structures in Mathare 4A and, therefore, the landlord. The Trust has entered a legally binding and enforceable tenancy agreement with all the residents of Mathare 4A. This agreement is documented on a tenancy agreement form (see Appendix 4). According to the agreement, the Trust agrees to let business and/or residential structures to tenants on a five year periodic tenancy basis at a reviewable monthly rent. Other features of the tenancy agreement include: the tenant pays for all services supplied by

third parties; the structure/premises may be used for the agreed purposes only; the Trust may relocate the tenant to alternative premises for reasons of further development; the Trust retains the right to evict any tenant who contravenes tenancy provisions; and either party may terminate the tenancy agreement on one months' notice.

Land transfer

The land markets in the three case study settlements differ significantly. While the market is very free and vibrant in Mukuru kwa Njenga with fairly frequent subdivisions, sales and other forms of transactions, the situation is a lot less active in Kibra. In Kibra, land transfers are rare as the Kibra Land Committee is strongly against any further "loss" of community land. Land transfers are, therefore, largely limited to the areas occupied by non-Nubians. In Mathare 4A, the development programme concept precludes the possibility of any form of land transfer except transmission by inheritance. Even the lessee (Catholic Archdiocese of Nairobi) may not transfer the leasehold interest to a third party.

In Mukuru kwa Njenga, land transfer procedures under the two tenure systems are similar. They both involve the presentation of a sale agreement (see specimen copy of sale agreement in Appendix 5), approval of the intended sale, registration of the transfer and payment of transfer fees. The transfer procedure (in the case of land transfer by sale) within one of the groups in Mukuru kwa Njenga is shown in Box 5.2 (compare with formal land transfer process in Appendix 1).

Box 5.2 Land transfer process (Mukuru kwa Njenga – Group system)

1. Both seller and buyer approach group officials with a written sale agreement
2. The group officials give their approval of the intended sale
3. The seller presents his ownership certificate
4. The seller pays transfer fees to officials
5. The seller's details are crossed out on the certificate and the buyer's details entered in the transfer section on the same certificate and counter-signed by group officials
6. The certificate is retained by the officials and a fresh certificate issued to the buyer (bearing the same plot number if whole plot is sold; with extensions of the same plot number if sale plot is subdivided)
7. The transfer is indicated in the register (including the buyer's details and transaction date) and the written sale agreement filed separately

Source: Fieldwork

Land disputes resolution

Land disputes in the case study settlements may be categorised into two according to the parties involved and the cause of the dispute. The first kind of disputes pits the residents of the settlement on one side and external actors (e.g. the government, local authority, private land owners, etc) on the other. These kinds of disputes usually involve issues such as: the legality of the settlement; sanctity of title; superiority of the public interest over individual (or group) interests; and the law on adverse possession. The second kind of disputes pits an individual or a section of residents against another. This kind usually has to do with double (or overlapping) allocations, transfer of property rights, blockage of access routes and non-payment of rent

In Mukuru kwa Njenga, both kinds of disputes occur. In 1996 there was a major dispute between the residents and private allottees. The allottees used their influence to obtain the services of armed police and provincial administration to conduct a raid and demolish structures in a section of the settlement. This event caused angry demonstrations and tension that received wide media coverage.

Disputes among settlement residents also occur especially in the areas under the Chief's system. The main causes of dispute are encroachment, land transfers and non-payment of rent. The procedure for resolution of land disputes in the Chief's system is shown in Box 5.3:

Box 5.3 Land dispute resolution process (Mukuru kwa Njenga – Chief's system)

1. Disputant reports dispute to area elder
2. Elder makes report at village headman's office
3. Village headman arranges a hearing and notifies both disputants to appear before him (or on site where applicable) with their respective witnesses
4. Village headman hears submissions from disputants and their witnesses. He also seeks evidence from area elders. Where necessary, the village headman can refer to registration records (map and register) and instruct village youth to reconstruct disputed boundaries
5. Village headman makes decision based on accrued evidence. Cases that have the potential of attracting legal enforcement (e.g. fraud, succession, etc) or further conflict are referred to the chief for further action

Source: Fieldwork

In the Kibra Nubian villages, there has been a long standing dispute between the Nubian community and the local and central government over their claim to land in the wider Kibera area. The official government stand has been that Kibera is government land and is therefore liable to alienation for development purposes. The Nubian community, on their part, maintains that the land was specially reserved for their community by the colonial administration and the government was obliged to legalise their status on the land through a prescription process. The Nubian community are especially opposed to the occasional discretionary land allocation by successive provincial administration officials in Kibra. Their plight is well documented in numerous documents presented to various commissions of inquiry and at various forums over the years. While the dispute between the government and the Nubian community in Kibra is not yet resolved, some strides have been made in that direction:

- Numerous meetings have been held since 1999 between KLC, the Ministry of Lands & Settlement and the provincial administration to iron out contentious issues e.g. land allocations, physical planning, cadastral survey
- A workshop was held in March 2001 and attended by representatives from MoLS, GTZ-STDP, KLC, NCC and UN Habitat to discuss the community land trust (CLT) tenure model as a possible solution to the long standing land issue in Kibra. An action plan was agreed upon at the workshop. The action plan included registration of KLC and trustees (requirements for titling under CLT), application for land title, identification of development partners for slum upgrading, stoppage of land allocations, enumeration and mapping of the area. These actions have been taken.

In Mathare 4A, a bitter conflict erupted in 2000 between the project and former structure owners. The conflict arose as to whether beneficiaries of the upgrading project should be the tenants or the structure owners. The former structure owners facilitated hostilities that halted the activities of the project for three years. This dispute was resolved only after numerous "peace" meetings between the project team, local elected leaders, provincial administration, residents' representatives and representatives of the former structure owners.

5.2.3. Land information

Surveys and mapping

Different data acquisition and feature definition methods and approaches have been used in the three case study settlements. Field surveys as well as photogrammetric methods have been used for spatial data acquisition. In some areas, settlement perimeters have been surveyed while in others individual plots have been surveyed.

In Mukuru kwa Njenga, a field survey was carried out for the issuance of individual titles according to a part development plan (PDP) prepared by the government in the early 1990s. The survey plans are filed at Survey of Kenya offices and the allottees hold leasehold titles. Despite the existence of the official PDP, a number of informal "development" plans are in the custody of local leaders (chief and group officials). None of these plans have been implemented. The source of these plans is not clear but the fact that they do not reflect the ground situation at all casts doubts on the integrity of their source. A section of one of these plans is shown in Appendix 6.

Field surveys have been carried out to set out plots for initial allocation in the Chief's system or subdivision of group "territories" for allocation to shareholders in the Group system. Both systems maintain a set of "standard" plot sizes during. In Wape Wape zone, for example, all original residential plots were 66 by 33 feet as set out by surveyors from Nairobi City Council (by private arrangement). Each occupant allows 1 foot on both shorter boundaries for drainage purposes. Commercial plots in this zone measure 100 by 50 feet. Survey plans are drawn and plot identification indicated. In the Chief's system, the plot identification includes the name of the settlement, the zone, the plot number and a letter (in case of subdivision). In the photograph in Figure 5.2, the plot is in Mukuru Milimani Zone and the plot number is 49, hence the plot identification MMZ 49.

Figure 5.2 Plot identification (Mukuru kwa Njenga)
Source: Fieldwork

In Kibra, spatial regularisation efforts started after the government issued a policy statement in 1997 on the need to regularise informal settlements in urban centres countrywide. The establishment of the Kibra Land Committee in 1999 was a direct result of the renewed hope in regularisation of property rights for the Nubian community in Kibra. A series of workshops and meetings involving KLC, Ministry

of Local Government, Ministry of Lands and Settlement, Nairobi City Council and the provincial administration between 1999 and 2001 yielded the Kibera Informal Settlement Project. The project's initial phase constituted a pilot project in the Kibra Nubian villages with special emphasis on Makina village (comprising Makina, Makongeni and Kichinjio areas). This phase was carried out by the MoLS's Department of Physical Planning and funded by the MoLG's GTZ-STDP (Small Towns Development Project).

The objectives of the pilot project were: to collect spatial and attribute data on infrastructure, services and the environment; to develop a methodology for settlement population estimation; and to provide a basis for future monitoring of settlement development. The process of data collection involved a physical survey carried out in 2001 to harmonize existing aerial photography and topographical mapping with the ground situation. The actual activities during the physical survey were:

- establish a numbering system and assign all structures numbers on the ground
- identify all the ground structures on scanned aerial photographs taken in 1998
- record structure ownership by name, national identification number and gender
- record the type and condition of the structures
- record the present user of the structures
- record the accessibility and services available to the structures

The pilot project established that there are 1,958 structures in Makina, 498 in Mashimoni, 926 in Kambi Muru and 2,158 in Lindi. In Makina, 15% of the structures are permanent, 47% are semi-permanent and 52% are temporary (GoK, 2003). Structure ownership is as follows: 2.5% public, 65% male and 31% female and 2% others, while land use is as follows: 78% residential, 12% commercial and 10% public. A spatial database was developed in a GIS environment. The database has been used to analyse spatial patterns in the settlement to assist in the on-going discussions on spatial and tenure regularisation. The existing and the proposed structure/plot layout and road networks in Makina village are shown in Figure 5.3. The structure ownership status, by gender, and the land use pattern are shown in Figure 5.4. A cadastral ground survey of the perimeter of the four Kibra Nubian villages was also carried out by the Department of Surveys in 2001. Discussions are underway to use the survey plan as a basis for communal registration of Kibra land under the Community Land trust (CLT) tenure model.

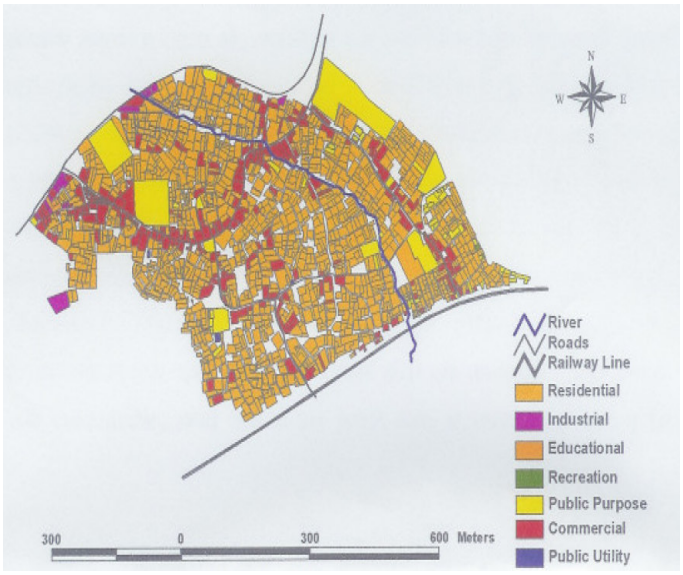
In Mathare 4A, the whole section was demarcated upon the approval of the project's application for a leasehold grant from the government. A field cadastral survey of the settlement perimeter was carried out for the purposes of leasehold registration. According to the project concept, the project body owns the land and rents out the structures to identified tenants. There is, therefore no need for a survey of individual plots/structures. It is not intended to transfer any ownership rights to the tenants. Within the project, however, a development plan was prepared by the project contractor (GITEC Consult GmbH) for the purpose of upgrading of the residential structures along with physical infrastructure and basic services. This plan includes a physical layout of such infrastructure and services as water supply and sanitation facilities, main roads, storm water drainage system, garbage collection points, small business kiosks, a health facility and 2 kindergartens.

Existing structures and road network
Source: GoK (2003)

Proposed plot layout and road network
Source: GoK (2003)

Figure 5.3 Existing and proposed structure/plot layout and road network (Makina village, Kibra)

Structure ownership
Source: GoK (2003)



Land use pattern
Source: GoK (2003)

Figure 5.4 Structure ownership and land use pattern (Makina village, Kibra)

Land registration

All three case study settlements have a system of land registration. The primary function of registration in the three systems, however, have some basic differences e.g. one system uses the register as a record to trace rent payments (Mathare 4A), the other maintains the register as a membership record of the community-based organisation (KLC in Kibra) while the other uses the register as record of the current plot ownership status. The system in Mukuru kwa Njenga requires some form of mapping to support registration. This is not a requirement in the other two settlements. Only the register in Mathare 4A includes the definition of the property rights themselves and the definition of the object to which the property rights refer. The other two registration systems focus on the identity of the rights holder.

In Mukuru kwa Njenga, both the Chief's and the Group tenure systems maintain a register of plot owners. The Chief's registration system is similar to a formal deed registration system. A register of plot owners is maintained by the village headman as evidence of the existence of rights, and any transactions in those rights are presented to the village headman for the record. The chief allocates land based on the assumption that the community respects the resultant land rights as allocated. The chief, therefore, does not offer any guarantee as to the exact extent and/or duration of those rights. No certificate or receipts are issued with respect to the allocated rights or payments made. Maps are prepared and kept for the record. They may be used in case of boundary disputes. The registers for different villages contain different information. They are normally books with handwritten pages. A specimen copy of a register page is shown in Appendix 7. It has the following details:

- serial number of entry
- full name of plot owner; full name of transferee and date of update
- area code number
- national identification (ID) number; postal address of plot owner and date of update
- plot number

The Group registration system is more elaborate. It is more like a formal title registration system. An up-to-date register and a map are maintained by the elected group officials as proof of the ownership status of plots within the group "territory". The register is similar to the one used in the Chief's system, with the addition of the number and names of all the tenants living on a plot (see specimen copy of register page in Appendix 8). The map accompanying the register indicates the plot dimensions and the plot identification. The ownership rights within the group territory are guaranteed by the group officials. An ownership certificate is issued certifying that the holder is the registered owner of an identifiable plot. The certificate is serialised and comes complete with the officials' signatures and the official seal of the group. A specimen copy of an ownership certificate from one of the groups in Mukuru kwa Njenga is shown in Appendix 9.

In Kibra, a register of all the plot owners is maintained by the Kibra Land Committee (KLC). The latest update of plot occupation data was obtained the during the enumeration exercise carried out under the GTZ/STDP project. All the plots were allocated plot numbers and the identities of the plot owners recorded. The registration system in Kibra, however, looks more like a civil registry than a land registry. There are two possible reasons for this: first, the register is maintained by the KLC as a membership register of the association and, secondly, KLC hardly records (nor expects) updates to the register as it does not encourage transfer of ownership rights (especially to non-members). This is in keeping with the community land trust (CLT) tenure model which KLC embraces and has vigorously tried to sell to the authorities as a model that would be appropriate for the community.

In Mathare 4A, information about structure occupation status is complete, reliable and up-to-date. The tenants list is continuously revised and a report is compiled every month based on the payment of

monthly rent. Rent payments are made at the AHT office within the settlement and these payments are used to keep track of structure occupancy status. Any changes in tenancy are captured in the computerised information system at the earliest opportunity. Physical verification of occupancy is done every May and November. The tenants list contains the following information (see computer print-out of tenant's list report in Appendix 10):

- tenancy reference number
- structure number
- rent tariff (based on commercial or residential user)
- tenant identification (national ID number)
- tenant name

5.2.4. SWOT analysis

SWOT analysis is a common tool in evaluation studies. SWOT is an acronym used to describe four strategic factors - strength, weaknesses, opportunities and threats – of an organisation or system. SWOT analysis is often used in the preliminary stages of strategic planning. It involves the following basic steps: analysis of the internal environment of the organisation/system to identify the existing strengths and weaknesses; analysis of the external environment of the organisation/system to identify opportunities and threats; the generation of alternative strategies; and the formulation of a strategic choice.

A SWOT analysis is used here for a preliminary evaluation of the overall land tenure management systems in the three case study settlements (see Tables 5.3, 5.4 and 5.5). The strengths and weaknesses represent internal features of the systems while the opportunities and threats represent external factors that influence the systems. The analysis uses all the data obtained from the case study under the 10 check list items in the interview form (see Appendix 3). Evidence and/or proof from the case study is provided to describe each SWOT item. Since the present SWOT analysis is not intended for strategic planning, the SWOT tables do not include the formulation of strategies. The analysis is used as input to test the assessment framework in Chapter 6.

Table 5.3 SWOT analysis - Mukuru kwa Njenga

	Evidence
Strengths	
S1. Registration information is open and public	Register is accessible to interested parties
S2. System is acceptable/legitimate to community	Local system administrators consulted for all transactions
S3. Actors' roles and tenure rules/types are clear	Group officials elaborate and enforce tenure rules/types
S4. Registration information is complete	All land units and transactions are entered in register
S5. Improved perception of tenure security	Ownership/share certificates issued (in Group system)
S6. Easy plot location and description	Unique plot identification system included in maps
S7. Vibrant land market	Numerous land transactions entered in register
S8. Rules and procedures are flexible	Differences in rules and procedures in different zones
Weaknesses	
W1. Objectives and strategies not clear	Objectives are not written/not clearly elaborated
W2. No local expertise in land measurement	Surveyors are hired from outside the settlement
W3. Difficulties in re-establishing surveyed boundaries	Survey field measurements are not retained in settlement
W4. Financial arrangements not transparent	Transaction fees are not used to sustain/improve system
W5. Poor security of land information	Register and maps kept in house without back up
W6. Subjectivity of land transactions	Chief approves settlement of all new persons
W8. Stakeholder participation and awareness not supported	No residents committees
W9. System improvement is not a priority	No reviews of system performance
W10. Commercialisation encouraging land speculation	High and "artificial" land prices
Opportunities	
O1. Recognition by formal authorities	New NLP formulation process supports regularisation of informal land rights
Threats	
T1. Eviction	Two attempts to evict residents in 1996 and 1999
T2. Internal tension	Eligibility for allocation dependent on tribal/ideological/political party membership

Table 5.4 SWOT analysis – Kibra Nubian villages

	Evidence
Strengths	
S1. Objectives and strategies are clear	Objectives and strategies clearly defined in KLC constitution
S2. Tenure rules/types are clear	Islamic tenure rules apply; KLC aspires for communal tenure under CLT model
S3. Restrictions on use of public space are enforced	Land set aside for mosque, *madrassa* classrooms, cemetery
S4. Speedy resolution of land disputes	Well-known Islamic law used to solve disputes
S5. Spatial regularisation on course	Aerial mapping and structure identification complete; physical planning ongoing
S6. Strategies appropriate to reach goals	KLC engaging MoLS, local authority and civil society on plans for formal registration under CLT model
S7. System is financially viable	Community mobilisation of resources e.g. purchase of aerial photos for plot identification and enumeration exercise
S8. Easy plot location and description	Plot numbering incorporated in digital map
Weaknesses	
W1. Incomplete registration information	Register has personal information only, no spatial information
W2. Difficulties in enforcing rules	Non-Nubian land owners do not subscribe to Islamic rules
W3. Poor security of land information	Register kept in house without back up
W4. No local expertise in land measurement	All survey and mapping done outside settlement
Opportunities	
O1. Involvement of public organisations/CSOs	Makina village pilot project by MoLS, MoLG, GTZ-STDP
O2. Spatial regularisation	Action being taken by Dept. of Physical Planning, MoLS
O3. Tenure regularisation	Action being taken by MoLS towards tenure regularisation
Threats	
T1. Power struggle between provincial administration and KLC officials	Occassional discretionary land allocations by chief despite moratorium on such allocations
T2. Political interference	Non-Nubian land owners using political influence to defeat the objectives of KLC

Table 5.5 SWOT analysis - Mathare 4A

	Evidence
Strengths	
S1. Objectives are clearly defined/are being met	Objectives printed on project document/periodical publications and are being met e.g. no transfer by sale is allowed
S2. Tenancy information is complete and up to date	Monthly checks/bi-annual physical verification of occupancy
S3. Spatial regularisation realised	Development of infrastructure according to development plan
S4. Stakeholder participation	Frequent consultations with resident committees
S5. Tenancy rules/restrictions are clear	Tenancy rules written in English and Kiswahili on tenancy card
S6. Improved perception of tenure security	Tenant contracts/cards issued
S7. System is financially viable	Rent income used to maintain system
S8. Good security of land tenure information	Digital data storage including back up
Weaknesses	
W1. Rules are inflexible	Rules are based on strict project objectives/terms of reference
Opportunities	
O1. Improved land tenure information management system	Land tenure records already computerised and backed up
O2. Improved perception of tenure security	Development programme supported by central and local government
O3. Integrate spatial data with other sources of data	Perimeter survey based on geodetic control network
Threats	
T1. Disruption of programme	Former structure owners have clashed with the project before for terminating their commercial interests

5.3. Concluding remarks

The findings of both the city-wide questionnaire survey and the settlement-level case study have been presented in this chapter. The survey revealed the common modes of access to and delivery of land, the main tenure categories and the procedures in land transfer and land dispute resolution. It also reviewed the main stakeholders in the informal land development sector and the linkages between this sector and formal institutions. The survey provides some answers to research question 1.

The case study findings form the main part of this research. The land tenure systems in the three case study settlements were analysed. The study outlined the rights that are available to residents, how these rights are enforced and transferred, and how land disputes are resolved. This provided answers to research question 1. The study also analysed the land information system in the case study settlements. The focus was placed on the methods used for the acquisition of spatial and attributes data and the content of the registry system. This part provided answers to research question 2. A SWOT analysis was carried out using all the information gathered from the study. The results of the analysis provide answers to the first part of research question 3. These results are also used as input in the assessment of land tenure management systems in the case study settlements in Chapter 6.

6. Assessment of land tenure management systems in case study settlements

6.1. Assessment of land management systems

Assessment is a process of analytical review of information about a system (or a process) for the purpose of improving decision making and performance. There are a number of studies that have involved the assessment of formal land administration systems. In these studies, two approaches have been used: benchmarking and evaluation. Although the two approaches have involved different methodologies, scope and scale, their aims are similar: to improve the performance of the systems.

Benchmarking is a continuous management process that involves comparison of products and/or processes of one system against those of industry leaders for the purpose of performance improvement. The benchmarking approach has been used to determine performance gaps of national cadastral systems by comparing them against those representing best practice (Chimhamhiwa, 2002; Steudler and Kaufmann, 2002).

Evaluation is a periodical (or one-time) analytical tool that is used to judge the success and impact of system (or project) strategies against pre-determined objectives in order to make revisions and/or recommendations for improvement. Mulolwa (2002) used the evaluation approach to develop strategies to reform the existing land administration system in Zambia. Steudler (2004) used this approach for the development of a framework and methodology for evaluation of land administration systems. He tested the framework and methodology using country case studies in Europe. Garba and Al-Mubaiyedh (1999) used this approach for the development and application of a framework for the assessment of urban land management intervention and control strategies in Metropolitan Kano, Nigeria.

The two approaches have been compared by Steudler (2004). According to him, benchmarking is a permanent discovery process based on a statistical approach using quantitative variables to identify “performance gaps”. On the other hand, evaluation is a conclusion-oriented tool that uses a qualitative approach to understand the causal linkages and logical explanations for existing situations.

A number of studies have assessed non-formal land management (or regulation) systems e.g. customary and informal systems. Iatau and Williamson (1997) reviewed cadastral reform options in customary tenure environments in Papua New Guinea using case study methodology. Mwebaza (1999) also used case study methodology to assess the impact of legislative and policy reform on existing customary tenure systems in Uganda. Other studies have taken the form of comparisons of the nature, impact and innovation of informal land management systems at regional or international level.

The present assessment is intended to evaluate the tools used by land tenure management systems in three informal settlements in Nairobi to provide secure tenure and to compare the capacity of these systems to provide reliable land information that can support the regularisation of land rights in these settlements. The evaluation approach is preferred because the data that will be used for assessment is largely qualitative and is more suited to describing causal linkages rather than statistical analysis.

6.2. Assessment criteria

The criteria for assessment are drawn from good practice in formal land administration systems. There are numerous sources of recommended good practice from/for successful land administration systems (Bogaerts, 1999; Burns et al., 2003; FIG, 1995; GTZ, 1998; Steudler and Kaufmann, 2002; UN/FIG, 1996; UN-ECE, 1996; UNHSP, 2003b; Williamson, 2001a). Some of these sources recommend good practice for specific areas of land administration like registration (Henssen, 1995; Palmer, 1996), land information systems (Dale and McLaughlin, 1988), land policy reform (DFID, 2002) and re-engineering of land administration systems (Williamson, 2001a). Since specific features and practices vary even among successful land administration systems due to political, socio-cultural and economic differences, the assessment criteria should be based on generic principles underlying the good practice and not the actual practice itself (Mulolwa, 2002).

The authorities mentioned above present sets of criteria that differ in focus and perspective. While some present general principles, others recommend specific features of certain land administration systems. Some aspects of land administration systems are also emphasised by some authorities more than others. An eclectic process is therefore necessary to formulate a set of criteria that cover most of the aspects of land administration but that are also relevant and applicable in the informal settlement context.

The criteria can be formulated in the form of generic principles that do not necessarily favour any specific features and/or practice of particular land administration systems. These principles can then be grouped in components that have similar objectives. The components that are used here – organisational issues, financial issues, rules and technical issues – have been used guidelines for cadastral reform by UN-ECE (1996), UN and FIG (UN/FIG, 1996) and Bogaerts (1999). The term “rules” is used to replace “legal framework” that is used in these guidelines. This is done to reflect the non-legal nature of land management systems in informal settlements.

The generic principles can be associated with certain aspects of land management systems. A suitable list of such aspects is provided by the FIG (1995). The aspects of assessment include:

- Security – system should offer certainty of ownership; good parcel identification; safe physical storage of land information
- Clarity and simplicity – users should be able to understand and use the system; the system should not slow down procedures nor be so complex as to discourage its use
- Timeliness – system should provide current data as and when required
- Fairness – system should have objective procedures and provide equal opportunities to benefit from land and its resources
- Accessibility – system should provide efficient and effective access to all users
- Cost efficiency – system should have low operation costs and recover costs fairly
- Sustainability – system should have mechanisms and resources to maintain itself e.g. human and technical resources, infrastructure, etc
- Utility – system should realise benefits to society and achieve society’s objectives
- User satisfaction – system should encourage regular reviews of user needs to produce products that are fit for use
- Continuous improvement – system should have feedback mechanisms to improve performance
- Reliability – system should maintain land information that is accurate, complete and current
- Flexibility – system rules should be flexible enough to accommodate institutional, technical and other changes

The components, principles and aspects are shown in Table 6.1.

Table 6.1 Components, principles and aspects for assessment

Component	Principle	Aspect
Organisational	OP1. Objectives and strategies are clearly defined and publicised	Clarity
	OP2. Strategies are appropriate to reach and satisfy objectives	Utility
	OP3. Easy access to land information and services	Accessibility
	OP4. Stakeholder participation and awareness in decision making is supported	Sustainability
	OP5. Regular reviews of system performance	Continuous improvement
	OP6. Stable human resource base	Sustainability
Financial	FP1. Property prices/rent are stable	User satisfaction
	FP2. Property transactions (procedures for allocation, survey, registration, sale, etc) are cost-effective and costs are recovered fairly	Cost efficiency
	FP3. System is economically viable i.e. there is a reliable resource base to operate the system	Sustainability
Rules	RP1. Rules are clear and well known/understood	Clarity / simplicity
	RP2. Rules clearly define the nature of land/property and the recognised forms of tenure	Clarity
	RP3. Rules protect the rights of property holders	Security
	RP4. Rules specify who may carry out land tenure activities (allocation, survey, registration, dispute resolution, land transfer) and acceptable standards	Clarity
	RP5. Rules are flexible enough to accommodate changes in tenure relations, operational methods/techniques, etc	Flexibility
	RP6. Mechanisms for dispute resolution are appropriate and fair	Fairness
	RP7. Rules contain clear safeguards for vulnerable groups e.g. women, widows, orphans, minority groups, etc	Fairness

Technical	TP1. Operational procedures are appropriate for local conditions	Utility / User satisfaction
	TP2. Operational procedures are clear, straight-forward and simple for all stakeholders to understand and use	Clarity / simplicity
	TP3. Uniform geo-referencing for all land units	Reliability
	TP4. Unique property identification	Security
	TP5.Compilation of suitable index/base maps	Utility
	TP6. Secure storage and back-up of land records	Security
	TP7. Land records are kept up to date	Reliability
	TP8. Land records cover most of jurisdiction	Reliability
	TP9. Land records contain correct information	Reliability

6.3. Developing the assessment framework

Different approaches have been used for designing assessment frameworks for evaluating land management/administration systems. Steudler (2004) developed a framework with three evaluation elements (objectives, strategy and outcomes) that he relates with three organisational levels (policy, management and operations). He then introduced two additional elements (external factors and review process). He described an evolution process where these five evaluation areas are broken down further into smaller units, each with performance indicators to measure the performance of key variables such as quality, time, and cost in fiscal, social, cultural and environmental terms based on pre-defined good practice criteria. Mulolwa (2002) described a framework with five sets of generic principles derived from “prominent opinions” on the nature of good land administration: external, organisational, legal, financial and technical components. He devised indicators for each of the principles and applied a weighted scoring system to the indicators. Garba and Al-Mubaiyedh (1999) developed a 4-step assessment framework (preliminary scan, policy and strategy formulation, organisational framework and institutional practices). Each step has a number of foci with associated assessment criteria.

In the present case, the four components (sets of principles) established earlier are maintained. Indicators for assessment are derived from the principles. A choice is made of indicators that are relevant to the land tenure situation in informal settlements, and that are verifiable. Each indicator is described in terms of a measurement. Tables 6.2, 6.3, 6.4 and 6.5 show the resulting assessment framework component by component.

Table 6.2 Assessment framework – Organisational issues

Organisational issues		
Principle	**Indicator**	**Description**
OP1. Objectives and strategies are clearly defined and publicised	OI1. Mode and language of communication	Nominal (media type)
OP2. Strategies are appropriate to reach and satisfy objectives	OI2. Degree to which objectives have been realised	Ordinal (estimation)
OP3. Easy access to land information and services	OI3. Lowest administrative level of service provision	Nominal (physical location of office providing service)
OP4. Stakeholder participation and awareness in decision making is supported	OI4. Occurrences of stakeholder consultations e.g. meetings, workshops, etc	Ordinal (stakeholder contact - actual practice)
OP5. Regular reviews of system performance	OI5. Frequency of reviews (per year)	Ratio (scheduled reviews – actual practice)
OP6. Stable human resource base	OI6. Existence of apprenticeship/training programme for local land administrators	Nominal (yes, no)

Table 6.3 Assessment framework – Financial issues

Financial issues		
Principle	**Indicator**	**Description**
FP1. Property prices/rent are stable	FI1. Occurrences of major price/rent fluctuations (in last 5 years)	Cardinal (number of fluctuations)
FP2. Property transactions (procedures) are affordable	FI2. Level of transaction costs	Ordinal (general perception of transaction costs)
FP3. System is economically viable (cost recovery)	FI3. Reliability of financial resource base to operate the system	Ordinal (estimation from evidence)

Table 6.4 Assessment framework - Rules

Rules		
Principle	**Indicator**	**Description**
RP1. Rules are clear and well known/understood	RI1. General knowledge of rules	Ordinal (estimation)
	RI2. Existence of written rules (preferably in national language)	Nominal (yes, no)
RP2. Rules clearly define the nature of land/property and the recognised forms of tenure	RI3. Existence of land/property and tenure definitions	Nominal (yes, no)
RP3. Rules protect the rights of property holders	RI4. Enforceability of rights	Ordinal (enforcement – actual practice)
RP4. Rules specify who may carry out land tenure activities (allocation, survey, registration, dispute resolution, land transfer) and acceptable standards	RI5. Existence of specifications	Nominal (yes, no)
RP5. Rules are flexible enough to accommodate changes in tenure relations, operational methods/techniques, etc	RI6. Flexibility of rules	Ordinal (estimation)
RP6. Mechanisms for dispute resolution are appropriate and fair	RI7. Predictability of decisions	Ordinal (estimation)
	RI8. Possibility of appeal	Nominal (yes, no)
RP7. Rules contain clear safeguards for vulnerable groups e.g. women, minority groups, etc	RI9. Existence of safeguards	Nominal (yes, no)

Table 6.5 Assessment framework – Technical issues

Technical issues		
Principle	**Indicator**	**Description**
TP1. Operational procedures are appropriate for local conditions	TI1. Availability of local manpower and expertise for operations	Nominal (yes, no)
TP2. Operational procedures are clear, straight-forward and simple for all stakeholders to understand and use	TI2. Percentage of land transactions that are registered	Ratio (no. registered / total no.)
TP3. Uniform geo-referencing for all land units	TI3. Existence of geo-referencing for land units	Nominal (yes, no)
TP4. Unique property identification	TI4. Existence of unique property identification system	Nominal (yes, no)
TP5.Compilation of suitable index/base maps	TI5. Existence of index / base mapping	Nominal (yes, no)
TP6. Secure storage and back-up of land records	TI6. Storage security and safety	Ordinal (estimation from evidence)
	TI7. Existence of back-up facility	Nominal (yes, no)
TP7. Land records are kept up to date	TI8. Time lapse before registration of completed transaction	Ratio (average no. of days)
TP8. Land records cover most of jurisdiction	TI9. Percentage of land units entered in register	Ratio (no. registered / total no.)
TP9. Land records contain correct information	TI10. Frequency of consistency / verification checks (per year)	Cardinal (scheduled checks – actual practice)

6.4. Testing the assessment framework

6.4.1. Methodology

The assessment framework developed here is tested using the case study findings presented in Chapter 5. A scoring system is used for the test. Scoring criteria are devised for each indicator. The scoring criteria assign a score (s) for each value (v) that an indicator takes. Indicator values are determined for each of the three case study settlements in a scale of 0 to 3 (worst – best) based on evidence from the case study findings. The lowest score for each indicator is either 0 or 1 depending on the nature of the indicator. Where the indicator denotes the presence or absence of a variable characteristic, the indicator takes the value 0 if the characteristic is absent. Where a desirable variable characteristic is present but its quantity/quality is insufficient, it takes the value 1. The scoring criteria and assessment scores for land tenure management systems in the case study settlements are shown in Appendix 11.

6.4.2. Results

The summarised results of the assessment using the scoring system described in Section 6.4.1 are shown in Table 6.6. The results show that the land tenure management system in Mathare 4A has the best overall performance (82%). The regularisation process in Mathare has introduced a financially viable system that is supported by legally enforceable rental tenure. The system is run by a modern office with a computerised land information system. Because of these reasons, the good assessment results are expected.

The results show only a slight difference between the performance of the land tenure management systems in Mukuru kwa Njenga and Kibra Nubian villages (55% and 64% respectively). In both Mukuru kwa Njenga and Kibra, the financial arrangements are not transparent and the organisational framework is not optimal (e.g. in both cases, there are multiple centres of authority for land tenure management). The lowest scores for these settlements are in these two components. The involvement of external organisations in the ongoing regularisation process and the establishment of KLC have helped to improve the performance of land management from the rules and technical perspectives.

Table 6.6 Summary of assessment results

Component	Possible maximum score	Score			% Score		
		MkN	KNV	M4A	MkN	KNV	M4A
Organisational	18	8	10	15	44	56	83
Financial	9	4	5	9	44	56	100
Rules	27	18	20	21	67	74	78
Technical	30	16	19	24	53	63	80
Total score	84	**46**	**54**	**69**	**55**	**64**	**82**

MkN – Mukuru kwa Njenga; KNV – Kibra Nubian villages; M4A – Mathare 4A

6.5. Discussion

The assessment of land tenure management systems in the case study settlements has some weaknesses. The assessment has relied a lot on qualitative data. Where such data is used for the assessment, an ordinal measuring scale has been applied. Such data is less reliable than quantitative data that has been measured using either cardinal or ratio scales, or data that describe binary variables (yes/no) where a nominal scale is used. Tables 6.2, 6.3, 6.4 and 6.5 indicate measuring scale descriptions for all the indicators used in assessment. The second weakness is the fact that the assessment framework was developed after the case study. Its design is influenced by the experiences of the case study. Completing the framework before the case study would likely have resulted in a more quantitative approach and a more objective assessment.

Despite these weaknesses, the reliability of the assessment is supported by the consistency between the assessment results and the case study findings (compare assessment table in Appendix 11 with SWOT tables in Section 5.2.4). The evidence presented in the SWOT tables support the inferences that are made from the assessment results. The indicators used for assessment have been chosen to represent as closely as possible the data that was sought by the field interviews. They are also relevant to the situation in informal settlements. For these reasons, the assessment can be considered to be fairly valid.

7. Conclusions and recommendations

7.1. Conclusions

The aim of this research was to assess the capacity of informal land tenure management systems to collect, maintain and use land information to provide secure land rights and to support the regularisation process in informal settlements in Nairobi. To do this, the research had to answer three main questions:

1. What is the nature of informal land tenure systems?
2. How is land information in informal settlements collected, maintained and used?
3. How can the performance of informal land tenure management systems be assessed?

On land tenure systems in informal settlements, the main research findings are:

- Provincial administration officials are at the centre of land tenure management in informal settlements. They control access and delivery of land and shelter, land transfers and resolution of land disputes. Their status as government officials represents considerable legitimacy of the informal tenure system and gives it a quasi-formal status.

- Access and delivery of land and shelter is not equitable. Land allocation procedures and financial arrangements are not transparent. Yet informal land tenure systems are still widely accepted by urban residents. One possible reason for this is that the transaction costs in these systems are still lower than those in formal systems even with these imperfections. A comparison of the land allocation and land transfer processes in one of the case study settlements and in the formal land administration system would appear to support this view. The formal land allocation process involves 20 steps in up to 15 offices while the formal land transfer process involves 17 steps in 10 offices. This is compared to 8 steps in 3 offices and 7 steps in 1 office for the informal land allocation and transfer processes respectively (see Boxes 5.1, 5.2 and Appendix 1).

On land information systems in informal settlements, the research findings are:

- Registration of land transactions in informal settlements is almost 100% even without compulsory registration rules. Settlement residents seem to recognise the benefits of land registration. This attitude has to do with the experience of settlement residents in settlements where regularisation has been started. Since the identification of the occupants of settlement structures is important to the determination of the beneficiaries of regularisation programmes, it would be in the best interest of the residents to ensure that their occupancy status is always clear. The registration system in Mukuru kwa Njenga's Group system, for example, maintains up-to-date information not only of structure owners but also that of their tenants.

- Appropriate data collection and maintenance methods are used. The methods used are commensurate to the needs of the community. For example, where there is a vibrant land market (like in Mukuru kwa Njenga), fairly accurate plot surveys are carried out. On the other hand, where land transfer is not encouraged or allowed (Kibra Nubian villages and Mathare 4A), individual plot surveys are not carried out.

- Photogrammetric techniques and GIS tools present efficient and affordable means for spatial regularisation of large areas. For example, digital feature extraction and GIS spatial analysis were used in the Makina village pilot project (in Kibra) for plot identification and spatial planning. Although the expertise and equipment were external to the settlement, the aerial photographs used were purchased by the Kibra community. Plot identification and perimeter cadastral survey were also carried out using the community's resources.

- Informal land management systems lack trained land technicians. This adversely affects their sustainability and increases transaction costs whenever technical services are required. Regularisation efforts are also delayed for lack of local technical knowledge.

Regarding the assessment of land tenure management systems, the research finding is:

- The assessment of informal land management systems can present insights into the impact of various interventions in these settlements. For example, the assessment results in this thesis seem to suggest that informal land tenure management systems perform better where the settlement has undergone or is undergoing a regularisation process (see assessment results in Table 6.6).

7.2. Recommendations

- Informal tenure rules and procedures seem to be acceptable and legitimate to informal settlement residents. Regularisation programmes should, therefore, be designed to have as little adverse social and economic impact as possible on established tenure systems in these settlements. For example, where a regularisation process is put in place, care should be taken that the livelihood patterns of residents are not jolted (e.g. by introducing high land taxes or neglecting structure owner - tenant relationships). Otherwise the regularisation process faces the risk of rejection. This recommendation is relevant as input to the NLP formulation process that has indicated that one of its outputs will be guidelines for the regularisation of informal settlements.

- Where informal land tenure systems are to be legalised, a progressive approach should be used where the initial requirements for planning, cadastral survey, mapping and registration are minimal in terms of accuracy, legal regulations, professional expertise and cost. These requirements can then be progressively increased depending on demand. The legalisation approach should move towards an adaptation approach rather than a replacement approach with regard to informal tenure. The migration from simple land administration procedures to more complex ones is likely to make the integration of formal and informal cadastres necessary. Community land offices run by trained local land administrators can facilitate this integration process. Local land offices that serve the immediate needs of the society can also act as an incentive for residents to register all dealings in land and, therefore, ensure that the local office maintains a reliable record of land ownership. Any migration from legalisation to full titling should consider the precarious relationship between the social contract nature of tenure relations in informal settlements and the legal implications of statutory guarantee of title.

- The integration of formal and informal land administration systems should take advantage of the linkages that already exist between informal land tenure systems and formal institutions. These linkages include the registration of informal settlement residents in the legal civil registry, the registration of CBOs in the legal register of societies, arbitration of land disputes by the provincial administration, the police and courts of law, etc. Whichever model is followed for the integration of the two systems, it is important that the best elements from each system should be picked to form

the new integrated land administration system i.e. the two systems should learn from each other. For example, the community land trust (CLT) tenure model under experimentation in some informal settlements in Kenya combines the advantages of communal tenure with the merits of market-oriented individual land ownership. By retaining land ownership in the hands of a group and allowing group members to hold leases from the group title, it is designed to control transfers and discourage speculation.

Further research is necessary to:

- verify the finding (in this research) that the performance of informal land management systems is better in informal settlements where regularisation is ongoing or complete
- apply other assessment approaches and/or methods to find ways of improving land tenure management in informal settlements

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Appendices

Appendix 1 Transactions in formal land administration in Kenya

Land allocation (urban parcel)

1. Commissioner of Lands identifies public land (either government or trust land) for allocation
2. Commissioner of Lands places advertisement (of intention to allocate public land) in the Kenya Gazette and two daily newspapers
3. Topographical plan prepared by District Surveyor and valuation of proposed plots done by District Valuer
4. Applications for allocation sent to District Plot Allocation Committee - DPAC (chaired by District Commissioner) or Commissioner of Lands
5. Applications to the Commissioner of Lands sent to the district for review and recommendations of the DPAC
6. Recording and registration of applications by district clerk (in District Commissioner's office)
7. DPAC reviews applications – approvals required from District Physical Planner, Surveyor, Land Officer, Registrar, Town Clerk, Works Officer/Engineer, Public Health Officer and Environment Officer among others
8. The DPAC makes recommendations to the District Lands Officer
9. District Lands Officer verifies successful applications
10. DPAC confirms successful applications through written minutes and authorises preparation of a part development plan (PDP) of the recommended plots by the District Physical Planner
11. District Physical Planner publishes PDP in Kenya Gazette and two daily newspapers
12. On expiry of a 3 month inspection period, the District Physical Planner circulates PDP among DPAC members for comments
13. District Physical Planner sends PDP to Minister for Lands for approval
14. DPAC minutes are sent to the Commissioner of Lands (through the Permanent Secretary for Local Government if the land is trust land)
15. Commissioner of Lands submits DPAC minutes to Ministerial Plots Allocation Committee for ratification
16. Commissioner of Lands issues letters of allotment to successful applicants with copies to the DPAC
17. Successful allotee accepts offer of allocation through a written letter to the Commissioner of Lands and payment of statutory fees
18. Plot is surveyed by the Director of Surveys
19. Director of Surveys presents a deed plan/registry map to Commissioner of Lands for registration by the Registrar
20. Commissioner of Lands issues certificate of lease

Land transfer by sale (urban leasehold parcel)

1. Transferor and transferee (transacting parties) agree on sale terms
2. Transferor contracts a conveyancer (lawyer) and deposits certificate of title
3. Lawyer prepares sale agreement
4. Transacting parties both sign sale agreement
5. Lawyer conducts a search at the land registry in Nairobi
6. Lawyer obtains official search form and makes official application for transfer to Commissioner of Lands with copy to local authority
7. Commissioner of Lands circulates copies of application to Department of Surveys, Department of Physical Planning and local authority for comments
8. Lands officer (from Department of Lands) carries out ground inspection and files inspection report
9. Land valuer (from Department of Lands) conducts a valuation of parcel and files valuation report
10. Lawyer verifies status of parcel accounts at local authorities (ground rent, utilities, etc)
11. Lawyer pays outstanding tax/rent/fees and obtains clearance form
12. Local authority official (planning and development control department) carries out ground inspection and files inspection report
13. Commissioner of Lands receives comments from Dept. of Surveys, Department of Physical Planning and local authority
14. Commissioner of Lands approves application for transfer and sends approval letter to applicant (includes advice on transfer fees payable)
15. Lawyer makes payment of transfer fees to Commissioner of Lands
16. Registrar cancels existing title and prepares new certificate of title in transferee's name
17. Lawyer surrenders old certificate of title in exchange for new one

Appendix 2 Questionnaire

Land tenure management systems in informal settlements

Questionnaire I – Land tenure and land information management

Introduction

This is a survey on land tenure and land tenure information management in informal settlements in Nairobi. It is part of a research that is aimed at investigating the capacity of the informal land tenure management systems to provide secure property rights and reliable information to support the regularisation of such rights.

Your participation in this survey is voluntary. The information that will be provided during the survey will remain confidential and anonymous, and will be used for the purposes of research only. Signing the consent below indicates that you understand the purposes of this survey and are willing to participate in it.

Consent

Respondent's name / signature ……
Organisation / Respondent's position ……
Type of organisation ……..
Address / E-mail ……
Tel / Fax no. ……..

Date ……./10/2004

Part A: Land tenure

1. Land access and delivery

1. How would you characterise the supply of land in informal settlements? Adequate/Inadequate; Flexible/Inflexible; Affordable/Unaffordable; Other (specify)
2. Who controls the supply of such land? State; Politicians; Market; Civil society; Community; Landlords; Other (specify)
3. Which criteria do informal settlers use to identify land on which to settle? List criteria.
4. What is the most common mode of access to settlement land? Purchase; Inheritance; Allocation by state / community; Transfer; Invasion; Adjudication; Other (specify)
5. What do you consider to be the two most important hindrances to access to land? Formal; processes / procedures; Informal processes / procedures; Land related (transaction) costs; Development control standards; Other (specify)
6. Is access to land equal for all groups of people? Yes / No; Other (specify)
7. If no, which groups are discriminated against/disadvantaged? List groups.
8. What is the root cause of the discrimination? Law; Culture; Ideology; Attitudes; Other (specify)
9. How would you describe the mechanism / structures that are used for land delivery? Appropriate ; Adequate; Fairly adequate; Inappropriate; Inadequate; Other (specify)
10. On which land category do most informal settlements fall? Government / State land; Trust land; Private land; Which is the most common social unit used for allocation of land units and property rights? Tribe; Group; Extended family; Family; Individual; Other (specify)

2. Land tenure categories

1. Which tenure types (e.g. statutory, non-statutory, customary, religious, etc) exist in informal settlements? List tenure types.
2. Which tenure categories (e.g. homeless, squatter tenant, squatter owner, owner in unauthorized subdivision, tenant with contract, leasehold, freehold, etc) exist in informal settlements? List tenure categories.
3. Estimate the proportion of housing stock (in %) and the degree of tenure security (in %) represented by each tenure category.
4. Indicate all property rights available to households (and to women) in each category and the associated obligations (e.g. occupy, dispose, inherit, develop, sublet, rent, etc)
5. Indicate the top land tenure priority and / or needs of households in each tenure category
6. Does the legal system recognize the various tenure categories in informal settlements?
7. What is the general degree of tenure security in informal settlements? Very high; High; Moderate; Low; Very low; Other (specify)
8. What is perceived by the inhabitants to offer the most tenure security? Land titles; Certificates / licenses of occupation/use; Utility (or other) bills / receipts; Provision (upgrading) of basic services; Recognition by state / local government; Cooperative / Communal property rights; Other (specify)
9. Indicate any innovative tenure arrangements that are used to simplify the access to property rights and / or improve de facto security (e.g. occupancy certificates/licenses, permission to occupy, anti-eviction law, etc)
10. How many informal settlements (on average) suffer evictions every year?
11. What are the most common reasons for evictions?

3. Land transfer and dispute resolution

1. Do mechanisms for land transfer exist?
2. Who oversees land transfers?
3. How do prospective buyers ascertain land ownership?
4. What are the common causes for land disputes?
5. Who resolves land disputes?
6. What evidence is used in dispute resolution?

Part B: Land information

1. Actors

1. List all the stakeholder groups (e.g. government / public, NGO, private consultants, etc) involved with land tenure issues in informal settlements.
2. List the organisations, associations, etc (by name) that are involved with land tenure issues in informal settlements.
3. Indicate the land tenure functions/activities that each organisation performs or contributes to.

2. Land information

1. Do you know of any informal settlement where a land inventory is maintained? If yes, what information is included in the inventory? Land areas; Land description; Boundary data; Number of land units; Other (specify)
2. In which form is this information mostly held? Maps; Tabular; Verbal; Other (specify)
3. Do you know of any informal settlement where a record of rights holders is maintained? If yes, what information is included in the records? Name; Date of birth; Address; Other (specify)
4. Do you know of any informal settlement where a record of rights is maintained? If yes, what information is included in the record of rights? Duration of rights; Breadth of rights; Assurance / Guarantee of rights; Other (specify)
5. Do you know of any organizations/ associations which routinely collect specific land (tenure) information in informal settlements? If yes, indicate the organization / association, the information collected and the product / service that the organization offers.

3. Land information management

1. Which organizations / associations use the land tenure data collected from informal settlements for their activities?
2. How often do they use it? Routinely; Occasionally; Rarely; Other (specify)
3. How important / valuable is this data to these organizations / associations? Activities depend on it; Use it to produce products / services; Other (specify)
4. Do these organizations share land tenure data between themselves? Yes / No ; Other (specify)
5. If yes, what are the incentives for data sharing?
6. If no, what are the impediments to data sharing? Technical; Cultural; Social / organizational; Legal; Other (specify)

Thank you for your time and effort

Questionnaire II – Institutional settings in formal and informal land management

Introduction

This is a survey on the linkages between the formal and informal land management institutions in Nairobi. It is part of a research that is aimed at investigating the capacity of the informal land tenure management systems to provide secure property rights and reliable information to support the regularisation of such rights.

Your participation in this survey is voluntary. The information that will be provided during the survey will remain confidential and anonymous, and will be used for the purposes of research only. Signing the consent below indicates that you understand the purposes of this survey and are willing to participate in it.

Consent

Respondent's name / signature ……
Organisation / Respondent's position ……
Type of organisation ……..
Address / E-mail ……
Tel / Fax no. ……..

Date ……./10/2004

1. Land policy and land law

1. Is there any land policy (written or unwritten) in Kenya? Yes / No; Other (specify). If yes, what are its provisions on: land reform; equity in access to land; non-statutory land tenure?
2. How is the land policy formulation process structured? Open with broad participation; Open with restricted participation; Opaque with restricted participation; Other (specify)
3. Are the current land laws adequate and appropriate to support the land administration system? Yes / No; Other (specify). If no, explain.
4. Are current land laws enforced adequately in: formal areas; informal areas? Yes / No; Other (specify)
5. Do the current land laws define tenure forms and / or property rights clearly? Yes / No; Other (specify). If no, explain.
6. Do the current land laws clearly outline how people may acquire property rights? Yes / No; Other (specify). If no, explain.
7. Does the practice on the ground reflect the provisions in the current land laws? Yes / No; Other (specify). Explain.
8. Do the current land laws recognize the tenure forms and / or property rights in informal settlements? Yes / No; Other (specify). If yes, do the current land laws protect rights holders in informal settlements against losing their rights without due process e.g. through evictions? Explain.

2. Public administration

1. Is the allocation of mandates among public organizations involved in land administration clear and unambiguous? Yes / No; Other (specify). If no, explain.
2. Are the services offered by public land administration organizations accessible, efficient and effective? Yes / No; Other (specify)
3. Are the services offered by these organizations affordable to the general public? Yes / No; Other (specify)
4. Do public land administration organizations have adequate infrastructure and resources to carry out their activities effectively? If no, is the participation of the following stakeholders necessary to supplement the insufficient infrastructure and resources: local communities and community based organizations (CBOs); private consultants; civil society organisations (CSOs); international development assistance agents (IDAAs); Other (specify)?

3. Good governance

1. Are there sufficient legal institutions to enforce land law? Yes / No; Other (specify). If no, explain.
2. Are land administration officials well versed in the existing land law? Yes / No; Other (specify).
3. Are basic land-related rights upheld as provided for in the Constitution? Yes / No; Other (specify).
4. Are the current land laws fully consistent with the Constitution? Yes / No; Other (specify).
5. Are local communities facilitated to participate and / or contribute to the making of land laws? Yes / No; Other (specify).

4. Linkages between formal and informal land management institutions

1. Do informal settlements on private land qualify for adverse possession under the current land law?
2. What is the role of administration officials in land allocation in informal settlements?
3. Are you aware of any examples of neighbourhood communities that have been empowered to undertake land administration functions? Yes / No. If yes, explain the land administration functions and / or activities that they undertake
4. How can/are informal land inventories converted to formal land registers in regularisation projects?

Thank you for your time and effort

Appendix 3 Interview form

Land tenure management systems in informal settlements

Interview form

Introduction

This is a study on the stakeholders, rules and procedures involved in the collection, maintenance and use of land tenure information in informal settlements in Nairobi. It is part of a research that is aimed at investigating the capacity of the informal land tenure management systems to provide secure property rights and reliable information to support the formalisation of such rights.

Your participation in this interview is voluntary. The information that will be provided during the interview will remain confidential and anonymous, and will be used for the purposes of research only. Signing the consent below indicates that you understand the purposes of this interview and are willing to participate in it.

Consent

Respondent's name / signature ……...
Organisation / Respondent's position ……
Address / Tel. no. ……..
Settlement / Village name ……

Date ……./10/2004

1. Background

1. Which year was the settlement established?
2. In which administrative location is the settlement?
3. What is the physical size (in Ha), population and density of the settlement?
4. What is the perception of tenure security within the settlement?
5. Are there any community-based organisations involved in land management? If yes, name the organisations and their activities.
6. Have there been any upgrading/regularisation/formalisation activities in the settlement? If yes, explain.

2. Actors and organisational framework

1. Who are the main actors in land tenure management in the settlement?
2. Who are the internal/external stakeholders in land tenure management in the settlement?
3. What are the objectives of the actors/organisations?
4. What are the strategies of each of these actors/organisations?
5. Are the objectives being met?
6. How much are the stakeholders involved in the decisions of these actors/organisations
7. How often is the performance of the land tenure management system reviewed?
8. Which organisations/associations are actively involved in land tenure management in the settlement?
9. Do these organisations/associations share land tenure information between them?
10. If yes/no, what are the incentives/impediments for data sharing?

3. Financial arrangements

1. How many times have there been major land price fluctuations in the last 5 years? What causes the fluctuations?
2. Are transaction fees affordable to the residents?
3. Is the land tenure management system financially sustainable? For example, how are the actors remunerated for their work?

4. Rules and administrative framework

1. How are property rights established?
2. What (if any) restrictions to property rights exist? Are these known to the residents?
3. Who enforces the restrictions and how?
4. Do women, widows, orphans and other vulnerable groups get special consideration in land allocation and
5. Are the roles of internal / external stakeholders clear?
6. Are the opportunities to access land equal for everyone? If not, which groups are discriminated against?
7. How flexible are land tenure rules? If no/yes, give at least one example.

5. Land tenure and tenure security

1. Which are the possible ways to hold land in the settlement (tenure categories)?
2. Which are the property rights available to each of these tenure categories?
3. What are the obligations associated with each of these tenure categories?
4. What is the degree of land tenure security in the settlement?
5. What is perceived by the residents to offer the most tenure security?
6. What actions have been taken to improve tenure security in the settlement?
7. Has the settlement suffered any eviction / demolition threats or action in the last 10 years? If yes, what was the reason for the threats / action?

6. Land access and delivery

1. Is there any available land for new allocations in the settlement?
2. Who is eligible for land allocation?
3. Who allocates settlement land?
4. What are the possible channels of access to land and/or shelter in the settlement?
5. How is land made available for new allottees and/or buyers?

7. Surveying and mapping

1. Which surveying/mapping methods are used/have been used in the settlement? Are these methods appropriate for the local situation? If no/yes, explain.
2. Are the surveying/mapping methods understood by the residents?
3. Are the perimeter boundaries of the settlement identifiable? If yes, how can they be identified?
4. Are individual land unit boundaries identifiable? If so, which method of demarcation is used to determine individual land units?
5. What land tenure information is collected by surveying/mapping? How is it maintained? How is it used?
6. How is this information stored?

8. Registration

1. Which system of registration is used/has been used in the settlement?
2. Is this system understood by the residents?
3. What land tenure information is registered? How is the register maintained? How is registration information used?
4. Are all subsequent land transactions registered? If yes, how?
5. Are any documents issued on registration?
6. What is the significance of these documents? Do they prove title? Do they only provide evidence of registration/transaction?
7. How is the registration information stored?

9. Land transfers

1. Which transfer rights are available to residents?
2. Who oversees land transfers?
3. What is the typical procedure for land transfer?
4. Are all the transfers recorded in the register? If not, which (categories of) transfers are not recorded?
5. Are there registry search mechanisms to support land transfers?

10. Land dispute resolution

1. What are the most common causes of ownership/boundary disputes?
2. How many property ownership/boundary disputes are reported every year?
3. Where are the disputes reported?
4. Who arbitrates over disputes?
5. What evidence is used to solve ownership/boundary disputes?
6. Are existing land tenure records/ground evidence used as evidence in disputes?
7. Are there mechanisms for appeal?

Thank you for your time

Appendix 4 Tenancy Agreement (Mathare 4A)

23,000 pop
16.97
~ 11a area
6000 structures

AMANI HOUSING TRUST

Mathare 4A Development Programme

P.O. Box 64352 Nairobi
Tel.: (254-2) 80 56 08/ 80 34 02/86 10 29 Fax: (254-2) 86 10 85

TENANCY AGREEMENT

(BUSINESS STRUCTURE NO. J 142 ROOM(S) No. 12)

Agreement made this 26th day of March 19~~98~~ 2001 between Amani Housing Trust Mathare 4A Development Programme of P.O Box 64352 Nairobi (hereinafter referred to as "OWNER") of the one part and

Mr/~~Mrs/Miss~~ Patrick Wepukhulu ID No. ..... (hereinafter referred to as "TENANT") of the other part.

This agreement witnesses as follows:

1. The **OWNER** agrees to let and the **TENANT** agrees to take Structure No. J142 Room(s) No. 12 situated on L.R. No. ..... belonging to the **OWNER**, for a term of 5 years from the 26/03/~~1998~~2001 to 26/03/~~199~~2006

2. The monthly rent shall be KShs. 500/= (KSH Five hundred only) payable in advance by the **TENANT** to the **OWNER** for which an official receipt shall be issued on payment. This rental amount is subject to review annually. In addition, the tenant would be required to pay a refundable deposit of .....(.....)

3. The **TENANT** shall be responsible for payment of all services provided by Nairobi City Council or other suppliers (e.g. water, telephone, sewerage, electricity etc.).

4. The **TENANT** shall be responsible for repair of any damages to the structure due to negligence during tenancy period. Regular maintenance due to normal wear and tear shall be the responsibility of the **OWNER**.

5. The **TENANT** shall be responsible for keeping the said room(s) in a clean and tenantable condition. Specifically all garbage and other waste shall be deposited by the **TENANT** in the designated areas only.

6. The **TENANT** shall use the said room(s) for business purposes only and change of use will not be permitted during the said term.

7. If for reasons of construction of infrastructure this/these room(s) have to be demolished, the **OWNER** will have the right to relocate the **TENANT** to another room within the project area upon giving a written notice of seven days. The new room allocated to the **TENANT** may have a different rental amount and the **TENANT** will be required to pay the new rent.

8. The **TENANT** shall not sublet the room(s) to a second party either in whole or in part under any circumstances.

9. Either party shall be entitled to terminate the agreement on giving the other party One (1) calender month notice.

10. The **OWNER** shall have the right to evict the **TENANT** if:

    (i) The **TENANT** fails to pay the rental amount to the **OWNER** in advance and the same remains unpaid for the period of One (1) calendar month.
    (ii) The **TENANT** fails to keep the room(s) in a clean and respectable manner.
    (iii) The **TENANT** sublets the room(s) either in whole or in part to a second party.
    (iv) The **TENANTS** conduct is a nuisance to other residents and/or tenant is convicted of using the premises for immoral or illegal purposes.

IN WITNESS whereof the parties hereto have hereunto set their hands the date herein before written.

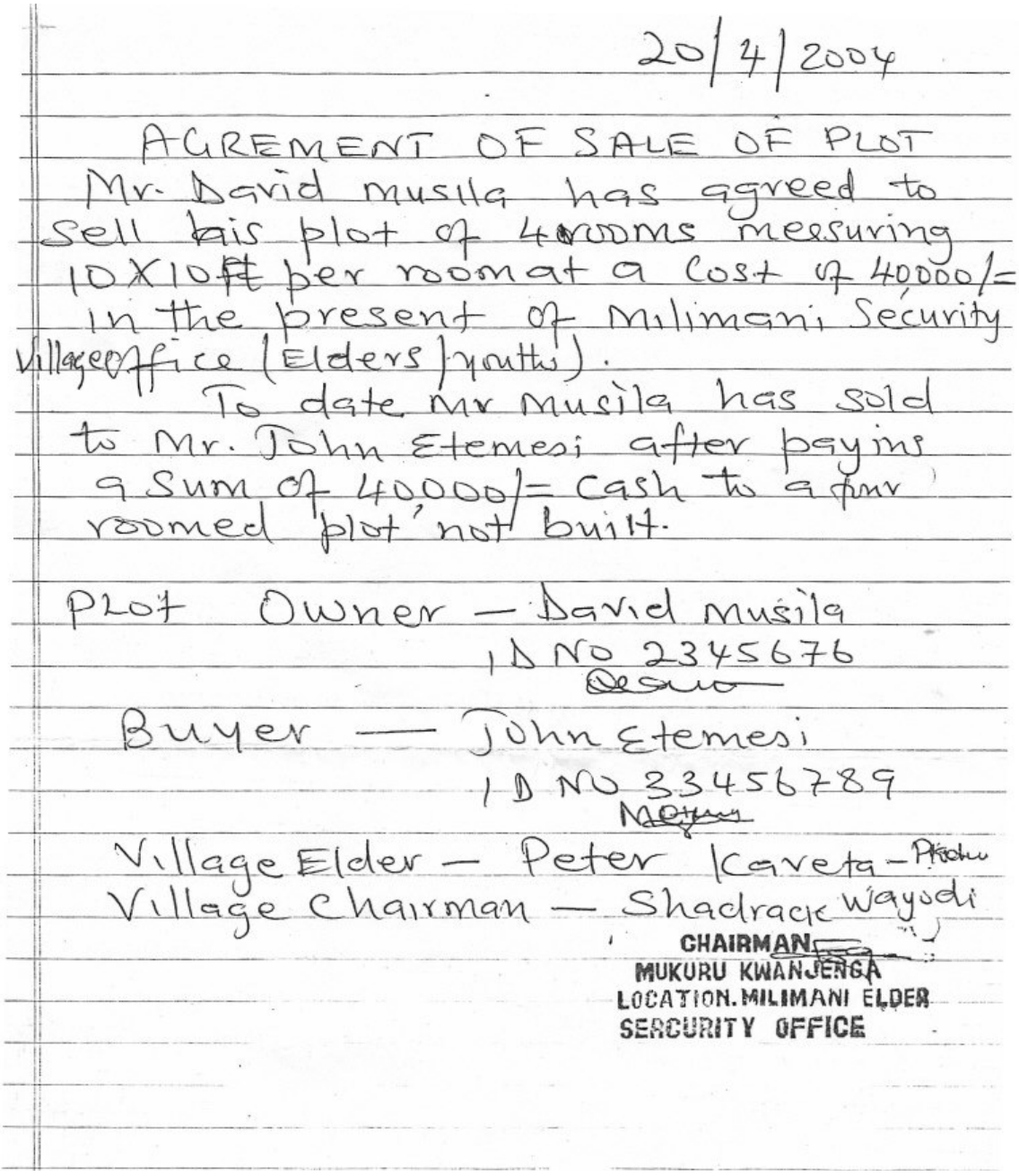
Signed for the **OWNER**

S.N. Muthua
General Manager

Signed by the **TENANT**

Name Patrick Wepukhulu
I.D No

Appendix 5 Sale agreement (Mukuru kwa Njenga – Chief's system)



20/4/2004

AGREMENT OF SALE OF PLOT

Mr. David musila has agreed to sell his plot of 4 rooms measuring 10X10ft per room at a cost of 40,000/= in the present of Milimani Security Village office (Elders) youths).

To date Mr Musila has sold to Mr. John Etemesi after paying a sum of 40,000/= cash to a four roomed plot not built.

Plot Owner — David Musila
ID NO 2345676

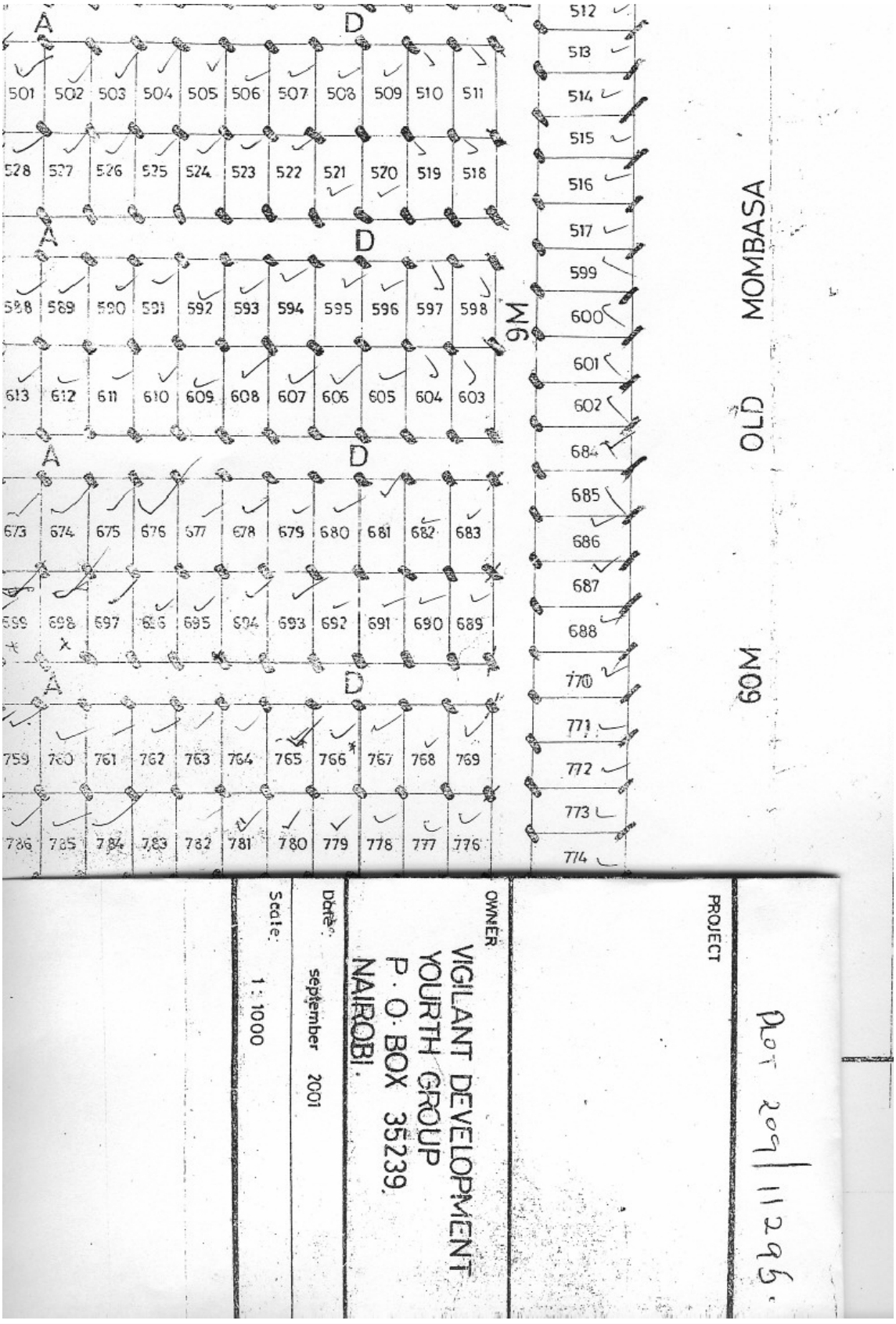
Buyer — John Etemesi
ID NO 33456789

Village Elder — Peter Kaveta

Village Chairman — Shadrack Wayodi

CHAIRMAN
MUKURU KWANJENGA
LOCATION. MILIMANI ELDER
SERCURITY OFFICE

Appendix 6 Informal development plan (Mukuru kwa Njenga – Chief's system)



Appendix 7 Land register (Mukuru kwa Njenga – Chief's system)

	NAME	CODE NO	ID NO	PLOT NO
61	PETER MUNGAI TRAN. TO WILSON GICHE	J	ID 4857946 Box. 12184 MB Date 21/3/2000	61
62	PETER MUNGAI TRAN. TO K JULIA WAMBUI GICHE Date 21/3/2000	J		62
63	PETER MUNGAI TRAN TO EDWARD KIMAMI SHIONGO	J	ID 4852175 Box 12183 MB Date 21/3/2000	63
64	STEPHEN NJIHIA NJOROGE TRAN. TO FRANCIS NJOROGE RUBAS Date 20/3/2000 MURADI PLOT			64
65	STEPHEN NJIHIA NJOROGE TRAN. TO MR PETER MUNGAI Date 21/3/2000			65
66	JAMES K WAIHAIHA	F		66

Appendix 8 Land register (Mukuru kwa Njenga – Group system)

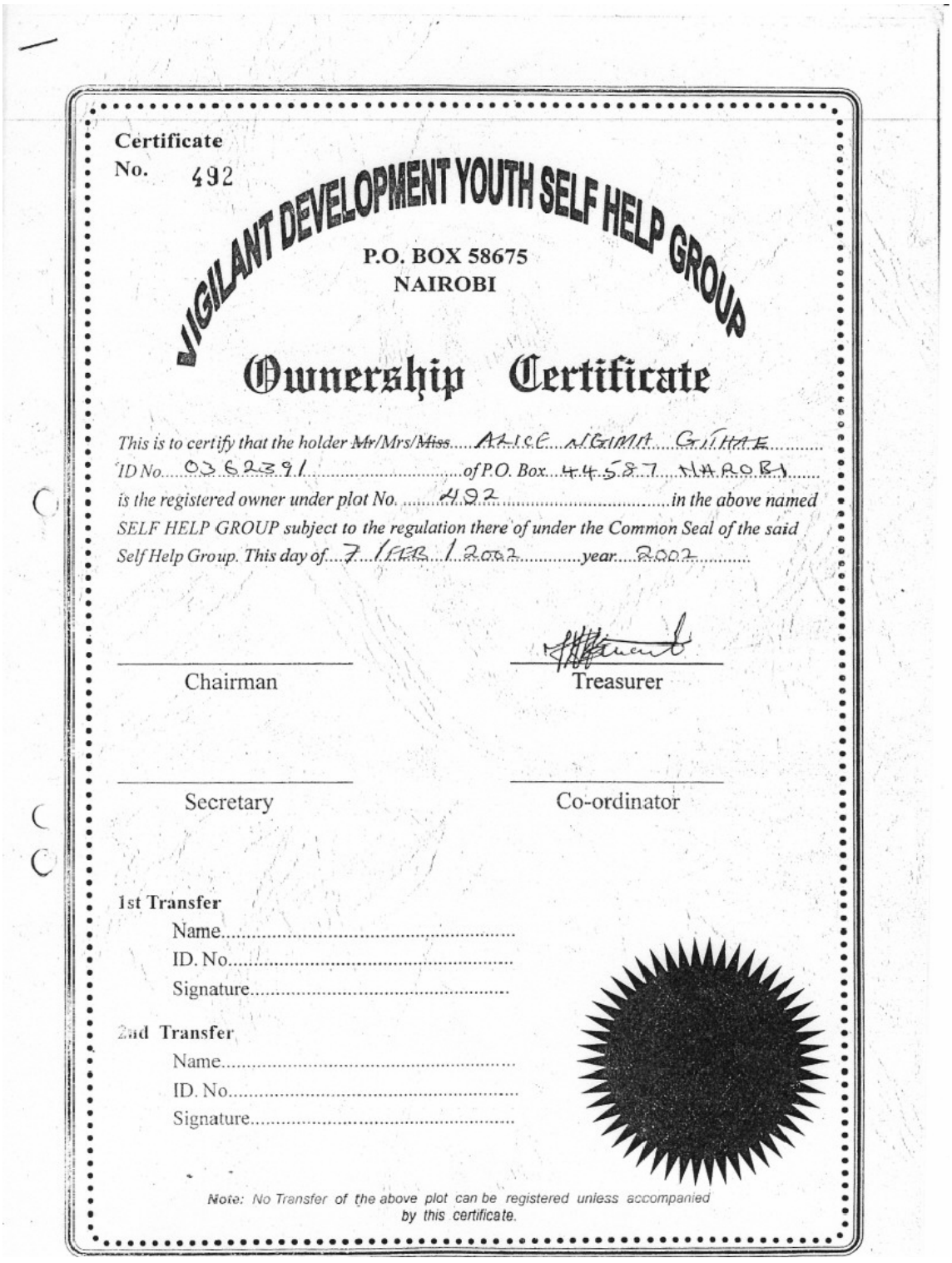
PLOT NO 4004 OWNER. JOHN KARIUKI ID NO 23143465

	TENANTS NAME	ID NO	DATE OF OCCUPATION
1.	EZEKIEL OWINO	4234568	1988
2.	JANE NDUNGE	4267212	1987
3.	BENARD OSEMBO	332453	1990
4.	ERNEST ZAMBI	2434576	1995
5.	BARACK SIKUNUA	74267628.	2000

MUKURU MILIMANI ZONE / EMBAKASI DIVISION

CHAIRMAN
MUKURU KWA NJENGA
LOCATION: MILIMANI ELDOB

Appendix 9 Ownership certificate (Mukuru kwa Njenga – Group system)



Certificate
No. 492

VIGILANT DEVELOPMENT YOUTH SELF HELP GROUP

P.O. BOX 58675
NAIROBI

Ownership Certificate

This is to certify that the holder ~~Mr/Mrs/Miss~~ ALICE NJOKI GITHAE
ID No. 03622391 *of P.O. Box* 44587 NAIROBI
is the registered owner under plot No. 492 *in the above named SELF HELP GROUP subject to the regulation there of under the Common Seal of the said Self Help Group. This day of* 7/FEB/2002 *year* 2002

Chairman

Treasurer

Secretary

Co-ordinator

1st Transfer
Name.....
ID. No.....
Signature.....

2nd Transfer
Name.....
ID. No.....
Signature.....

Note: No Transfer of the above plot can be registered unless accompanied by this certificate.

Appendix 10 Tenants list (Mathare 4A)

REFERENCE: MAT340 AMANI HOUSING TRUST

15/04/2004 MATHARE 4A DEV. PROGRAMME. PAGE: 18

TENANTS LIST REPORT

Reference no. structure no / Remarks

NUMBER	STRUCT.	TARIFF.	TENANT ID	TENANT NAME
			Purpose of room	
1000604	D150/13	Commercial	4424176/67	Mthenge Muia
1000605	D150/14	Commercial	4424176/67	Mthenge Muia
1000606	D150/15	Commercial	3608062/66	Eliud Kanyari Maina
1000607	D150/16	Commercial	3608062/66	Eliud Kanyari Maina
1001458	D150/17	Commercial	1296226/75	John Mukungi Mbiti
1000362	D150/18	Commercial		Zakariah Mukundu
1000363	D150/19	Commercial		Zakariah Mukundu
1001462	D150/20	Commercial	4429237/67	Josiah Awange Ondiko
1000608	D151/01	Commercial	9195103/72	Charlse O. Anyasi
1000609	D151/02	Commercial	3477602/64	Samuel Ogur Okumu
1000610	D151/03	Commercial	9195103/72	Jeremiah Odoyo Ororia
1005708	D151/04	Residential		Charles O. Onyasi
1005709	D151/05	Residential		Samuel Ogur Okumu
1005710	D151/06	Residential		Jeremiah Odoyo Ororia
1000724	D152/01	Commercial	7995276/70	Charity Wangu
1000707	D152/02	Commercial	0812692/63	Joseph Kamau Waweru
1000475	D152/03	Commercial	3500699/66	Humphrey Mwangi
1000483	D152/04	Commercial	5754898/68	Donitra Kabiro
1000482	D152/05	Commercial	3609360/66	Lucy Mumbi Gatoto
1003423	D152/06	Commercial	9449815	Luka Amuli
1001051	D152/07	Commercial	3484849/66	Patrick Ndana Milelwe
1000072	D152/08	Commercial	3455639/66	Zephania Anyango Omeny
1000490	D152/09	Residential	1865123/64	Duncan Musee Musyia
1000491	D152/10	Residential	3947411/66	Joanes Aura
1000484	D152/11	Residential	4610591/67	Antony Kieti Kiamba
1000485	D152/12	Residential	0792253/66	Beatrice Kasyoka
1006467	D152/13	Residential	3500699	Humphrey Thuita Mwangi
1007902	D152/14	Residential	1814728	Lucy Nyambura Thuita
1004383	E001/01	Residential	1274541	Henerieta Alitsa Ingasi
1001909	E001/02	Residential		Ebel Ayoma Elijah
1003860	E001/03	Residential	2894296	Mwanzia Singi
1003859	E001/04	Residential	10678216	Peter Musango
1001922	E002/01	Residential	4181548/67	Daniel Khaboch Ambongo
1001923	E002/02	Residential	6693385	John Kariuki Mburu
1003021	E002/03	Residential	10922288/73	Charles Odhiambo Okello
1003023	E002/04	Residential	13528721/76	Onyango Alfred
1002523	E002/05	Residential	13201789	Nicholas Opere Achiya
1003569	E002/06	Residential	9582173	Joseph Manzi Mwinzi
1001109	E002/07	Residential	2586458/68	Joseph Apuoyo
1007682	E002/08	Residential	22350654	Godfrey Omondi Onyango
1007647	E002/09	Residential	2680213	Joseph Otieno Ongwech
1003039	E003/01	Residential	10385586/73	Maurice Onyango Ondiek

Appendix 11 Assessment table

Principle	Indicator	Scoring criteria	Value (v)			Score (s)		
			MkN	KNV	M4A	MkN	KNV	M4A
Organisational issues								
OP1	OI1	v=written, s=3;v= word of mouth, s=2;v=none, s=0	word of mouth	written	written	2	3	3
OP2	OI2	v=fully, s=3;v= fairly well, s=2;v=somewhat, s=1; else 0	somewhat	fairly well	fully	1	2	3
OP3	OI3	v=village, s=3;v=settlement, s=2;else, s=1	village	settlement	village	3	2	3
OP4	OI4	v=always, s=3;v=some cases, s=2;v=not at all, s=0	some cases	always	always	2	3	3
OP5	OI5	v>=2,s=3;v=1,s=2;v=0,s=0	0	0	1	0	0	3
OP6	OI6	v=yes, s=3;v=no, s=1	no	no	no	0	0	0
Sub-score						8	10	15
Financial issues								
FP1	FI1	v<=2, s=3;v=3-4, s=2;v>=5, s=1	4	2	0	2	3	3
FP2	FI2	v=affordable, s=3;v=fair, s=2;v=costly, s=1	costly	costly	affordable	1	1	3
FP3	FI3	v=very, s=3;v=somewhat, s=2;v=not at all, s=1	not at all	not at all	very	1	1	3
Sub-score						4	5	9
Rules								
RP1	RI1	v=very well, s=3;v=fairly well, s=2;v= not at all, s=0	fairly well	fairly well	very well	2	2	3
RP1	RI2	v=yes, s=3;v=no, s=1	no	yes	yes	1	3	3
RP2	RI3	v=yes, s=3;v=no, s=0	yes	yes	yes	3	3	3
RP3	RI4	v=always, s=3;v=sometimes, s=2;v= never, s=0	sometimes	sometimes	always	2	2	3
RP4	RI5	v=yes, s=3;v=no, s=0	yes	yes	yes	3	3	3
RP5	RI6	v=very, s=3;v=fairly, s=2;v=not at all, s=0	fairly	fairly	not at all	2	2	0
RP6	RI7	v=very, s=3;v=fairly, s=2;v=not at all, s=0	fairly	fairly	very	2	2	3
RP6	RI8	v=yes, s=3;v=no, s=0	yes	yes	yes	3	3	3
RP7	RI9	v=yes, s=3;v=no, s=0	no	no	no	0	0	0
Sub-score						18	20	21
Technical issues								
TP1	TI1	v=yes, s=3;v=no, s=1	no	no	no	0	0	0
TP2	TI2	v=60-100, s=3;v=30-60, s=2;v=0-30, s=1	90-100	90-100	100	3	3	3
TP3	TI3	v=uniform, s=3;v=not uniform, s=1; v=none, s=0	not uniform	uniform	none	1	3	0
TP4	TI4	v=yes, s=3;v=no, s=1	yes	yes	yes	3	3	3
TP5	TI5	v=yes, s=3;v=no, s=1	no	yes	yes	1	3	3
TP6	TI6	v=good, s=3;v=fair, s=2;v=bad, s=1	bad	bad	good	1	1	3
TP6	TI7	v=yes, s=3;v=no, s=1	no	no	yes	1	1	3
TP7	TI8	v<=7, s=3;v=7-14, s=2;v>=14, s=1	1-7	7-14	1-7	3	2	3
TP8	TI9	v=60-100, s=3;v=30-60, s=2;v=0-30, s=1	100	100	100	3	3	3
TP9	TI10	v>=2, s=3;v=1, s=2;v=0, s=0	0	0	2	0	0	3
Sub-score						16	19	24
Total score						**46**	**54**	**69**

MkN – Mukuru kwa Njenga; KNV – Kibra Nubian villages; M4A – Mathare 4A