



# **Urban infrastructure in Sub-Saharan Africa – harnessing land values, housing and transport**

## **Literature review on land-based finance for urban infrastructure**

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## Table of Contents

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Executive summary.....	i
<b>1 Introduction .....</b>	<b>1</b>
<b>2 Focus of literature review.....</b>	<b>2</b>
2.1 The nature of land-based finance .....	2
2.2 Importance of land-based finance for Sub-Saharan Africa .....	2
2.3 Research questions .....	3
2.4 Context - urban vs cities.....	3
2.5 Research methodology .....	4
2.6 Quality and quantity of literature .....	5
<b>3 Background: property markets and urban infrastructure in Sub-Saharan Africa</b>	<b>5</b>
3.1 Sub-Saharan Africa context .....	5
3.2 Urbanisation driving demand for property.....	7
3.3 Shifting real estate market .....	8
3.4 Property market institutions .....	8
3.5 Urban infrastructure in Sub-Saharan Africa .....	9
3.6 Institutions providing infrastructure.....	12
3.7 Status with infrastructure finance in Sub-Saharan Africa .....	14
<b>4 Land-based finance instruments .....</b>	<b>15</b>
4.1 Definition of land-based financing .....	15
4.2 Structure relating to land-based financing instruments .....	16
4.3 Description of individual instruments .....	17
<b>5 International experience with land-based finance.....</b>	<b>22</b>
<b>6 Policy Environment .....</b>	<b>25</b>
6.1 Policy on the property market in Sub-Saharan Africa.....	25
6.2 Policy on infrastructure finance .....	29
<b>7 Lessons for Sub-Saharan Africa on land-based finance for financing urban infrastructure .....</b>	<b>31</b>
7.1 Key success factors.....	31
7.2 Limitations .....	32

<b>8</b>	<b>Application of land based finance mechanisms in Sub-Saharan Africa.....</b>	<b>32</b>
8.1	Overview of property market functionality.....	32
8.2	The capability of local government in establishing the platform for property development and infrastructure provision.....	33
8.3	Property related institutions and legal framework.....	34
8.4	Planning .....	35
8.5	Control over land .....	35
8.6	The Development Market (property developers) .....	35
8.7	The finance market from a property development perspective .....	36
8.8	Infrastructure institutions - how are they doing? .....	37
8.9	Current use of land-based finance instruments to finance infrastructure .....	38
<b>9</b>	<b>Conclusion .....</b>	<b>39</b>
	<b>References .....</b>	<b>41</b>
	<b>Appendix A: The components of infrastructure .....</b>	<b>49</b>
	<b>Appendix B: Glossary of terms .....</b>	<b>51</b>
	<b>Appendix C: Property tax in Sub Saharan Africa .....</b>	<b>53</b>

## Table of Figures

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Figure 1: Trend with respect to global population .....	7
Figure 2: Africa urbanisation trends.....	7
Figure 3: Africa Infrastructure Development Index (2010).....	10
Figure 4: Africa Infrastructure Development Index trend by sub-region. ....	12

## Table of Tables

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Table 1: Distribution of Sub-Saharan Urban population.....	4
Table 2: Table showing structure for land-based financing instruments.....	16
Table 3: Present policy perspectives on land markets.....	25

## Executive summary

In the coming decades, Sub-Saharan Africa is projected to experience ongoing and increasing population growth, economic growth and urbanisation, with consequent pressures on demand for land, housing, infrastructure and services. In this context the demand for infrastructure will grow rapidly with the region already experiencing a large gap between finance needed to provide the necessary infrastructure and what is available. Hence, new methods for financing infrastructure are needed with the option of using land-based finance being important as it has been used successfully in other parts of the world and, to a limited extent, in Sub-Saharan Africa.

### *Sub-Saharan Africa context*

The infrastructure deficits in Sub-Saharan African cities is well understood, with over 200 million people, 62% of Sub-Saharan Africa’s urban population, living in slums with the rate of urbanisation resulting in continuing growth of poorly serviced areas. That said, Sub-Saharan African countries are making progress with infrastructure provision but with progress not being sufficient to deal sufficiently with the backlogs in access to basic services.

In looking at land-based finance instruments as a way of raising capital for infrastructure in order to improve access to services, a functioning property market is a key to success. However, the reality is that in much of Sub-Saharan Africa, investment is being hindered by a poor and sometimes uncertain institutional environment, insufficient infrastructure, lack of business certainty and associated difficulties of doing business. There remains the perception that property markets are too high in risk to justify the rewards, characterised by insecure land ownership arrangements, undeveloped financial markets, insufficient data and transparency. With regard to access to finance there is a positive trend but off a low base and access to finance for property development in most Sub-Saharan Africa countries remains difficult. Nevertheless, the situation is improving and private developers are eyeing the opportunities that will come from the rapid growth of the economies of Sub-Saharan African cities.

### *Land-based finance instruments*

This study considers the following land-based finance instruments:

<b>Land-based finance instrument</b>	<b>Description</b>
<b>In-kind contribution</b>	'In kind' contributions are a form of exaction where developer constructs infrastructure external to the property development in situations where the City is unable or chooses not to provide this infrastructure itself.
<b>Negotiations and voluntary contributions</b>	A bilateral negotiation, before the investment occurs, is used to determine a rate that property owners in the area of influence should pay for the improvement.
<b>Sale of development rights</b>	The sale of the right to convert rural land (agricultural or un-zoned) to urban use; and the right to build at greater densities than normally would be allowed by zoning rules or height restrictions.
<b>Public land leasing</b>	If the relevant local authority owns the land, it would lease the land out for a period of time, thus generating revenue which should ideally fund urban infrastructure
<b>Land acquisition and resale</b>	The purchase of land around a development, and subsequent resale of that land by the public sector or relevant authority is a

<b>Land-based finance instrument</b>	<b>Description</b>
	method to capture some of the gains that an infrastructure investment may create.
<b>Land Sales</b>	This instrument relates to the sale of publicly – preferably city - owned land and using the money to fund urban infrastructure
<b>Development charges and impact fees – cost based</b>	Impact fees and development charges are a once off capital contribution designed to cover the costs of the bulk and connector infrastructure required for a new property development or property development improvements and possibly fund social and community infrastructure. The charge is based on a formula of some kind in a way that it can be applied consistently to all property developments
<b>Development charges – tax based</b>	This is a variation on the concept of a once off development charge where the charge is not based on the cost of infrastructure provided which implies it is a tax.
<b>Property taxes and property tax surcharges</b>	A property tax is a tax levied on the value of property (sometimes only land) by the local government. A surcharge may be applied in some situations, such as if the property is in a business improvement district.
<b>Betterment levies/taxes</b>	Any tax or charge to a specific group of properties based on some measurable feature of the property which tax is levied based on the projected increase in value of the property resulting from some public infrastructural investment or change in property rights presumed to be of general benefit to property values in that area.
<b>Tax Increment Financing (TIF)</b>	Tax increment financing (TIF) is a tool that allows municipalities to finance infrastructure development by earmarking property tax revenue from increases in assessed values within a designated TIF district.

Each of these instruments has specific benefits and constraints with ‘in kind’ contributions from developers and development charges having the widest applicability due to the ease with which they can be administered. Land sales, land leasing and sale of development rights have application but depend on Cities owning land or having strong control over it. The last three instruments have limited application currently due to generally under-performing property valuation systems.

### *International experience*

There is considerable literature on international best practice with regard to land-based finance including:

- The use by Colombian cities of ‘contribución de valorización’ to fund infrastructure projects. This is essentially a betterment levy which allocates funds raised from the payments of landowners made because of the increased value that occurs to their properties because of public works in the vicinity.
- The OODC (Outoga Onerosa do Direito de Construir) used in São Paulo (Brazil) is a regulatory instrument used to administer building rights within the city. The OODC requires those who receive building rights from the government to pay a levy – which is used for public sector investment.
- Mexican municipalities are entitled to collect fees from property owners once land has been developed and improvements have been made to properties

in their districts. This was applied mostly during the 1980's and 1990's and was only partially successful due to high levels of non-payment.

- Shanghai (China) used land sales which were effectively used to raise funds for infrastructure development. This was done through prepayments made by future users of the land, as well as the sale of already developed land.
- In India, development charges have been commonly applied but with poor administration and questions over the basis for setting the charge.

### ***Policies***

Sound policies are necessary for a functioning land market and this has received considerable attention from major multilateral and regional institutions and think tanks. In relation to this review their strategic focus for Africa, their underlying principles on land, including land-based finance, and any programmes that relate to land-based finance are important. A summary of key policy points relating to land-based finance follows:

- An emphasis on the importance of infrastructure provision and the opportunities which property markets offer for the financing of infrastructure;
- The possibility of shifting the tax base from income to land markets;
- The autonomy that should be provided to local government to raise taxes from the property sector;
- The role land markets have in the reduction of poverty; and
- That land-based finance can be used to finance infrastructure and redistribute resources to poorer neighbourhoods.

### ***Lessons for Sub-Saharan Africa***

Considering both international examples and policy positions reported in the literature, key lessons can be abstracted for application in Sub-Saharan Africa. Most importantly emphasis is placed on the need for a functioning land market and the arrangements which cause this to function effectively. A sound institutional framework, clear national policy intent, strong local government, and well established private developers, with these developers being able to access finance to cover the cost of property development are necessary. In order for land-based financing to be successful local authorities also require sound land use management systems and the capacity to negotiate with developers. Clearly if these requirements are not in place the application of land-based finance instruments becomes less feasible. That said, the requirements for other forms of infrastructure finance, other than transfers from national government and donor funding, are also considerable and, in fact, international experience suggests that land-based finance options can, by comparison, be relatively easy to apply. But probably the biggest risk needs to be kept in mind: that land-based finance mechanisms may lead to a skewing of access to infrastructure, with infrastructure for poor households being neglected in favour of servicing non-residential and higher income residential property owners.

### ***Applicability of land-based finance in Sub-Saharan Africa***

Access to capital finance is a critical constraint in providing and improving infrastructure. In the past cities have had to rely heavily on transfers from national government and contributions from donors. Given the importance for Cities to become more financially autonomous innovative measures related to property development and the associated capturing of value from property need urgent attention. In order for these to be effective it has been noted that effective property markets are needed. While country specific contexts make it difficult to generalise about property markets in Sub-Saharan Africa, they are typified by a spectrum of

market arrangements (incorporating both formal and informal elements), evolving land tenure arrangements, weak financial regulatory environments, and land management systems that try to meet a complex range of, and sometimes contradictory, objectives.

Equally significant is the control which local government has over land and this is mixed in Sub-Saharan African countries with many facing difficulties in dealing with control over land, with that held under customary laws, especially in rural and peri-urban areas, being particularly problematic. A challenge for Sub-Saharan African Cities is to identify those instruments that can work in such a context.

Finally, with regard to current practice, infrastructure finance instruments which are related to property development and associated land-based finance have not been widely applied in Sub-Saharan African countries, affirming the importance of supporting the greater use of these mechanisms. However, there are good examples in Ethiopia (land leasing) and South Africa (development charges). The research undertaken as part of this project, reported elsewhere, also indicates fairly widespread application of 'in kind' contributions from developers although there are shortcomings in the way this is applied,

### **Conclusions**

The overall conclusions from this research are summarised below:

- a) Local government has a key role to play in applying land-based finance instruments and, therefore, devolution of responsibility for land use management and infrastructure finance, particularly to cities, is necessary and requires support.
- b) Given the large gap between the cost of urban infrastructure required to provide for economic and social development in the region and the availability of finance, it is important to consider all available infrastructure finance mechanisms and land-based finance is certainly one with considerable merit which should be pursued by Sub-Saharan African governments and the development agencies which support them.
- c) There is considerable literature on land-based finance case studies but a lack of conceptual clarity on how land-based finance can be applied in Sub-Saharan Africa. Therefore work is needed to develop a conceptual framework for approaching this question in the Sub-Saharan African context.
- d) Advocacy of the land-based finance concept by international development agencies will be important if application of the instruments is to gain traction in Sub-Saharan Africa. This advocacy should be aimed at national governments initially, to provide them with support in preparing policies.
- e) Property developers are key players on the land-based finance stage and yet this sector is poorly developed in Sub-Saharan Africa. Efforts to create a more stable and transparent property market, with much reduced procedural complexity and lower barriers to entry by the poor are essential.
- f) Property valuation practice, given the basis it forms for property tax and other land-based financing measures, must be promoted if Cities are to improve their financial standing.
- g) With regard to individual land-based finance instruments, the most implementable in Africa are likely to be 'in-kind' contributions, development charges (whether these be cost based or tax based) and public land sales or leasing or sale of development rights (in situations where the State or City owns the land or has control over it). In the few situations where property valuation systems are well developed, betterment taxes also have merit.

## 1 Introduction

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The African Centre for Cities (ACC) has been appointed by the United Kingdom's Department for International Development (DfID) to undertake a study on harnessing land values as a way of funding urban infrastructure in Sub-Saharan Africa (SSA), with supplementary studies on housing and public transport. This literature review deals specifically with land-based financing as a way of harnessing land values specifically as a means to finance the provision of urban infrastructure.

This literature review, Report 1.4, is supplemented by other work specifically related to land-based financing in Sub-Saharan Africa:

- Conceptual framework for land-based financing (Report 1.5).
- Overview of property development experience in 16 countries in Sub-Saharan Africa based on 28 'mini' property development case studies (Report 1.6).
- Country case study reports for Ethiopia, Kenya and Zimbabwe (Reports 1.7, 1.8 and 1.9).
- Report on the scan of land based financing potential in 31 cities, referred to as the Africa Land and Infrastructure Scan (ALICS) (Report 1.10).

These supplementary reports provide additional information with reference made to them in this document. However, this literature review does not include any direct evidence from these reports as this is contained in the reports themselves.

The findings from all of these reports are drawn into a final report on 'Land-based financing for urban infrastructure' which includes recommendations (Report 1.1).

### *Structure of this report*

**Section 2** defines the scope of this literature review and the methodology applied in doing the work.

**Section 3** sets the context associated with urban living in Sub-Saharan Africa, the trends relating to urbanisation, the nature of the property market and the current status with infrastructure provision and the overall arrangements for financing infrastructure.

**Sections 4 and 5** deal with specific land-based finance mechanisms as these are applied internationally, including with experience with these mechanisms in specific countries outside Sub-Saharan Africa.

**Section 6** covers a review of international policy on property markets and infrastructure finance. The applicability of land-based finance as a means of financing infrastructure is addressed.

Based on the literature relating to international experience and policy proposals, **Section 7** summarises 'lessons' for Sub-Saharan African countries with regard to application of land-based finance mechanisms for financing infrastructure. These lessons cover the merits of land-based finance as a finance mechanism as well as the limitations of this approach.

In **Section 8** the potential application of land-based finance in Sub-Saharan African countries is reviewed. This is covered firstly looking at the extent to which the conditions are favourable for such an approach and, secondly, by summarising experience in the few places where land-based finance is actually being applied.

Finally, **Section 9**, describes interim findings which can be deduced from the literature.



## **2 Focus of literature review**

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### **2.1 The nature of land-based finance**

Land-based finance is a public financing technique through which land and property development is used as a basis for raising finance for a local authority or some other public entity. It is associated with the increase in land and property value related to the provision of new services or property rights. It incorporates the concept of land value capture through which the relevant authority acquires a part or all of the increase in private land values that results from new public investment or increased property use rights. The principle driving land-based finance is that a private landowner benefits from the increased land value that results from the public action and that a portion of that increased value should rightly be shared by the relevant public authority. The finance available can conceptually be used for a variety of things but, in the way it is applied here, it must be used specifically for financing infrastructure. There are a range of land-based finance instruments, with their selection and application sometimes being complex: even in the most developed countries there remain ongoing debates (and disputes) as to the amounts of value that can be captured, the timing of the payment of these funds and the use of the funds by the relevant authorities.

### **2.2 Importance of land-based finance for Sub-Saharan Africa**

In the Sub-Saharan Africa context the concept of land-based finance it is even less straightforward than with developed countries on account of the weak land use planning systems, dysfunctional land markets that are characterised more by informal and extra-legal investment than land transactions that follow formal channels and relatively constrained capacity of local government. For urban land-based finance to happen there has to be a sufficiently effective land use planning system (consisting of clear rules and effective decision-making institutions) as well as a market in urban land that is relatively stable and predictable. For an urban land market to work effectively for land-based finance it has to be built on an institutional framework that includes capacity (in both the public and private sectors) to carry out land valuations, land registers that are reliable and maintained and cadastral information that is unambiguous and publically available. Further, having control over land and having the capacity to collect revenue add considerably to the options which can be applied and the extent of finance which can be raised. As indicated above, these are not typical characteristics of Sub-Saharan African cities but they are all areas that are targeted for improvement both by the region's governments as well as their international development partners. There has, therefore, been limited application of these methods, particularly as a tool to raise finance for infrastructure, as indicated by the review of the literature reported below.

However, while the application of land-based finance instruments may have its difficulties in Sub-Saharan Africa, the rapidly escalating values of urban land in many of the sub-continent's cities, coupled with the severe under-supply of urban infrastructure represent an opportunity that policy makers can explore for using urban increasing land values to finance urban infrastructure. Further, this is a well-recognised approach: internationally, the use of land to finance infrastructure is an old municipal funding technique which has been used extensively, particularly in developed countries (Paulais, 2012; Peterson, 2009). Given the current rate of urbanisation and the scale of investment needed, it is important that local government consider using these mechanisms (Paulais, 2012). To do this, however, the conditions need to be in place for value creation as part of the infrastructure provision process, such as simple ownership patterns and developmental rights that will encourage the kind of developments that will create

value. This value can then at some point be captured by the local authority for further infrastructure provision (Urban Landmark, 2012).

### 2.3 Research questions

The research questions are set out in DfID's terms of reference for this work. There are five main questions which have been addressed under the overall project. The three questions which are important for this literature review are<sup>1</sup>:

1. How are urban land markets operating in the region and, secondarily, how is urban land valued in the region's countries;
2. What is the extent of cities' use of rising land values to finance urban infrastructure in ways that make the cities more efficient and more inclusive;
3. Assuming largely negative responses to the first two questions, what are the main barriers to urban land markets functioning better and cities being able to use rising land values to finance urban infrastructure;

These first three questions encapsulate the key dimensions of the challenge to using rising land values in Sub-Saharan African countries to finance infrastructure, reflecting the multiple requirements of a functioning land market and an effective planning system. Implicit in the questions is the overarching question of whether or not there is a system for financing urban infrastructure at all. Land-based finance cannot be the only source of finance for urban infrastructure and there has to be an existing system to which land-based finance can contribute. The other two questions being tackled in a separate literature review are:

4. What is the prevalence of master or district plans and zoning regulations to determine urban land use outcomes that promote job creation and productivity; and
5. What are the barriers to developing improved planning and regulation of land use?

### 2.4 Context – urban vs cities

Implicit in much of the literature on land-based finance and infrastructure finance is the assumption that cities are governed by local government structures. This is not always the case in Sub-Saharan African countries. Where there are such structures in place they often lack the legal powers and/or the financial and human resources to carry out land-based finance. In some cases the control of cities is retained by national government. In this literature review we refer to city government under the understanding that the ideal institutional arrangement for using land values to finance urban infrastructure is that of an empowered and well resourced (technically and financially) local authority. We do however recognize that this arrangement is often missing, and that it may still be feasible to develop and use land-based finance instruments in that context.

Parnell and Pieterse (2014) point out that Africa's fifty largest cities each have populations of over a million people. Beyond this top fifty though is an 'immense diversity of settlement size and the internal capacity of urban places'; the 'vast majority of urban Africans live in cities or towns of fewer than 0.5 million people'. These smaller cities are 'not immune from crisis [in that] ... few small urban settlements, especially in Africa, have a viable local government or a tax base capable of supporting a more equitable and just pattern of investment'

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<sup>1</sup> These questions are only answered at this point in terms of what the literature can provide. They are answered in more detail in the final report incorporating findings from country case studies and the property development case studies.

**Table 1: Distribution of Sub-Saharan Urban population**

City size	<0.5 million inhabitants	Between 0.5 and 1 million inhabitants	1 – 5 million inhabitants	5 to 10 million inhabitants	>10 million inhabitants
Percentage of urban population	54%	10%	26%	2.5%	7.5%

(Source: UN Department of Economic and Social Affairs in Parnell and Pieterse (2014))

These projections clearly suggest that the provision of infrastructure to smaller towns and cities has to be a priority if the needs of the majority of urban Africans are to be met. The focus of this literature review, and indeed of this whole project, however is to look at the primary cities of Sub-Saharan Africa (noting that only a few of them qualify as very large cities). The rationale for this is that these are the cities that, firstly, are more likely to have examples of effective practice, using rising land values to finance infrastructure; secondly, they are the places where the technical capacity and economic activity exists to test and implement new policy frameworks; and thirdly, if the larger cities were to implement new practices, it is likely that secondary and smaller cities can follow suit.

## 2.5 Research methodology

The research was based on documents sourced through references currently in PDG<sup>2</sup> and ACC libraries, an internet search, direct engagement with individual organisations and communication with sector specialists on the project team. The internet search included literature on all sites responding to key words and specific websites of the following agencies:

- The World Bank
- UN-Habitat
- Cities Alliance
- UN Economic Commission for Africa
- UK Department for International Development (DfID)
- African Development Bank (AfDB)
- Lincoln Institute for Land Policy

Direct engagement with development agencies included phone calls and emails with DfID, Cities Alliance, African Development Bank, World Bank and Lincoln Institute.

A draft of the literature review was presented to both an internal peer-review panel appointed by the African Centre for Cities as well as a review panel appointed by DfID. The comments received from these reviewers have been incorporated wherever appropriate.

This search generated a list of approximately 135 references which were considered to have merit for this report.

In the process of undertaking the literature review it was recognised that there was a need for a conceptual framework for what is a complex set of financing arrangements for a wide variety of circumstances both in term of the type of local governments where land-based finance could be applied and the type of

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<sup>2</sup> A South African based public sector consulting firm, a sub-consultant to ACC for the duration of this project.

infrastructure to be provided. Therefore a proposed conceptual framework was developed for the project. As this Framework is not directly drawn from literature it has been described in a separate conceptual framework report (Report 1). This Framework informs the findings and recommendations in the final report for this project.

## **2.6 Quality and quantity of literature**

In analysing the origin and authorship of the 135 documents reviewed for this literature review, each was categorised by source type, including peer reviewed or non-peer reviewed journals, organisation's views, book chapters, and conference presentations. Further, the origin of the authors for each paper was coded into whether they would be considered 'Western/Northern', 'Southern' or jointly authored. From this analysis the following observations can be made:

The majority of documents – 60% – were research documents from Regional-Multinational-Research organisations; most of these were World Bank documents, followed by research from UN-Habitat, Urban Landmark, and the Lincoln Institute of Land Policy. A further 25% of the literature was found in peer-reviewed journals, 8% in published books, 4% in non-peer reviewed journals and 3% in conference presentations and speeches.

The majority of relevant peer review literature was found in The Journal of Real Estate Literature, Habitat International, and Environment and Urbanisation, but with a total of 26 different journals consulted for one or more articles. In the academic literature, the majority of authors can be considered to be from 'African' authors being associated with Sub-Saharan African based universities and almost all found in peer reviewed journals and book chapters. But close to half the number of academic authors can be considered 'Western' in their institutional affiliation. There were also four references jointly written by African-based and 'Western' scholars in peer-reviewed journals or in published books.

The literature was comprehensive in scope, although it was found that there was a lack of quality literature on the capital finance profiling of Sub-Saharan African cities. Documented evidence of actual examples of land-based finance occurring in Sub-Saharan Africa is also lacking with the limited reference to the role of parastals in financing urban being notable. This lack of information reflects the limited application of land-based finance measures in practise in Sub-Saharan Africa.

## **3 Background: property markets and urban infrastructure in Sub-Saharan Africa**

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### **3.1 Sub-Saharan Africa context**

African cities are diverse, as are African countries. The challenge here is to provide guidance on land and property market interventions that will lead to policies that will succeed in driving economic development, creating jobs and improving living conditions. Notwithstanding the diversity of cities in the region there is a set of factors that are shared by most of them - distinctive features of urban Africa. Parnell and Pieterse (2014: 9-10) identify these as follows (and while this list can be both shortened or lengthened depending on one's perspective, it provides a helpful starting point):

- Strong connections between urban and rural areas, through patterns of circular migration;
- A peri-urban fringe that that is 'neither urban nor rural in its character or governance' and which absorbs migrants;
- A high level of urban primacy within each country's urban system;

- A 'predominance of informal modes of urbanisation', evident both in land tenure and management as well as in the prevalence of slum conditions;
- 'Structural poverty and exclusion' even where a city has high average incomes and service standards';
- The absence of a 'strong local authority with a clear and unchallenged mandate to manage the city'; and
- The difficulty of finding city-specific data about the levels of access to basic services.

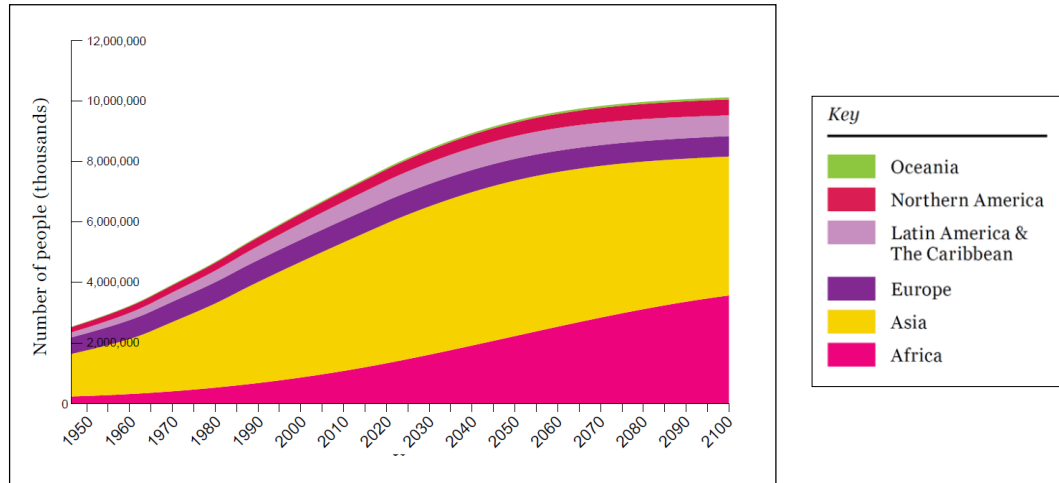
Considering urban development in abstract terms there is an obvious way –one tried and tested in many parts of the world, but not much in Sub-Saharan Africa– in which land values and infrastructure can be harnessed to drive the twin goals of economic growth and more efficient cities. The city government uses legal and policy tools at its disposal to regulate the development of urban land. It also invests in urban infrastructure that serves the various needs of the city's households and businesses. The subsequent development results in the financial value of that land growing, which in turn enables the city government to extract a portion of that value either through tax or other financial mechanisms. These sources of city revenue then enable the city government to invest in both more infrastructure and better management. This enhances the value of the land further, grows the city's revenues more strongly and so enables the cycle to continue. For the reasons cited above by Parnell and Pieterse (2014) this cycle does not operate in most African cities and, where it does, it does so only in limited parts of the city.

In cities that share the distinctive features identified above there is no one legal, policy or fiscal intervention that will make them thrive economically. The particular interplay of urban land market forces, infrastructure investment decisions and regulatory interventions of each city have to change. Each of these areas of decision-making, among others too, has to be understood and analysed in the local context before appropriate interventions can be designed for a city. This literature review aims to build the argument for developing an approach to undertaking this analysis, of understanding the context of a particular city, and using that knowledge to design interventions that have a reasonable prospect of successful implementation in that city. The critical factors that have to be taken into account are the underlying land tenure arrangements (which include informal and customary land tenure), the weak economic bases of almost all African cities and the poorly developed institutions responsible for city management and property market governance in Sub-Saharan African cities.

Through both the literature published by researchers and governments and international development agencies as well as the practical experiences of selected countries and cities, the aim of this review is to develop a set of proposals to shape urban policy-making in the region. At the heart of this set of proposals will be a consideration of the term 'land-based finance', the ability of the city authorities to 'capture' value that results from their urban management activities in order to strengthen the authorities' own capacity to manage the cities effectively. On the one hand there is a view that African cities' management should be built on an expanded and scaled up version of the typical Western model of urban management, the vestiges of which can still be found in the colonial cores of some African cities. On the other hand there is a view that urban management in the region should take as its starting point the local, often informal practices emerging in the informal settlements and slums of African cities and then scale these up to manage a city as a whole. Neither of these approaches on its own is suited to meeting the challenges of the region's cities and this project aims to develop an argument for new and practical approaches to a complex set of urban problems.

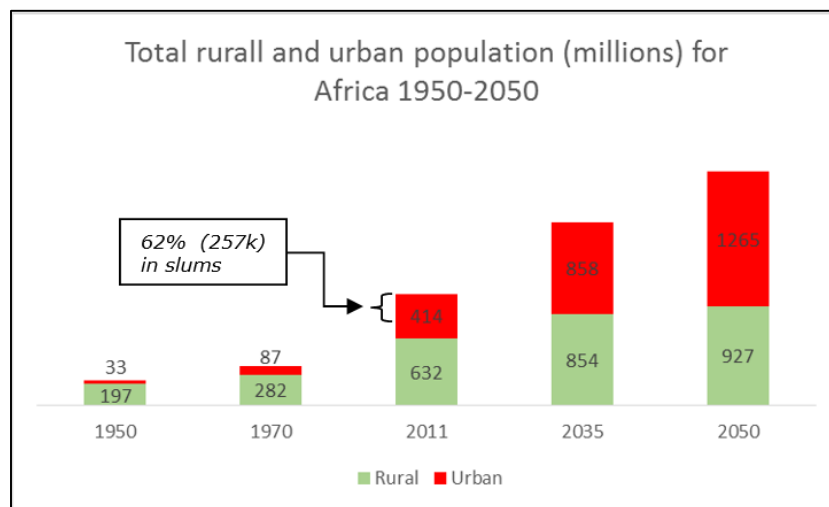
### 3.2 Urbanisation driving demand for property

Africa is expected to have a growing share of the global population as the 21<sup>st</sup> Century progresses (see Figure 1) and this combined with an increasing rate of urbanisation (see Figure 2) will drive the demand for urban property.



Source: WWF, 2012

**Figure 1: Trend with respect to global population**



Source: World Urbanisation Prospects: 2011 revision. United Nations

**Figure 2: Africa urbanisation trends**

In this situation there is a growing concern that urbanisation rates have already outstripped the capacity of Sub-Saharan African states to provide developable land, affordable housing, and access to services and basic infrastructure. The growth of urbanisation in the cities of Sub Saharan Africa ( UN-Habitat, 2014) will place even more pressure on demand for these provisions. It is in this context that calls have been made for more effective planning and appropriate regulations to manage the urbanisation process (World Bank, 2000; UN-Habitat, 2004; AMCHUD, 2005). At the same time it is being argued that if this planning is not based on a coherent understanding of the markets it intends to influence, it is likely to continue failing to achieve the desired development outcomes. An understanding of what makes African cities and their dynamics distinct is therefore critical for designing relevant solutions that ensure economic and urban growth work in tandem.

Furthermore, rapid levels of urbanisation and robust rates of economic growth have fuelled demand in both residential and commercial property markets, while simultaneously increasing investor interest in the prospects of African markets. Urbanisation is expected to increase at a rapid rate over the next decade, with UN-Habitat (2014) suggesting that Dar es Salaam in Tanzania, Nairobi in Kenya, Kinshasa in the DRC, Luanda in Angola and Addis Ababa in Ethiopia are the cities where the greatest growth is anticipated by 2025. This trend is associated with substantial growth in the middle class, which is bound to sustain demand for retail offerings and for affordable and middle-income residential options in higher density environments (McKinsey Global Institute, 2010). Consequently, the development of prime locations in gateway cities<sup>3</sup> particularly has seen a lowering of risk in countries often thought of as too risky for investment.

Yet the greatest demand for urban space will be for housing for the poor and this presents a daunting challenge for African governments tasked with planning these spaces and

### **3.3 Shifting real estate market**

African cities are experiencing rapid transitions when it comes to demographic changes, economic policies, technological progresses, and the political environment, which can pose significant challenges for real estate markets (Human Habitat, 2014).

Rural emigration and internal growth will increase the number of urban households across Africa (McKinsey Global Institute, 2010). This is adding to the demand for residential space, while bringing with it changes to household economics.

Factors affecting residential demand include household income, levels of saving, access to credit and the desire to hold land as an investment (Farvacque & McAuslan, 1991). High levels of economic growth are also expected to result in greater competition for land between the commercial and residential property sub-sectors, which could result in the displacement of residential communities through the land bidding process. Watson (2014) further suggests that the demand for high-income housing and commercial development has resulted in new urban satellites which will increase the demand for infrastructure that will need to be funded by developers and the public sector.

Construction and investment property cycles, including the rate of supply in the built environment, are closely associated to general economic (and political) cycles, where property trends largely follow the broader economy, although often with a slight lag. This is largely due to increased economic and capital market integration, as modern property cycles display a strong interdependence between property, finance, the macro economy and socio-economic impacts.

### **3.4 Property market institutions**

A property market requires a structure for property owners, developers and financiers to function, facilitated by the State and local government. In considering this role of government, the strong emphasis on decentralisation of responsibility for urban management, including land use management, and provision of urban infrastructure is well publicised and is getting a great deal of emphasis by international and African development agencies (See World Bank and UCLG, 2008, for example). This is a fundamental issue relating to the way property is developed and managed by Sub-Saharan African cities and for the way urban infrastructure is financed. Much depends on the City having the mandate to provide urban

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<sup>3</sup> Cities with airport or seaport that serve as the entry point to a country by being the primary arrival and departure point.

services and to finance them and this is highly variable across the continent. While there is an increasing prevalence of the delegation of property and infrastructure related functions to the local sphere of government this is not always associated with the requisite revenue raising capability (Kihato, 2012). Further, often the responsibility is given but in reality the funding stream does not materialise due to capacity constraints, with the funding for social infrastructure being a primary concern.

There are a wide range of **developers** active in development markets of Sub-Saharan African countries it is evident that the market is currently dominated by informal and public sector developers, neither of which is well suited to land-based finance arrangements, with few active formal private developers. It is arguable that this relatively small scale formal private sector activity is related to infrastructure constraints, bureaucratic complexity and lack of appropriate financing meaning that investment risks are considerable.

With regard to **financial institutions**, and the associated market for finance, these described as being weak, characterised by high rates of inflation, limited development finance, inconsistent and often uncertain monetary (and other) policies, un-enforced legal frameworks, unprotected property rights, as well as insufficient mortgage market infrastructure and long term funding sources from the capital market. The strength of the banking sector and the maturity of financial markets influence the real estate sector's ability to fund developments and investment opportunities, while in the housing market the banking sector functions as a determinant of the health of the residential market. Consequently, the maturity and evolution of the financial sector and its products is critical in determining the trajectory and growth of the real estate market (Adeboye, 2012).

### 3.5 Urban infrastructure in Sub-Saharan Africa

Rapid urbanisation has resulted in a situation where Sub-Saharan African cities are burdened by high urban infrastructure deficits and associated poor access to services. This accounts, partially at least, for the slowed economic growth throughout the region (UN-Habitat, 2014).

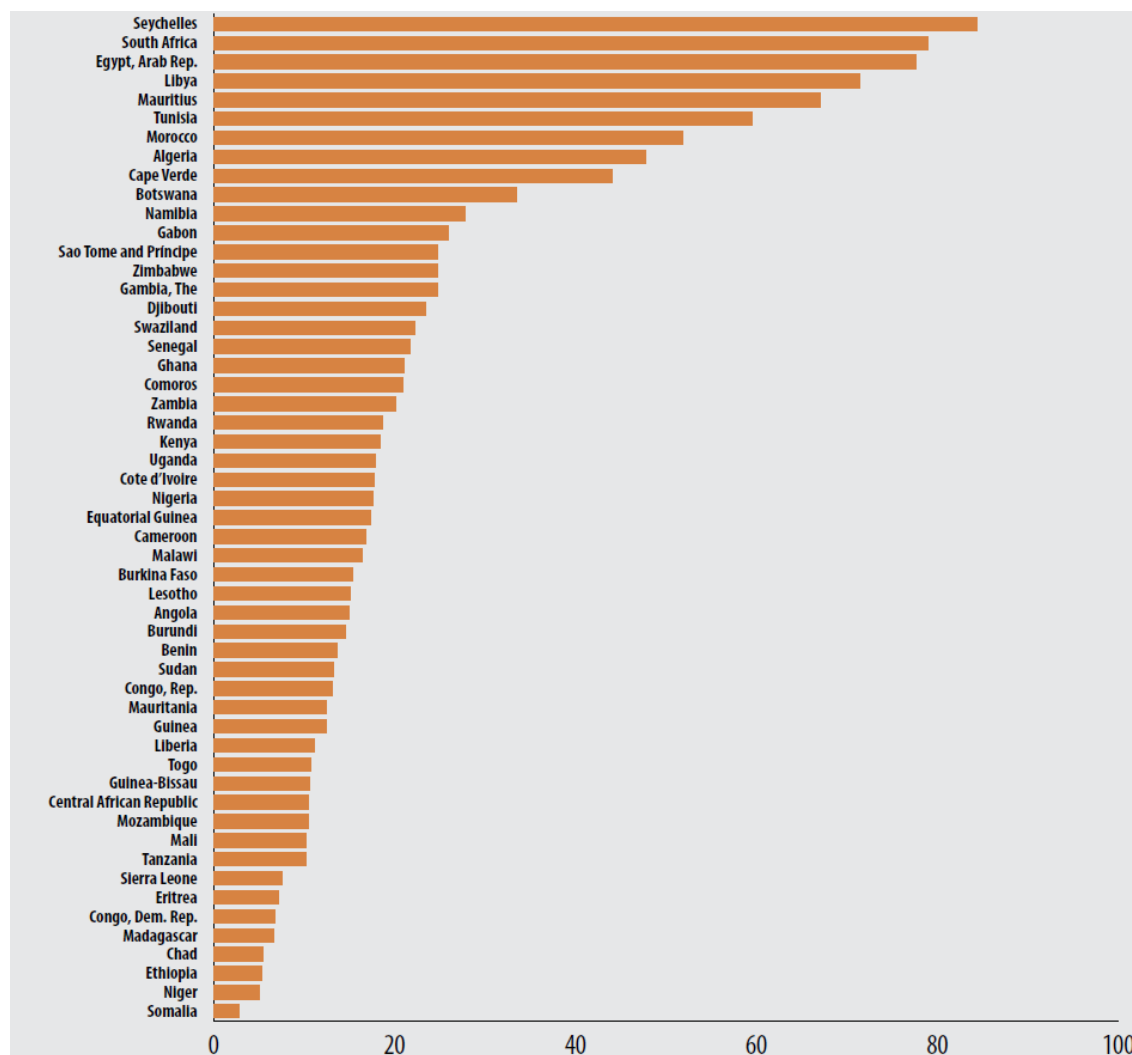
Further, over 200 million people, 61.7% of Sub-Saharan Africa's urban population live in slums<sup>4</sup>, the highest rate in the world (Racelma, 2012). There is also generally inadequate access to public transport throughout Sub-Saharan Africa, which, in conjunction with widespread congestion, adds to the cost of logistics and doing business (UN-Habitat, 2014) as well as a lack of paved roads.

The African Development Bank (AfDB, 2013) has created an index which investigates the state of transport, electricity, ICT, water and sanitation in Africa, allocates scores to these categories and the country as a whole, and ranks the country. While this rating applies to all infrastructures with quite a strong emphasis on national infrastructure systems, it remains useful as an indication of the variability of infrastructure provision across Sub-Saharan Africa. The results for the most recent year's data (2010), are shown below. It is evident from the graph that Sub-Saharan Africa (apart from South Africa and island states) have poor access to infrastructure.

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<sup>4</sup> Racelma (2012) defines a slum as an area with inadequate access to basic services, such as potable water, adequate sanitation and electricity





Source: AfDB, 2013.

**Figure 3: Africa Infrastructure Development Index (2010)**

### Roads and public transport

In a study of 14 African cities, Kumar and Barrett (2008) found the situation with roads and public transport to be poor in all cases:

*'Road congestion is a problem in all cities. Its causes are poor management of traffic flow, inadequate parking, and weak enforcement. Having evolved over the years without adequate planning, the cities are unable to cope with growing motorisation. Less than half of all roads are paved, reducing accessibility for buses in densely populated neighbourhoods and outlying areas. Paved roads are just one-third of the average for cities in the developing world ... and [the] road network in all cities is substandard. Capacity is limited, service lanes are absent, pavement is deteriorating, and street lighting is minimal. Bad conditions reduce vehicle speeds, sapping the productivity of the bus fleet and increasing the cost of vehicle maintenance. They also promote the use of minibuses, taxis, and motorcycles, which have greater manoeuvrability than large buses but are not as efficient as a means of urban mass transit'.*

### Water supply and sanitation

Availability of water resources in Sub-Saharan Africa is highly variable but even where there are adequate resources, water resource management is lacking; of the

980 large dams in Sub-Saharan Africa, 589 are in South Africa alone (Tatlock, 2006).

Data gathered in urban areas between the years 2005 and 2009 indicate that 41% of the population have access to piped water, 28% to public taps, 22% to wells and boreholes, 5% to vendors and 3% use surface water for consumption. Data was also gathered for sanitation facilities, and it was found that 28% of the urban population uses flush toilets and septic tanks, 34% use improved traditional latrines, 30% use traditional latrines<sup>5</sup> and 9% use no facilities and use open pits or the natural environment (Jacobsen, Webster & Vairavamorthy, 2012).

### ***Electricity***

According to the International Energy Agency (2014), Sub-Saharan Africa is rich in energy resources, but poor in energy supply and infrastructure, which in turn inhibits social and economic development.

In 2012, it was determined that 621 million people in Sub-Saharan Africa did not have access to electricity. 59 % of urban inhabitants had access to electricity, while this number was significantly lower (almost 16%) in rural areas (IEA, 2014). 30 Sub-Saharan African countries experience regular power shortages (UN-Habitat, 2014).

### ***Summary: poor infrastructure and service delivery, but improving***

The infrastructure profiles described above indicate the poor state of urban infrastructure in Sub-Saharan African cities currently. There have however been significant improvements in Africa's infrastructure over the past few years, with five African countries already achieving - and 12 others on track to meet - their MDG targets for universal water access. However, there are still areas which have no infrastructure in place, or areas where the infrastructure is in a very poor condition. This poorly maintained and poorly functioning infrastructure can cut economic productivity by up to 40% in some areas, as well as cutting economic growth by up to 2% per annum (Foster & Briceño-Garmendia, 2010).

The AfDB (2013) study has a trend analysis which indicates progressive improvement and the relative position of the different sub-regions in Africa as a whole relation to one another over time (see Figure 4).

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<sup>5</sup> A traditional latrine is considered unsatisfactory. It consists of an unimproved pit latrine, bucket or hanging latrine. An improved traditional latrine is generally a pit latrine which has a seat or squatting slab over it.



Source: AfDB, 2013.

**Figure 4: Africa Infrastructure Development Index trend by sub-region.**

There has been a significant improvement over the past 10 years in the provision of services in Sub-Saharan Africa. Water supply increased from 135 million people to almost 200 million people from 1999 to 2009, the provision of adequate sanitation increased from 107 million people to 180 million people between 1999 and 2009 (Jacobsen, Webster & Vairavamorthy, 2012). Electricity access increased from 24% in 2002 to 28.5% in 2008 for all Sub-Saharan Africans, with urban access increasing from 51.5% to 57.5% (IEA, 2014). In these cases, the absolute number of people who have access to adequate services is more important than the relative proportion, as the increased rate of urbanisation often skews the relative proportions.

### 3.6 Institutions providing infrastructure

A sound structure of institutions and capable individual institutions within this structure are prerequisites for successful infrastructure provision. Government, local government specifically, has a central role to play as the authority responsible for infrastructure, but most Sub-Saharan African countries rely on partnerships to undertake the actual provision of services, particularly electricity, water supply and sewerage sanitation.

#### *Infrastructure provision parastatals*

The term 'parastatal' is used here for a national, regional or local government owned company which has been given the authority to provide a service or infrastructure in a certain area. They are sometimes referred to under the general term state owned entities or 'utilities'<sup>6</sup>.

Parastatals usually operate semi-autonomously, yet are answerable to the relevant authority which instituted them. Their performance has been the subject of considerable criticism and, as a result, there have been reforms in African

<sup>6</sup> The key feature from the point of view of this review is that they may be owned by local, regional or national authorities.

parastatals, with better governance measures, auditing and performance contracts increasing the quality of work which they perform.

In the case of **water and sanitation** infrastructure, Foster (2008) states that the water and sanitation sector's institutional road map is very unclear, and are a mix of public, private and the mix between the two, and hence it is difficult to point to a factor which drives good performance and should be the recommended service provision model. While it is becoming generally accepted that provision of potable water and sanitation services are the responsibility of local government, approximately one third of countries (primarily francophone) still utilise a single national water utility, and the remaining two thirds (primarily Anglophone) have decentralised the water sector responsibilities to the local authorities (Banerjee et al, 2008). Their ownership and control structure varies considerably (R Eberhard, 2014).

In the case of **electricity**, the majority of electricity infrastructure in Sub-Saharan Africa is provided by parastatals in the form of power utilities. Most Sub-Saharan African countries have national state-owned utilities with a dominant market position, with very little or no private sector participation (Foster, 2008). Incumbent national utilities—mostly state owned and vertically integrated—are responsible for urban electrification and often for rural electrification as well. While there are examples of local utilities undertaking electricity distribution, a recent review of electrification agencies in Africa has concluded that centralised approaches have been more effective than decentralised approaches involving several utilities or private companies (A Eberhard et al, 2008). Ghana and Côte d'Ivoire are examples of countries that have made good progress with a centralised approach. In contrast, countries such as Burkina Faso and Uganda have made slow progress, and electrification rates remain low, particularly in rural areas (ibid).

With regard to investment on the power sector, typically more than 90 percent of infrastructure spending is channelled through national state-owned power utilities. With operating costs absorbing 75 percent of total spending, capital investment in the sector is very low—invariably less than 0.5 percent of GDP (Briceño-Garmendia et al, 2008).

### **Public-Private Partnerships**

The purpose of a Public-Private Partnership (PPP) as a means of providing urban services is generally two pronged, with the public sector looking to leverage off both the skills and capacity of the private sector, as well as the additional funding that the private sector has access to (UN-Habitat, 2013). The ability of the different institutional arrangements to raise funding for infrastructure will vary according to the infrastructure which needs to be financed, and the nature of the contract, with concession and BOT type contracts being of most relevance to this review as they are associated with the provision of capital to cover the cost of providing infrastructure.

There has been a mix of good and bad results from the involvement of the private sector in the provision of infrastructure, resulting in some increased performance of infrastructure, but also frequent renegotiations and premature cancellation of contracts (Calderón & Servén, 2008). Further, while private sector involvement in power and water has increased operational performance, private partners have provided almost no new finance (Foster & Briceño-Garmendia, 2010). In the case of the water sector specifically, urban water supply has been seen in the past as a good business opportunity and here have been extensive forays by private sector firms into the water sector during the 1990's and 2000's, although UNDP (2007) has deemed these 'widespread failures'.

Small scale providers have filled in the gap left by the public utilities to some extent, and are servicing a substantial portion of the population. For example, in 2004

small service providers were providing 39% of the population of Dar es Salaam and 50% of the population of Nairobi with water. There are many PPPs that are providing water services to urban populations in Zambia, Kenya and Côte d'Ivoire (USAID, 2008).

### **3.7 Status with infrastructure finance in Sub-Saharan Africa**

Access to finance is clearly a key constraint in providing infrastructure and hence in improving the lives of Africa's citizens. The provision of infrastructure requires large capital outlays with estimates of additional annual spending required to address the required new infrastructure in Sub-Saharan Africa of between US\$ 31bn and US\$ 35bn (Foster 2010; Briceño-Garmendia, 2008), of which between US\$ 17bn and US\$ 22bn is required to fund urban infrastructure annually (KfW Entwicklungsbank, 2008).

The role of local government in funding a portion of this infrastructure is important from the point of view of this review. Yet all too often the institutional and financial capacities of local authorities, cities included, are inadequate to meet the primary infrastructural challenges of their jurisdiction. Partly this relates to slow decentralisation of fiscal responsibilities, as mentioned above. This may leave local authorities restricted to playing limited roles in urban development planning and implementation. This, in turn, leads to a lack of housing and service provision with the related inability to collect property rates, typically the local authority's primary source of revenue (UN-Habitat, 2014).

#### ***Shared responsibility for infrastructure finance***

Generally in Africa, the relevant authority provides all of the capital outlays which would finance bulk and connector infrastructure, with the developer of the land responsible for financing internal infrastructure. However, ideally, the developer should also contribute to the bulk and connector infrastructure in some way (Kihato, 2012).

The financing of bulk and connector infrastructure is a key concern for local governments, particularly those in Sub-Saharan Africa which are experiencing high growth and thus high changes in demand for services which requires high level of expenditure. Most African cities do not have the ability to raise the required capital to fund infrastructure projects that are needed to address the lack of infrastructure in these growing cities (Kihato, 2012). They are, therefore, reliant on capital transfers from their national governments and capital finance provided by parastatals and the private sector, both very limited. The large gap between capital requirements and capital finance availability highlights the importance of using new methods of capital finance with land-based finance instruments dealt with in this review requiring specific attention.

#### ***Role of parastatals***

The key role of parastatals in providing urban infrastructure has been mentioned above and much of the public investment that occurs in Sub-Saharan African cities is undertaken by parastatals. But, while they have the mandate to provide the services within cities they typically do not have the fiscal resources to do so. They devote less than 20 percent of their spending to capital, relying heavily on national government for finance: the funding of infrastructure which the parastatals provide in Sub-Saharan Africa is usually 80%-90% funded by the national government (Briceño-Garmendia et al, 2008). The majority of parastatals in Africa have a high Debt:Equity ratio, and Pearson (2013) warns that these may not be the most appropriate institutional arrangement to be used to fund infrastructure under these conditions.

### **State of city finances**

The emphasis of this review is on the provision of finance to cover urban infrastructure investments. However the financial state of the city is also an important indicator of its ability to manage financial transactions, properly account for money and ensure that funds are properly spent on appropriate infrastructure. Given the importance of this aspect there is limited information on city finances, although financial information has been collected for the case study cities of Addis Ababa, Harare and Nairobi.

On the whole, there is a lack of adequate funding, which, among other reasons, includes an ineffective transfer system and lack of funding from national government, insufficient municipal own revenue and limited access to loans and debt financing (KfW Entwicklungsbank, 2008).

Given the dearth of information, the study on the state of city finances in Southern Africa is important (SA Cities Network, 2011: 45). It concludes:

'However, a number of themes appear to be characteristic of many or most of the city governments discussed, with some exceptions. The following can be said to characterise many of the city governments in Southern Africa that formed part of this study:

- Under-empowered with respect to built environment services
- Under-resourced, yet inadequate revenue effort (underperforming revenue administration)
- Under-capacitated with respect to key skills, yet no significant programme to address this
- Over-controlled with respect to staff appointments, tariff increases, etc.'

## **4 Land-based finance instruments**

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### **4.1 Definition of land-based financing**

For the purposes of this research, the term 'land-based finance' includes land value capture: both of the terms are utilised internationally.

In the case of 'land value capture' the definition is best put by Suzuki et al (2015).

*Land value capture (LVC) is defined as a public financing method by which governments (a) trigger an increase in land values via regulatory decisions (e.g., change in land use or FAR) and/or infrastructure investments (e.g., transit); (b) institute a process to share this land value increment by capturing part or all of the change; and (c) use LVC proceeds to finance infrastructure investments (e.g., investments in transit and TOD), any other improvements required to offset impacts related to the changes (e.g., densification), and/or implement public policies to promote equity (e.g., provision of affordable housing to alleviate shortages and offset potential gentrification).*

Suzuki goes on to describe the two different type of LVC, development based and tax or fee based LVC.

*There are two main categories of LVC: development-based LVC and tax- or fee-based LVC. Development-based LVC can be facilitated through direct transaction of properties whose values have been increased by public regulatory decisions or infrastructure investment. Tax- or fee-based LVC is facilitated through indirect methods, such as extracting surplus from property owners, through various tax*

*or fee instruments (e.g., property taxes, betterment charges, special assessments, etc.).*

The term 'land-based financing' (LBF) is more inclusive than land value capture in at least four ways:

1. LBF includes arrangements which result in infrastructure being provided or financed by a developer;
2. LBF includes special assessments which reflect the cost of improvements to serve a property, whether or not these result in actual increases in the property's value;
3. LBF usually includes property taxes (expressly excluded from this report), which are the foundation of land value capture instruments such as tax increment financing; and
4. LBF would include transfer taxes imposed when land is bought and sold.

Being more inclusive, the term 'land-based financing' is used in this report. But the concepts from Suzuki et al regarding triggers, the required process, the link to infrastructure finance and the separation between 'development-based' and 'tax-and fee-based' measures is retained.

## 4.2 Structure relating to land-based financing instruments

The instruments which have been commonly applied internationally can be organised into the structure shown in the table below.

**Table 2: Table showing structure for land-based financing instruments**

Development based instruments	Developer exactions (once off events)	'In kind' contributions by developers
		Negotiated payments by developers
		Development charges and impact fees based on cost of infrastructure
	Land access related charges (once off payments but may have provision for scheduling over time)	Land sales
Land lease		
Sale of development rights		
	Land re-adjustment	
Tax-based instruments		Development charges not based on cost of infrastructure (once off payment)
		Property tax (recurrent payment)
		Betterment tax (recurrent or once off payment)
		Tax increment financing (TIFs) (recurrent payment)

Note that the list of instruments covered here specifically excludes charges and fees which are intended to cover administration costs: cost of processing applications for example. Note too that instruments intended to raise revenue for a public body which revenue is not intended to be used for infrastructure are also excluded. In this regard the inclusion of property tax may be seen as an exception as property taxes are typically targeted at operating activity. However, it is also possible for them to be used as a source of funding for infrastructure.

### ***Land-based finance related to infrastructure***

In considering individual instruments and their application for funding infrastructure it is necessary to state what is meant by 'infrastructure'. With reference to definitions in Appendix A, infrastructure is divided into 'engineered' and 'social and community' infrastructure. Engineered infrastructure is further divided into bulk, connector and internal infrastructure.

A key principle applied in this research is that internal infrastructure is considered to be part of the standard property development package, provided and funded as part of house, commercial or industrial building. Therefore land-based financing is taken to cover all or part of the other infrastructure elements: connector, bulk, social and community infrastructure.

### ***Developer exactions***

An exaction is a condition which is placed on the development and the developer. It may not be a monetary exchange at all, (Casner et al, 2004). In some literature (Peterson, 2009, for example) exactions relate to the provision of internal infrastructure. However, as explained above, for the purpose of this research, the financing of internal infrastructure is excluded as a land-based financing instrument.

### ***Differentiating between a tax and a fee or charge***

In understanding land-based financing instruments it is important to differentiate between what is a tax, on the one hand, and a fee or charge (with these terms considered to be synonymous for the purposes of this research). The proposals made by Phatak (2013) are useful in this regard. With regard to taxes he differentiates between general and benefit taxes:

**'General taxes:** can be defined as "mandatory levies that are not related to any specific benefit or government service". The most common example of such a tax in urban public finance is the property tax. These are suitable for financing general public goods or services where individual beneficiaries are difficult to identify and individual costs and benefits difficult to measure.

**Benefit taxes:** are those that are "compulsory levies applied to individuals (or institutions such as corporations) who are assumed to be benefited from certain government services. These taxes are not directly related to the receipt of specific services but the revenues are required to be spent by law for particular purpose or service".

In the case of fees or charges Phatak states:

**'Fees/User Fees:** are "payments levied to recover the cost of a particular government service that is received by a specific person but mandated for public purposes".

While these definitions are useful the examples Phatak quotes are not particularly useful. Taking the approach in South African relating to development charges as an example, a charge relates to the provision of infrastructure requires that there is an attempt to link the charge to the actual cost of providing infrastructure for specific situations. There are also uses of the term 'development charge' in the literature, as discussed below, which are tax related in that the amount charged is not cost related although the revenue is intended for infrastructure, therefore representing a benefit tax. A betterment tax is a good example of a benefit tax.

## **4.3 Description of individual instruments**

A description of typical land-based finance instruments is given below, drawing largely on the work of Peterson at the Lincoln Institute of Land Policy (2006 & 2009).



### ***'In-kind' contributions from developers***

There are a multitude of manners in which infrastructure can be either funded, or provided. Often the provision of infrastructure is the subject of negotiations with property developers with a view to them contributing to the provision of infrastructure other than internal infrastructure. A possible result which may arise from the negotiation is that the developer agrees to provide this infrastructure themselves in the sense that they actually construct it. This is referred to as 'in-kind' contribution in the form of bulk, connector or social and community infrastructure. This infrastructure is either installed due to a negotiated process with the local authority, or provided by default by the developer because the local authority proves unable to provide the infrastructure.

There may be particular issues to be addressed in such cases as the infrastructure provided 'in kind' may serve other neighbouring property developments in which case the sharing of costs needs to be addressed.

### ***Negotiations and voluntary financial contributions***

Another way to raise finance before public investment also involves negotiations with the property developer to require them to pay for infrastructure external infrastructure. This requires a calculation to be made for the specific development to set the required payment, based on the costs to be incurred by the public body concerned. In effect the property owners in the area of influence pay for the improvement. It is also possible for the developer to make a voluntary contribution towards external infrastructure.

### ***Development charges (including impact fees) related to cost of infrastructure required***

There is considerable overlap in the literature relating to the use of the terms 'impact fee', 'development fee' and 'development charge'. For example, Peterson (2009) refers to impact fees synonymously with development fees. He defines an impact fee as one 'designed to charge developers the market cost of the infrastructure expansion their development projects will necessitate' and 'designed to cover the external infrastructure costs caused by new development'. Suzuki et al (2015) refers to 'development impact fee' defining this as: 'incremental charges for new entrants to land markets that aim to cover the costs needed to expand infrastructure and services to accommodate new growth so as to maintain some predefined level of services'. In Canada they are 'fees to help pay for the cost of infrastructure required to provide municipal services to new development, such as roads, transit, water and sewer infrastructure, community centres and fire and police facilities'.

In both the above three cases the intention of the charge is that this be related to cost of providing infrastructure. However, this is not always the case. For example, a development charge in Singapore is a 'tax that is levied when planning permission is granted to carry out development projects that increase the value of the land'. This is not specifically related to the cost of infrastructure and is a tax.

Based on an assessment of the rather confusing use of terms on the literature the following approach is taken in this report relating to development charges: (a) the term is considered to be synonymous with the term 'impact fee', and (b) development charges should be related to cost of providing infrastructure. The following comment aligns with this approach and a separate instrument is identified for a tax based instrument.

Development charges require the developer to pay a capital amount to the City based on a transparent method of calculation by formula. The City then uses this money to provide all or part of the bulk and connector infrastructure. The infrastructure typically includes roads, water supply, wastewater removal, parks,

electricity and other facilities<sup>7</sup> (Peterson, 2009). They are a useful tool to shift the timing of financing through the growth of cities, as they allow up front funding when compared to other taxes which are levied to the land owner once the land has been developed. Developed countries originally attempted to recover costs through property rates. These however, are generally used first to cover non-revenue generating services and infrastructure (Nelson & Moody, 2003). Transparency and clarity are important components of development charges; the new infrastructure should be directly attributable to the new development in order for the developer to see the rationale in paying the development charges (Peterson, 2009; Nelson & Moody, 2003). It has been found through empirical studies in developed countries that development charges do not have negative impacts on development in the cities where they are applied and can, in fact, facilitate development in areas that were previously un-developable, which in turn has positive stimulus on the broader economy of the region (Nelson & Moody, 2003).

Development charges have been used extensively in the developed world, particularly in the USA to fund urban infrastructure (Peterson, 2009) and they will be used in South Africa where a new national policy on this instrument is being concluded by the SA National Treasury.

### ***Development charge as a tax***

As noted above the term 'development charge' has been applied as a tax. This occurs where, for example, the calculation if the charge is based on property value, property area of property frontage, where the relationship to infrastructure cost for these properties is minimal. Examples of Singapore and India are relevant here (Phatek, 2013). It is proposed for this research that the term 'development tax' or 'infrastructure tax' should be applied in this case (see Phatek's proposal for an Urban Infrastructure Benefit Tax in India for example).

### ***Sale of development rights***

Development rights fall into two categories: the right to convert rural land (agricultural or unzoned) to urban use; and the right to build at greater densities than normally would be allowed by zoning rules or height restrictions. The sale of a development right would mean that the developer pays the city authority for the right to develop the land. It is often a nominal fee that can be negotiated, generally a once off payment, and is not necessarily related to any infrastructure provision to that particular site (Peterson, 2009; UCLG, 2012).

Development rights are – or should be - controlled by City government. However, the willingness of cities to use this instrument is dependent on the return they get: cities are generally unwilling to use this financing instrument to defray investment costs that are the responsibility of provincial or state government, for example (Peterson, 2009).

### ***Public land leasing***

The lease of publicly owned land has been found to be an effective tool for raising funds in cities (Paulais, 2012; Peterson, 2009). In order for a local government to lease the land it is obviously necessary for it to own the land in the first place or to be given the right to lease by national or regional government if these other spheres of government own the land. While it is evident that some Sub-Saharan African cities<sup>8</sup> do have control over public land, literature on this topic is lacking.

The leasing periods can vary from 40 to 99 years, with the most common lease terms being in the region of 40 to 70 years. In order to ensure that the land is used

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<sup>7</sup> There may be provisions for social infrastructure in the impact fees composition

<sup>8</sup> See Section 8 for examples.

correctly, there are often clauses in the contract which state the timeline for development (Peterson, 2006).

In order for land to be leased, there needs to be an inventory of land assets under the jurisdiction of the relevant authority, as well as knowledge about strategic direction that the authority is planning to take in order to be aware of whether the land is available for lease. This would require an effective land asset management system (Peterson, 2009).

### ***Land acquisition and resale***

The purchase of land around a development, and subsequent resale of that land by the public sector or relevant authority is a method to capture the full value of the gains that an infrastructure investment may create. The condemnation of land is a heavily contested topic in developing countries, as access to land is an important step in the developmental process. Cities (particularly in China) which have used this technique have become adept at the identification of under-valued land and the purchase thereof. However, this is not often applied in developing countries (Peterson, 2006).

This technique is most applicable when purchasing land on the periphery of the city from agricultural use. The creation of the infrastructure would then enable residential, commercial or industrial development of that land with the subsequent sale to private developers ensuring the full value of the new infrastructural investment is recouped. Another opportunity occurs with land surrounding a future transport hub.

There are limitations relating to this instrument. One is the timing of the cash flows. There is a large amount of cash outflow initially as the land is purchased and the infrastructure is constructed, and the inflows may only occur far down the line as the urbanisation and developmental processes take time to occur and the land is resold. The second issue arising is the property cycle: this technique requires the 'buy low and sell high' approach to land sales, which is not always possible and may be out of the control of the local authority (Peterson, 2009).

### ***Land Sales***

This instrument relates to the sale of publicly – typically City - owned land. Land often represents a very significant portion of municipal assets representing a potential for large sums of finance to be raised from this source. However, this is dependent on the extent to which the land is properly valued, a topic which is covered later in this review. As with the lease of land, effective land asset management systems will need to be in place before the sale of municipal land can be enacted. Further, the future use of the land needs to be carefully considered before a sale can take place (Peterson, 2009).

An example of this approach is where state-owned enterprises or government bodies are relocated to undeveloped land on the periphery of the city, with the sale of the vacated land to developers. In six cities examined by the World Bank's City Development Strategies study, all of these cities had relocated their City Halls and municipal offices to areas on the periphery of the city in order to sell the highly valued central land to private developers (Peterson, 2006).

There is potential in the sale of land to stipulate what the land may be used for (UCLG, 2012). For example, it may be stipulated that the land needs to have some form of low income housing on it, although it is often tempting to sell the land in such a way that it will maximise returns.

### ***Land and property taxation***

UN-Habitat (2011) defines property tax as; "a tax imposed on rights related to real property. These rights may include private ownership or may be a subset of rights related to occupancy or the right to use and benefit from real property."

Property taxes are not a land-based finance financing tool, but are often complimentary to land-based finance mechanisms as the systems which are required to undertake property and land taxation can be utilised to collect public sector value add to property.

### ***Betterment tax or levies***

Betterment levies, or betterment taxes, can either refer to land-based finance taxes in general, or a specific type of land-based finance tax. For the purposes of this document, it refers to the suite of betterment taxes, defined as “any tax or charge on an increase in value resulting from some public action, such as the issuing of development rights or the provision of infrastructure” (Urban Landmark, 2012).

Typically the levy is imposed at 30 to 60 percent of the estimated value gain (Peterson, 2009). This allows governments to recover part of the capital cost incurred in making infrastructure improvements, and therefore betterment taxes are an example of a “cost recovery” land-based finance instrument.

In the case of infrastructure investment, “betterment” describes the increase in accessibility, or reduced congestion or pollution, and the consequent increase in land values of which landowners will be beneficiaries. It is therefore a mechanism to “internalise the windfall surpluses of land value” (Medda, 2012).

Historically betterment taxes were used in Britain and Spain and carried over to several commonwealth countries and to Latin America (Peterson, 2009). Today various forms of betterment taxes are funding infrastructure in Hong Kong and Singapore, Bogota, and various cities in Brazil, Argentina, and India (Viguié & Hallegatte, 2014).

In practice there are a number of difficulties in the design and implementation of these levies with the difficulty in accurately measuring the increase in value attributable to the infrastructure project being the most obvious.

### ***Tax increment financing (TIF)***

Tax increment financing is a tool which is used in developed countries, particularly in the United States. A TIF area is designated, for any one of numerous reasons, and the incremental increase in tax collections is dedicated to financing improvements. The TIF is generally used to finance loans taken out by the City, via the City’s operating account. The loans which the City takes out should be allocated for use in the TIF area. This is an advanced tool, requiring up to date property valuations, and hence has limited applicability in Sub-Saharan African cities.

### ***Land Readjustment***

In a number of countries the instrument of land readjustment has been used effectively to achieve orderly urban expansion while simultaneously financing the infrastructure to service that expansion by using the increased land values. Leading land readjustment countries include Germany (for more than 100 years), Japan, South Korea, Spain, the Netherlands and Gujarat in India.

Land readjustment requires the voluntary contribution by landowners or occupiers of their land rights to a specified authority. That authority then re-plans, resurveys and services the land, providing for a higher density of development on the original site. At the conclusion of the project the authority returns to each contributor a unit or land parcel equivalent in pro rata land value terms to that of their initial contribution. The remaining units or sites are sold on the basis of their new, increased, land value and the surplus value received by the authority is then used to finance the costs of the redevelopment. In many countries there is inevitably a surplus that remains after covering redevelopment costs and this accrues to the authority (Suzuki et al, 2015).

Recently UN-Habitat has championed the use of land readjustment as a tool with potential to 'support sustainable urban development by allowing for planned and managed urban extension and densification'<sup>9</sup>. As it has started exploring the use of land readjustment the agency has acknowledged that it cannot work effectively, nor is it likely to have pro-poor impacts, if it is implemented in regions such as Sub-Saharan Africa in the same way that it is in developed countries. In response to this UN-Habitat has come up with the term Participatory and Inclusive Land Readjustment ('PILaR'). This form of land readjustment, which UN-Habitat is currently testing in a number of pilots, is intended, as the name suggests, to focus on participation and inclusion, both in the process and the impacts. In addition to being more participative and inclusionary, PILaR is intended to address pro-poor and gender responsive outcomes. In Sub-Saharan Africa UN-Habitat is currently supporting initiatives to develop effective models for implementing land readjustment in Ghana, Kenya, Namibia and Rwanda. The primary pilot project to test the principles and objectives of land readjustment is in Medellin, Colombia (Suzuki et al, 2015).

There is currently very little literature documenting UN-Habitat's work with land readjustment, as it is so recent. Updates on current progress with the pilot projects in Africa as well as elsewhere can be obtained from the website of UN-Habitat's Global Land Tools Network ([www.gltn.net](http://www.gltn.net)).

## 5 International experience with land-based finance

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Based on the literature the indication is that land-based finance has not been widely applied in Sub-Saharan Africa (see Section 8.9 below) although this approach to financing urban infrastructure has been widely applied elsewhere in the Global South as evidenced by selected case studies summarised in this section. However, assuming the inclusion of 'in kind' contributions as a land-based financing instrument, the findings from the research undertaken as part of this project indicate a great application of this instrument than previously thought (See Report 1.1).

Latin American cities are urbanising quickly and, as this happens, the pressure for supply of serviced land increases (Smolka, 2013). Brazil and Colombia are notable implementers of land-based finance policies within their cities (Smolka, 2013; Paulais, 2012) with experience from Mexico included below as well.

Colombian cities, in particular, are well known for the ways in which they use land-based finance to fund urban projects. Bogotá applies the 'contribución de valorización' method of land-based finance to finance 217 public (infrastructural) projects within the city (Peterson, 2009). 'Contribución de valorización' is, essentially, a betterment levy which allocates funds raised from the payments of landowners made because of the increased value that occurs to their properties because of public works in the vicinity (ibid). The levies target the acquisition of funds primarily from commercial-industrial actors within the city, charging them a heftier fee than residential property owners. The processes of 'valorización' uses a formula, not the present market prices, to work out land-value gains. However, this formula, which accounts for variables such as the size and location of the land, became problematic as land-owners were under-charged and administrative inefficiencies meant that insufficient funds were raised for infrastructure development in the city.

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<sup>9</sup> UN-Habitat (undated, circa 2013) *Participatory and Inclusive Land Readjustment*, a flyer produced by the Urban Legal Network and Global Land Tools Network. [http://www.uln.gltn.net/images/publications/PILaR\\_Flyer\\_FINAL\\_May\\_2013.pdf](http://www.uln.gltn.net/images/publications/PILaR_Flyer_FINAL_May_2013.pdf)

Bogotá has adapted its use of 'valorización' in the last two decades by transforming the method of land-based finance into an "up-front, land-based infrastructure tax" where \$1 billion was raised for public infrastructural works between 1997 and 2007 (Peterson, 2009: 63). This method of land-based finance continues to be successfully used in Bogotá as landowners are being targeted as sources of revenue to cover the costs of bridges and roads within the city. Cali, also in Colombia, gains betterment levies from individual properties by charging such levies based on a property's size, value, proximity (to public works), use and community income level (Peterson, 2009). These levies are then used to fund the city's bridge and road developments. Colombia's 'valorización' has spread as a method throughout Latin America.

The OODC (Outoga Onerosa do Direito de Construir) in São Paulo (in Brazil) is a regulatory instrument used to administer building rights within the city (Sandroni, 2011). The OODC requires those who receive building rights from the government to pay a levy – which is used for public sector investment. Typically, the OODC is used by São Paulo to extend the building potential of specific areas within the city. The granting of building rights allows developers the ability to construct and invest in buildings within the city on a large scale, on the condition that they pay the OODC compensation. The OODC is worked out according to a formula, with factors such as social interest and planning of the city taken into account. This allows the city to grant building rights in specific areas that it deems suitable for development, or to encourage (or discourage) higher or lower population density in such zones (Sandroni, 2011).

The Aguascalientes Municipality, in Mexico, used the 'Reservas Territoriales' programme throughout the 1980s and 1990s as a method to avoid the establishment of informal settlements in the area (Smolka, 2013). 'Reservas Territoriales' entailed the expropriation of land in specific areas, while sanctions were imposed on pirate developers (Smolka, 2013). Mexican municipalities are entitled to collect fees from property owners once land has been developed and improvements have been made to properties in their districts (Smolka, 2013). Such programmes, such as the 'Reservas Territoriales' allows municipalities the ability to implement land-based finance mechanisms within their municipalities. This has led to betterment levies being applied more strongly in some areas than others within the country. Pérez Torres and Acosta Peña (2012) (as cited in Smolka, 2013) show that in Mexico, only four states make up 86% of the overall revenues gained from betterment levies within the country. This illustrates that, while method of betterment tax has been shown to be effective in other Latin American countries, it remains underused in Mexico. This is summed up by Smolka (2013: 60) who says: "In Mexico, although betterment contributions represented only .11 percent of public revenues, they covered 1.53 percent of all public works."

Countries in North Africa and The Middle East have large areas of land that are publicly owned (Peterson, 2009). This puts them in a strong position to apply land-based finance instruments with some reported success. For example, a large real estate development in Cairo (Egypt), named 'Madinaty', encompasses a public-private relationship between the state and the Alexandria Company for Urban Development. In exchange for the provision of basic infrastructure (and the building of low-income households), the Alexandria Company for Urban Development gains 'free' land within the city (ibid).

When the state owns large swathes of land in urban areas, it is also able to lease land in order to maximise land-based finance. Hong Kong is an excellent example of such a mechanism of this, using four different methods to do so. The public leasehold system allows countries like Hong Kong to a) place land up for auction or tender; b) collect annual land rent; c) change the conditions of the lease at suitable times and d) create new terms for the lease at the time of its renewal (Hong, 2003). This form of land-based finance, which relies on the public ownership of land, has

been effectively used by the Hong Kong government to raise funds to invest in public infrastructure. It also allows the state and the lessee to maintain a flexible relationship with each other (Ingram & Hong, 2012).

In Phatak (2013) there are numerous examples of land-based financing in India. The most common tool in use is the area based development charge. This is a one time fee which is collected at the time of granting development permission in a given area. The primary reason for the use of this tool as opposed to another is that it is easy to administer and there is no ambiguity in measuring tax base. Some states in India have changed their policy from Rupees per square metre, to a % of land (not property) value, thus potentially increasing the revenue which comes in.

India has also used the transferral of development rights as a land based finance tool. It was first used as a substitute for monetary compensation for the acquisition of land designated for public purpose. This developed to incentivised floor space indices with planning approval, and has resulted in the redevelopment of slums, schools, hospitals and other building for public sector use (Phatak, 2013).

India's first metro system, The Delhi Metro Rail Corporation, is another example of the - often difficult - relationship between public and private partnerships and land value capture. The Delhi Metro Rail Corporation has leased land (for 99 years) for the metro construction from the government at a transfer rate that is lower than the market rate. The Indian government provided the land for the development of the property in the area to finance 11% of the total costs of construction. However, due to institutional complexity and administrative inefficiency the amount available to finance infrastructure has been lower than expected (Suzuki et al, 2015).

China is probably the best large scale example of the application of land-based finance internationally, driven by the extraordinary growth of cities in terms geographic scale, urban economy and population over the past two decades (Lorrain, 2008). This success has largely been based land lease financing. Many cities in China have financed half or more of their high levels of urban infrastructure investment through this mechanism. The land leasing deals involved the sale of long term occupancy rights, as well as developmental rights for that land. This began in 1987, and required a change in the country's constitution. From the outset, land leasing was tied to infrastructural development due to the potential economic growth and job creation which could result from this investment (Peterson 2006).

Shanghai has been particularly adept at minimising the amount of public financing spent on infrastructure between 1995 and 2003, despite the enormous development that occurred in the city over this time. Land sales were effectively used to raise funds for infrastructure development. This was done through prepayments made by future users of the land, as well as the sale of already developed land (ibid). China has also successfully used land-based finance methods through its urban highway construction policies, facilitated by the fact that all urban land in China is owned by the respective municipal governments. For example, the Ring Road Corporation gained developmental and land-use rights to 200m either side of the highway which they built in Changsha (Peterson, 2009). Urban highways in China have frequently been built in this way, as municipal land is directly leased by companies, who then gain the rights to the surrounding areas which they develop. These companies finance such infrastructural developments through borrowing on the collateral of the land, which is expected to increase in value as the urban highways are constructed (Peterson, 2009).

## 6 Policy Environment

### 6.1 Policy on the property market in Sub-Saharan Africa

Governments and donor agencies worldwide and regionally have a pivotal role to play in unlocking, developing and promoting real estate markets, whether through creating focussed academic institutions and implementing educational programmes or whether by facilitating an enabling environment (RICS, 2014). Fostering an economic and business environment that prioritises infrastructure development and acts as a catalyst for a more conducive and transparent local and national regulatory environment will enable the real estate industry to grow organically by developing an appropriate institutional framework and skills (ibid).

These agencies influence policy frameworks which are often linked to specific programs which range from infrastructural support, promoting the land debate, supporting land registration systems and cadastral development, and a focus on government legal frameworks and social expenditure. Due to the influence exerted through such policy positions they are given specific attention here with policies of major development agencies summarised in the table below.

**Table 3: Present policy perspectives on land markets**

Insti-tution	Strategic Focus for Africa	Underlying Principles on Land	Programmes /Framework
<b>International development agencies</b>			
DfID	Urbanisation and risk in Africa and Urbanisation and economic growth in developing countries	Were at the forefront of the M4P program in last decade: ensure the poor’s inclusion in markets by improving market functionality. With greater market efficiency, the poor could gain access to them, build assets and reduce poverty.	<p>Currently funding programs on <b>urbanisation reviews</b> with the World Bank (see above).</p> <p><b>International Growth Centre (IGC)</b> Focus on four main themes, one of which is Cities. Includes policy advice to Government on areas such as mobilising finance for urban infrastructure</p> <p><b>Future Cities Africa</b> Support for at least 8 cities in Africa to become future proofed to climate, environment and natural resource challenges. In depth consultation with urban local authorities included.</p> <p><b>Global Knowledge Partnership on Spatial Development:</b> Will explore the urban and spatial dimensions of development with a focus on the productivity effects of cities.</p> <p><b>Community Led Infrastructure Finance Facility (CLIFF).</b> Enables organisations of the urban poor to access the financial and technical resources they need to provide better housing and basic services for slum dwellers.</p> <p><b>Nigeria:</b> the Nigeria Infrastructure Advisory Facility (NIAF) includes a programme of technical assistance to improve the management of urban centres</p>



Institution	Strategic Focus for Africa	Underlying Principles on Land	Programmes /Framework
			and provides technical support for urban transport in several cities.
World Bank	Economic growth, Inclusiveness, Sustainability. Land is a cross cutting theme.	The benefits of infrastructure projects can be capitalised into land values and used as a financing strategy to raise infrastructure capital. Underpinning this approach is the notion of economic value. Land, transport, and the city's finances are the cornerstone of financing urban services.	<p><b>Spatial development in African cities</b> programme is intended to shape World Bank engagement with urban development processes in the region.</p> <p><b>Urbanisation Reviews in Africa:</b> The Bank's Urbanisation Reviews provide diagnostic tools to help city leaders identify policy distortions and identify investment priorities. Countries include Cote d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, Nigeria, Senegal, Tanzania. DFID is supporting and collaborating on urbanisation reviews in Kenya, Nigeria and Ethiopia and discussions are underway in Tanzania.</p>
The UN Economic Commission for Africa	<p><b>Urbanization Section</b> (recently launched) Initiating research on the economic impact of urbanization and its potential contribution of the structural transformation of African economies.</p>		
UN-Habitat & GLTN	<p>Access to land for all</p> <p>Efficient urban land management</p> <p>Land tenure and ownership</p> <p>Land and urban planning</p> <p>Land policy support</p>	<p>Land and property constitute an important base for mobilising revenue to meet local needs. Local authorities should have the autonomy to institute a land and property tax, this increases local accountability and responsiveness.</p> <p>The revenue raising ability of land must be maximised in such a way that the poor are not adversely affected, and should be protected from displacement by proactive policy making.</p>	<p>A major player in the land debate. Sponsored the Warsaw 2009 conference on land tax and published guidelines for using land taxes to raise revenue for development. Land and tax regime should reflect the varied market conditions and property types; should have effective administrative capacity. Land and property taxes are lumped together. At the forefront of recognising multiple forms of land ownership and tenure and proposing to tax these forms of land ownership including informal and communal land.</p>
European Union	Energy, Sustainable agriculture, private sector, MDG's	Inclusive and sustainable growth so that poor people have the means to lift themselves out of poverty.	Africa-EU cooperation provides funding for infrastructure projects in the region. Urban land not a priority area; nor is infrastructure financing through land-based finance. But IMF pressure to reform land taxes in western countries could shift development aid strategies.

Institution	Strategic Focus for Africa	Underlying Principles on Land	Programmes /Framework
Cities Alliance	<p>Raise the profile of the key urban challenges in Africa, based on evidence and analysis</p> <p>Increase essential investments in infrastructure, services and capacity, and to target such investments</p> <p>Build upon and consolidate the existing activities and portfolio of CA members and international networks of the urban poor to capture the depth and breadth of experience and lessons and to promote coherence of effort</p>	<p>Cities Alliance focuses on slum upgrading, increasing security of tenure and land tenure regularisation as part of a socially inclusive and pro-poor housing and urban development policy</p>	<p>Cities Alliance partners with various other organisations to enable cities to achieve the following objectives (2014-2016):</p> <p>Establish a think tank; Collect and manage data for city planning; Empower local government; Effectively respond to informality; Enlarge the constituencies the CA seeks to address.</p>
German Development Corporation (GIZ)	<p>Inclusive, sustainable urbanisation, bridging the urban divide, governance and participation</p>	<p>Physical integration of poor and informal settlements into the urban environment is achieved through construction and improvement of, or connection to, public infrastructure and basic services. Legalisation of land tenure, provision of credit financing for land purchase or housing situation improvements and amelioration of risk situations</p>	<p>Very broad approach to developmental work, ranging from governance to violence prevention, from urbanisation to youth development.</p>
<b>Regional Institutions</b>			
United Cities and Local Governments of Africa (UCLGA)	<ul style="list-style-type: none"> <li>• Unite African local government.</li> <li>• Strive for the establishment of local government as a distinct sphere of government,</li> <li>• Ensure democracy, equality and respect for human rights at the local level</li> <li>• Promote sharing of human and intellectual capital as well as other resources.</li> <li>• Empower local governments through research, training and capacity development</li> </ul>	<p>Good governance, effective planning and land use management</p> <p>Creation (and capture) of value created to land through investment</p>	<ul style="list-style-type: none"> <li>• The African Local Government Peer Review Program</li> <li>• Local Economic Development Network of Africa (LEDNA)</li> <li>• Know your City</li> <li>• Network for Locally Elected Women of Africa (REFELA)</li> <li>• Africities</li> </ul>

Institution	Strategic Focus for Africa	Underlying Principles on Land	Programmes /Framework
	<ul style="list-style-type: none"> <li>Pursue sustainable development.</li> </ul>		
African Development Bank	Infrastructure development; private sector development' governance and accountability; skills and technology; regional economic integration	Agriculture and food security through rural infrastructure and efficient regional food markets.	Launched a group Urban Development Strategy in 2011: three programmatic areas of focus are: Infrastructure Delivery (includes the mobilisation and management of financial resources); Urban Governance; and Private Sector Development. Infrastructure to be delivered through traditional finance instruments; no programs yet around urban land or land-based financing.
Development Bank of Southern Africa	Municipal lending for energy, roads, water and sanitation in South Africa, and housing and energy in SADC	No overt statements on land, but infrastructure investments recouped through user-fees or government grants.	As an institution that lends to municipalities for infrastructure development, the DBSA provides an ideal platform to define/contribute to the debate on the efficacy of land-based finance as a source for municipal financing. In principle, this could make the Bank's lending model more sustainable.
Western Development Bank	Lends in ECOWAS for infrastructure, energy, water and sanitation, roads	Rural agricultural development	No programmatic focus on urban land and currently no program on land taxation for infrastructure development. Their focus is on rural land.
Eastern & Southern African Trade & Development Bank	Project and infrastructure finance and trade finance	Recoup infrastructure finance through project cash flows ( has an element of user fees and taxation is present)	Investing in real estate and infrastructure programs, but no action or policy-push on land-based finance is evident from their reports.
<b>Think Tanks</b>			
Lincoln Institute	Study land policy and land-related tax policy throughout the world	Value Capture a tool for mitigating land market imperfections, corruption and speculation and to facilitate planning and development. A strong principle on the separation of public and private value.	Active in funding research on financing urban infrastructure in area focus in the last few years has been Latin America. The research points to a variety of land-based finance strategies including: sale of development rights; betterment levies, PPPs. Promote more efficient collection of the real estate property and transfer taxes.
Urban LandMark	Marking urban land markets work for the poor	Land-based finance can be used to finance infrastructure and redistribute resources to poorer neighbourhoods.	Funded research in South Africa on land-based finance around transport nodes. There is an implicit suggestion that public investment can be recouped for public use, and private investment for private investors.

The policy proposals identified above are diverse but there is a large degree of consistency that the following are the key aspects requiring attention in Sub-Saharan Africa:

1. An emphasis on the importance of infrastructure provision and the opportunities which property markets offer for the financing of infrastructure;
2. The possibility of shifting the tax base from income to land markets;
3. Making land markets work for the poor;
4. The autonomy that should be provided to local government to raise taxes from the property sector;
5. The role land markets have in the reduction of poverty; and
6. That land-based finance can be used to finance infrastructure and redistribute resources to poorer neighbourhoods.

## **6.2 Policy on infrastructure finance**

There are numerous studies dealing with the broader issues on financing urban infrastructure in the Global South (see for example KfW, 2008; Bahl, Linn & Wetzel, 2013; and Shah, 2008). These studies place considerable emphasis on debt financing, funding through private sector partnerships and transfers from the national fiscus. There is also considerable literature on financing infrastructure in Africa, covered below, but little on the concept of a 'balanced profile' of finance for local government and cities specifically. While it is intuitively sensible for Sub-Saharan African cities which are currently under-resourced with respect to capital finance to look at all means at their disposal, including land-based finance instruments, there are limited policy statements in this regard, particularly Africa related. In this regard even the key UN-Habitat reference on financing infrastructure (UN-Habitat, 2013) places little emphasis in this method of financing although UN-Habitat have an important new initiative in this field aimed at promoting land-based financing, including the establishment of a training Programme (UN-Habitat, 2015).

Further, in the recent and seminal reference on financing metropolitan governments in developing countries, Bahl and his co-authors also place only limited emphasis on this approach (Bahl, Linn and Wetzel, 2013) although the use of development charges is encouraged (Bird and Slack, 2013) and it is given passing mention in the chapter on financing infrastructure (Ingram et al, 2013). In contrast, the work of Peterson and the Lincoln Institute for Land Policy places most focus on land-based finance instruments used to raise capital to finance infrastructure (Peterson, 2009) while not attempting to look at the overall infrastructure finance arrangements for developing countries. In a Sub-Saharan African context the work of Paulais, Foster and Briceño-Garmendia, and Irving & Manroth deal with infrastructure financing arrangements more generally but remain important references in terms of fitting land-based finance instruments into the overall City finance framework. (Paulais, 2012; Foster & Briceño-Garmendia, 2010; Irving & Manroth, 2009). Reference is made primarily to Paulais in the recommendations on African city financing given below.

### ***Empower local government***

Local governments will need to significantly increase their relative share of local investment financing, for at least two reasons (Paulais, 2012):

First, central governments cannot easily increase intergovernmental transfers to local governments in proportion to local investment needs. National budgets will likely be prioritised towards social services, legal systems, and others which are the mandate of the national authority. Central government expenditures will also be used to finance major infrastructure, particularly for the energy, transportation, and productive (primary) sectors, especially agriculture.

Second, there is much evidence to suggest that official development aid may not rise to meet the needs of the urban sector. Public aid funding shows little or no increase and generally remains focused on other equally essential matters for Sub-Saharan Africa, such as food security, global warming, major pandemics, and large-scale infrastructure.

### ***Bolstering and modernising investment financing tools***

Government, the international community and financial institutions must consolidate and modernise the tools which could enable municipal participation in the financing market. This applies to international donor organisations and development banks, where the pooling of resources may lead to larger scale, more efficient investments (Estache, 2010).

Traditional bank loans and general bonds rely on the borrowers' good faith and presumed willingness to pay, but in some cases there is no guarantee of payment or collateral, apart from sovereign backing in many cases. Where municipal loans are considered lower risk, the cost of money will also be lowered. Structured finance techniques<sup>10</sup> could potentially reduce the cost of borrowing, enabling local authorities to have access to higher levels of capital to fund infrastructure (Paulais, 2012).

### ***Enable endogenous financing***

Local governments will need to be able to source their own funding, and policies and procedures will need to be put in place such that this can happen. National legislation will likely be the factor which inhibits or enables this endogenous funding. Debt exposure, tax laws and appropriate supervision mechanisms are likely to be the key factors in enabling endogenous financing. Legislation enabling commercial banking institutions to finance local authorities may also need to be enacted (Paulais, 2012; Floater & Rode, 2014).

### ***Encourage endogenous financing***

As Paulais (2012) points out, it is unlikely that international donor funding will continue at the same rate as before the 2008 financial crisis. This will put strain initially on the national fiscus as local authorities attempt to request additional funding, and when this is refused due to the national fiscus being unable to finance the local authorities, it will put strain on the local authority as internal reserves are used to fund infrastructure. As and when these are depleted, the local authority will need to look at other ways of funding infrastructure. There are three major principles which local authorities can use in order to source endogenous funds (Paulais, 2012):

- Use all local savings and investment capacity—households, businesses, pension funds, remittances, and investment funds—by offering secure investment and savings vehicles;
- Capture some of the value created by well-managed urban development through land-based mechanisms, and recycle that value into further urban development operations; and
- Increase local governments' own, internally generated resources by optimising tax revenues based on property (land and housing).

The onus cannot be placed on the private sector too, the international community needs to be aware that the private sector cannot fulfil the current infrastructure finance backlog (Estache, 2010)

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<sup>10</sup> Structured finance is a term used to define techniques which are not on-balance sheet securities (debt, bonds, equity). A structured investment usually includes a risk transfer derivative and/or derivative claims on commodities, currencies or receivables from other assets (Jobst, 2005). Examples are sinking funds, debt service reserve funds, escrow accounts, fiduciary trusts, revenue pledges and revenue intercept and guarantees (Paulais, 2012).

### ***Broad recommendations for private sector involvement in urban infrastructure provision***

The World Economic Forum (2014) created a policy framework for infrastructure investment. There are three categories of policy recommendations; the creation of a shared strategic vision, the creation of policy and regulatory enablers and the creation of an environment which has a value proposition for investment. The policy and regulatory enablers include the following:

- The limiting of renegotiation risk
- Creation of an efficient, predictable and standardised procurement procedure
- Facilitate predictable project permitting processes
- Review and assess tax policy

### ***Priority instruments for Sub-Saharan African countries***

The chief land based land-based finance methods which are likely to be implementable in Africa are public land sales, direct contributions from owners or developers and land added-value taxation (betterment tax) (Paulais, 2012).

While the importance of strengthening the ability of Sub-Saharan African cities to use land-based finance methods (or, more broadly, property related methods) to raise capital to finance infrastructure is recognised, there is clearly much to be done to improve policy support for this approach and to follow this up with implementation.

## **7 Lessons for Sub-Saharan Africa on land-based finance for financing urban infrastructure**

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The international experience and international policy thinking addressed above have some important implications for Sub-Saharan African countries.

### **7.1 Key success factors**

An analysis of the literature on land-based financing provides guidance on the key success factors for successful land-based financing which can be summarised as follows:

#### ***Functioning land market***

- Demand for land and property:** In order for there to be an active land and property development market, there needs to be an active, growing, city economy which implies and increasing demand for both residential and commercial and industrial property with an increasing ability to pay for property.
- Planning and land use management:** Certainty associated with land use rights, in relation to a credible infrastructure plan, is necessary if the urban land market is to prove a useful source of finance for infrastructure.
- Control over land and enabling access to land:** If the state, either in local or national government, is not able to regulate and manage the development of land, especially in the peri-urban fringe of cities, it will struggle to use the land development process as a step to capture increases in land value.
- Active developers:** The objective of land-based finance as an option for infrastructure financing is to raise finance through a private source of finance to reduce the burden on public sources. Therefore reliance needs to be primarily on private developers or community based developers which can access private sector finance. In some cases parastatal developers may have a role to play if they are able to raise capital to finance development.

- e) **Access to finance:** Prospective property owners and developers, either private or community based, should be able to access finance, primarily through the domestic commercial banking sector.

### **Functional systems for providing infrastructure**

- a) **Effective and efficient City and infrastructure institutions:** The City or parastatal delivering infrastructure must be empowered to perform their functions adequately with sound leadership and governance measures in place. Whichever institutional option is selected it is clearly important for these institutions to have the capacity to do the work to design, construct, operate and maintain the infrastructure and the resulting service.
- b) **Effective and efficient State:** The State should support land-based finance through enabling the cities with policies that devolve functions to them and facilitate the ability of local government to collect land based revenues.
- c) **Institutional framework:** Land-based finance, in a formal sense at least, requires an interplay between government, developers and financiers. It is successful where there is clear national policy intent, strong local government with devolved powers and functions and well established and efficient private developers.

## **7.2 Limitations**

It is obvious that where key success factors are not in place that it will be difficult to apply land-based finance instruments effectively. Lack of a clear national policy and intent relating to on infrastructure finance, uncertainty of the role of local government, lack of control over land by government and a low level private developer activity in a country will all act to constrain the opportunity for land-based finance. That said, the requirements for other forms of non-public-sector infrastructure finance are also considerable and, in fact, international experience suggests that several land-based finance instruments can, by comparison, be relatively easy to apply.

Probably the biggest risk is that land-based finance mechanisms may lead to a skewing of access to infrastructure, with infrastructure for poor households being neglected in favour of servicing non-residential consumers and higher income residential consumers. In order to avoid this situation a sound investment framework needs to be in place which ensures that finance is available to provide infrastructure for the poor, whether this be through cross-subsidy, transfers from national government or donor funding.

## **8 Application of land based finance mechanisms in Sub-Saharan Africa**

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This section of this review leads from the previous section, with the purpose of assessing how Sub-Saharan Africa is placed to use land-based finance instruments with reference to a few circumstances mentioned in the literature where this is actually happening. These examples are taken from published international literature, and do not reflect findings from the case studies conducted as part of this project which reflect a more positive picture than that in existing literature. (See Report 1.1).

### **8.1 Overview of property market functionality**

While country specific contexts make it difficult to generalise about property markets in Sub-Saharan Africa, they are typified by a spectrum of market arrangements (incorporating both formal and informal elements), evolving land tenure arrangements, weak financial regulatory environments, and land management systems that try to meet a complex range of, and sometimes contradictory,

objectives. Moreover, the relatively poor development of the valuation profession in Sub-Saharan Africa implies that property values are often difficult to assess, while poor valuation standards limit the ability of the banking sector to support the market through the use of properties as collateral. This also makes it difficult for the public sector to derive financial benefits through property taxes.

There are, however, progressive improvements: governance structures in Sub-Saharan Africa have strengthened, trade barriers have reduced and political stability has generally improved, which have combined to result in largely manageable country risk profiles and strong growth in the region over the last decade. Despite some unforeseen downside risks, these factors have allowed access to a larger middle-income base and, with it, helped open up new consumer markets for investment and enhanced activity in property markets.

Public sector involvement is critically important specifically with a focus on planning, land use management and delivering and maintaining infrastructure, which will, in turn, rely on appropriate funding arrangements.

Considering the institutional environment, Africa will remain linked to global world. Yet, while the continent is seen by foreign investors as a new frontier for real estate investment, there remains the perception that property markets are too high in risk to justify the rewards, characterised by insecure land ownership arrangements, undeveloped and unregulated financial markets, insufficient availability of reliable data and poor market transparency. This speaks to the need to improve the transparency and reliability of data in real estate markets as well as the nurturing of an enabling institutional environment, especially if international investment is to be promoted.

## 8.2 The capability of local government in establishing the platform for property development and infrastructure provision

In Section 3 an introduction was provided to the state of local government in Sub-Saharan Africa with specific reference to cities. This is based on the condition that the public sector as a whole has the mandate to ensure that infrastructure is provided, considering its nature as a public good, in most cases. This responsibility includes the provision of infrastructure, financing of this infrastructure, management of the resulting services (operation and maintenance) and the financing of operational activities. Over the past two decades this responsibility is passing increasingly to local government in the case of urban infrastructure but the current reality is that national governments in Sub-Saharan African countries, and sometimes regional or state governments, continue to play a major role. This typically leads to inefficiencies and the fragmentation in the provision of services with inadequate services provided to households and businesses.

As noted above, local government - City government particularly in the context of this review - should hold the **authority** over the service. They may also choose to undertake the actual service provision themselves (water, energy, transport etc.) or have a contract with the private sector or a parastatal organisation which will perform the work (Paulais, 2012). This is given further attention below.

In order to be able to capture the value from property developments, manage developers and properly oversee the implementation of infrastructure, cities require sound technical and financial expertise.

The work of the United Cities and Local Governments of Africa and Cities Alliance on assessing the institutional environment of local governments in Africa represents a key reference (UCLGA & Cities Alliance, 2013). This research rates African cities based on a set of criteria which includes the capacity of administrations and the ability to raise own revenue. The implication from this analysis is that, overall, Sub-Saharan



African cities face serious institutional challenges which will hamper their ability to apply land-based finance financing instruments. On the other hand, certain of these instruments are relatively easy to administer and, therefore, the necessity to apply such instruments remains strong.

### 8.3 Property related institutions and legal framework

While institutions influence market outcomes, failure to understand how markets may react to policies has been cited as a major reason for the mismatch between urban plans and outcomes (Berrisford, 2013). In Sub-Saharan Africa, these institutional arrangements are characterised by a diversity of land tenure options that range from privately held properties to real estate markets that are bounded by customary and traditional land ownership laws. Where traditional land planning and regulation has failed to provide affordable urban land, serviced sites and infrastructure to Africa's fast growing cities, 'adaptive and responsive' systems of housing and infrastructure provision have emerged that function outside of legal processes and rules (Fekade, 2000:135). Yet these systems also constitute the market place (Napier, 2013). Indeed, these arrangements have arisen from the tendency for players to reduce their transaction costs as much as possible and make up a heterogeneous market place. Altering these arrangements has profound implications for market outcomes.

Security of tenure is a key issue in Sub-Saharan Africa, land and real estate markets which are characterised by a continuum of tenure arrangements. UN-Habitat (2004:7) recognises that security of tenure is more nuanced than conventional categories of formal versus informal or legal versus illegal, and that 'before any attempt to intervene in land markets is made, it is therefore vital to assess the full range of existing tenure systems and sub markets.'

However it is not the existence of a market but rather the type and capability of institutions governing the market that will influence the ability to capture land values. Key determinants for success include the degree of business activity, and the ease with which business can be conducted. For numerous reasons, investing and conducting business in Africa remains challenging for international as well as local players and a large number of African nations are clustered at the bottom of the World Bank's ranking for Ease of Doing Business (World Bank, 2013) (See Box 1 below). This is because investment is being hindered by a poor and sometimes uncertain institutional environment and insufficient infrastructure.

#### **Box 1: Ease of Doing Business**

Of relevance are the two real estate indicators, namely dealing with construction permits and registering property, where the performance indicators reflect the extent to which government regulation and land market administration are supportive of property market developments.

*Construction permits:* To measure ease of dealing with construction permits, the index considers the time and cost involved for a small or medium enterprises to build a simple warehouse and connect it to basic services. To this regard, "good practice" included having comprehensive building rules, using risk-based building approvals and having a one-stop shop. Since 2010, Rwanda, the Democratic Republic of Congo, Togo and Benin have been noted for making the greatest advancements.

*Registering Property:* Sub-Saharan Africa fares particularly badly when it comes to registering property, with only 10% of land covered by formal registration (UN, 2014). The report considers all the steps required for a business to buy a property and transfer the title to the buyers' name. Countries that rank well tend use electronic databases for encumbrances, offering cadastre information online (such as in South Africa), offer expedited procedures, and set fixed transfer fees (such as in Rwanda). Burundi's one-stop shop for property registration was also applauded as an efficient means of streamlining the property registration process.

Moreover, there is a growing understanding that the future growth of the real estate sector across Africa will be closely associated to the development and promotion of appropriate skills. Generally, Africa has an insufficient numbers of skilled

professionals in the built environment where legislation concerning professional designations varies widely and where there is inadequate support from professional bodies (Ebohon, 2001). This points to a very serious need to establish professional standards across the continent that are globally benchmarked, in such a way bringing uniformity to business practices and transactions and increasing investment confidence. This situation is further aggravated by brain drain, which sees skilled professionals relocate to countries that they believe offer greater career prospects<sup>11</sup>.

## 8.4 Planning

The region is characterised by a high degree of commitment to planning by most country governments. The plans that result from this commitment tend either to be outdated examples of the comprehensive master planning approach characteristic of late colonialism immediately after World War II or, despite being ostensibly drawn up in terms of new planning approaches (especially those championed by agencies such as UN-Habitat), the plans continue to resemble the master plans from that era (Todes et al, 2010). Patrick McAuslan, in an overview of planning laws in Eastern African countries, shows that despite far-reaching legal reforms to the planning systems in that sub-region the resulting plans have favoured 'the traditional authoritarian model of the colonial era' and that they have been a major contributory factor in the creation of the 'type of cities that have developed in the region: small enclaves of upper income urban development ... - with the overwhelming majority of urban residents living in informal, technically illegal, unplanned developments with a paucity of public infrastructure' (McAuslan, 2013). There is thus still considerable progress to be made in developing the planning systems that can support the evolution of land-based finance instruments, although, increasingly, local initiatives have started to yield more encouraging lessons for the rest of the region.

## 8.5 Control over land

Control over land and land development in African cities varies widely from country to country and, within countries, from city to city. For example, in many countries traditional leaders maintain control over land in terms of customary laws, especially in rural and peri-urban areas. In some countries of the region, post-independence land reforms have transformed nominal ownership of all land to the state but in practice the consequences of these exercises in nationalisation have played out differently in different contexts. Still yet other countries inherited systems of private land ownership where the state has only a minimal impact on who may hold or develop the land. As Napier et al argue: 'understanding ... [the] many meanings and values associated with land is an essential part of understanding the dynamics of the urban context in Africa. Sometimes the depth of meaning and history associated with holding land has effectively suspended the discussion of how urban land should be managed and transacted in cities in Africa.' (Napier et al, 2013).

## 8.6 The Development Market (property developers)

Taking the Sub-Saharan African context referred to in Section 3 into consideration, development activity tends to be constrained by uncertain development regulations and a shortage of property professionals in both the private and public sectors. Yet the growth of the middle class and rapid urbanisation have also led to increasing demand for residential property in the formal component of the market, an opportunity which private investors and developers are eyeing keenly. Much of this demand comes from international corporations, financial sector, communications

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<sup>11</sup> On the topic of skills see also Oladokun (2011), Chikafalimani, & Cloete (2010); Cloete (2002) and Mooya (2007).

(other capitalised industries) and more recently shopping centre developers where there is a growing middle class (Knight Frank, 2009).

In order for Sub-Saharan African countries to progress and increase the stock and value of property, development supply will be related to the institutional environment and the degree to which it enables private investment (RICS, 2014). This will include factors such as market transparency, information availability, political stability, economic and business rankings, construction trends and planned public infrastructure spend. In the residential sector, the ability of supply to meet demand will also depend on the availability of mortgage and/or microfinance for households.

## **8.7 The finance market from a property development perspective**

Additionally, financial sector decisions are further complicated by inappropriate public sector intervention and poor valuation standards, which reduce the strength of collateral (Ebohon, 2001). This suggests that an enabling environment that has an appropriate level of regulation, supervision and market discipline should underpin the development of both the financial and real estate sectors (Adeboye, 2012).

It is worth noting that in Anglophone Africa, such as Nigeria and Kenya, the private banking sector only started assuming a material role in the mid-1970's and early 1980's with the importance accelerating in the 1980's and 1990's. That said, while Africa's mortgage markets are small by international comparisons, they are growing steadily, and are increasingly receiving investor and policy attention (CAHF, 2013). This is in spite of suggestions that in Kenya, Uganda and Zambia the banking sector suffered from high risk ventures in the real estate sector, which is related to the fact that the private banking system in Africa is relatively new with many institutions suffering from pressures that resulted in high-risk lending strategies (Brownbridge, 1998). Moreover the sector has suffered from low levels of bank capitalisation and high levels of political interference. Aloa & Raimi (2011) researched the Nigerian market, comparing it at times to the South African market, and concluded that the property market is vulnerable to financial shocks. They further argued that the Nigerian banks are affected by poor corporate governance and reporting. However, improvements in the regulations and banking practices are currently being made.

Boamah (2011) assessed the Ghanaian market and found that macroeconomic instability increased the risks in undertaking long-term loans, thus asserting that although housing finance is a critical factor in determining the performance of well-functioning housing markets, attention should be given to the stability of the macroeconomic environment in which these markets operate.

Property markets are important points of access to an economy. Yet, due to the poor availability of information, investors are unable to fully assess the risks of their investments and the market, resulting in portfolios that tend to be smaller in size than those in developed markets (Olaleye, 2008). Risk is influenced by a variety of factors that include the level of internal political stability, restriction on foreign investors, market transparency, the organisation of the market, transparency of the regulatory system, as well as the extent to which financial markets are liberalised (Cheng, 2006). Newell (2002) considers the risk profile of the South African property market in the period 1994-1999 and draws the conclusion that data compilation and accessibility had an important role to play in reducing perceived risks. Additionally, existing local and international industry benchmarks have been shown to be very useful in promoting and developing functional markets (Anim-Odame, 2009; Newell, 2002).

The Nigerian situation shows that the ability of the banking sector to adequately manage credit risk of loans and advances depends on the quality of the mortgage valuation, which has largely been unreliable (Aluko, 2007). Amidu (2008) further contends that in Nigeria, the perception clients have of the roles of estate surveyors

and valuers is skewed toward price confirmation rather than objective property value analysis. This has serious implications to financial institutions and investors as inaccurate mortgage valuations often lead to bad underwriting and investment decisions.

### ***Financing the low income property market segment***

The low-income market segment is of particular concern in terms of equality of access to infrastructure. Here the informality of the market is driven partly by the high cost of legally registered and serviced land in Sub-Saharan Africa due to the largely inappropriate application of inherited land use and building planning regulations, vested interests, and an incapacity to deal with the high rates of urbanisation. Further, the mortgage finance used by many middle and upper income citizens is not available to lower income groups (Mitlin, 2007). The result is that slums and informal settlements have come to be home to three quarters of Africa's urbanites, as people have had to take the initiative to provide shelter by informal means (Napier, 2013). But this does not mean that low income households do not access finance at all. Low-income households in Tanzania have been able to incrementally invest in housing through savings, with later stages being funded through private and commercial rental income (Shaaban, 2007). Community federations in Malawi have been successful in raising funds to purchase government land and develop housing (Manda, 2007).

### ***Real Estate Taxation***

Property tax based on property value is the primary source of 'own source' income for Sub-Saharan African cities and hence financial viability is strongly associated with the extent to which this is properly applied. While such a tax fits into the spectrum of land-based finance instruments this is not given detailed attention in this review as property tax is taken to be primarily a means of covering local government operating expenditure rather than funding infrastructure. That said, it is recognised that a functioning property tax system is an indication of ability to apply other land-based finance instruments.

Yet there is much to be done to improve the coverage, administration and collection ratios of municipal valuations, where the calculation of property taxes is often hampered by poor administrative systems and a lack of trained personnel (Kelly, 2000). For municipalities the emphasis should lie in improving the tax base by accurately valuing properties to their current market value and improving collection of the rates so as to bolster the tax base from which municipal services can be funded. An adequate taxation system requires developing standards to ensure accurate valuations roles, which in turn requires reliable information on the land sizes, ownership and valuations. Complications can, however, arise when communal land held in terms of traditional arrangements is excluded from the formal tax collection system (Franzsen, 2002).

More information on the country specific property and real estate taxation practices in Sub-Saharan Africa are contained in Appendix C.

## **8.8 Infrastructure institutions – how are they doing?**

While no literature dealing specifically with performance of local government in providing infrastructure was located, there are some output related indications which point to an overall improvement, including the African Development Bank infrastructure indicator shown as Figure 4 and the figures in Section 3.5 showing general improvement in access to urban services. Further, the economies of most African countries are growing rapidly which implies increased access to infrastructure. While such improvements may be off a low base, the indication is that Sub-Saharan Africa will have increasing potential to manage infrastructure. This is assumed to be

a balance between improved performance of government, increased private sector participation – small and large scale - and better functioning parastatals.

## **8.9 Current use of land-based finance instruments to finance infrastructure**

The Global North has made extensive use of land-based finance instruments but this has been applied only to a limited extent in Sub-Saharan African countries with this review only locating good examples in three countries: Angola, Ethiopia and South Africa (see below). However, if property tax is included as a land-based finance instrument, even if it is not intended to finance infrastructure, then countries with good or improving property tax systems need mention, at least: Angola, Burundi, Cameroon, Chad, Comoros, the Gambia, Liberia, Madagascar, Nigerian, Senegal, South Africa, Swaziland, Namibia, Zimbabwe, Zambia, Uganda, Ethiopia and possibly Ghana<sup>12</sup>. Further, the research undertaken for this project indicates that 'in-kind' contributions by developers are fairly widely used throughout Sub-Saharan Africa (not addressed in this literature review but information is available in Report 1.1).

### ***Angola: 'semi-formal' land readjustment in Huambo***

Supported by the NGO Development Workshop, two land readjustment pilot projects were implemented in the Province of Huambo in central Angola. The projects were implemented at a time when important decentralisation reforms were underway through the creation of municipal administrations that were assigned new powers for managing land. The first case study was completed before the reforms, at a time when provincial urban planning officers could be engaged in the pilot projects and the weight of Government could legitimise the land transactions. The second pilot project was implemented after the publication of the "decentralisation reform law". Municipal administrators had been given the responsibility of managing land for housing but were inexperienced and did not have the authority to take over the financial aspects of the programme.

The first case study demonstrated how the land readjustment model could reduce land-conflicts by regularising tenure status. It showed how market mechanisms created land value that benefited former occupants, new owner-builders, financial intermediaries and the State. It also demonstrated the crucial role of social mobilisation (by the NGO) and the need for Government buy-in to secure the success of the project.

The second case study however shows that by losing the essential ingredient of the financial control and the opportunity to mobilise the land market to "create value" the project did not generate sufficient resources to sustain itself. These factors arose in the second case largely because in the intervening period there had been significant devolution of decision making to the city government, without the necessary resources and capacity to complete the project satisfactorily.

UN-Habitat has written up the experience of the two land readjustment pilots in Huambo (UN-Habitat, 2013a) and they conclude that a major effort must be invested in building the capacities of municipalities in managing land and other responsibilities that they must now assume. Municipalities must also be given the possibility to generate their own financial resources through transaction fees and taxes. Income from the regularisation of land tenure, through land readjustment, may be one of the ways that municipalities can sustain themselves in the future. The experience of land readjustment in Huambo shows, firstly, that a substantial land-based finance exercise can be carried out in a context of weak capacity as well as the absence of any specifically enabling legislation. Secondly, it demonstrates the potential for land

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<sup>12</sup> Dave De Groot, personal communication. See Appendix C for further information.

readjustment to be a self-financing instrument to achieve urban expansion. A caveat to bear in mind however is that the project was heavily supported and driven by a well-capacitated NGO and so the particular experience of the Huambo land readjustment projects could only be scaled up with difficulty and with significant changes to the governance and legal framework in Angola.

### ***Ethiopia: The conversion of municipal land to municipal infrastructure through leasing***

Ethiopia has one of the lowest per capita GDPs in Africa, and over the past 30 years has experienced high urbanisation rates, some of the highest in Africa. It also has some of the highest poverty statistics in the world. It is unlikely in this context that land based financing should occur, yet it does.

The Ethiopian national government has adopted full ownership of land in the country, and allows for the leasing of land to other governmental spheres and the private sector. The lease is paid in a once off, up-front fee. It is legislated that 90% of this revenue must be dedicated to financing municipal infrastructure investment. The leases are generally emphyteutic leases (Peterson, 2009; Peterson, 2005; UCLG, 2012).

There are two negotiation processes which are relevant in Ethiopia. The first negotiation process is to determine the price of the land being leased to the private sector. Initially, the price of the lease was set, but after a public auctioning process, it was found that the actual market price of the land was up to 80X more than the original set price, which has drastic implications for municipal infrastructure financing (Peterson, 2009).

The second negotiation occurs at the neighbourhood level. The Ethiopian Kebeles (local government districts) agree on the importance in the creation of infrastructure such as street lighting and pavements, and approach the local authority on the provision of these. The constituents of the Kebele agree on a formula for allocating costs, which typically incorporates land size or land value as an indicator of benefit received, and then collectively pay for the community's share of the public work. In Tigray Regional State of Ethiopia the Kebele share of street paving costs typically is set at 50 percent (Peterson, 2009).

### ***South Africa: The use of development charges***

South Africa's National Treasury has promoted the use of development charges, referred to as development charges, in the country's larger cities. Cape Town has created its own development charges policy document, titled 'Development Charges Policy for Engineering Services' which entails the different categories of land uses, the impacts these categories have on engineering services as well as applicable exemptions. The exemptions are listed so that the implementation of the policy does not deter the social objectives of the city.

Other cities in South Africa are creating their own policies to enable them to collect these development charges from new developments. The potential revenue for South African cities varies depending on the method used to calculate them and the rate of uptake of the development charges, but could potentially be up to US\$ 1.5bn per year (National Treasury of SA, 2011).

## **9 Conclusion**

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This document has been updated to include literature that has been found during and after the Implementation Phase, but it does not reflect actual findings from the Implementation Phase. The findings reflected here come from the research team's interpretation of the literature's findings;

They reflect the research team's interpretation of those widely supported findings.

- a) Local government has a key role to play in applying land-based finance instruments and, therefore, devolution of responsibility for land use management and infrastructure finance, particularly to cities, is necessary and requires support.
- b) Given the large gap between the cost of urban infrastructure required to provide for economic and social development in the region and the availability of finance, it is important to consider all available infrastructure finance mechanisms and land-based finance is certainly one with considerable merit which should be pursued by Sub-Saharan African governments and the development agencies which support them. Greater emphasis on urban infrastructure is needed to balance the priority given currently to national scale transport, energy and water resource infrastructure.
- c) There is considerable literature on land-based finance case studies but a lack of conceptual clarity on how land-based finance can be applied in Sub-Saharan Africa. Therefore work is needed to develop a conceptual framework for approaching this question in the Sub-Saharan African context. A preliminary set of proposals in this regard has been produced by the research team and is included in a companion document to this literature review (Report 1.5).
- d) Advocacy of the land-based finance concept by international development agencies will be important if application of the instruments is to gain traction in Sub-Saharan Africa. While the Angolan, South African and Ethiopian examples show what can be done, there is relatively little happening and therefore room for far more effort in this field, with recent work by UN Habitat and the Global Land Tools Network (GLTN) being a significant step forward (UN Habitat, 2015). This advocacy should be aimed at national governments initially, to provide them with support in preparing policies.
- e) Property developers are key players on the land-based finance stage and yet this sector is poorly developed in Sub-Saharan Africa. Efforts to create a more stable and transparent property market, with much reduced procedural complexity and lower barriers to entry by the poor are essential.
- f) Property valuation practice, given the basis it forms for property tax and other land-based financing measures, must be promoted if Cities are to improve their financial standing.
- g) With regard to individual land-based finance instruments, the most implementable in Africa are likely to be 'in-kind' contributions, development charges (whether these be cost based or tax based) and public land sales or leasing or sale of development rights (in situations where the State or City owns the land or has control over it). In the few situations where property valuation systems are well developed, betterment taxes also have merit. The experience with land restructuring in Huambo indicates that this is a possibility, albeit one that is too complex to be widely applicable at present in Sub-Saharan Africa.

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## Appendix A: The components of infrastructure

For the purpose of this research infrastructure is divided into two broad groups; engineered infrastructure and social and community infrastructure. Engineered infrastructure is sub-divided into bulk, connector and internal infrastructure. In the case of water supply, sanitation and electricity infrastructure the subdivision is indicated in the table below.

**Table 1: Description different components of engineered infrastructure<sup>13</sup>**

	<b>Water supply</b>	<b>Sanitation (wastewater)</b>	<b>Electricity</b>
Bulk infrastructure	Pumping systems to abstract water from the resource, the water treatment works, bulk treated water storage, and pumping systems and pipelines required to transfer water to distribution reservoirs located at settlements.	Major sewer outfalls which leave settlements, wastewater treatment works and pipelines and channels which return treated effluent to the river or groundwater.	Power generation stations, powerlines which transfer power to settlements and associated switching stations and transformers.
Connector infrastructure	Distribution reservoirs and pipelines leading from these reservoirs to the blocks of plots.	Outfall sewers, sometimes including local wastewater pumping stations which link the blocks to the bulk outfall.	Powerlines and associated switching stations and transformers which link the bulk system to settlements.
Internal infrastructure	Pipelines located within a block of plots, including the connections to plots with meters. In rural areas the 'block of plots' is replaced by the village and the connections may only be to public standpipes.	Sewers within a block of plots, including the connections onto the plots. In the case of on-site sanitation options this includes the VIP, septic tank or other 'on-site' technology. In the case of 'site and service' options using water borne sanitation this may include the toilet and privy.	Powerlines <sup>14</sup> within the blocks which directly serve each plot or dwelling.

<sup>13</sup> Adapted from DCOG and DBSA, 2011.

<sup>14</sup> The electricity sector in South Africa does not often recognise the 'internal infrastructure' component of the system.



For **roads infrastructure** the terms, 'bulk' and 'connector' infrastructure are not commonly applied. There are various ways of categorising roads as an infrastructure hierarchy in a city, with the one applied in in this research proposed as follows:

- **Access roads** or streets provide access to individual properties. They are part of **internal infrastructure**.
- **Collector roads** link individual property developments or city blocks to the distribution roads. Typically they would carry light public transport vehicles.
- **Distributor roads** are the main arterial roads within a city linking suburbs to nodes and to the periphery of the city. Typically they are dual carriageway or larger roads.

**Social and community infrastructure** includes: schools and other education facilities; health facilities; libraries; sports and recreation facilities; parks and squares; and buildings for security and emergency services.

## Appendix B: Glossary of terms

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For definitions of individual land-based financing instruments, see table included in Executive Summary. Other definitions follow.

### **Backlog**

A backlog (correctly called a service backlog) is the proportion of households or population which have access to a level of service which is lower than the minimum acceptable level of service for the particular country or city.

### **Capital account**

A 'capital account', as used in this review, refers to the account of a local authority which records the cost for which the local authority is responsible associated with providing new assets or renewing existing assets and the finance which is used to cover these costs. It is closely associated with the balance sheet of the organisation which, inter alia, reflects the net movement of capital on an annual basis.

### **Developer**

The term 'developer', as applied in this report, refers to a property developer being an organisation which, inter alia, acquires the right to develop land, subdivides land, provides internal services to resulting properties and sells the properties with or without improvements in the form of buildings on the land. A defining feature of developers is that they take financial risk in that they incur costs in developing property and recover these costs after some time through the sale of the property. A developer may be privately, publicly or communally owned. In some cases – not common in this study – the developer will re-develop property.

### **Developer exaction**

Exactions are requirements a local government places on a developer to dedicate land, construct, or pay for all or a portion of the costs of capital improvements needed for public facilities as a condition of development approval. Exactions come in many forms; they could be a condition to build infrastructure, cash payments to the local government, dedications of land for public uses, conditions on future land use, or other restrictions or burdens on the permit applicant. Several land-based financing instruments fall under the category of exactions

### **Formal development**

The establishment of housing, other buildings and infrastructure on an area of land which is planned – typically with property boundaries surveyed and registered on a national database - with formally registered tenure<sup>15</sup>. Typically formal property developments are associated with adequate infrastructure.

### **'Greenfields' development**

A property development on empty or undeveloped land.

### **Informal development**

The establishment of housing, other buildings and, possibly, some minimal infrastructure on an area of land which is unplanned, with inadequate services and where households do not have formally recognised tenure<sup>16</sup>.

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<sup>15</sup> Note that the term 'formal settlement' does not imply formal housing: the 'top structures' may be permanent 'formal' buildings or informal buildings.

<sup>16</sup> Note that informal settlement does not relate to the type of 'top structure' or building which may be informal or formal.

### **Land-based finance:**

Land-based finance is a form of public financing that recovers some or all of the value that is generated for private landowners either from public infrastructure investment or the granting of land use change permissions to develop land, and often a combination of both. It is based on the premise that public investments, such as constructing bulk and connector infrastructure, transportation facilities or parks, as well as land development permissions can increase land values, generating an unearned long term gain for private landowners and the developers which serve them.

### **Operating account**

The term 'operating account' as used in this review refers to the account of a local authority which records regular monthly expenditure and revenue that is associated with the day-to day administration of the organisation and the operation and maintenance of municipal services and associated infrastructure. Expenditure on the operating account includes debt finance costs (interest payments and, depending on the accounting standards, redemption of loans).

### **Parastatal**

A parastatal is a legal entity that undertakes commercial (including service delivery) activities/functions on behalf of a public sector owner, which can be any sphere of government, or a mix of government bodies and other but with majority shareholding in the hands of government.

### **Peri-urban**

As applied in this report the term 'peri-urban' is taken to mean the area surrounding an urban area where settlement density levels are substantially lower than in the urban area. Typically people living in peri-urban areas are involved with agriculture for their livelihoods to some extent and typically the infrastructure provided is inadequate and, if provided at all, is not planned as part of the urban system<sup>17</sup>.

### **Re-development**

The improvement of infrastructure (and possibly buildings) in an area which has already been settled and developed.

### **Urban**

Urban relates to living conditions where households and businesses are located in close proximity to each other, forming a contiguous settlement, where the predominant economic activity is not agriculture. Urban areas are typically associated a relatively high level of infrastructure provision, including a street network, or at least with the intention by a public authority of providing such a level of infrastructure.

### **Urbanisation**

Urbanisation is the process where population shifts from rural to urban areas, as well as endogenous population growth within urban areas. Typically the term is also associated with the ways in which the society adapts to increasingly urban conditions.

### **Urban boundary**

The boundary of an urban settlement defined by the outer limit of developed land. The boundary encompasses the spatial extent of the built-up area<sup>18</sup>.

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<sup>17</sup> Peri-urban areas in any one city/country are constantly changing as land use in those areas changes and as the urban incursion into the rural expands in different ways.

<sup>18</sup> Note that this is not associated with administrative or legal boundaries, the term, as applied in this report, relates to the built-up area as a physical concept.

## Appendix C: Property tax in Sub Saharan Africa

Property taxation regimes across the African continent varies reflecting existing legal land ownership and tax arrangements, capabilities of local governments and other municipal institutional arrangements.

Jibao (2009) and Franzsen (2003) suggest that some of the difficulties associated with taxation of properties across the continent can be categorized as follows;

- Poor governance which includes a lack of political will, poor institutional networks and inadequate data and political interference,
- Many countries lack appropriate practical training programmes for municipal values and property tax administrators. As a result, statutory valuation cycles are not adhered to. Franzsen (2003) makes the point that skills shortage exist in the surveying of land, the recording and maintaining of an accurate deeds registry the preparation of valuation rolls.
- A lack of human resources and software capacity,
- Low taxpayer education and related culture of tax compliance,
- Collection and enforcement of taxes continue to pose considerable problems,
- Poor accountability of monies collected through the tax system,
- Jibao (2009) emphasizes that “The operations of the land and property markets are largely informal in the five countries under review. That is, most transactions take place outside a formal registration process and the operations of the land and property markets are not regulated or transparent “(Jibao, 2009, pp27). Franzsen (2003) also emphasizes the difficulties that arise in attempting to raise property related taxes on land occupied under traditional forms of tenure.

The research undertaken by Jibao, (2009) and Franzsen and Youngman (2009) provide data on the valuation systems applied in a number of countries across the continent.

Country	Land Value	Capital Value	Land Improvement	Improvement only	Annual Value	Area Based	Land Improvement &
Angola					X		
Burundi						X	
Cameroon		X				X	
Cape Verde		X					
Central Africa Republic					X		
Chad					X		
Comoros						X	
Congo					X	X	
Cote d'Ivoire		X			X		
DRC						X	
Ethiopia						X	
Gambia					X		
Gabon							
Ghana				X (Jibao)	X		

Country	Land Value	Capital Value	Land Improvement	Improvement only	Annual Value	Area Based	Land Improvement &
Guinea-Bissau					X		
Liberia		X					X
Madagascar					X		
Mozambique		X					
Niger					X		
Nigeria		X			X		
Rwanda						X	
Sao-Tome & Principe		X					
The Gambia							X
Senegal		X			X		
Sierra Leone				X (Jibao)	X		
Nigeria	X			X	X	X	

Source: Jibao, 2009, pp33

Franzsen and Youngman (2009) suggest that value based systems applied across the continent can be placed into two broad categories, namely taxes on annual (rental value) and those that are focussed on capital value. Annual value tends to be used in West Africa and capital value is applied in Southern and East Africa. The study also suggests that Lusophone countries often use a system of self-declaration with a number of countries applying an area based system (value determined by the location of a property). The important point to emphasize is that valuation systems vary significantly across the continent. Moreover, while the value based valuation system tends to be applied in the application of land-based finance instruments, this valuation system is not applied in many African countries.

The table below provides an indication of the capacity that certain countries in West Africa have to undertake the effective valuation of properties.

Country	No of Registered Valuers	In-house valuers	Gov. valuers	Private Valuers	External Quality Control	Training Facilities for Valuers	Period legislated for the valuation Cycle
Ghana	<250	Yes	Yes	Yes	Yes	Yes	5
Sierra Leone	16	Yes	No	No	No	No	None
The Gambia	No Data	Yes	Yes	Yes	No	No	5
Liberia	34	No	Yes	Yes	No	No	5
Nigeria	No Data	Yes	Yes	Yes	Yes	Yes	5

Source: Jibao, 2009, pp35

The study concludes that;

- The ability to assess properties is, in many of these countries, non-existent.

- Even though some countries have a greater number of valuers than others it is rarely sufficient to undertake a reasonable valuation roll.
- A country such as Sierra Leone had no more than 16 valuers in 2009.
- None of the countries have the required training facilities.
- Although the valuation cycle is 5 years in most countries, it is normally undertaken every fifteen years.

Franzsen (2003) considered the characteristics of property related taxes in Southern Africa; namely in the countries that make up the SADC; Southern African Development Community. In this study property taxes included value added tax, transfer tax, estate duties, and capital gains taxes. In the following table the study highlighted the property related taxes levied by SADC member states.

<b>Country</b>	<b>Vat</b>	<b>Transfer Tax</b>	<b>Capital Gains Tax</b>	<b>Estate Duty &amp; Donations Tax</b>	<b>Urban Property Tax</b>
Angola	No	Yes	Yes	Yes	Yes
Botswana	( 2002)	Yes	No	Yes	Yes
DRC	?	?	?	?	?
Lesotho	(2003)	Yes	Yes	Yes	Yes
Malawi	Yes	Yes	Yes	Yes	Yes
Mauritius	Yes	Yes	Yes	Yes	?
Mozambique	Yes	Yes	Yes	Yes	No
Namibia	Yes	Yes	No	No	Yes
Seychelles	?	?	No	No	?
South Africa	Yes	Yes	Yes	Yes	Yes
Swaziland	No	Yes	No	No	Yes
Tanzania	Yes	Yes	Yes	No	Yes
Zambia	Yes	Yes	No	No	Yes
Zimbabwe	(2003)	Yes	Yes	Yes	Yes

Source: Franzsen (2003)

These studies suggest that an attempt to introduce land-based finance instruments across Sub-Saharan Africa will need to take cognisance of local valuation capacity and the type of property taxes that are being applied.