

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

Sub-Saharan Africa property development overview with implications for land-based financing

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Executive summary

Introduction

This report is a Sub-Saharan property development overview undertaken as part of the 'Urban infrastructure in Sub-Saharan Africa – Harnessing land values' project for the UK Government – Department of International Development, with a view to increasing knowledge of property development modalities and associated practice with regard to land-based financing.

A case study approach was adopted whereby team members working on the larger project were asked to select relevant 'mini' case studies of property developments where they had experience. Within a limited budget, a total of 29 mini case studies were undertaken in 22 of the largest cities in Sub-Saharan Africa, in 16 countries, covering as many development circumstances as possible. The case studies were based on published documentation, internet searches, interviews (where possible) and existing team knowledge, and explore the characteristics of each development in terms of the planning, the access to land, the development rights granted, the funding mechanism, and the type of infrastructure required and constructed.

The implication of the adopted definition of 'land-based financing' (see main body of the report), the is that the property developer and/or owner, in additional to the internal infrastructure land and buildings that is conventionally part of a property 'package', pays for other 'external' infrastructure through some mechanism. If the developer pays for costs that would normally be covered by the City or State, then land-based financing is taking place to some extent. On the other hand, if any of the conventional development package is paid for by the city, then subsidisation is taking place. The concept is illustrated in the following diagram.

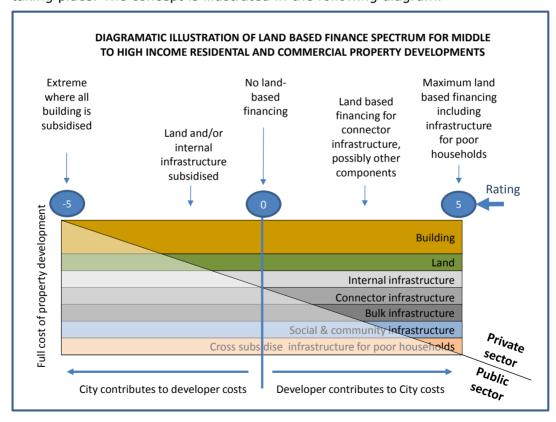


Figure i: Diagram illustrating land-based financing concept in relation to property components

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Findings

The nature of property developers

There is considerable range in the developer types reflected in the sample. In the greatest number of developments, a private developer undertook the complete development. However, there are some examples of the State undertaking the entire development, as well as a variety of partnerships between the public and private sectors. In many cases an 'umbrella' developer acquires rights to the site and provides infrastructure and then sells off serviced land to smaller-scale 'subsidiary' developers.

Role of the City and State

The case studies illustrate the City and State playing a variety of roles, from acting as the developer, to having no role at all. It can be speculated that an appropriate role would be for the City or State providing bulk, connector and social infrastructure (without necessarily financing it), avoiding subsidy of land to commercial and middle to high income residential developments and facilitating large scale developments as a partner to private developers. South Africa, Ethiopia and Côte d'Ivoire are examples. Further, the City or State provides the means to achieve cross subsidy from mid to high income residential and commercial developments to low income residential developments. For this to take place a surplus obviously needs to be generated from mid-high income households and businesses. Land-based financing is one way of generating this surplus (not found in the 28 cases studies). Where the City and State have a reduced role, it is mostly because they do not have the capacity to engage more actively. There were nine examples of the City and State (primarily the State) intervening in the market and subsidising the provision of land, internal infrastructure, and possibly housing.

Accessing land

A range of different mechanisms of accessing land were observed, from acquiring land – or the right to develop it – at full cost, to having land fully subsidised. Land may be subsidised by City or State through transferring land to the developer below market price, or through allowing rural land to be purchased and developed without payment for the additional value added when it is zoned for urban use. This implies, forgoing money which the City could use for infrastructure provision.

Gaining planning approvals

The point at which the City (or State acting for the City) and developer reach agreement on the use of land, development rights and building plans is the point at which the land-based financing arrangement can be formalised. This is dependent on the capacity of the City (or State). However, the mini case studies have not shown any significant findings in this regard. It is possible that this is not a major problem in practice. Only two of the mini case studies identified particular concerns around delays in land use permission. In most cases the Coty or State actively promoted the developments and expedited the approval processes.

Bulk and connector infrastructure

The results show that two thirds of all the cases the developer provides all or some of the bulk and connector infrastructure, which is a considered a land-based financing mechanism typically referred to as an 'in-kind' contribution. However, the 'value' of this arrangement to the City may be reversed if there is a subsidy on the land. In the case of public sector developers or partnership-type developers it can be difficult to be specific about whether the City or State is providing the infrastructure as part of their obligations as an authority or as a developer.

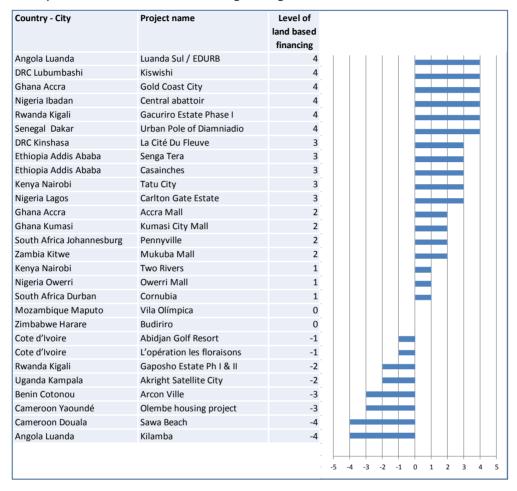
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Development finance

In the majority of cases the developer raises their own finance, presumably through equity or long term debt, often from international sources. In Angola there is the unusual situation of developers having access to finance more readily through backing of oil companies or through government guarantees. The State in Côte d'Ivoire, Mozambique, Cameroon, and Benin also assisted developers raising finance in other ways.

Land-based financing

A summary of the land-based financing ratings for the case studies is shown below.



In the majority of cases the land-based financing rating is positive, indicating that developers contribute to bulk and connector infrastructure in some way. In all cases these contributions took the form of in-kind contributions whereby the developers constructed the bulk infrastructure themselves. It is notable that none of the case studies scored a 5, which is the point at which the developer contributes to social and community infrastructure and cross-subsidises low income housing as well. At the opposite end of the spectrum, a number of West African case studies indicate subsidisation of the developer (Cote d'Ivoire, Benin and Cameroon), while the Kilamba case study from Angola is also an example of a highly State-subsidised development.

Conclusions

The mini case studies indicate that there is a substantial degree of land-based financing taking place, largely in the form of developer in-kind contributions. While

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in some cases a once off fee, charge or tax is levied associated with the issuing of property development rights, there was no evidence studies that this was used to fund infrastructure. Instead this money appeared to either cover only administrative costs, was used to finance operating costs, or went to the State and not to the City. Ethiopia is the only example of funds for infrastructure being raised through the sale of a land or development right, in this case through the land lease system.

The bulk and connector infrastructure provided through in-kind contributions may often be driven by the immediate needs of the property development and not be included as part of an integrated infrastructure system for the city as a whole. This has implications for the poor in that the infrastructure for these 'islands' is unlikely to serve poorer areas.

In opposition to the principles of land-based financing, there are many examples where the State subsidises commercial or high income property developments, primarily through making land available well below market value or even at zero cost to the developer. The typical argument for doing this is that this promotes economic growth. Although it may be too early to tell, there is also little evidence that the economic benefits of the developments that are being supported result in revenues to cities that can then be used for infrastructure to serve the poor. If this is not happening, and in a situation where city economies and property values are escalating rapidly benefiting the relatively well-off, the lack of application of land-based financing to these developments is a lost opportunity.

1 Introduction

This report is submitted to the Department for International Development (DfID) by the African Centre for Cities as a draft report as part of the Implementation Phase of the 'Harnessing land values' project for the UK Government – Department of International Development (ACC, 2015a).

Purpose of this report

The project includes a literature review on land-based financing and infrastructure finance with a first version of this completed as part of the Inception Phase. The intention is for this to be updated as part of the Implementation Phase of the project. This update is in progress. However it has become evident that the available published literature does not provide a satisfactory picture of what is happening with land-based financing in Sub-Saharan Africa; there is published experience relating to South Africa and Ethiopia but little else. Therefore, it was decided to undertake a study of individual property developments in the region with a view to increasing knowledge of property development modalities and associated practice with land-based financing. This report is a summary of findings from this study.

Methodology

As part of this project a separate scan of land-based financing potential, based on published data, was also undertaken for a selection of 31 cities in 22 Sub-Saharan African countries. The data and results are located in a website referred to as 'Africa Land and Infrastructure Scan' (ALICS) (ACC, 2015b). In looking to improve the understanding of property development in the region, it was decided to use the ALICS countries and cities, as far as possible.

The approach was taken to rely on the knowledge of team members working on the DFID 'harnessing land values' project as far as possible. The team was supplemented with additional team members for West and Central Africa. The team were asked to select 'mini' case studies of property developments where they had experience. The aim was to get about ini case studies covering as many cities and property development circumstances as possible.

The key questions that each mini-case study sought to answer were:

- a) Planning: is the development aligned with City plans? Has the City approved it as part of its planning and land use management system? If not, what level of planning was undertaken?
- b) Land access: How was land accessed? Who owned or controlled it and how did the developer gain the rights to use it?
- c) Development rights: Is the nature of the development, including land and buildings aligned with City zoning schemes? Alternately is it consistent with City land use policy?
- d) Funding: What funding has passed from the developers and/or property owners to the City or State associated with gaining rights or providing infrastructure? Can this be fitted into one of the LBF instruments described in the Interim Report? If not to the City or State, did funding pass to any others who control land or right in the area? Are there numbers which can be attached to this?
- e) Infrastructure: What infrastructure is in place? Who provided the infrastructure? Is it adequate for the property development?

The term 'mini' for the case studies has been used as the budget for this work and the time available to do it was limited: only two and half days of research time was allocated to each case study. Within this time the research team was asked to document their existing knowledge of the developments, gather any published information on the project, undertake one or two interviews if possible and write up a report of no more than 5 pages. The reports were reviewed and additional information added, where possible.

Limitations relating to this research

It is recognised that the selection of mini case studies has been subjective. Firstly the selection of cities was based on the experience the research team has in the cities of Sub-Saharan Africa. Secondly the selection of projects to be assessed depended to a large extent on how well known the project is. In the case of the split of projects between residential, commercial and mixed use developments, the intention was to have some diversity without being prescriptive.

It is also important to recognise that the information in the mini case studies has not been verified. The researchers undertaking the individual case studies have had to take the limited information available to them without being able to cross reference this. However, it is notable that the research team comprises experienced urban development professionals and, therefore, considerable reliance has been made on the judgement of these people in interpreting the information on the identified projects.

Notwithstanding the limitations expressed above, it is considered that this set of mini case studies represents a valuable resource and, between them, they have formed the basis for the overview of what is happening with property development in Sub-Saharan Africa.

2 Summary of mini case studies

A summary of key features of the property developments studies is given in the table below. Note that in the last column on 'land-based financing' a rating of the degree to which developers contribute to bulk, connector and social infrastructure is included (range from +5 to -5). This is explained later in the report.

Table 1: Summary of property developments for which mini case studies were undertaken

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
Angola Luanda	Luanda Sul	Housing – middle to high income	Large (1,700 ha) includes commercial. Includes several separate gated communities	Partnership between provincial government of Luanda and a private firm, EDURB, which acted as an urban developer on behalf of the state.	Provincial Government made land available to developer at no cost. After developing the developer would return land to Provincial Government, to allocate "surface rights".	Provided by developer	Level 4 Developer financed large proportion of bulk and connector infrastructure. But State provided land.
Angola Luanda	Kilamba	Mixed use but primarily housing project	Large scale	Angolan State (central government) with Chinese loan funding and Chinese State- owned contractor.	Provided free by the State	All infrastructure provided by the State.	Level -4 All land, infrastructure provided by the State houses sold at subsidized rates
Benin -	Arcon Ville	Housing -	Large	Low risk – mainly	Land provided	Public – local	Level -3

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
Cotonou		intended for low to middle income but not affordable to low income housholds	conceptually (5,000 units). Phase 1: 2,100 units	builder	by government	council	Reverse land- based financing with developer only providing building of houses.
Cameroon Douala	Sawa Beach	Mixed use – mainly housing mid- high income	1,000 ha; 10,000 housing units + commercial + industrial	Private developer but with Douala City owning shares in developer and with risk taking only on top structures.	Provided by government at no cost to developer	City and State fund infrastructure and 25% of top structure; developer funds top structure (75%)	Level -4. Reverse land- based financing with government providing all infrastructure and subsidising housing.
Cameroon Yaoundé	Olembe housing project	Housing – middle-low income	1,300 units	Partnership: Public housing developer: Cameroon Real Estate Corporation (SIC) working with private developer Coffor (Spanish)	Land provided by government agency and remains in government hands	Developer provides water connector. Maybe government provides other internal.	Level -3 Probably none. Depends on how SIC is funded
Cote d'Ivoire Abidjan	Abidjan Golf Resort (Ongoing)	Mixed use high income residential with commercial serving the project area	Large: 200 ha. 1575 high income housing units with hotel, shops and	Private firm: Abidjan Golf Resort (details not available).	Purchased from local community at 'market' price.	Developer is providing all internal infrastructure. Roads provided by 'government'. Uncertain who	Level -1 Effectively no land-based financing. If anything this is an example of reverse land-

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
			recreation facilities			provided other bulk and connector but evidently not the developer.	based financing as developer has an exemption from rates and taxes for a 4 year period.
Cote d'Ivoire Abidjan	L'opération les floraisons	Housing – some commercial	Middle sized: 3,000 'social housing'+ institutional +commercial	Private developer - SOVERD Group but with strong assistance from State (including access to finance)	Purchased from traditional owners	Bulk and connector infrastructure provided by State	Level -1 No land-based financing; strong State support
DRC Kinshasa	La Cité Du Fleuve	Mixed use	Large scale 'satellite city' 380 ha. 200,000 people	Private (more info needed)	Reclaimed land. Land in Kinshasa CBD can sell up to \$ 2,000/m2, whilst land at LCDF is selling for \$ 350/m2	Developer provided internal and connector. Bulk uncertain.	Level 3 Developer provides connector infrastructure
DRC Lubumbashi	Kiswishi	Mixed use 'satellite city'	Large; 4,000 ha at full development - Phase 1 189 ha	Private- Rendeavour (Renaisance Capital Real Estate investments arm)	Rural land currently occupied by villagers. Land leased from State (price uncertain)	All provided by developer.	Level 4 Developer provides all connector and bulk infrastructure; probably on land below market value.
Ethiopia Addis Ababa	Senga Tera Redevelop ment	Mixed use but mainly commercial	Large	City as developer – individual plots leased to private	Urban land re- developed from former		Level 3

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
	Project	- new financial district with residential included		owners	informal housing area		
Ethiopia Addis Ababa	Casainches	Mixed use, mainly commercial - first major urban renewal project in Addis	Large: 98 ha in central Addis Ababa	ditto	ditto	Most bulk and connector infrastructure in place, provided by City.	Level 3 Cost of infrastructure and relocating people covered by sale of lease rights.
Ghana Accra	Gold Coast City	Mixed but mainly commercial	Large 64.7 ha with Phase 1 35 ha.	PPP – Shuguang Group Company Limited, Guoqiang Construction Group Company Limited and Gemfy Group, all of China and Government of Ghana	Land provided by government, requiring the relocation of government departments, partly funded by the developer	The developer will provide all social, internal, connector and bulk infrastructure for the City apart from the road network.	Level 4
Ghana Accra	Accra Mall	Commercial	Large: 20,000 sq m lettable space	Private: Joint venture between Actis, a leading private equity investor in Africa and the family of Owusu-Akyaw	Land owned by family in joint venture	Adjacent to highway. Awaiting information on other infrastructure. Bulk infrastructure other than the highway was also provided by	Level 2 State provided bulk infrastructure, but developer provided bulk infrastructure

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
						Government while the developer provided for connector and internal infrastructure.	
Ghana Kumasi	Kumasi City Mall	Commercial	Large: 27,500 sq m letable space	Private: Joint venture project between Atterbury Group of South Africa and Ghanaian subsidiary of a Mauritius company Delico Property Developments	Land obtained on 50 year lease. No information on what was paid	Adjacent to highway. Awaiting information on other infrastructure. Bulk infrastructure other than the highway was also provided by Government while the developer provided for connector and internal infrastructure.	Level 2 State provided bulk infrastructure, but developer provided bulk infrastructure
Kenya Nairobi	Tatu City	Mixed use – large scale	Large scale (2,500 acres – 1,000 ha)	Private sector 'macro' developer made up of consortium. Micro-developers developing parcels within area.	Land formerly agricultural, purchased as such. Assumed no payment for urban rights.	Developer provides bulk and connector for water and wastewater system. Kenya Power brings power to site. Roads??	Level 3 Developer contributes to bulk and connector but evidence suggests land rights not paid for.
Kenya Nairobi	Two Rivers	Mixed use – commercial & high	Medium – 85ha.	Private – Centum Developments	Uncertain.	Uncertain.	Level 1 Evidence in the report is that

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
		income residential					this is rather little.
Mozambique Maputo	Vila Olímpica	Housing – middle income: first major State- subsidized housing project in Maputo since Mozambique became independent	Small - 848 units. 17.7 ha	Mozambican State (central government) in partnership with Portuguese state investment fund and a consortium of private construction companies.	Made available free by State.	All infrastructure provided by public developer.	Level 0 Reportedly some surplus has been generated on sales to date, but prices are highly subsidized by the State.
Nigeria Owerri	Owerri Mall	Commercial	Small – 13,000 sq m lettable area	Partnership: Resilient Africa - a South African real estate company – with 10% ownership by City of Owerri	Public land provided by City of Owerri in return for their 10% ownership stake in mall	Small amount of connector infrastructure provided by developer	Level 1 Minimal land- based financing through small amount of infrastructure
Nigeria Ibadan	Central abattoir	Industrial – regional abattoir	Single industrial site but with impact on surrounding land – 15 ha	Partnership: private company with BOT contract to build and run abattoir; land provided by Oyo State	State acquired rural land with compensation paid only on crops and improvements probably way under market price	Bulk, connector and internal infrastructure including water, power and sanitation structures (excluding the highway) were provided by the private sector development partner	Level 4 Developer provided infrastructure, but Federal Government provided land as 30% equity contribution for future revenue.

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
Nigeria Lagos	Carlton Gate Estate	Mixed use – mainly housing middle - high income	Small – 231 units	Private developer in consortium with a Chieftaincy family who own land	Provided by Chieftaincy family	Developer provides houses and internal infrastructure and some bulk and connector. Uncertainly over sanitation. Lagos State provides freeway. The developer provided the drain channel connecting with the municipal channel but no sewage treatment plant	Level 3 Developer provides some bulk and connector and pays State land use charge
Rwanda Kigali	Gacuriro Estate Phase I	Housing – Middle to high income	Small: 100 units in Phase I 21.76 Ha	Parastatal: Rwanda Social Security Board (RSSB). RSSB is an independent government institution and receives and manages pension funds of workers in Rwanda	Expropriated land, well below market price	The developer funded the bulk and connector infrastructure with cost recovered through purchase price from purchasers	Level 4 Developer provided bulk and connector infrastructure, but land was heavily subsidised.
Rwanda Kigali	Gaposho Estate Phases I & II	Housing – Middle to high income	Size not given in report but assumed to	Government umbrella developer with subsidiary private	Government provided land at no cost to developer	All bulk and connector provided by Government.	Level -2 Reverse land- based financing: no contribution

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
			be large	developers		Internal provided by developer	to bulk and connector and land subsidised
Senegal Dakar	Urban Pole of Diamniadio	New 'satellite city'	Very large (2,000 ha) including conference centre	Private developer – GETRAN was a major mixed use developer among others who were granted development rights by the Government for the new City. Acted as umbrella developer to other smaller developers.	Provided by government free to developer	Eiffage, a private concern under a 30 year concession, provided the bulk and connector infrastructure under a Build, Operate and Transfer (BOT) contract, and provided all internal infrastructure themselves.	Level 4 Government provides land free but developer provides all infrastructure.
South Africa - Johannesburg	Pennyville	Housing – middle-low income	Medium sized - 2,750 units (one commercial plot) - 100 ha	Private – CALGRO, with some involvement from a municipal- owned social housing company	Urban land purchased at market price	City provided bulk and connector infrastructure.	Level 2 Slightly positive(develop er provided some land, internal infrastructure, buildings and one social facility, and provided some internal cross- subsidisation of low-income housing to

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
							improve the quality of the houses)
South Africa - Durban	Cornubia	Mixed use	Very large: 1,300 ha planned for 25,000 housing units, 15,000 low income (subsidised). 2,799 units Phase 1. Commercial and industrial.	Partnership between private company which owned the land, Tongaat Hulett, the eThekwini Municipality and the National and Provincial Department of Human Settlements who developed the low-income housing	All land originally owned by private companies, Tongaat Hulett mainly. City has progressively bought some of this land now used for low income housing development	Bulk and connector infrastructure provided by City. Some connector provided by developer to be reimbursed by City. Some developer contribution to other bulk and connector infrastructure. Internal infrastructure by developers.	Level 1 Very slightly positive. (developer paid for some bulk and connector infrastructure, but was also subsidised for some)
Uganda Kampala	Akright Satellite City	Mixed use – mainly housing middle income	Large 510 ha - (maybe 30,000 but 2,500 houses provided to date	Private developer (name not give in the report)	Traditional land purchased by developer from rural families	Developer provides houses and internal infrastructure. Uncertainly over bulk and connector infrastructure (other than freeway and drainage channels provided by State)	Level -2 Uncertain at this stage but appears to be reverse land-based financing (land below cost and no contribution to bulk and connector infrastructure)
Zambia Kitwe	Mukuba	Commercial	Large by	Private, South	Purchased as	Developer	Level 2

Country - City	Project name	Project type	Project size	Type of developer	Land provision	Infrastructure provision	Land-based financing
	Mall	- mall	mall standards (30,000 sq m)	African based	a commercial site from a private owner at market related price	provided all connector infrastructure	Finance of connector infrastructure by developer
Zimbabwe, Harare	Budiriro Housing Develop- ment	Housing meant to be low income but more middle income	About 3,000 units with three options for top structure	City of Harare JV with CABS (Old Mutual subsidiary)	Provided to developer at low cost	Connector infrastructure as part of the project	Level 0 Neutral as developer provides some connector infrastructure but gets land at below cost

3 The concept of land-based financing in relation to property components

The definition of land-based financing is covered in the literature review undertaken as part of this project (ACC, 2015a) and is based on the following definition of land value capture:

"Land value capture 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" (Suzuki et al, 2015:xxii)

The implication is that the property developer and/or owner pays for infrastructure through some land-based financing mechanism. Key to this is an assumption of what infrastructure is considered to be funded through land-based financing with this being additional to that which is conventionally part of a property 'package'. The argument is made here that this conventional property package comprises the land (at market related price), internal infrastructure and the building which may be a housing unit or commercial or industrial building (sometimes referred to as 'top structure').

The concept is illustrated in the following diagram.

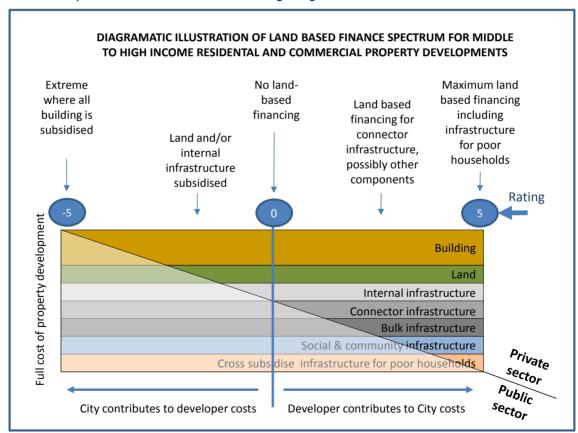


Figure 1: Diagram illustrating land-based financing concept in relation to property components

The diagram indicates the concept of a shared responsibility for financing the full cost of a property to all parties involved. This is simplified to the sharing of costs between the private sector (above the diagonal line) and public sector (below the diagonal line). The 'conventional' property package referred to above is the point of 'no land-based financing' on the diagram as the property developer finances only the cost of building, land and internal infrastructure. Land-based financing, in the broadest interpretation applied here, takes place as one moves to the left of the diagram with the private sector (developer and property owners) progressively financing connector infrastructure, bulk infrastructure and social and community infrastructure – components that would otherwise have had to be financed by the public sector. At the very left an assumption is made that the property development will also provide for a contribution towards the financing of infrastructure to support low income housing, whether this be part of the property development or external to it.

As one moves from the 'no land-based financing' position towards the right of the diagram this becomes what could be called 'reverse land-based financing' in the sense that the public sector, either the City or the State, is funding the internal infrastructure, land and ultimately the cost of buildings (typically housing units). More conventionally this can be considered a subsidy to the property owners.

Finally it needs to be noted that the order in which the components of a property development are layered is not important. For example, it is possible for a property developer to cross subsidise low income housing (typically within the development) but not bulk and connector infrastructure. This remains a form of land-based financing.

4 The nature of the property developments in the sample

For the purpose of this research property developments are categorised into the following groups:

- Residential low income;
- Residential middle to high income;
- Commercial:
- · Industrial; and
- Mixed use developments

The table below defines these groups and lists the case studies that fall into each category.

Table 2: Summary of case studies by type of property

Property type	Description	Extent covered in case studies
Residential – low income	No attempt has been made to draw a universal limit for what household income is considered 'low'. It is assumed that approximately one third of the population in SSA cities are not able to	Not included as the case studies are focused on land-based financing and this is not viable for low income residential property.

Property type	Description	Extent covered in case studies
	raise finance for housing.	
Residential – middle to high income	The assumption is made that these households can raise housing finance of some sort and that there is the potential – obviously increasing as household income increases – to capture some of the value of the property.	 Benin, Cotonou, Arcon Ville Cameroon, Yaoundé, Olembe Housing Project Cote d'Ivoire, Abidjan, Floraisons Mozambique, Maputo, Vila Olímpica Nigeria, Lagos, Carlton Gate Estate Rwanda, Kigali, Gacuriro Estate Phase I Rwanda, Kigali, Gaposho Estate Phases I & II South Africa, Johannesburg, Pennyville Zimbabwe, Harare, Budiriro Housing Development
Commercial	Office and retail space sometimes including public benefit buildings (post offices, clinics, places of worship etc).	 Ghana, Kumasi, Kumasi Mall Ghana, Accra, Accra Mall Nigeria, Owerri, Owerri Mall Zambia, Kitwe, Mukuba Mall
Industrial	Typically premises used for manufacturing but also includes warehousing and various other uses.	Nigeria, Ibadan, Central Abbatoir
Mixed use developments	Mix of residential, commercial and industrial.	 Angola, Luanda, Luanda Sul Angola, Luanda, Kilamba Cameroon, Douala, Sawa Beach Cote d'Ivoire, Abidjan, Abidjan Golf Estate DRC, Kinshasa, la Cite du Fleuve DRC, Lubumbashi, Kiswishi Ghana, Accra, Gold Coast City Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera Kenya, Nairobi, Tatu City Kenya, Nairobi, Two Rivers Senegal, Dakar, Urban Pole

Property type	Description	Extent covered in case studies
		of Diamniadio
		 South Africa, Durban, Cornubia
		 Uganda, Kampala, Akright Satellite City

While the intention was to get a mix of property development types there was not a specific target set for this. As it happened the mix of development types is considered to give a reasonable coverage of each type. While this sample cannot be considered to be statistically sound there are some broad conclusions which can be drawn regarding the nature of property developments in the region:

- 1. Low income housing, as defined in this report, was not the focus of this study. However, the indication from the mini case studies is that it gets alarmingly little attention in the countries included, with the possible exception of South Africa. Further comment on this is included below.
- 2. There is a strong tendency towards major property developments on the periphery of cities. These are sometimes called 'cities' themselves, sometimes 'satellite cities'. In reality most of them represent new nodes which may have a sound basis in the sense that they promote a multi-nodal city. On the other hand there is an argument that these developments arise simply because there are large tracts of land available at low cost1.
- 3. The growth of new commercial developments in the form of malls is likely to be high, partly because this type of development is under-provided at present and partly because of a 'mall ethic' which is driven by South African property developers, amongst others.

The nature of property developers 5

The spectrum of property developers is illustrated in the figure below.

¹ Given that this is a common trend, there is the potential for further research to be done on this using information from these mini case studies, possibly with some data follow up. But this is not the primary focus of this study.

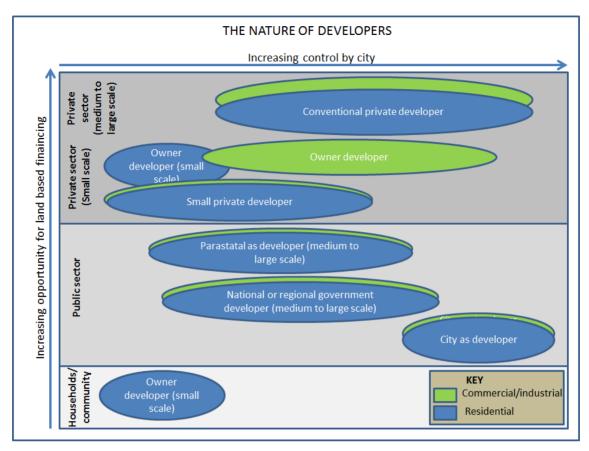


Figure 2: Nature of developers related to land-based financing and City control (ACC, 2015a)

In considering the nature of developers there is also a common circumstance in many places where there is a two tier arrangement for large scale property developments:

- An 'umbrella' developer which gains ownership of a large tract of land (or the right develop this land from the owner), gets the rights to develop the land from the City, typically facilitates the provision of bulk and connector infrastructure and then sells off individual land parcels to 'subsidiary' developers.
- **'Subsidiary' developers** which buy parcels of land from the 'umbrella' developer (or gain rights to develop from the umbrella developer), provide internal infrastructure and buildings, either residential or commercial, with separate properties sold to individuals or firms who become property owners.

There are also circumstances where there is a public/private consortium acting as a developer which is not shown on the diagram above.

Table 3: Summary of case studies by type of developer

Type of developer	Cases
Large scale private	Angola, Luanda, Luanda Sul
developer acting as 'umbrella' developer, working with smaller scale developers (not	 Kenya, Nairobi, Tatu City Rwanda, Kigalii, Gaposho Estate Phases I & II

Type of developer	Cases
identified).	
Medium to Large scale partnership between government and private developer	 Ghana, Accra, Gold Coast City Cameroon, Douala, Sawa Beach South Africa, Durban. Cornubia Zimbabwe, Harare, Budiriro Housing Development
Small scale partnership between government and private developer	Nigeria, Owerri, Owerri MallNigeria, Ibadan, Central Abbatoir
Large scale private developer undertaking complete development	 Cameroon, Yaoundé, Olembe Housing Project Côte de'Ivoire, Abidjan, Abidjan Golf Estate Cote d'Ivoire, Abidjan, Floraisons DRC, Kinshasa, la Cite du Fleuve DRC, Lubumbashi, Kiswishi (may become 'umbrella' style) Ghana, Kumasi, Kumasi Mall Kenya, Nairobi, Two Rivers Senegal, Dakar, Urban Pole of Diamniadio. South Africa, Johannesburg, Pennyville Uganda, Kampala, Akright Satellite City Zambia, Kitwe, Mukuba Mall
Small scale private developer undertaking complete development	Ghana, Accra, Accra MallNigeria, Lagos, Carlton Gate EstateRwanda, Kigali, Gacuriro Estate Phase I
Parastatal developer	No developers identified in this category but it is notable that some cooperative developer entities have public partners which are close to being parastatals and this has not been fully understood.
Public sector developer, sometimes with construction firms acting as subsidiary 'developers' but taking little risk.	 Angola, Luanda, Kilamba Benin, Cotonou, Arcon Ville Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera Mozambique, Maputo, Vila Olímpica

There is considerable range in the developer types reflected in the sample. However, it should be noted that 'community based' and what could be called 'informal micro' developers are not represented. This is partly as the opportunities for land-based financing are minimal here and partly because of a lack of readily accessible information. The reason for mentioning the 'informal micro' type (not shown on the diagram above) is that this was identified as an option in the Kenya country case study with specific reference to the informal settlement of Kibera in Nairobi. Here the local traditional leaders (referred to now as 'provincial' leaders) extract informal payments from property owners and hence, indirectly, their tenants in the area, for providing water and electricity connections. This is a form of informal land-based financing not covered in the mini case studies.

6 Role of City and State (including national parastatals)

Successful land-based financing is dependent on having a capable State and capable City. Together these are referred to as 'government' in this report. In the case of the State it needs to set up a sound policy environment and be in a position to support local governments in managing land and providing infrastructure. The City, whether this be constituted as a local government or a federal state (in the case of Lagos, for example) plays a fundamental role in land-based financing for a number of reasons (see ACC, 2015a for more on this), including:

- Cities have a direct role to play in providing infrastructure for property developments, even if this is confined to roads.
- Cities manage the ongoing management of infrastructure.
- They are the central partner in the land-based financing process as it is in the engagement between developer and City over the rights to develop property where value is captured in the form of a commitment of the developer to provide bulk, connector and social infrastructure or provide money to the City to do this on their behalf.

In the table below, which deals with the role of City and State, no differentiation is made between the two. This may be possible with further work but, with the limited scale of this research, the extent to which Cities act as independent entities is unclear and differentiation is often difficult.

In broad terms the roles of City and State in property development and land-based financing in the case studies include:

- Provision of bulk and connector infrastructure.
- Assisting with access to land either as facilitator or as a provider of land which may or may not be provided at market value (mostly the latter).
- Actually engaging in property development autonomously or as a partner with a private developer.

Table 4: Summary of role of City and State in property development case studies

Ref	Extent of engagement by City and State	Cases
1	No provision of additional bulk and connector infrastructure for project, no assistance in access to land and no stake in development. However, some degree of approval of development given.	 DRC, Lubumbashi, Kiswishi Ghana, Accra, Accra Mall Kenya, Nairobi, Two Rivers Zambia, Kitwe, Mukuba Mall
2	Some provision of bulk infrastructure (typically by parastatal) No provision of connector infrastructure for project, no assistance in access to land and no stake in development. However, some degree of approval of development given.	 DRC, Kinshasa, la Cite du Fleuve Kenya, Nairobi, Tatu City Nigeria, Lagos, Carlton Gate Estate Ghana, Accra, Gold Coast City Ghana, Kumasi, Kumasi Mall

Ref	Extent of engagement by City and State	Cases
3	Some bulk provided typically by parastatals (typically electricity). Land provided free or subsidised	 Rwanda, Kigali, Gacuriro Estate Phase I Senegal, Dakar, Urban Pole of Diamniadio
4	Some bulk provided typically by parastatals (typically electricity). In addition land provided at no cost or substantially subsidised.	Zimbabwe, Harare, Budiriro Housing Development
5	Full provision of bulk and connector infrastructure but no internal infrastructure and no influence on land price.	 Côte de'Ivoire, Abidjan, Abidjan Golf Estate Cote d'Ivoire, Abidjan, Floraisons South Africa, Johannesburg, Pennyville South Africa, Durban. Cornubia
6	Providing all or most of bulk and connector infrastructure and acting as umbrella developer	 Angola, Luanda, Luanda Sul Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera
7	Providing all or most of bulk and connector infrastructure plus subsidised land and/or internal infrastructure.	 Angola, Luanda, Kilamba Benin, Cotonou, Arcon Ville Cameroon, Yaoundé, Olembe Housing Project Mozambique, Maputo, Vila Olímpica Nigeria, Ibadan, Central Abbatoir Nigeria, Owerri, Owerri Mall Rwanda, Kigali, Gaposho Estate Phases I & II Uganda, Kampala, Akright Satellite City
8	Additional subsidy for housing top structures	Cameroon, Douala, Sawa Beach

As is evident from the table there are a wide range of City and State interventions in the property development process. It is premature to pass judgement on what is an 'ideal' role for City and State, but it can be speculated that the middle position in this table (rows 5 and 6) define an appropriate role with the City providing bulk, connector and social infrastructure (without necessarily financing it), avoiding subsidy of land to commercial and middle to high income residential developments and facilitating large scale developments as a partner to private developers. South Africa, Ethiopia and Côte d'Ivoire are examples. Further, the City or State provides the means to achieve cross subsidy from mid to high income residential and commercial developments to low income residential developments. For this to take place a surplus obviously needs to be generated from mid-high income households

and businesses. Land-based financing is one way of generating this surplus (not found in the 28 cases studies).

The top part of the table (rows 1 to 4) illustrates situations where the City and State play a more passive role, mostly because they do not have the capacity to engage more actively (although this is speculative at this stage).

In rows 7 and 8 are examples of situations where, it could be argued, the City and State (primarily the State) are intervening in the market and subsidising the provision of land, internal infrastructure and possibly the housing 'top structure'. Typically this is done with the motivation that such interventions are necessary to stimulate a property market and promote economic growth. The merits of this approach are debated further below.

7 Accessing land

Accessing well-located land at a reasonable price is fundamental to successful property development from the point of view of both developer and City, accepting that there may be opposing views as to what a 'reasonable price' is. The range of circumstances occurring in the sample property developments are shown in the table below.

Table 5: Summary of case studies from the point of view of land access

Ref	Land access situation	Cases
1	Urban land purchased privately at market price (with the assumption that it is zoned for the intended use).	 DRC, Kinshasa, la Cite du Fleuve Ghana, Accra, Accra Mall South Africa, Johannesburg, Pennyville Zambia, Kitwe, Mukuba Mall
2	Urban land leased at market prices	 Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera Kenya, Nairobi, Two Rivers Ghana, Kumasi, Kumasi Mall
3	Privately owned Rural land purchased at market price	Kenya, Nairobi, Tatu CityNigeria, Lagos, Carlton Gate EstateSouth Africa, Durban, Cornubia
4	Rural land traditionally owned purchased at 'market' price without rezoning cost. (with limited evidence of an actual market).	 Côte de'Ivoire, Abidjan, Abidjan Golf Estate Cote d'Ivoire, Abidjan, Floraisons DRC, Lubumbashi, Kiswishi Nigeria, Ibadan, Central Abbatoir Uganda, Kampala, Akright Satellite City
5	Land partially subsidised by government	 Angola, Luanda, Luanda Sul Ghana, Accra, Gold Coast City Nigeria, Owerri, Owerri Mall Rwanda, Kigali, Gacuriro Estate Phase I Zimbabwe, Harare, Budiriro Housing Development

Ref	Land access situation	Cases
6	Developer incurred no costs associated with land purchase or changing zoning.	 Angola, Luanda, Kilamba Benin, Cotonou, Arcon Ville Cameroon, Douala, Sawa Beach Cameroon, Yaoundé, Olembe Housing Project Mozambique, Maputo, Vila Olímpica Rwanda, Kigali, Gaposho Estate Phases I & II Senegal, Dakar, Urban Pole of Diamniadio

Essentially this table represents a progression from acquiring land – or the right to develop it – at full cost (at the top or the table) to having land fully subsidised (at the bottom). Land may be subsidised by City or State in a number of ways:

- Through transferring land owned by City or State to the developer, and ultimately the property purchaser, below market price.
- Through allowing rural land to be purchased and developed without payment for the additional value added of the land only in this case when it is zoned for urban use. This implies, in effect, forgoing the transfer of money to the City which could be used for infrastructure provision.

A discussion on the merits of land subsidy is covered later in this report.

8 Gaining planning approvals: rezoning, building approval etc.

This stage in the property development process has been included here as it is critical to the land-based financing process. As stated earlier, the point at which the City (or State acting for the City) and developer reach agreement on the use of land, development rights and building plans is the point at which the land-based financing arrangement can be formalised. The extent to which this is effective is dependent on the capacity of the City (or State as its proxy) and on the related existence of sound administration.

However, although this administration criterion is important, the mini case studies have not shown any significant findings in this regard. It is possible that this is not a major problem in practice. Only two of the mini case studies identified particular concerns as indicated in the table below.

Table 6: Summary of case studies from the point of view of development approval

Extent of difficulty with gaining approval	Cases
Difficulties over land use permission	South Africa, Johannesburg, Pennyville (suitability of original land held by developer disputed)
	 Zambia, Kitwe, Mukuba Mall (long time to get environmental impact assessment approved)
No indication of problems in	Ghana, Kumasi, Kumasi Mall

Extent of difficulty with gaining approval	Cases
case study report	 Ghana, Accra, Accra Mall Kenya, Nairobi, Tatu City Kenya, Nairobi, Two Rivers Nigeria, Lagos, Carlton Gate Estate Rwanda, Kigali, Gacuriro Estate Phase I Rwanda, Kigali, Gaposho Estate Phases I & II Senegal, Dakar, Urban Pole of Diamniadio Uganda, Kampala, Akright Satellite City Zimbabwe, Harare, Budiriro Housing Development
No hurdles, partly due to lack of land use management systems	DRC, Lubumbashi, Kiswishi
No hurdles with regard to approvals as City and State actively promote development. (some uncertainty with regard to positioning projects here).	 Angola, Luanda, Kilamba Angola, Luanda, Luanda Sul Benin, Cotonou, Arcon Ville Cameroon, Douala, Sawa Beach Cameroon, Yaoundé, Olembe Housing Project Côte de'Ivoire, Abidjan, Abidjan Golf Estate Côte d'Ivoire, Abidjan, Floraisons DRC, Kinshasa, la Cite du Fleuve Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera Ghana, Accra, Gold Coast City Mozambique, Maputo, Vila Olímpica Nigeria, Ibadan, Central Abbatoir Nigeria, Owerri, Owerri Mall South Africa, Durban, Cornubia

9 Bulk and connector infrastructure

The focus of land-based financing is primarily on the provision of bulk and connector infrastructure both for the property development itself but also for the city as a whole on the assumption that this may benefit low income households. The relative role played by the public sector (City, State and parastatals) and private sector developers is therefore significant. This analysis of how infrastructure is provided in each mini case study is somewhat of a duplication of the analysis above of 'role of City and State'. However the intention here is to deal with the practical aspect of infrastructure provision separately, as shown in the table below. It is notable that in the case of public sector developers or partnership-type developers it can be difficult to be specific about whether the City or State is providing the infrastructure as part of their obligations as an authority or as a developer.

Table 7: Summary of case studies with respect to responsibility for bulk and connector infrastructure

Ref	Extent to which developer provides bulk and connector infrastructure	Cases
1	Private developer provides the majority of the bulk and connector infrastructure	 Angola, Luanda, Luanda Sul DRC, Kinshasa, la Cite du Fleuve DRC, Lubumbashi, Kiswishi Kenya, Nairobi, Tatu City Ghana, Accra, Gold Coast City Rwanda, Kigali, Gacuriro Estate Phase I
2	Public developer provides the majority of the bulk and connector infrastructure	 Angola, Luanda, Kilamba Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera Mozambique, Maputo, Vila Olímpica Nigeria, Ibadan, Central Abbatoir
3	Intermediate: developer provides some connector infrastructure	 Ghana, Accra, Accra Mall Ghana, Kumasi, Kumasi Mall Kenya, Nairobi, Two Rivers Nigeria, Lagos, Carlton Gate Estate Nigeria, Owerri, Owerri Mall Senegal, Dakar, Urban Pole of Diamniadio South Africa, Durban, Cornubia Zimbabwe, Harare, Budiriro Housing Development Zambia, Kitwe, Mukuba Mall
4	No provision of bulk and connector by developer	 Benin, Cotonou, Arcon Ville Cameroon, Douala, Sawa Beach Cameroon, Yaoundé, Olembe Housing Project Côte d'Ivoire, Abidjan, Floraisons Côte de'Ivoire, Abidjan, Abidjan Golf Estate Rwanda, Kigali, Gaposho Estate Phases I & II South Africa, Johannesburg, Pennyville Uganda, Kampala, Akright Satellite City

It is notable that a situation where the developer provides all or some of the bulk and connector infrastructure (rows 1 to 3) is a land-based financing mechanism, typically referred to as an 'in-kind' contribution. The results reflected above therefore show that two thirds of all the cases used this mechanism. In stating this it should be noted that the 'value' of this arrangement to the City may be reversed if there is a subsidy on the land, as shown in Section 7.

It is also important to reflect on whether these in-kind contributions are necessarily good practice. In some, but not all, cases the reason why the developer provides

the infrastructure – bulk infrastructure specifically – is because the City (with the support of the State) is not able to do this. In the context of an efficient, high density, modern city it remains important for bulk infrastructure to be provided as an integrated system. In-kind contributions can tie into an integrated systems, but there are several situations where bulk infrastructure is provided by developers to only serve the property development they are responsible for, resulting in infrastructure 'islands'.

10 Development finance

The term 'property developer' implies an organisation which is taking financial risk in the sense that they are purchasing land, gaining rights to develop it and undertaking construction of infrastructure and buildings before selling and receiving payment for the properties from the final owners. Therefore the ability of developers to raise development finance is critical to their ability to function effectively. There is a range of ways in which developers included in the mini case studies have done this, as shown in the table below.

Table 8: Summary of case studies with respect to financing property developments

Ref	Туре	Cases
1	Developer raises all finance through equity and long term debt, independent of support from the State	 Côte d'Ivoire, Abidjan, Abidjan Golf Estate DRC, Kinshasa, la Cite du Fleuve DRC, Lubumbashi, Kiswishi Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera Ghana, Kumasi, Kumasi Mall Ghana, Accra, Accra Mall Ghana, Accra, Gold Coast City Kenya, Nairobi, Tatu City Kenya, Nairobi, Two Rivers Nigeria, Ibadan, Central Abbatoir Nigeria, Lagos, Carlton Gate Estate Nigeria, Owerri, Owerri Mall Gacuriro Estate Phase I Rwanda, Kigali, Gaposho Estate Phases I & II Senegal, Dakar, Urban Pole of Diamniadio South Africa, Johannesburg, Pennyville South Africa, Durban, Cornubia Uganda, Kampala, Akright Satellite City Zimbabwe, Harare, Budiriro Housing Development Zambia, Kitwe, Mukuba Mall
2	Developer raises finance from State and private oil companies	Angola, Luanda, Luanda Sul
3	Developer raises finance through government assisted financial	Côte d'Ivoire, Abidjan, FloraisonsMozambique, Maputo, Vila

Ref	Туре	Cases
	mediation	Olímpica
4	Finance provided by government with government raising some debt finance for project	 Angola, Luanda, Kilamba Cameroon, Douala, Sawa Beach Cameroon, Yaoundé, Olembe Housing Project
5	Finance provided by government	Benin, Cotonou, Arcon Ville

In the majority of cases the developer raises their own finance, presumably through equity or long term debt, often from international sources. In Angola there is the unusual situation of developers having access to finance more readily through backing of oil companies which provided up up-front funding or through government guarantees. The State in Côte d'Ivoire, Mozambique, Cameroon, and Benin also assisted developers raising finance in other ways to the extent of actually financing the whole development in Benin (where the State is effectively the developer).

11 Land-based financing

In this section the intention is to provide a summary of the degree of land-based financing for each of the sample property developments, in relation to the conceptual model for land-based financing set out in Figure 1. A 'rating' of the extent of land-based financing is included with a range of +5 (maximum land-based financing) to -5 (maximum reverse land-based financing or full subsidy) with zero being neutral (no land-based financing). This scale is illustrated in Figure 3 and described in Table 9. Note that because of the variations in the payment arrangements and subsidisation of the various components of infrastructure, some descriptions may not match the diagram exactly.

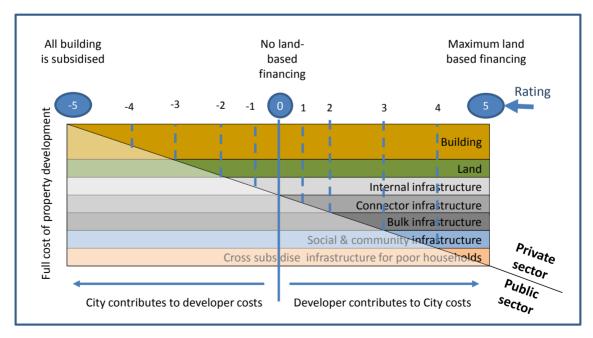


Figure 3: Rating scale for land-based financing

Table 9: Summary of extent of land-based financing on sample property developments

Type of developer	Rating	Cases
Developer finances a large proportion of bulk and connector, contributes to social and community infrastructure and some degree of cross-subsidy to low income households.	5	No case studies at this rating
Developer finances a large proportion of bulk and connector and contributes to social and community infrastructure but gets subsidised land.	4	 Angola, Luanda, Luanda Sul DRC, Lubumbashi, Kiswishi Ghana, Accra, Gold Coast City Nigeria, Ibadan, Central Abattoir Rwanda, Kigali, Gacuriro Estate Phase I Senegal, Dakar, Urban Pole of Diamniadio
Developer finances connector infrastructure and contributes to bulk	3	 DRC, Kinshasa, la Cite du Fleuve Kenya, Nairobi, Tatu City
Subsidiary developer and/or Property owner pays for right to develop land through purchasing lease rights or through purchasing development rights in some other way.	3	 Ethiopia, Addis Ababa, Casainches Ethiopia, Addis Ababa, Sengatera
Developer pays a fee based on a formula or some sort, which is intended to cover cost of bulk and connector infrastructure.	3	Nigeria, Lagos, Carlton Gate Estate
Developer provides or finances connector infrastructure	2	Ghana, Accra, Accra MallGhana, Kumasi, Kumasi MallZambia, Kitwe, Mukuba Mall
Developer provides land and internal infrastructure; some degree of cross subsidy of low income housing	2	South Africa, Johannesburg, Pennyville
Developer provides land and internal infrastructure and limited connector infrastructure.	1	 Kenya, Nairobi, Two Rivers Nigeria, Owerri, Owerri Mall South Africa, Durban. Cornubia
Neutral with respect to land- based financing: developer provides land (at market price) and internal infrastructure	Zero	 Mozambique, Maputo, Vila Olímpica Zimbabwe, Harare, Budiriro Housing Development
Close to neutral in that developer provides land and internal	-1	Côte d'Ivoire, Abidjan, Abidjan Golf Estate

Type of developer	Rating	Cases
infrastructure but with some softening of taxes, rates and other fees.		 Côte d'Ivoire, Abidjan, Floraisons
Close to neutral in that developer provides land and internal infrastructure but with land at below market prices	-2	 Uganda, Kampala, Akright Satellite City Rwanda, Kigali, Gaposho Estate Phases I & II
Developer only provides buildings with land and all infrastructure subsidised.	-3	 Benin, Cotonou, Arcon Ville Cameroon, Yaoundé, Olembe Housing Project
Developer only provides buildings with a partial subsidy (in addition to land and all infrastructure being subsidised).	-4	Cameroon, Douala, Sawa Beach
Complete development, including buildings, subsidised by State	-5	Angola, Luanda, Kilamba

A summary of the case studies and their land-based financing ratings is provided in Figure 4. In the majority of cases the land-based financing rating is positive, indicating that developers contribute to bulk and connector infrastructure in some way. In all cases these contributions took the form of in-kind contributions whereby the developers constructed the bulk infrastructure themselves. The highest number of case studies scored 4, indicating that in these instances the developer paid for all bulk and connector infrastructure costs. However, it is also notable that none of the case studies scored a 5, which is the point at which the developer contributes to social and community infrastructure and cross-subsidises low income housing as well.

At the opposite end of the spectrum, a number of West African case studies indicate subsidisation of the developer (Cote d'Ivoire, Benin and Cameroon), while the Kilamba case study from Angola is an example of a highly State-subsidised development.

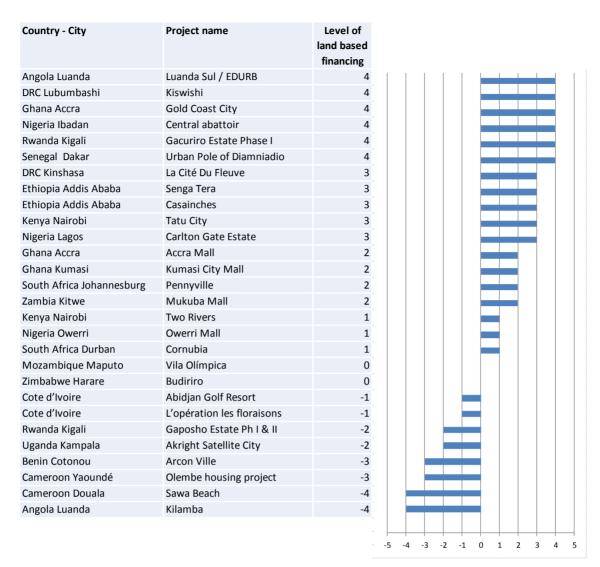


Figure 4: Summary of mini case studies and land-based financing ratings

12 Special provisions for land-based financing

The case study research has surfaced examples of some countries having a onceoff tax, charge or levy that is payable upon the granting of development rights, development approval, or building approval. In some cases this charge is minimal and intended only to cover the administrative cost of processing the development application, but in other cases the fee is substantial and could be used for landbased financing if it were directed toward investment in infrastructure. This section discusses the few examples of such fees and whether they are currently, or have the potential to be, applied as land-based financing instruments.

12.1 Angola

In Angola all land belongs to the State. The case study of Luanda Sul illustrates a complex arrangement whereby a private urban development agency was given the land to develop at no cost, but after development the agency would return it to the Provincial Government, which would allocate title deeds or "surface rights" to the

land. Some land would be passed onto the original private investors free of charge, but in most cases land would be sold with full infrastructure to individual private developers at a price calculated as the cost of the installed infrastructure plus a social contribution (paid to the agency). In 2002, the final land price varied between \$50 and $68/m^2$, including the "social land price" of \$2.5/m². This once-off payment is the equivalent of an impact fee or development charge. However, this only covers the actual value of infrastructure installed and does not 'capture' the additional value that is created through servicing that prime property. Prices in the area have grown exponentially and current average prices in the residential market, including top structure, are approximately \$4,900/m², indicating huge appreciation due to a shortage of housing stock and a lost potential opportunity for land-based financing.

12.2 Côte de'Ivoire

In Abidjan, there are four basic taxes levied and collected by central government agencies (Directorate General of Taxes), which are then re-distributed to local government at the commune level through a formula. These taxes are: a tax on developed property; a tax on undeveloped urban property; a tax on property belonging to real estate development corporations and building societies; and municipal councils can apply a 10%-20% surcharge on State taxes. The first three of these taxes are equivalent to varying rates of property taxation, while the fourth one represents a localised portion of the property tax which could potentially be used for infrastructure investment. However, the Abidjan case study shows that the developer was exempt from payment of the both the property tax on undeveloped property and the tax on developed property for four years. The company had to pay stamp and registration duties during this period though, but it is assumed that these are administrative charges.

12.3 Kenya

It is evident that developer in-kind contributions, referred to as 'Planning Gains' are taking place at a moderate scale in Nairobi. Formal developer contributions are charged to cover the full cost of electricity connection to new developments. In addition, when developers submit building plans, they are required to pay .05 per cent of development cost in the form of an infrastructure levy. A similar fee is charged for a change of land use application. However, this levy has not necessarily led to the provision of infrastructure, partly because funds which were raised through this mechanism were used for other purposes. While developers are willing to pay for a portion of bulk and connector infrastructure, they are sceptical that the City will actually use the funds raised to provide infrastructure.

In Nairobi the City Council budget records revenue line items for 'building permits' and 'Plan approval' there is are two line items on their financial statements. The first has a budget, but no revenue reflected, while the second has revenue but not budget reflected. It is likely that these are administrative charges, but it is also possible that they could represent infrastructure levies if they are set well above this cost. If these mechanisms raise surplus (above cost) this amounts to a tax, but would only become a land-based financing instrument if the revenue was ringfenced for infrastructure investment.

12.4 Mozambique

All land in Mozambique is owned by the State, but land use rights, known as 'DUATs' are granted by the State. These DUATs are roughly equivalent to 50 year leases and can transferred between owners or purchased from the State. The rates charged for these DUATs could represent a land-based financing mechanism.

However, the charge for these rights are variable, and the Villa Olimpica case study illustrates that these charges can be waived in some instances.

12.5 Nigeria

In Lagos, residents of new developments pay a land use charge, which is once off property based taxation levied by Lagos State Government assessed on the capital value of the property.

12.6 Rwanda

For property development in Rwanda, the government does not take advantage of land-based financing as it receives a flat development application fee that is not linked to the value of the property. These nominal fees are charged for building approval and change of title, but are administrative fees only.

12.7 Senegal

Building and construction permits are granted to the developers in line with the master plan. Fees payable include Stamp Duty on registration of the title which is at 10% of the land price, however when the houses are sold the purchasers are expected to register their interest at the Deed office and pay Stamp Duty of 10% of price.

12.8 South Africa

South Africa has a long history of in-kind contributions or financial contributions towards bulk infrastructure, termed Bulk Infrastructure Contribution Levies, Engineering Service Contributions, Developer Contributions or Development Charges. This has been possible through provincial land use legislation, but to date has been inconsistently applied by municipalities. Despite having the power to charge these bulk infrastructure levies, municipalities often argue that it discourages development. Those municipalities that have charged this fee, usually do so according to a municipality-specific formula that calculates the relative impact of the development on the relevant infrastructure networks and proportions the cost of this infrastructure accordingly. Some municipalities only apply the formula for certain infrastructure (for example, Johannesburg only charges for roads and stormwater), while others (such as the City of Cape Town) apply the charge for all engineering services. New national land use planning legislation has provided a consistent set of powers for municipalities to apply Development Charges. The National Treasury is currently drafting legislation to standardise the basis for the calculation, administration and use of the Development Charges in order to improve municipal financial viability.

As far as the two South African case studies are concerned, the Johannesburg case study took place before the City had formalised its policy and the developer did not pay any Development Charges. For the Durban case study, the eThekwini is one of the few South African Cities that does not have a Development Charges Policy and therefore does not consistently charge any capital contributions to bulk infrastructure. The municipality's current difficulties in negotiating payment by the developer are a direct result of this.

12.9 Zimbabwe

In Zimbabwe an Endowment Fee of up to 20% (but usually 10%) of the value of residential stands, excluding the value of any improvements at the time of disposal, is charged in terms of the Regional Town and County Planning Act. The Endowment Fee is payable by the Purchaser and is required to be paid by the developer to the

city council before the registration and allocation of the housing deeds can be handed over. According to the Regional and Town Planning Act (1996) the 'prescribed percentage is reserved specifically to finance infrastructure and/or encourage the provision of services for public purposes (such as roads) within the relevant district. There is some speculation that the endowment fess are being used for operating costs and not for infrastructure.

13 Lessons for housing

This section of the report highlights some to the trends and interventions around housing provision that can be drawn from the case studies. It focuses on the role of the State in each country, the target market for housing interventions and how these are funded. Supplementary contextual information that may not have been provided in the case studies has been added by the case study researchers.

13.1 Angola

In the case of Luanda Sul, the Angolan government benefitted from technical expertise and financial resources by partnering up with the private sector. In the final years of the war, the government did not have to finance the development of the land and was able to capture the value added through its sale. The government's involvement in turn provided legal guarantees with regard to the land, crucial to securing private investments. However, despite an initial focus on the needs of low-income communities and an intention to give some of the housing to poor households as compensation for their relocation from central areas, the project has served privileged (foreign) private companies and the upper end of the market with sufficient capacity to pay land or real estate costs upfront. Luanda Sul currently represents one of the most expensive areas outside of the city centre.

As the need for private funding decreased in post-war years due to increasing oil prices, the need to capture value from land or property by the state for social investments also declined. Hence, Kilamba has been completely state financed through the use of oil-backed credit lines. While this state-led approach to housing development has circumvented the volatility of the oil market and the potential risk averseness of private developers, it also means that the state has taken on virtually all the costs of housing development. In the case of Kilamba this project was initially aimed at the wealthy, but could not sell. The State had to provide a large subsidy to attract more middle income households. The development has therefore benefitted the middle class at the expense of the poor.

13.2 Benin

In 2008 the government launched a programme to build 10,000 low cost houses, focused specifically at benefiting low and middle income earners in several communes (5000 units in Cotonou, 3000 in Porto-Novo and 2000 in Parakou). The programme is managed by the State Land Housing Agency under the Ministry in charge of housing, and which agency also has the mandate to market the finished housing units. The project focussed on bank-financed housing (mortages). However, all of the houses were additionally subsidized by the state. While Arcon Ville is rated as the most successful housing project in the country, it is marred with an array of challenges ranging from the developer's role not clearly defined by the government, to the government and local councils not performing their roles (provision of adequate public infrastructure, functional government housing agencies and setting aside adequate funds for the project) as expected.

13.3 Cameroon

In Cameroon, a regular feature of housing development in the past has been driven by the need for the government to provide accommodation for its employees. However, recently the government has realized the necessity to provide housing for low income groups as well - especially in Yaoundé and other big cities - to cope with acute accommodation shortage. Government's response has been the provision of low-cost housing and real estate, and is implementing a programme to build 10 000 housing units and develop 50 000 building plots in Yaoundé and Douala respectively. To achieve this, a number of parastatal institutions (described as promoters) were created by the government to take charge of the financing, planning and production of housing. In parallel with state-led housing delivery Yaoundé, the municipality is undertaking mass clearance of slums. This is not, however, yet taking place in Douala, even though a significant portion of the city is made of slums which have grown haphazardly. Instead, the City Council is expanding the city as a way of accommodating the growing population and decongesting the city without much attention to the needs of the poor

However, state-led delivery of housing has not kept pace with the increasing demand, especially in Yaoundé and Douala. While most housing is delivered by the private sector, this industry is too volatile for large enterprises in this sector, largely to the scarcity and high prices of building material. This has generated enormous pressure on existing houses leading to over-crowding, deterioration of housing estates and a variety of other problems, including tensions between landlords and tenants. Landlords, conscious of this scarcity of accommodation, have taken the opportunity to charge high rentals.

Small scale building by a private builder is often done at a rate by far cheaper than public bodies on account of economy in supervision and personal attention to details. Most houses in Yaoundé have grown up haphazardly, leading to the present large proportion of sub-standard houses and slums made up of unsanitary mudhuts, poorly ventilated homes in over-congested areas often lacking in essential amenities such as clean water and electricity. This is a result of inadequate control over building activity by the State and municipal authorities, due largely to the meagreness of their resources.

13.4 Côte de'Ivoire

According to a real estate study conducted by Ecobank (2014), the real estate market in Ivory Coast, particularly Abidjan, is in need of 400 000 houses per year. Considering that at least 5% of this need (i.e. 20 000) would be at the higher end of the market, the proposed project will be quickly absorbed by potential buyers. Access to land is a severe constraint, and there are no designated land reserves for the construction of mass housing. Attempts at securing land used for social housing are has often been the source of conflicts with indigenous right owners. This has also significantly affected the ability of private real estate developers to access land for construction.

The Ivorian government embarked on a major investment program in 2010 giving a high priority to housing under public-private partnerships including a program of social housing, mainly in a town of Abidjan. This housing programme includes the construction of 60 000 units of housing for low-income households as well as middle standard housing. The housing programme is managed by a government housing agency. L'opération les Floraisons is one project under this programme, involving the construction of 3 000 social housing units (villas and apartments) of between 2 to 5 bedrooms each, and with a price range of USD11 000 to USD50 000. The government, through the agency, has a dominant role in determining the prices at which the finished houses are to be sold. Although this is agreed with the

developers in principle, often the minimum cost to construct the cheapest house is above the price at which the government wants the house to be sold. The case study highlights a significant tension between the severe shortage of available land and housing stock and resultant high prices, and the desire for the government to provide formal housing to low income households.

13.5 DRC

The development of the 'new city' of La Cite Du Fleuve included a large number of residential units. As these are being sold off on the open market at an average of \$225,000, these units will be targeting high income households. Residents will be charged rates and service tariffs to pay back the initial capital investment made by the developer. It appears that no State funding was included in the development. Similarly, the Kiswishi (which means "there is wealth") development in Lubumbashi is clearly aimed at the high end of the housing market. In this latter case study, there were 'villagers' present on the site who were provided with borehole water and agricultural land as part of the project, but were not included in the formal development.

13.6 Ethiopia

The housing shortage in Addis Ababa is acute. There are currently 900,000 households on housing the waiting and the impressive State delivery rate of 50,000 units a year is not sufficient to address the housing shortage in the short term. As critical as housing delivery is infrastructure upgrading, as the water supply, sanitation, electricity and collector road systems are seriously under-provided. The inner-city renewal projects involve the re-development of high value land for commercial or high income residential use. This has displaced households from central areas of city with compensation only for the estimated cost of their buildings. The new housing in the form of condominiums, mostly situated on the urban fringe, raise questions over their affordability to the poorest.

The Senga Tera Redevelopment Project involved the relocation of poor households, whereby only 80 of the 323 private homeowners were given land on the site and compensation for the demolished property. A further 890 households were given the priority to buy low income condominium houses built in other areas of the city. However, 185 tenants of Kebele houses could not afford to do this, thus were relocated to Kebele houses outside the redevelopment area. In addition, 155 private homeowners who cannot afford to rebuild on the site were given plot of land outside the redevelopment site and compensation. The relocation areas were a distance of 3 – 8km from the site. The result of the project was that low income households were displaced representing a case where middle class housing is subsidised by the state (called public housing, but aimed at middle income).

The Casainches case study illustrates that the City's priority is fully utilising high value land for maximum land-based financing, but this can come at the expense of the urban poor. The experience from the first phase, indicates that the majority of households moved off the site were unhappy with their relocation accommodation, even though the physical units were better than their former accommodation. This problem was largely resolved in the second and third phases due to the focus on onsite resettlement as well as the government housings scheme that allows lower and middle income group household to secure condominium houses on the site or in adequately serviced areas. However, these units are likely to be unaffordable to the poorest households.

13.7 Rwanda

The Gacuriro Estate was targeted at middle income households to alleviate the severe housing shortage in Kigali. Although the development was entirely funded by the developer (with the exception of land which was provided by the State), it created the demand to stimulate local government investment in the road network which added value to the property and unlocked the surrounding areas for further housing development. The Gaposho Estate was developed in a similar manner, aslo for middle income households. Both developments indicate a deliberate government strategy to promote rapid housing development in this market through the provision of land and development rights.

13.8 South Africa

Both South African case studies were initially motivated by the need to provide low-income housing at scale. Pennyville in Johannesburg is a smaller case study and is exclusively residential, with the majority of the properties developed being fully- or partially-subsidised by the State. The infrastructure for this low income housing was funded through State subsidies, but these subsidies were also applied to the middle income private rental property, from which the developer was able to extract profit.

In Cornubia, the site has essentially been split in half, with the municipality responsible for the subsidised low income housing development (and the servicing thereof) and the higher income housing and non-residential development being undertaken by the developer. While this project will provide much-needed housing stock into all markets in Durban, the main benefit of the project for the low income market is that a large tract of land was made available for this purpose. There was no land-based financing or cross-subsidisation from the rest of the development to assist with the costs of the low income residential portion.

13.9 Uganda

Akright City in Kampala is a mixed income gated real estate development. At a current prices of \$76,000 to \$258,000, the 'mixed' income is likely a mix of middle and high income residents. The development benefited from low land cost and preferential planning approval. It seemingly has no impact on low income housing in Kampala.

13.10 Zimbabwe

The Budiriro housing project sought to provide over 3000 low cost houses in Harare. The housing is mortgage financed by the developer, a building society. Eligible residents need to be formally employed with a minimum household income of \$756 per month, be able to afford a 10% deposit, and be a first time homeowner. Despite the project being labelled as a low-income housing project, the number of people that are eligible, and indeed able to afford this housing is particularly slim. Of the 3102 units that have been (and are currently being) built, only 345 units had been sold at the time of research. The result is that the housing backlog is not being addressed and the developer is losing money on the investment as the houses remain empty.

13.11 Discussion on housing – issues emerging from the mini case studies

The mini case studies that deal with residential or mixed use development indicate a number of common trends or themes. The first of these is that many

developments originate out of an identified need to address the chronic shortage of housing, and in many cases the shortage of low cost housing (at least as a portion of the development). However, the end result is often unaffordable to the intended beneficiaries. Two forces appear to push prices up beyond the target market: the construction cost being higher than expected (or the specifications too high); and speculation and resale due to high demand. It is also noted that it is not simple to define what is low-, medium- and high-income property in African cities because prices and incomes vary widely. Where housing is heavily subsidised, allocation is an issue and is seen as a tool for political manipulation.

The second emerging theme is that there is a clear push for mortgage finance for the middle class. Housing is being built for this market by the private or public sector and sold at market rates that are unsubsidised with the expectation that these households will access housing finance. This is a strongly supply-driven approach without and appreciation for the levels of access to credit in this market.

The third trend that emerges is that most of the documented housing projects, both state and private, go for 'greenfield' land due to issues of titling and because land is cheaper. However, these developments are taking place in the midst of largely informal and surprisingly heterogenous tenure arrangements. Formal Land titling in many cases is not the norm. In Ivory Coast this is estimated at less than 3%, in Cotonou, Benin it is less than 10%. At the other extreme all land in Mozambique and Angola is State owned.

Fourthly, many of the case studies deliberately target high income residents, but that these developments are still subsidised by the State in some form (usually through land) as a means of attracting investment in these cities. This could be a deliberate strategy on the part of these governments to intervene in this market, either to increase housing stock to satisfy demand, or to generate increased future revenue streams from this development, or both. However, in the context of constrained City and State capital resources, it could be argued that the allocation of City and State resources to this type of development may result in less capital available for investment in infrastructure for low income housing, particularly if the anticipated future revenue streams do not materialise. This situation could be ameliorated if land-based financing was taking place at level 5 for these higher income developments (i.e. some provision for cross-subsidisation), but this was not found to be the the case. It is logical to assume that the more of these type of developments that are subsidised, the less State resources are available for subsidising the poor. The case of Cornubia is instructive in this regard, because it is the only example that could be found where an attempt was made to quantify the long-term financial benefit of the development to the municipality. The finding that the net present value of all of the revenue streams to the municipality do not outweigh the initial municipal capital investment should serve as a severe warning to municipalities that subsidisation of higher income and non-residential developments may not have the intended long-term benefits, even in a highly functional municipality that has a strong record of property rates and municipal tariff collection. Conclusions

In drawing preliminary findings here the limitations of the research methodology mentioned in Section 1 need to be noted. However, there are some important conclusions that can be drawn from these mini cases studies.

With regard to land-based financing mechanisms

It is evident that there is a substantial degree of land-based financing taking place. However, this is mostly through 'development-based' land-based financing mechanisms (see LBF definition in glossary – Appendix B). These are largely in the form of developer in-kind contributions (also defined in glossary).

In Section 12 there is also a summary of situations where some once off fee, charge or tax is levied associated with the issuing of property development rights. While some form of this fee, charge or tax was found in 7 of 15 countries there was no evidence in any of the case studies that this was used to fund infrastructure which means they do not qualify as a land-based financing mechanism in terms of the definition applied here. There are a range of reasons for this: the charge, if collected, only covers administration costs (Rwanda for example); a policy exists but was not applied to the sampled projects (South Africa for example); the money is collected but used to finance operating costs of the City and does not result in infrastructure (Kenya and Zimbabwe for example); or the money is collected but goes to the State and is not used for infrastructure (Senegal for example). While it may be argued that the fungibility of revenue means that it is immaterial whether the revenue is directly spent on infrastructure or is spent on other activities (usually operating expenses), it is far more difficult to prove that the use of such fees in this way ultimately enables cities to build more infrastructure. This is the reason that the definition of land-based finance explicitly makes the link between the collection of money and the expenditure on infrastructure.

In Ethiopia there is the only example of funds for infrastructure being raised through the sale of a land or development right. In this case it is through the land lease system where property developers buy the lease to the property. This is discussed in more detail in the Ethiopia country case study.

Implications for infrastructure

It has been noted above that developer in-kind contributions are common. However, the bulk and connector infrastructure provided through these in-kind contributions may often be driven by the immediate needs of the property development and not be included as part of an integrated infrastructure system for the city as a whole², one which serves all of the citizens and businesses within the city boundaries. This has implications for the poor in that the infrastructure for these 'islands' is unlikely to serve them and it can be inferred that the poor remain in their own infrastructure deficient 'islands'.

Applying state subsidies

There are many examples (summarised in Section 11) where the State subsidises commercial or high income property developments, primarily through making land available well below market value or even at zero cost to the developer. Some of these developments are large scale nodal developments or satellite 'cities'. The typical argument for doing this – as far as this can be ascertained through these mini case studies – is that this promotes economic growth. However, there is little evidence that the negative impact on social development is taken into consideration in that money which could have been raised through the sale of rights to developers, and used to provide services to poor households, is diverted to middle and high income households and large businesses. Although it may be too early to tell, there is also little evidence that the economic benefits of the developments that are being supported result in revenues to cities that can then be used for infrastructure. If this is not happening, and in a situation where city economies and property values are escalating rapidly benefiting the relatively well-off, the lack of application of land-based financing to these developments is a lost opportunity.

Implications for housing

In Section 13 lessons for housing from individual mini case studies were raised. In general the picture which emerges is that what land-based financing is taking

² If such an integrated system exists, which it may not.

place, only does so up to Level 4, and therefore does not lead to infrastructure for residential areas for low income households (which takes place at Level 5). In fact it is more typical for State resources to be used to subsidise residential infrastructure for middle to high income households, as noted above. There is no evidence to suggest that this State investment in these higher-income markets has any impact on the lower end of the property market, where it is most likely that residents cannot afford to provide this infrastructure for themselves.

14 References

- ACC (African Centre for Cities). 2015a. 'Literature review on land value capture and infrastructure finance'. Preliminary report, Version 2, prepared for the UK Government as part of the project 'Urban infrastructure in Sub-Saharan Africa harnessing land values, housing and transport'.
- ACC (African Centre for Cities). 2015a. 'Report on Africa Land and Infrastructure City Scan (ALICS)'. Preliminary report, Version 1, prepared for the UK Government as part of the project 'Urban infrastructure in Sub-Saharan Africa harnessing land values, housing and transport'.
- DCOG and DBSA (Department of Cooperative Governance and Traditional Affairs and Development Bank of Southern Africa). 2011. 'The Municipal Infrastructure Investment Framework (MIIF): An Assessment of Investment Requirements for Municipal Infrastructure and Implications of such Investment Round 7 Review 2009/10'. Report prepared by Palmer Development Group for DBSA.

Appendix A: The components of infrastructure

Table 10 Description different components of infrastructure³

	Water supply	Sanitation (wastewater)	Electricity
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 ⁴ within the blocks which directly serve each plot or dwelling.

³ Adapted from DCOG and DBSA, 2011.

⁴ The electricity sector in South Africa does not often recognise the 'internal infrastructure' component of the system.

Appendix B: Glossary of terms

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.

Betterment levies/taxes

The legal definition of betterment is an increase in the value of real property through causes other than the owner's actions toward that property. A betterment tax is therefore a levy or tax on private property owners whose land has gained value due to public property improvements outside of the owner's control. The magnitude and frequency of the levy/tax is determined by the policies of the relevant local authority.

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 of communally owned. In some cases – not common in this study – the developer will re-develop property.

Developer in-kind contribution

In-kind contributions 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. In-kind contributions 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.

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 tenure⁵. Typically formal property developments are associated with adequate infrastructure.

'Greenfields' development

A property development on empty or undeveloped land.

Impact fee

⁵ Note that the term 'formal settlement' does not imply formal housing: the 'top structures' may be permanent 'formal' buildings or informal buildings.

An impact fee is a fee that is imposed by a local authority on a new or proposed development project to pay for all or a portion of the costs of providing infrastructure and associated public services to the new development.

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 tenure⁶.

Land-based financing⁷

Land-based financing (LBF). LBF 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 LBF 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). There are two main categories of LBF: development-based LBF and tax- or fee-based LBF. Development-based LBF can be facilitated through direct transaction of properties whose values have been increased by public regulatory decisions or infrastructure investment. Tax- or fee-based LBF 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.).

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 system⁸.

Re-development

⁶ Note that informal settlement does not relate to the type of 'top structure' or building which may be informal or formal.

⁷ Taken from Suzuki et al, 2015

⁸ 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.

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

Urban⁹

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 area¹⁰.

⁹ This is a complex term to define with Parnell and Pieterse (2004) (pages 42 and 290) pointing out that a key problem in African urban policy debates is the absence of an agreed definition of 'urban'. 'Urban' may be seen as a way in which people live but, more practically, it relates to the spatial arrangement consisting of a combination of overall density, availability of infrastructure and other social and economic factors. What is offered as a definition in this glossary requires further elaboration in the Implementation Phase of this project.

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.