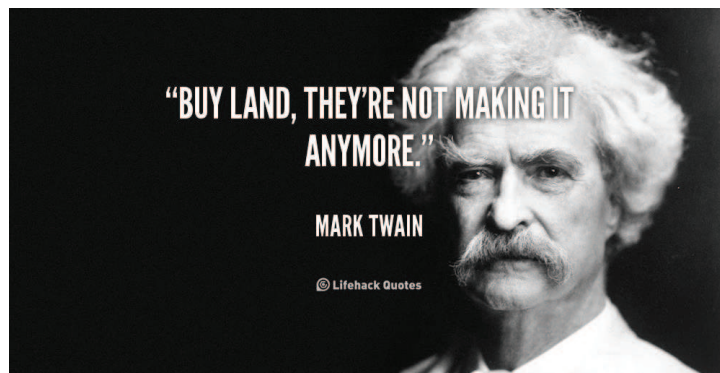


# Fit-For-Purpose Land Administration in Perspective

Christiaan Lemmen  
FIG Commission 7 Annual Meeting  
Coimbra, Portugal, October





## Quality Principles - Reminder

- Completeness
- Logical Consistency
- Topological Consistency
- Positional Accuracy
- Temporal Accuracy
- Thematic Accuracy

ISO 19113 Geographic information -- Quality principles  
ISO 19157 Geographic information -- Data quality



## Challenges in Land Administration

- 70% to be done
- Complex institutional setting
- Corruption / Transparency
- Automation
- Trend: decentralisation

## People



## People



## People to Land Relationships



## People to Land Relationships



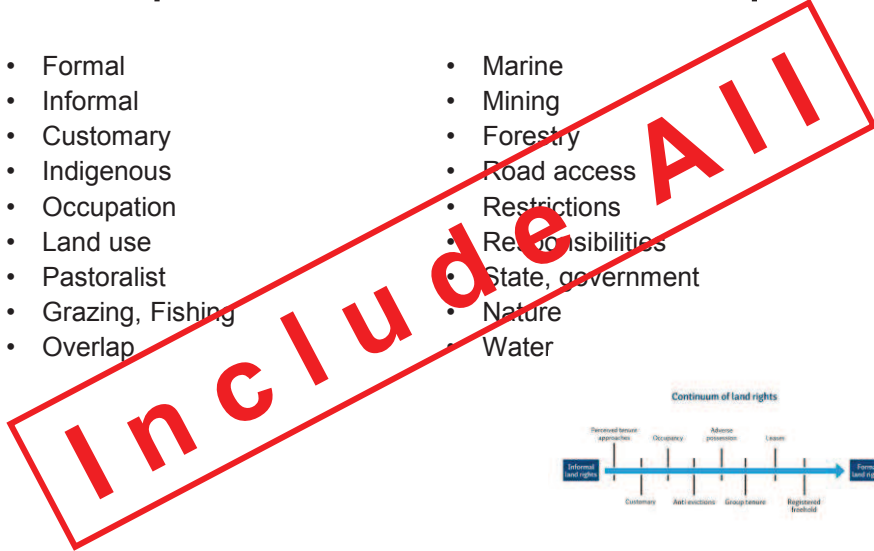
## People to Land Relationships

- Formal
- Informal
- Customary
- Indigenous
- Occupation
- Land use
- Pastoralist
- Grazing, Fishing
- Overlap
- Marine
- Mining
- Forestry
- Road access
- Restrictions
- Responsibilities
- State, government
- Nature
- Water

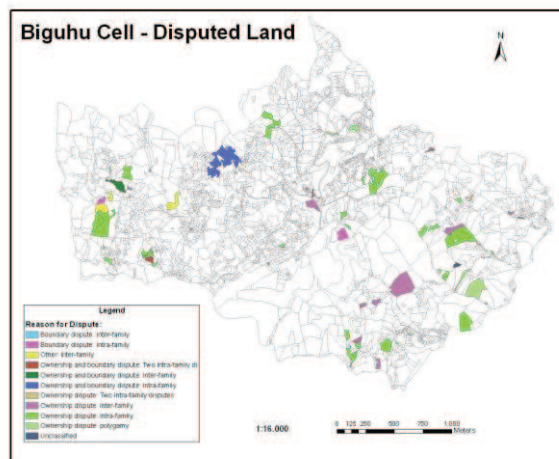


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# Disputes



Source – NLC Rwanda

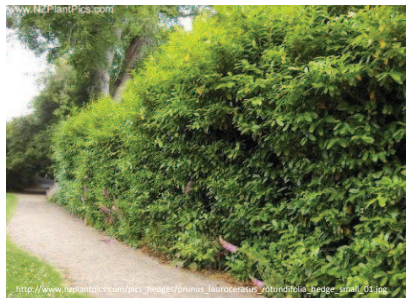






## Boundaries

Visual boundaries



Fixed boundaries





# Boundaries

Visual boundaries



Fixed boundaries



**General Boundaries**

# Collect Evidence in the Field



## Collect Evidence in the Field



## Monumentation



## Monumentation



## Land Administration – Data

- spatial unit type
- right type
- restriction type
- mortgage type
- party type
- identifiers
- value
- area
- geographic name
- name
- role
- date
- source
- surveys
- co-ordinates
- boundary
- topology
- levels
- dimension
- land use
- share
- transaction type
- history
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**Multiplier**

## Processes

- Initial data acquisition
- Georeferencing
- Elevation model
- Identification
- Transactions
- Surveying/Mapping
- Subdivision, merge
- Information provision
- A/D Conversion
- Formalisation
- Quality improvement
- Map Renovation
- Public inspection
- Area management
- Land consolidation
- Land readjustment
- Fragmentation index
- Price index
- Cloud-free images
- Informing authorities/citizens
- Crowdsourcing
- Scanning, printing
- Digitizing
- Customers request (application)
- Public inspection
- Sending letters
- Objection, complaint
- Maintenance historical data
- Signature (digital)
- Topology building
- Time registration
- Resource management
- Developing norms
- Workflows
- IT Support – ITIL

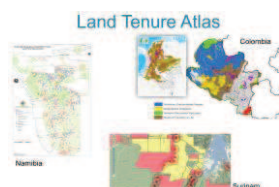
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**LOW Cost**

## Tenure Atlas

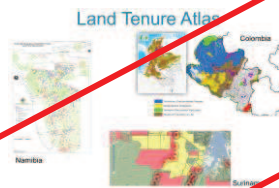
- Tenure systems
- Areas with NO land market
- Projects
- Cadastral territories
- National/Global
- Integration with other sources: LGAF, Land Matrix, Land Portal, Cadastral Template





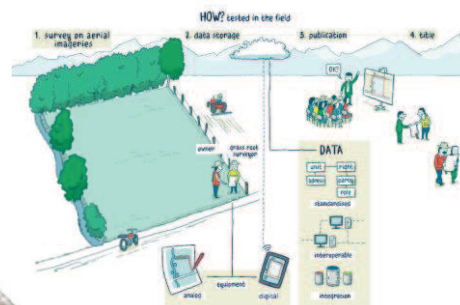
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**GSDI**

## Fit For Purpose - Guiding Principles



## Fit-for-Purpose Land Administration

<b>KEY PRINCIPLES</b>		
<b>Spatial Framework</b>	<b>Legal Framework</b>	<b>Institutional Framework</b>
<ul style="list-style-type: none"> <li>▪ Visible (physical) boundaries rather than fixed boundaries</li> <li>▪ Aerial / satellite imagery rather than field surveys</li> <li>▪ Accuracy relates to the purpose rather than technical standards</li> <li>▪ Demands for updating and opportunities for upgrading and ongoing improvement</li> </ul>	<ul style="list-style-type: none"> <li>▪ A flexible framework designed along administrative rather than judicial lines.</li> <li>▪ A continuum of tenure rather than just individual ownership</li> <li>▪ Flexible recordation rather than only one register</li> <li>▪ Ensuring gender equity for land and property rights.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Good land governance rather than bureaucratic barriers</li> <li>▪ Holistic institutional framework rather than sectorial siloes</li> <li>▪ Flexible IT approach rather than high-end technology solutions</li> <li>▪ Transparent land information with easy and affordable access for all</li> </ul>

## Aerial imageries for participatory field adjudication



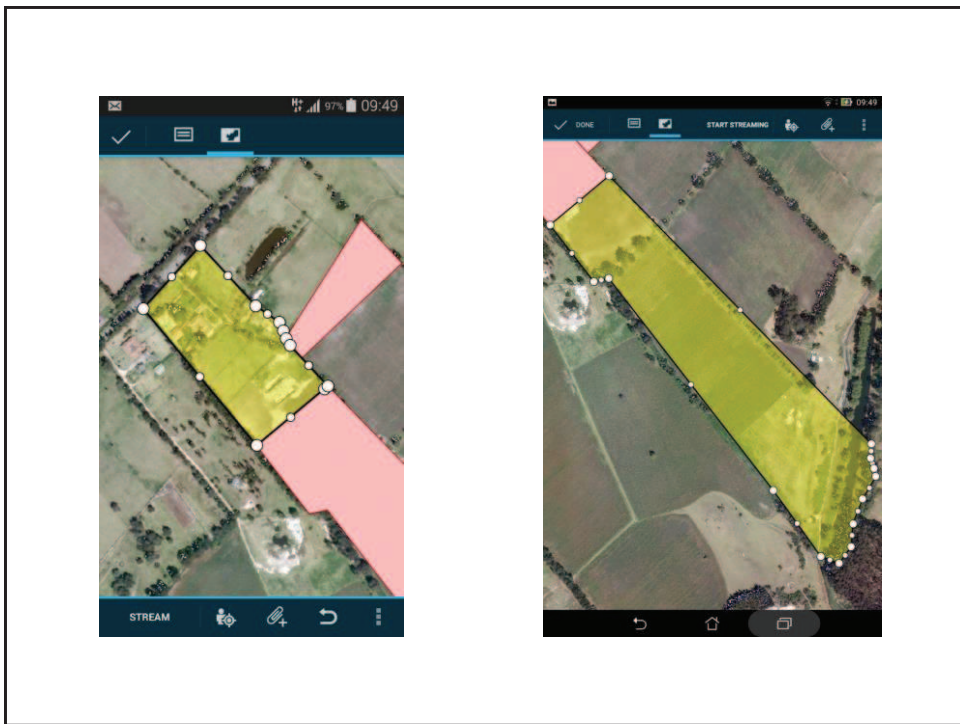
Source: Zerfu Hailu, Ethiopia

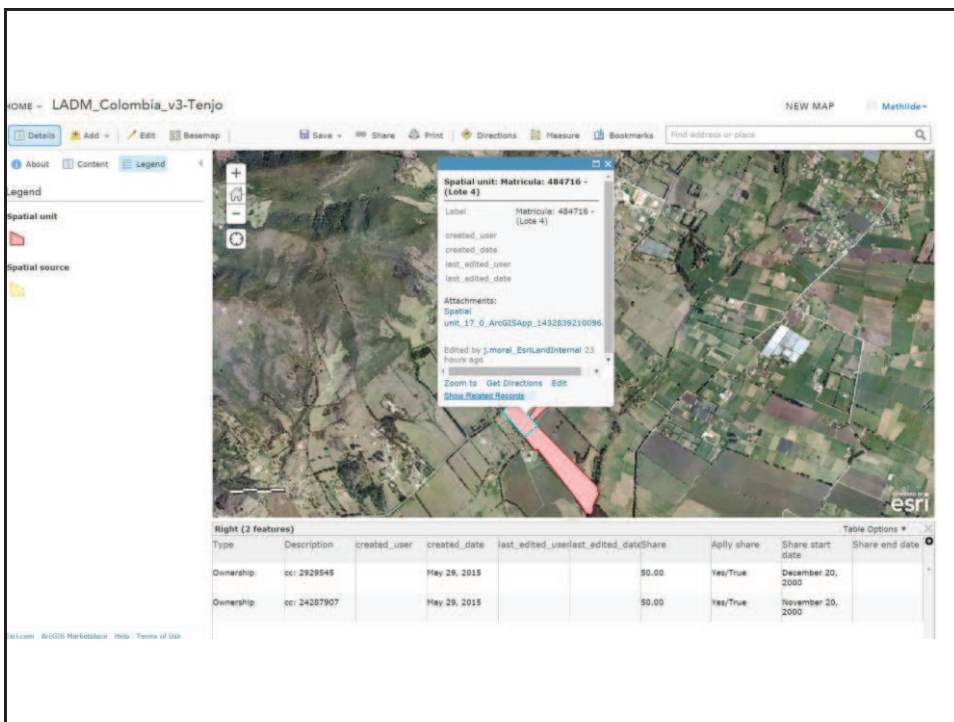
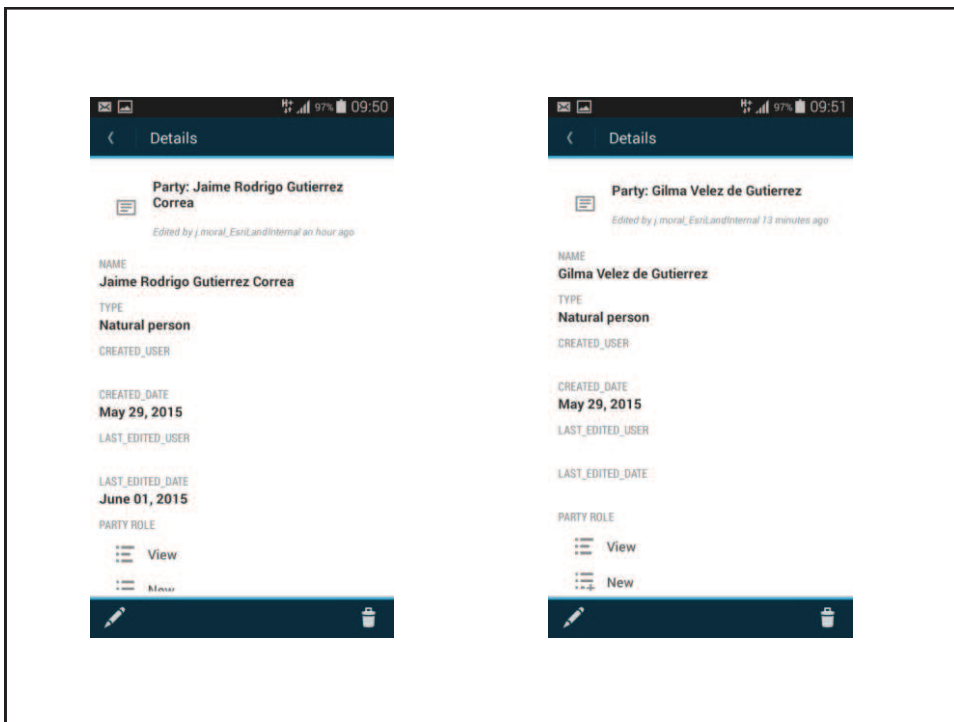


Source: Zerfu Hailu, Ethiopia











## Example Case

### Conventional

- 100 years
- High Costs
- Technology driven
- By Government
- Rigid

### FFP

- 10 years
- Low Costs
- Demand driven
- By Citizens
- Transparent

## Example Case

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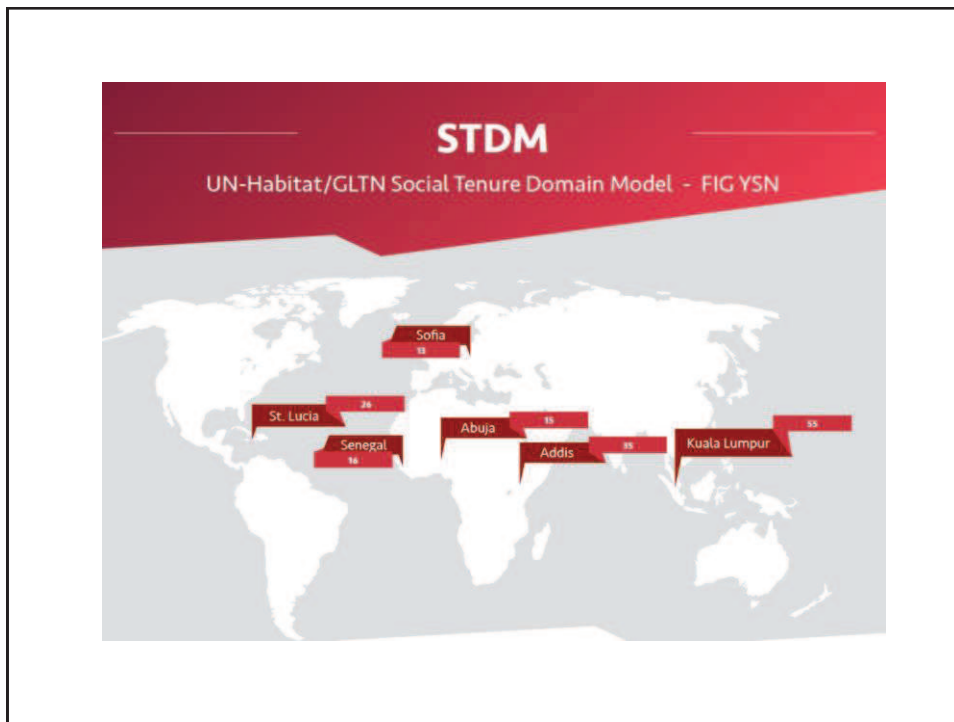
### FFP

- 10 years
- Low Costs
- Demand driven
- By Citizens
- Transparent

**Your Choice?**







---

**WE OFFER 3 KINDS OF SERVICES**

**GOOD-CHEAP-FAST**

**BUT YOU CAN PICK ONLY TWO**

---

**GOOD & CHEAP** WON'T BE **FAST**

**FAST & GOOD** WON'T BE **CHEAP**

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↓

**Fit-For-Purpose Land Administration**

↓

As little as possible – as much as necessary (for the purpose)  
Fast – Cheap – and Good (enough for the purpose)

## Concluding remarks

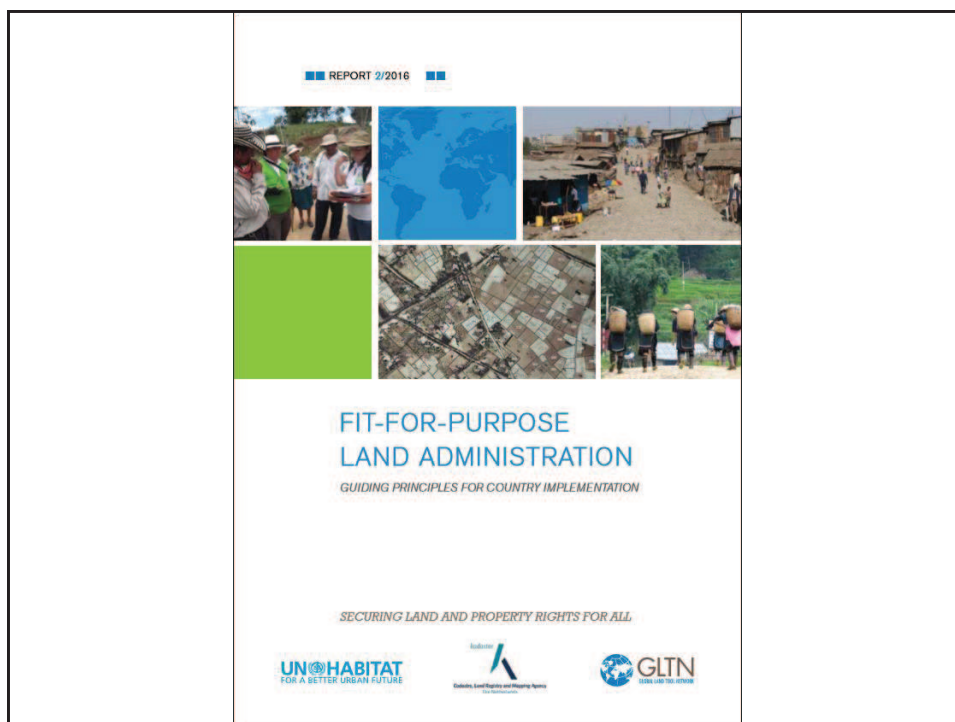
- Land administration is basically about people. It is about the relation between people and places, and the policies, institutions and regulations that govern this relationship.
- When building land administration systems in less developed countries - focus should be on a “**fit-for-purpose approach**” that will meet the needs of society today and **can be incrementally improved over time.**



## Challenges in Land Administration

- 70% to be done
- Complex institutional setting
- Corruption / Transparency
- Automation
- Trend: decentralisation

**Fit-For-Purpose**





Thanks!

