

# Building **Fit-for-purpose** Spatial Frameworks for Sustainable Land Governance in Sub-Saharan Africa

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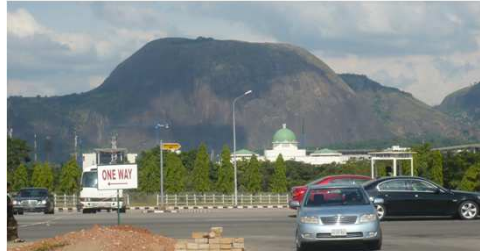
ENVIRONMENT FOR SUSTAINABILITY  
FIG WORKING WEEK 2013  
ABUJA, NIGERIA, 6-10 MAY 2013.

## Key message

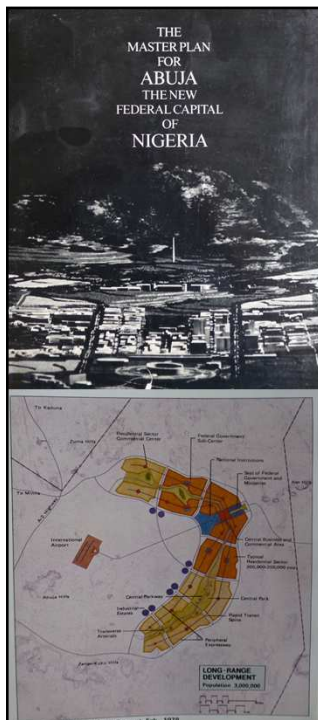
- In most developing countries the cadastral coverage is less than 30 per cent and serving only the elite.
- Western systems do not serve the millions of people whose tenure are predominantly social rather than legal
- There is a need for building a country-wide land administration system Including a country-wide cadastre
- Such a country-wide system should be build based on a spatial framework – using a **fit-for-purpose** approach.



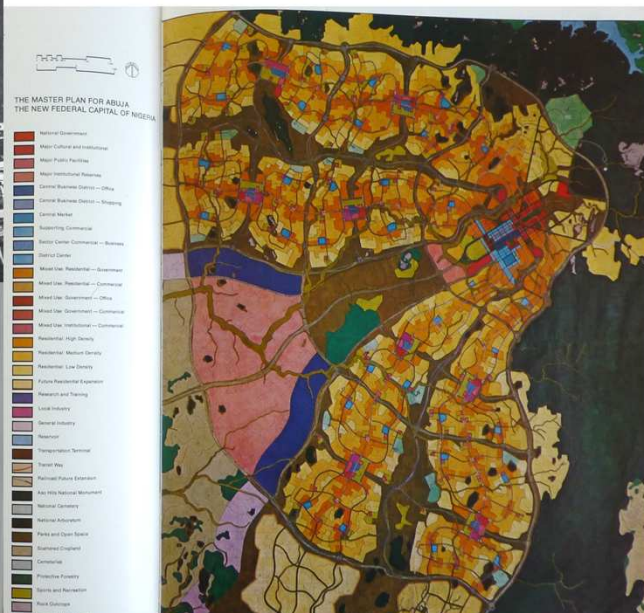
Good to be back



Olumide Memorial Lecture, Oct. 2009



Masterplan for Abuja (1979)





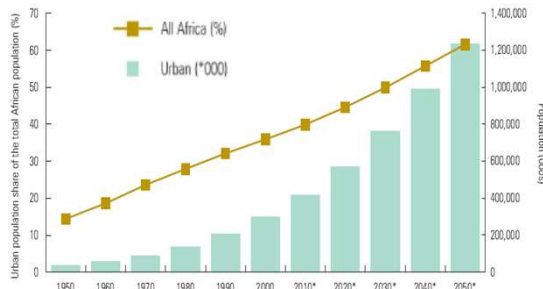
Lagos – peri-urban development



Lagos – informal settlements growing into the waters

## Africa becomes urbanised

African urban population trend, 1950–2050

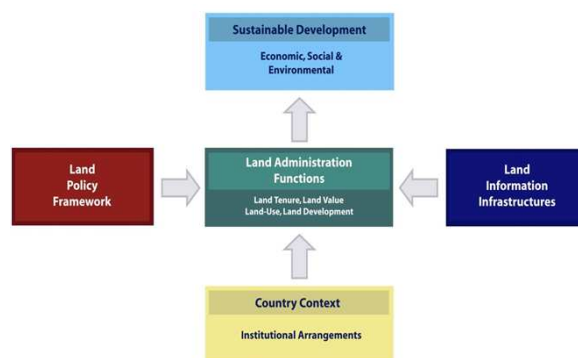


UN-Habitat, State of the African Cities 2010

- In 2010 Africa had a population of 1 billion with 40% living in cities
- In 2030 Africa will become urbanised, and in 2050 African cities will host 1,2 billion people – 60% of all Africans.
- A tripled urban population is a huge challenge.
- Mega cities will explode but medium and smaller cities will absorb 70% of the growth.

These trends call for enhanced land governance capacity with land administration systems as the key component.

## Land Governance



The land management paradigm

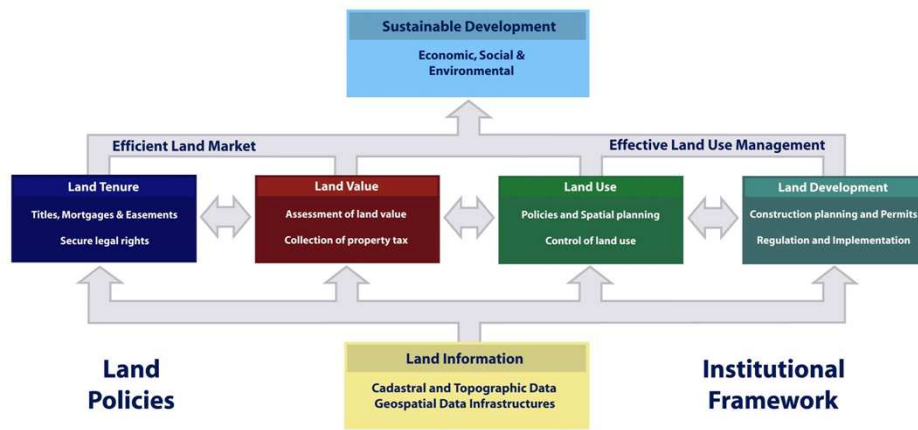
**Land governance** is about the policies, processes and institutions by which land, property and natural resources are managed.

This includes decisions on access to land; land rights; land use; land development.

**Land governance** is about determining & implementing sustainable land policies.



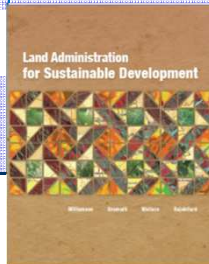
# Land Administration Systems



Land Tenure: Allocation and security of rights in lands; legal surveys of boundaries; transfer of property;  
 Land Value: Assessment of the value of land and properties; gathering of revenues through taxation;  
 Land-Use: Control of land-use through adoption of planning policies and land-use regulations at various levels;  
 Land Develop: Building of new infrastructure; implementation of construction works and the change of land-use

## Benefits to society

<ul style="list-style-type: none"> <li>• Support for governance and the rule of law</li> </ul>		<ul style="list-style-type: none"> <li>• Protection of state lands</li> </ul>
<ul style="list-style-type: none"> <li>• Alleviation of poverty</li> </ul>		<ul style="list-style-type: none"> <li>• Management of land disputes</li> </ul>
<ul style="list-style-type: none"> <li>• Security of tenure</li> </ul>		<ul style="list-style-type: none"> <li>• Improvement of land planning</li> </ul>
<ul style="list-style-type: none"> <li>• Support for formal land markets</li> </ul>		<ul style="list-style-type: none"> <li>• Development of infrastructure</li> </ul>
<ul style="list-style-type: none"> <li>• Security of credit</li> </ul>		<ul style="list-style-type: none"> <li>• Management of resources and environment</li> </ul>
<ul style="list-style-type: none"> <li>• Support for land and property taxation</li> </ul>		<ul style="list-style-type: none"> <li>• Management of information and statistical data</li> </ul>



Williamson, Enemark, Wallace, Rajabifard, ESRI Press, 2010, 500 pages.

## A land governance vision

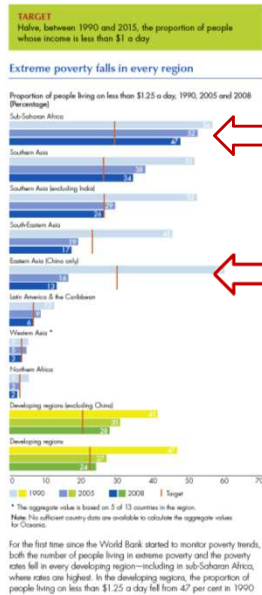


Trustable land information and good land administration is fundamental for:

- Responsible governance of tenure
- Coping with climate change
- Meeting the Millennium Development Goals
- Achieving sustainable development

## The MDGs Report 2012

### Goal 1 Eradicate extreme poverty and hunger



8 Goals, 18 Targets, 48 Indicators

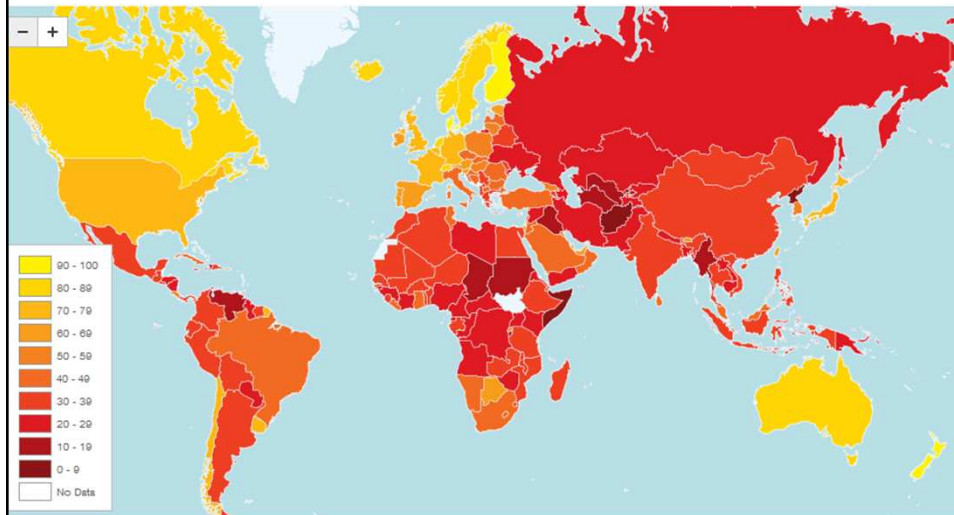
"If we can measure it  
– we can better it"

(Bill Gates, 2013)

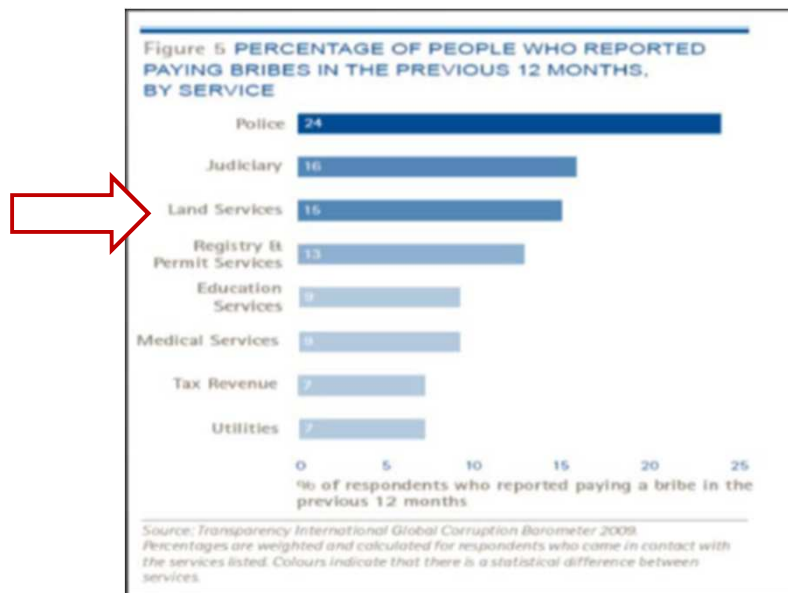
Other examples:

- LGAF: Land Governance Assessment Framework
- DBR: WB Doing Business Reports
- CPI: Corruption Perception Index.

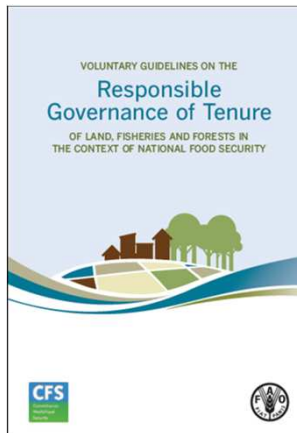
## Corruption Perception Index 2012



## Bad governance



## Responsible Governance of Tenure



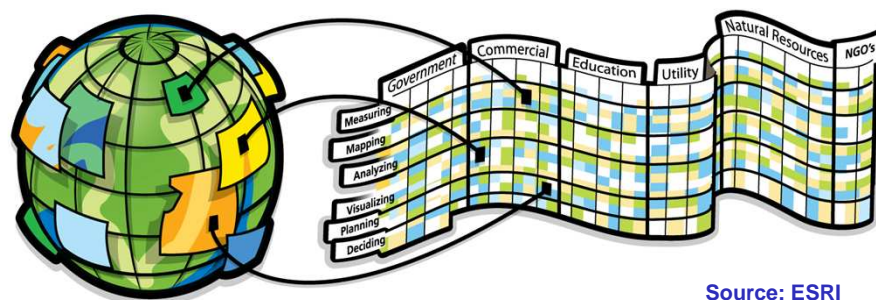
**International soft law instrument.** The Guidelines represent a global consensus on internationally accepted principles and standards for responsible practices. They provide a framework that States can use when developing their own policies, legislation and programmes.

**Human rights based approach.** The Guidelines place tenure rights in the context of human rights. Tenure rights and their governance are important for the realization of human rights, such as the rights to adequate food and to adequate housing.

**Guidance for a variety of actors.** With the help of the Guidelines actors can determine whether their proposed actions and the actions of others constitute acceptable practices.

## Geo-information management

...creates a strong foundation for sustainable action



Source: ESRI

Land administration systems  
need a spatial framework to operate

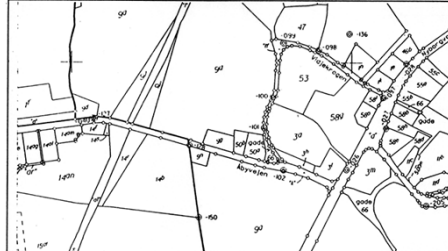


# The Spatial Framework

Showing the way land is divided into parcels and plots for specific use and possession.



Analogue cadastral map maintained over 200 years



Digital cadastral map – same area

	Feudalism - 1800	Industrial revolution 1800-1950	Post-war reconstruction 1950-1980	Information revolution 1980-
Human kind to land evolution	Land as wealth	Land as a commodity	Land as a scarce resource	Land as a community scarce resource
Evolution of cadastral applications	<b>Fiscal Cadastre</b> Land valuation and taxation paradigm	<b>Legal Cadastre</b> Land market paradigm	<b>Managerial Cadastre</b> Land management paradigm	<b>Multi-purpose Cadastre</b> Sustainable development paradigm
Evolution of Western land administration systems				

## Fit-for-purpose

- Fit-for-purpose means that the spatial framework should be designed for the purpose of managing current land issues – rather than being guided by high tech solutions and costly/time consuming field survey procedures.
- Scale and accuracy relate to geography, density of development, and the budgetary capacity that the system is intended to serve.
- Western style technical standards may well be seen as the end target but not as the point of entry.



## Fit-for purpose – Key principles

### ■ General boundaries rather than fixed boundaries

- General boundaries will be sufficient for most LA purposes in rural and semi-urban areas.
- Fixed boundaries may be used where relevant or necessary for any specific purposes.

### ■ Satellite images/orthophoto rather than field surveys

- Satellite images (50 cm resolution) or orthophoto (1:2000) will be sufficient for most LA purposes.
- 3-5 times cheaper and less capacity demanding.
- Providing also topography that is fundamental for a range of LA functions.

### ■ Accuracy relates the purpose rather than technical standards

- Accuracy should be seen as a relative term related to the use of the information.
- Accuracy should be determined by the purpose. Rural/urban, titling, planning ...
- High accuracy should only be provided when needed and paid for by the beneficiaries.

### ■ Opportunities for updating, upgrading and improvement

- Building the spatial framework is **not** a one stop process
- Opportunities for on-going updating, sporadic upgrading, and incremental improvement whenever relevant or necessary for fulfilling land policy aims and objectives.
- This, in turn, will establish a spatial framework in line with modern and fully integrated LAS

## Discussion

### ■ Why should developing countries not have the same high level spatial framework as is known in developed countries?

- The spatial framework in developed countries has been developed over two centuries
- Developing regions of course can't wait for that.

### ■ What are the main barriers for adopting a fit-for purpose approach?

- Easy response is of course colonial legacy, lack of financial resources, and political will.
- However, politicians will often rely on advice from professional bodies such as surveyors, lawyers, ...
- Their professional codes of ethics often support the existing system, and they will resist changes

### ■ What are the main opportunities for providing a fit-for purpose approach?

- Political leadership is the main driver.
- Setting a firm deadline will bypass professional arguments
- Can only be met by a fit-for-purpose approach..

### ■ What are the benefits of adopting a fit-for-purpose approach?

- including all land and all rights in a reasonable short time and at low costs.
- Flexible framework for meeting the current demands and can easily be incrementally improved
- Leap frog many of the steps that developed countries have been through.

## A continuum of accuracy

- Land administration systems and good land governance need a spatial framework to operate.
- In developed regions such a framework has been developed over centuries.
- In developing countries it should be developed using a **fit-for-purpose** approach – while accuracy can be incrementally improved over time.
- A fit-for-purpose approach includes the concept of “**continuum of accuracy**”.

## Fit for purpose

