

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

32% of farms are held by women, compared with 68% for men





50% of forest in developing world have insecure tenure

Land issues have played a major role in **27** conflicts in Africa since 1990





70% of land in developing countries is unregistered





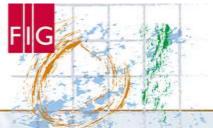












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Introduction

Conventional systematic survey and mapping approaches have been found to be of limited value to deliver appropriate and adequated land tenure recordations in developing countries (East-Africa).

- too slow and too expensive
- Inability to fully accommodate existing conditions



















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Introduction

Creating new tools to make land rights mapping faster, cheaper, easier, and more responsible.



Draw and Make



Fly and Create



Automate it



Publish and Share





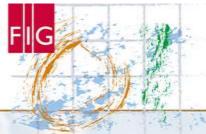








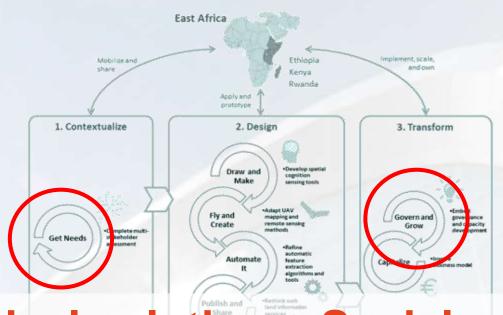




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Technical solution x Social solution







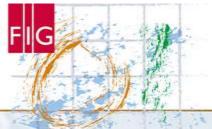












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Land Governance

1980s: Governance is a initiated as a concept a consequence of organizational and management debates in the context of public sector reforms.

'Governance' (Government'

- During the past decades: becoming a broad concept that is used in different ways and has a variety of meanings.
- Land Governance = "the rules, processes and structures through which decisions are made about access to land and its use, the manner in which the decisions are made, implemented and enforced and the way the competing interests are managed."





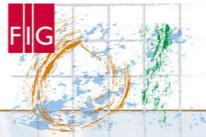












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Land governance

| Socio-economic context for land | describes the broad socio-economic and political context from a land perspective |
|---------------------------------|---|
| Institutions | focusses on the institutions who are engaged with the regulation on tenure and markets. |
| The land tenure systems | discusses the contemporary existing land rights |
| Land reform content | describes the content and objectives of the proposed reform |
| Land market | clarifies the operation of the land markets, including the main constraints |

















2 waves of decentralisation: improving local governance/regional self-rule

Economic growth (poverty rate 2000: 55,2% vs 2011: 35,5%)

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Ethiopia

Socio-economic

systems

Land reform

content

context for land

Institutions

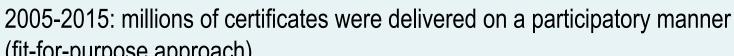
Ministry of Agriculture → land coordinating responsibilities Regional governments -> administration and regulation of land Every regional government has their own institutional arrangements for LA

The land tenure All land is owned by the state (Ethiopia separates rural and urban land administration)

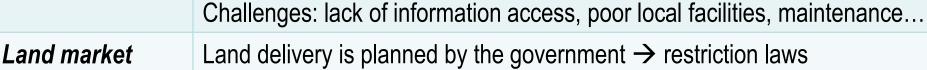
→ urban areas (leasehold) vs rural areas (user rights)

→ Land tenure system is not transparent (Who benefits?)

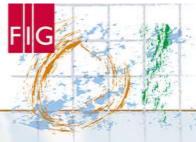




(fit-for-purpose approach)







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Kenya

Socio-economic

context for land

Institutions

The land tenure systems

Land reform

content

Land market

is allocated to powerful people with strong political or socio-economic networks.

land occupied by the government >10%) or customary land (>70%) The 2010 Constitution guarantees equal access to land \rightarrow land is used to the benefit of local communities as well as prohibiting the misappropriation of public land.

Most advanced economy of SSA (still a poverty rate of 38%)

Ministry of Lands → mismanagement (redistribution land to rich)

National land commission → politically independent / power struggle

Land is designed as private (<10%), public (public domain: forests, rivers,

2010: New Constitution → devolved : national/local

Challenges: lack of formal titling → fraudulent land sales, mismanagement Access to land in Kenya can be associated to access of power \rightarrow state land

formal land registration is expensive $\rightarrow \uparrow$ informality



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Rwanda

Socio-economic Substantial economic progress after 1994 genocide (poverty rate 39%) context for land Highly decentralised

Institutions
 National government → LA, management and cadaster maintenance
 Local government → support NG, land recordation

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The land tenure Land ownership has evolved from customary law to a system of state of

The land tenure Land ownership has evolved from customary law to a system of state of individual ownership.

Challenges: maintenance → lack of local infrastructure and trained staff, recording must be done at district level but the database is managed centrally in Kigali

Land market

Land registration is mandatory

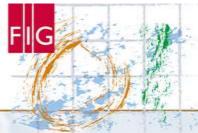
Challenge: high transaction fees (↑ informality)

Land reform

content

Since 2009: policy and legal land reform → all existing land is regularised and registered

Challenges: maintenance → lack of local infrastructure and trained staff, recording must be done at district level but the database is managed



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STRENGTHS

- Ethiopia: long tradition in LA + efforts
- Kenya: economically strong + open to innovation
- Rwanda: catching up fast
 e.g. registration program LTR

WEAKNESSES

- Decentralization challenges and constraints
- Maintenance
- Informality
- Mismanagement

SWOT

<u>OPPORTUNITIES</u>

- Broaden the scope
 e.g. vegetation monitoring
- Transferability to other contexts

THREATS

- Political fluctuationse.g. elections
- Environmental fluctuations
 e.g. climatic change



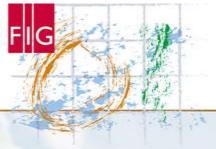












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Conclusions

- Decent understanding of lang governance is crucial for the implementation of innovative geospatial tools.
 - Socio-economic related factor: overall country context
 - Land related factors: land barriers to sustainably use and implement the tools
 - Institution factor: national government as important stakeholder, decentralisation challenges

















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Thank you for your attention!













