

# Land Registration and Information Asymmetry Problem in Sub-Saharan Africa Urban Real Estate Markets

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## Abstract

Presently, Sub-Saharan Africa urban real estate markets namely housing, income property and land markets are confronted with deficient information regimes resulting in their underperformance. The enormity of the information problem is known as between 97-99% of the market transactions and relevant information fall outside the radar of formal land registration systems. The sources and causes of the deficient information regime are however, not yet fully understood and the approach to correct the deficiency also remains unknown. The study therefore enquires into the sources and causes of information asymmetry and to measure the impact of the deficient information regime in order to draw attention to the scale of the problem for policy considerations as well as contribute towards bridging the knowledge gap in literature. The study which is ongoing presents its findings on the sources and causes of information asymmetry in Sub-Saharan Africa urban real estate markets based on a thorough literature review. The historical comparison approach is used in tracing the evolution of land registration systems, their trends and influence on information production and use in various land registries. The approach enabled effective comparison of how land registration evolved and why they are relatively successful in Western European countries than in Sub-Saharan Africa. The study finds that in Sub-Saharan Africa, legal, social and technical issues are among the challenges confronting land registries in information production and use. However, legal origins and defective land registration laws are identified as the primary causes and sources respectively of information asymmetry in the real estate markets. The study therefore argues for a need to address the problem and concludes the information problem can be fundamentally addressed through legal reforms that reflect the cultural practices and aspirations of the respective countries and also prescribes the appropriate approach to land registration.

## Keywords:

Information asymmetry, Land Information Systems, Land registration, Real estate markets, Sub-Saharan Africa.

## 1 Introduction

Governments all over the world recognise land information as a public good for which specialised state agencies are responsible for its provision and related services. The responsibilities include production and maintenance of quality land information through land registration systems, facilitating public access and knowledge of the state of titles, charges and encumbrances to real estate property by notice of information (Chatterton *et al.*, 1980; Larsson, 1991; Dale and McLaughlin, 1998; Palmer, 1998; Masser, 1998; Deininger, 2003; Sikor, 2008). These responsibilities are however, not being optimally discharged in most developing countries as compared to their developed counterparts. The effects are huge gaps in information production at the land registries and the problem of information asymmetry among actors involved in real estate transactions.

In Sub-Saharan Africa (SSA), the production and healthy flow of information for formal land delivery processes have not matched the demands of rapid urban growths and real estate markets. From the production side, de Vries (2004) posits that in Sub-Saharan Africa less than 1% of the total land area is administered under any kind of formal land registration system. Toulmin (2008) concurs that presently, the information being produced and certified by various Land Registries for land markets in West Africa region of Sub-Saharan Africa is from only 2-3% of land ownership registered. This implies about 97-98% of required land information is under the control of private actors which brings the legitimacy of the land registration systems into question notwithstanding the effects of the deficient information regime on market transactions, performance and distortions.

Under the present deficient information regime, transactions in Sub-Saharan Africa urban real estate markets are reported fraught with mixed problems of uncertainties, multiple sales, widespread property related disputes, cumbersome procedures for land acquisition, high transaction costs and opportunistic behaviours by information holders (Gough and Yankson, 2000; Kironde, 2000; Hammond, 2006; Hammond and Antwi, 2010). The fundamental causes of the deficient information regime and market underperformance are, however, not yet fully known and how to redress the situation also remains unknown. Nonetheless, various SSA governments are re-engineering their land registration systems in order to provide cheaper, faster, safer and more reliable means of transacting in real estate property.

The study therefore inquires into the sources and causes of information asymmetry in SSA real estate markets with emphasis on urban land markets. It also seeks to measure the impacts of the information problem in order to draw attention to the scale of the problem for policy considerations, and contribute towards bridging the knowledge gap in literature. The study foremost discusses the framework used for thorough literature review. Using the framework, the study from first principles traces the sources and causes of information deficiencies by comparing the formal origins and trends of land information systems in selected Sub-Saharan Africa countries and their Western colonial masters. The comparison is followed by a critical discussion on the legacies of colonial and post-independence laws on land registration and the direction of present land registration reforms. The study further examines their influence on land information production and also, on Sub-Saharan Africa

urban real estate markets. Results on preliminary findings from extant literature reviewed identifying the sources and causes of the information deficient regime in Sub-Saharan Africa then follows. The study concludes based on the literature reviewed with remarks on strategies required to remedy the information asymmetry problem.

## 2 Framework for Research Review

The review generally covers 21 countries within the six continents of the world using a historical comparison approach to trace how land information systems evolved in the countries reviewed. However, having identified a common trend in the general review of literature, the discussion focuses on SSA countries and their colonial masters for reasons discussed under the heading historical comparison approach.

### 2.1 The Historical Comparison Approach

The historical comparison approach is mainly adopted to understand the present relations between land information systems and their legal origins and cultures through the past. The past is reviewed with reference to the colonial masters of Sub-Saharan African countries namely Belgium, Britain, Denmark, Germany, The Netherlands, France and Portugal (Feder and Noronha, 1987). The discussion however, focuses on the evolution of land information systems in Britain, France and Germany because of their dominant influence on land tenure and land registration systems in SSA compared to the other colonial masters. Grey literature exists to support the historical comparison approach adopted.

Dale (1997) posits that land registration owns its origin to land tenure and that Africa inherited formal land tenure systems from the colonial masters who fundamentally lacked understanding of indigenous customs and culture. Furthermore, Bertocchi and Canova (2002) elsewhere provide empirical evidence and report that Africa represents an appropriate setting to analyze the impact of colonial rule on growth. Similarly, Beck *et al.* (2003, p. 672) provide empirical results which suggest that “legal origin matters because legal traditions differ in their ability to adjust efficiently to evolving socioeconomic conditions”. Olsson (2009) also shows empirically that there is a strong positive effect of colonial duration on democracy particularly in former British colonies and also, in countries colonised during the imperialist era.

The present is also reviewed with reference to five Sub-Saharan African countries namely Benin, Ghana, Namibia, South Africa and Tanzania with the intent to explain the present relation between the local practices and land information systems, and land registration reforms. The historical comparison approach in studies of land information systems and related fields is not new and has been used by Bogaerts, 1997; Ting *et al.*, 1999; de Soto 2000; Torhonen, 2004; Enemark, 2009. Thus the historical comparison approach is found appropriate in line with the objectives of the study of tracing the sources and causes of information asymmetry in SSA real estate markets.

## 2.2 Sources of Information for Historical Comparison Approach and Concepts

The review involves information gathered through international land administration systems inventories such as the Cadastral Template (Stuedler *et al.*, 2004 and Rajabifard *et al.*, 2007), Inventory of Land Administration Systems in Europe and North America (Manthorpe, 2005) and the Western Humankind – Land Relationship from the tribal period to the Twentieth Century by Ting *et al.* (1999) as guide to the historical comparison. The Cadastral Template provides generic information about cadastral and land administration systems in responding countries (see [www.cadastraltemplate.org](http://www.cadastraltemplate.org), Stuedler *et al.*, 2004 and Rajabifard *et al.*, 2007). It also reflects the cultural and judicial settings of the respective countries and furthermore provides a worldwide comparison of land registration systems (Enemrk, 2009).

Even though Bandeira *et al.* (2010) comment that the Template does not include a benchmark framework that would allow for obtaining policy implications, the study finds the qualitative and quantitative indicators from countries across five continents provide a very useful descriptive study of the land information systems from the responding countries. North America is not covered by the Template. However, from the Inventory of Land Administration Systems in Europe and North America produced by the HM Land Registry (Manthorpe, 2005), the study draws on the inventory information to cross reference country information provided in the Cadastral Template and also information on North America (See <http://www.unece.org/env/wpla/welcome.html>).

The study further dwells on extensive grey literature on land information systems which was used to corroborate and fill the gaps in the above mentioned sources in the discussions. The study however, observed some key terms could be slippery as they have been variously defined by different writers. Hence those adopted in the study are deemed to encapsulate other definitions, are popular and where necessary modified to accomplish the purpose of the study and also in line with research guide suggestions (Creswell, 2009). The definition of relevant technical terms such as land administration, land information systems, cadastre and cadastral systems are provided.

The UN Economic Commission for Europe (UN-ECE, 1996) Guidelines on Land Administration defines land administration as "the process of determining, recording and disseminating information about tenure, value and use of land when implementing land management policies. It is considered to include land registration, cadastral surveying and mapping, fiscal and multi-purpose cadastres and land information systems." (see Dale and McLaughlin, 1999; Stuedler, 2004; Stuedler *et al.*, 2004; Bandeira *et al.*, 2010).

Land Information Systems (LIS) are tools for legal, administrative and economic decision making and their operations include procedures and techniques for systematic acquisition and assembly of data; their processing, storage, maintenance, retrieval, analysis and dissemination (FIG-United Nations, 1983; Bedard, 1986; Dale and McLaughlin, 1989; Larsson, 1991). The usefulness of the system depends on how often it is updated, its accuracy, completeness,

accessibility, comprehensiveness, transparency and the extent to which the system has been designed for the benefit of users rather than for the producer of the information (see Dale and McLaughlin, 1989; Hammond, 2006; Hammond and Antwi, 2010). Quintero (2004) broadens the meaning and conceives LIS as the final product of a complete network of three general land related recording systems namely the cadastral survey, land registration system and all relevant public, private, and mixed land information sources. This conception of LIS appears to include unofficial procedures undertaken by individuals or small groups for their private transactions. This meaning falls in tandem with the huge information gap in Sub-Saharan Africa real estate markets the sources and cause which the study investigates.

Bandeira *et al.* (2010) contribute that normally a land information system consists of a registry (juridical cadastre) and a cadastre (fiscal cadastre). The registry serves as the database and compiles the information on legal aspects of properties such as legal ownership, spatial extent, charges and liens. The cadastre on the other hand is the geographical and alphanumeric database and it describes the features, use and spatial coordinates of land parcels. These databases, that is the registry and the cadastre, commonly referred to as cadastral systems, are supposed to provide reliable and current information on land ownership, use, value and spatial location for users.

### 3 Evolution of Land Recording Systems in Europe

Modern land information systems evolved in response to the need for land records which started in the form of cadastres in Western countries. An insight therefore into the origin of land recording systems in Europe may be helpful in gaining a better understanding of the evolution of land information systems in Sub-Saharan African countries compared to their colonial masters particularly Britain, France and Germany. Larsson (1991) offers two basic historical reasons for formal land records as the need for the state to know all land units for taxation or other fees and dues and secondly, the need for prospective buyers of land to get publicity for their acquisition of land. Dale (1997) espouses that the formal basis of dealing in land is either known as land registration or cadastral system and further explains that land registration owns its origin from land tenure whilst the origin of cadastre tend to lie in land and property taxation. Thus the trend of evolution of formal land recording systems in many Western European countries was for fiscal purposes and later for legal ownership in land (Dale, 1997; Ting *et al.*, 1999).

#### 3.1 Historical Overview of British, French and German Cadastres and Land Information Systems

The great survey of Britain which was known as the Domesday Book and carried out in 1086 during the reign of William the Conqueror was a record of information collected for levying of taxes and has since then been one of the oldest public records in Britain (Plucknett, 2001; Larsson, 1991; Abdulai, *et al.*, 2007). According to Plucknett (2001, p. 12) "The land was described county by county, village by village, the owners and their subtenants were listed and their holdings valued, even the farm stock was recorded, with a view to settling clearly the rights of the crown and the taxable resources of the country". In many instances, the records were accompanied by a concise summary of the customs of a county or city so as to give an insight into the local law in force (Plucknett, 2001 and Larsson, 1991). This suggests

that the survey took cognisance of indigenous laws and practices an approach which the study questions whether it was replicated in Sub-Saharan Africa.

Plucknet (2001) posits further that from the Domesday Book, the idea of an officially compiled documents which was unquestionable appeared to have spread to the rolls of the Exchequer, and then to the rolls of the Courts of law. Consistent with other literature, Plucknett (2001) suggests that the evolution of land records may be regarded as financial in origin, and only later becoming judicial. The Domesday Book, however, as observed by Larsson (1991) was not based on survey maps unlike the French Cadastre which was also an attempt of a nationwide inventory of land ownership under Napoleon I of France and which became the cradle of European Cadastre.

Most European cadastres were modelled or drew inspiration from the French cadastre of Napoleon I which started in 1807. This was purely a fiscal cadastre which was compiled and recorded in large scale maps inventorying individual properties often as consequence of the financial policies of Napoleon I (Dale, 1997; Steudler, 2004). Larsson (1991, p. 25) opines that Napoleon I brought real breakthrough to cadastral records in that Napoleon visualised the linkage between the cadastre and the legal land registry and declared that:

A good cadastre will be the best compliment of my civil law code to achieve systematic order in the area of real estate property. The plans must be so developed and be made exact that they will permit at any time to define and record the boundaries of the land property limits and to prevent the confusion or law suits otherwise arising.

The French cadastre according to extant literature became a model for most European countries as a result of the domineering position of France at that time (Larsson, 1991; Dale, 1997; Cadastral Template, 2003). Most continental European countries however, established systematic land registration systems which were based on local conditions and varied in quality and extent from the French Cadastre. Germany was the first European country to take important steps to introduce registration of title based on cadastral survey which started in the mid Nineteenth Century and by 1900 it was extended to cover the whole of Germany (Larsson 1991; Enemark, 2005). The common feature about the origin of most European land recording systems was that they were originally for fiscal purposes and later became legal. They evolved and developed in accordance with local circumstances and needs unlike in SSA.

#### 4 Evolution of Land Recording Systems in Sub-Saharan Africa

The evolution of formal land recording systems in Sub-Saharan Africa took a reverse turn from their origins in Europe. Land recordings the study finds started from legal to fiscal (levying taxes if any, valuation and planning) purposes in Sub-Saharan Africa unlike in the case of their European colonial masters. The study argues this may contribute as a source to the present information problem. For instance in South Africa, the first cadastral survey in 1658 was for transfer of a piece of land along the Lisbeek River which was released to a servant of the Dutch East India Company. Furthermore in Tanzania the cadastral system was introduced by the German colonial administration in 1893 and later developed by the British and subsequently used for alienation of land to European settlers. In Namibia, at the beginning of the First World War, central survey control networks were established for only European settlers (see Cadastral Template, 2003).

Furthermore, Bruce (1998) opines that the French Civil Code of 1830 was decreed and initially applied in Goree in Dakar, Saint Louis and Rufisque in Senegal which were towns with significant number of French citizens. Later the application of the Code was broadened to permit European settlers to legitimize their land and also paved the way for initiation of land reforms (Bruce, 1998). According to Larsson (1991) the French cadastral system naturally exerted great influence on its colonies in North and Western Africa. Similarly, the English land law influenced the attitudes towards practice regarding land ownership and leaseholds in many former colonies and dominions. Dale (1997), Bruce (1998) and Lavigne-Delville (2000) further concur that both French Civil Code and English Land Law left lasting marks on the legal and institutional culture of Sub-Saharan African countries.

##### 4.1 Legacies of Colonial Land Administration in Sub-Saharan Africa

Glaeser and Sheifer (2002) from an empirical study note that most countries in the world inherited their legal systems from their colonial settlers and masters rather than developed them indigenously. In Sub-Saharan Africa, the colonial masters' subjection of the respective countries to nonlocal legal regimes that departed fundamentally from the dominant customary systems of land tenure and natural resource management left a legacy of dual tenure system namely statutory and customary tenures (Bruce, 1998; Lavigne-Delville, 2000; Le Meur, 2005). Bruce (1998) provides that the Portuguese, Belgians and the French articulated clearly in legislation that "occupied lands" were to be governed in accordance with local custom while all other lands were declared to be state property but in practice this was extended to all untitled lands by the administrators. The French colonial administration initiated land reforms which were based on the Napoleonic Doctrine of 1810 that supplanted traditional land tenure systems with European system, effectively commoditised land and designated the state as the sole custodian of all land in the French colonies in Africa. By 1830 it instituted legal control of land related transactions. In 1899 a land decree was enacted and this created two main categories of land namely public and communal lands (Bruce, 1998).

McAuslan (2003) also, observes that between the 1920s and 1950s there was deliberate suppression and imposition of administrative controls on the customary tenure operations in

SSA. McAuslan (2003) further posits that almost in all Anglophone African countries, the major approach to land tenure was a type of maintenance of dual system and the imposition of tight administrative control. Generally the colonial powers imposed their own laws as the basic laws on the colonies but allowed customary law to operate in certain areas in as much as it did not conflict with the colonial administration (Blocher, 2006).

Dale (1997) also reveals that in most parts of Africa, land registration was introduced to protect the rights of European settlers while the rights of indigenous people were protected by customary law. Bruce (1998) mentions that the French Land Decree of 1899 instituted land registers which became major colonial land reform throughout the whole of colonial Africa. One of the tenure systems was branded by the colonial French administration as 'native' or *indigenes* while the other system governed European residents and the French labelled Western acculturated members of the indigenous population (Njoh, 2004 and 2009). Despite resistance from the indigenous people to the introduction of the dual system of land delivery, the legacy of dual tenure systems from both French and British colonial rule continued into the post-independence era and persisted to the present day (Bruce, 1998; Njoh, 2004).

#### 4.2 Land Administration in Post Independence Sub-Saharan Africa

Most Sub-Saharan African countries upon attainment of independence enacted land legislations and introduced policies that continued with the colonial legacy of land administration and management (Bruce, 1998; Lavigne-Delville, 2000). The legislations and policies were in the form of nationalization, vesting or some other form of these. Nigeria, for instance, revived the Protectorate legacy by proclaiming state ownership of all lands in the country (Bruce, 1998; Lavigne-Delville, 2000). According to Lavigne-Delville (2000) in Francophone countries land was often nationalised and this amounted to abolition of customary systems.

In the past two decades, however, most countries in Sub-Saharan Africa among other developing countries have introduced various land reforms and policies aimed at promoting economic growth, sustainable development and poverty reduction (Toulmin and Quan, 2000; Le Meur 2005) and also ensure that efficient land policies integrate modern statutory law with customary laws that govern many people's day-to-day lives. Bruce and Knox (2009), Sikor and Muller (2009) concur that the most common approach presently to land reform in Sub-Saharan Africa is land registration and land titling with focus on the customary tenure which were hitherto neglected. The study argues that these reforms and policies are without a thorough understanding of the sources and causes of the deficient information regime and underperformance of the land markets and are attempts to address the effects and not the main causes of the information problem. The study therefore discusses the sources and causes of information asymmetry in SSA real estate markets further as follows.



## 5 Sources of Land Information Asymmetry in Sub-Saharan Africa

The study reviews the relations between laws, registration systems and information asymmetry in SSA and argues that the extent and coverage of land registration systems depend on the kind of laws underpinning the registration systems. Three basic principles common to almost every land recording according to the relevant registration laws are;

Type of registration system;

Form of registration of land ownership; and

Approach to establishment of registration records (Cadastral Template, 2003).

### 5.1 Laws and Land Registration Systems

Deed and Title Registration Systems are the major types of land registration systems (Larsson, 1991; Palmer, 1998; Zevenbergen, 2002; Karikari *et al.*, 2003; Torhonen, 2004; Enemark, 2009; Enemark 2005a; Rajabifard *et al.*, 2007; Enemark *et al.*, 2009). There are, however, variant versions of both systems. For instance, the Torrens System of Australia which is a variant of the Title System (Enemark, 2005; Enemark *et al.*, 2005). The study finds that the type of registration system in a country may not necessarily offer any advantage over the other. Rather, it is a question of whether the system responds to the needs of local practices. If the type of registration system evolved in response to the needs of a country, from the culture of a country or it was designed within the social, legal history and economic context of a country (Enemark *et al.*, 2005; Dale, 2000) then probably no particular registration system can be considered to offer the best incentive in the absence of an empirical evidence (Deininger and Feder, 2009). The following examples buttress these assertions.

Examples of countries operating the Deeds System with 100% coverage are Belgium, France, the Netherlands and Hong Kong 99.9%. Examples of countries operating Title System with 100% registration are Germany, Denmark, Sweden, Switzerland, India, South Korea and Australia 99% (Cadastral Template, 2003). In contrast, there are countries that operate either one or both systems but have incomplete coverage. Examples of Deeds System with incomplete coverage are South Africa with 70% urban land registered, Namibia with 60%, and Mexico with 61% urban land registered. Examples of countries operating Title System and their coverage of registered urban lands are Malaysia 98%, Japan 72%, Tanzania 10% and Portugal with 17,000,000 parcels out of which 2,055,000 parcels are registered (Cadastral Template, 2003; Manthorpe, 2005).

Palmer (1998) earlier argues that both title and deeds registration systems acting as information systems reduce information asymmetry between parties in transaction. Palmer (1998) argues further that both systems "require similar quality of information in order to function well" consequently it is better to introduce administrative reforms that will improve quality of information rather than to attempt to transform from deeds to title system. Bittner and Frank (2002) argue that the deeds and title systems can be compared as their fundamental principles are similar and both systems are different solutions to a common problem of

determining the legal rights to a parcel of land. Zevenbergen (2002) after a comparative study of four countries including Ghana's land registration system observes that the flaws in the country's Deeds System in terms of technical, organizational and legal aspects should have been corrected rather than introduce Land Title Registration Law of 1986.

Baird and Jackson (1984) and Woodman (1986) concur that legal rules can affect the amount of information available and reduce the uncertainty necessary for contracting parties to bear. Palmer (1998) notes registration systems offer security if only it provides sufficient information and accurate information as well as protection of rights after registration. Palmer (1998) further mentions that in the advanced economies, land registration provide confidence that property rights will be easy to identify, verify, and protect against unlawful actions. Thus results of legal actions will be easy to predict. From a historical point of view, Deininger and Feder (2009) reveal that laws and customs have underpinned the social and economic benefits of land registration systems in developed societies.

## 5.2 Laws and Registration of Land Ownership

The second cadastral principle which influences information production is what the law prescribes for registration of land ownership. Land registration by law may take the form of either compulsory or optional, or both. Compulsory or optional land registration may depend on a country's social, economic, legal and political environment. In any case, the registration law must be grounded on the culture and customary practices of the country for it to gain acceptance by the citizens and enhance their knowledge of the registration laws ( Hayek, 1983; de Soto, 2001). Furthermore, Mitchell *et al.*, (2008), Feder and Nishio (1999) point out that one of the factors that may lead to adverse social impact of land registration is the degree of understanding of the landholders of the processes and benefits of land registration.

## 5.3 Approach to Establishment of Cadastral Records

The third principle is the approach to land registration which hinges on whether specific laws pave the way for either systematic or sporadic approach to registration, or both. Registration is said to be sporadic when it is performed upon demand by the individual land holder (Feder and Nishio, 1999). Extant literature suggests sporadic approach does not provide an incentive for voluntary land registration and has been a failure in past registration practices in some developed economies. Larsson (1991) notes objections against the sporadic approach to registration and cautions that;

Sporadic approach to registration of titles takes a long time to complete the register;

Registration costs per unit of land are high; and suggests that

Systematic registration provides an overview of all the existing parcels and titles within an area.

Feder and Nishio (1999) concur that the potential for adverse social impacts is larger when registration and titling are sporadic and when the cost incurred by the individual for registration is also high (see Mitchell *et al.*, 2008, p.465). This principle it appears has been

largely ignored in Sub-Saharan African countries from the colonial era till present day. The practice mostly has been optional registration with sporadic approach as shown below.

Table 1. Summary of Cadastral Principles for Reviewed Sub-Saharan African Countries

(Sources: Adapted from Cadastral Template, 2003 and Zevenbergen, 2002)

COUNTRY	REGISTRATION SYSTEM	REGISTRATION BY LAW	APPROACH TO REGISTRATION
Ghana	Deeds	Optional	Sporadic
Namibia	Deeds	Optional	Sporadic
South Africa	Deeds	Optional	Sporadic
Tanzania	Title	Optional	Sporadic

Zevenbergen (2002) comments on the introduction of Ghana's land title registration which is systematic to have progress slowly since 1986 and further says “in practice most first registration has taken the form of more or less sporadic registration”. Further discussions on factors contributing to the causes of land information problems in Sub-Sahara Africa from legal deficiencies are provided.

## 6 Urban Land Delivery, Registration and Customary Laws Nexus

The study further traces the pattern of formal land recordings evolution in Sub-Saharan Africa to the colonial urbanisation process which was also influenced by laws as possible source of information asymmetry. Cohen (2003) suggests that to understand urban change in Africa requires a consideration of the role of colonialism in social, economic and political history of the various countries. Kironde (2001) notes that the socially segregated land use pattern of the colonial policy and attempts to exclude the Africans from urban land or limit their access to it could not work as the customary tenure ensured a parallel system of access to land. Njoh (2004) and Cohen (2003) extend the argument further that the colonial laws of registration which were skewed initially towards transfer of land to European settlers in Sub-Sahara African countries resulted in the creation of exclusive urban areas. These areas enjoyed a high level of urban infrastructure and services while the indigenous areas were marginally serviced. These developments, the study argues are naturally to be rivalled by the customary tenure in providing access to land for the natives outside the European zoned settlements.

A review of literature indicates the process of parallel land delivery through the customary system gained momentum after independence when many Sub-Saharan African cities began to grow rapidly due to high population growth and high spatial mobility. The high social mobility was influenced by the better access to health and educational facilities, urban bias in terms of trade between primary products and manufactured goods and the availability of newly established public sector jobs (de Soto, 2000; Cohen, 2003). The high social mobility triggered demand for land for urban development. Most of the land delivery was therefore through the informal land delivery mechanism as the registration process faced competition from the informal system and did not gain legitimacy of the indigenes (Kironde, 2000; Sivam, 2002; Deininger and Feder, 2009). Fourie (1998) indicates that informal land delivery destroys the currency of land records to the extent that the records will no longer mirror what is on the ground. According to Fourie (1998) this partly explains why land records in the registries of most countries are not current, contain insufficient information and are fraught with uncertainties.

According to UNCHS (1996) cited in Fourie (1998, p.55) a total of 20-80% of all land delivery in the developing world is carried outside the formal sector and the extent of the informal land delivery varies from country to country. de Vries (2004) posits that in Sub-Saharan Africa less than 1% of the total land area is administered under any kind of formal land registration system. Consistent with earlier estimates, Toulmin (2008) reveals that currently the information being produced and certified by land registries for land markets in West Africa region of Sub-Saharan Africa is from only about 2-3% of land ownership registered. In Burundi it is estimated that less than 1% of land is registered (Toulmin, 2008) and in Kenya, 6% of land available for registration had been registered as at 1999 (Miceli and Kieyah, 2003). The coverage of registration system in Madagascar according to Bruce and Knox (2009) is about one-fifth (6.67%) of the country, while in Ghana the national coverage is about 8% (Hammond, 2006; World Bank, 2005). In Cameroon it is estimated that out of the 1,600,000 parcels nationwide only 100,000 representing 6% are registered and less than 20% of the urban plots demarcated have been titled (McAuslan, 2003).

Critical examination of literature indicates informal land delivery system is often the consequence of legal deficiencies, high transaction costs and bureaucratic bottlenecks. Fourie (1998) argues assertively that in order for the informal land sector to become an asset, the land registration and land information systems of a country must be transformed. The study argues that laws of the respective countries must facilitate the transformation. Sanders (1987) suggests laws must depart fundamentally from the colonial and post-independence laws which fundamentally failed to transform let alone eradicate indigenous customary laws. Concerning which laws must be transformed McAuslan (1989) argue there are both good and bad laws with the latter serving as an obstacle to efficiency.

Determining which law is good or bad, the study argues that the basis must be laws which are dynamic as society changes. Seidman (1975) observes that society is in constant flux but little a government changes its laws. Thus society changes while laws remain static. Sanders (1987) opines both colonial and post independence laws are ineffective and not in

consonance with what Africans consider to be their laws. Hendrix (1996) argues that the imported laws and registration systems have failed mainly because;

The system is incapable of addressing fractures of estates;

Inadequate in addressing all forms of property ownership which should legally be eligible for registration.

Lavigne-Delville (2000) concur that legislation, legal principles and conception of law are still profoundly alien to the customary principles and land holding practices even though according to Toulmin and Quan (2000) efforts are being made to learn from the mistakes of the past. De Soto (2000) however, challenges the status quo that creating a system that integrates both formal and informal systems is not about drafting laws and regulations that look only good on paper. The challenge is rather about designing legal norms that are rooted in the people's beliefs, are legitimate and more likely to be obeyed and enforced. Stuart (1981) argues that the underperformance in some markets can be restored through legal intervention. The study argues the deficient information regime in Sub-Saharan African urban real estate markets has legal roots and it requires legal intervention based on local practices to address the problem and bridge the information gaps.

## 7 Conclusion and Remarks

The study concludes that the primary source of the huge information gap in Sub-Saharan urban real estate markets is the insufficient information at the land registries due to the predominance of the informal sector in land delivery process. Thus legal origins of land information systems and deficient land registration laws are identified as the primary causes of information gap in Sub-Saharan urban real estate markets. The study also notes that laws which are based on local practices provide incentives for registration rather than the type of land registration system.

The study therefore suggests that the information problem can be fundamentally addressed through legal reforms that reflect the cultural practices and the aspirations of the respective countries. This approach the study finds will ensure spontaneous legitimacy of the registration systems and also serve as an incentive in attracting transactions in the informal sector to the formal sector. Best practice from the study indicates that mapping the entire country should be the first step towards tackling the deficient information problem. Also, the Sporadic Approach to registration must gradually be phased out as piecemeal gathering of data does not provide comprehensive information in the land registry. The systematic approach to registration is suggested as a long term solution. It is envisaged a cost-benefit analysis of the current deficient information regime compared to an improved information system that produces quality information taking into account local practices and circumstances would inform government policy direction in bridging the information gap.

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