Commission 7.8:
Comparative Land Administration

Comparative Land Data for Land Administration Innovation

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Demand for Data about Land Administration:

- The SDGs demand aggregated data about land administration – for assessment, monitoring, and designing interventions.

- What constitutes land data?
- What is the land data ecosystems?
- What services should land data support?
- What constituted comparative global land data?

See Commission 7 Workplan: Working Group 7.8 on the FIG Website

Specific Project Objectives:

- **Needs Assessment:** Forum/Dialogue/Survey on preferences and future directions for creating shared comparative land administration data

- **Strategy Development:** Collaborative development of plan for scaling and enhancing creation and sharing of comparative land administration data (i.e., governance, business rules, application, information, and technology)

- **Pilot Implementation:** Demonstrate the implementation, and invitation to scale

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Comparative Land Administration Data: State of Land Information

SOLIndex (former Land Module)
Global comparison for the completeness and openness of land data

State of Land Information (SOLI)
Detailed country level investigation on the state of land data

Open Up Guide for Land Governance (OUG)
Country level initiative to support the opening up of land data globally.

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SOLIndex

Measure the completeness and openness of land data (Can be mapped to LADM)

Complements existing land monitoring initiatives on issues such as climate change and gender.

Means for developing discourse, understanding and documenting data ethics, justice and inclusion.

Derive the indicators from the **land administration functions (tenure, use, development, value)**

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TRACKING THE STATE OF LAND INFORMATION

THE SOLI INDEX

A new indicator from the Land Portal to make land-related findings more actionable and to complement existing land governance monitoring systems.

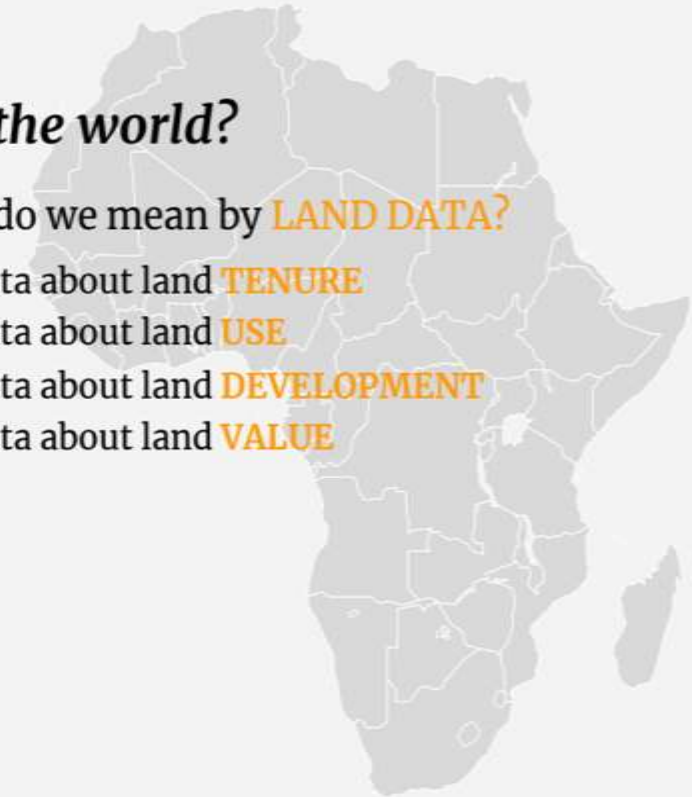| WHAT	WHY	HOW	FOR WHOM
An indicator that assesses the openness of land data and information at the global and country levels	Land data in the public domain enables use, ensures transparency, and improves decision-making and service-provision	Methodology based on Land Portal's established State of Land Information (SOLI) research and reports	Land data custodians, policy-makers, researchers, land + development practitioners, open data advocates

We ask the question:

How OPEN is LAND DATA around the world?

What do we mean by OPEN?

- How much land data is ONLINE?
- How much land data is ACCESSIBLE?
- How much land data is FREE?
- How much land data is updated in a TIMELY manner?
- How much land data is accompanied by METADATA?
- How much land data uses STANDARDS?
- How much land data is DOWNLOADABLE?
- How much land data has OPENLY LICENSED?
- How much land data is MACHINE READABLE?
- How much land data is available as LINKED DATA?

What do we mean by LAND DATA?

- Data about land TENURE
- Data about land USE
- Data about land DEVELOPMENT
- Data about land VALUE
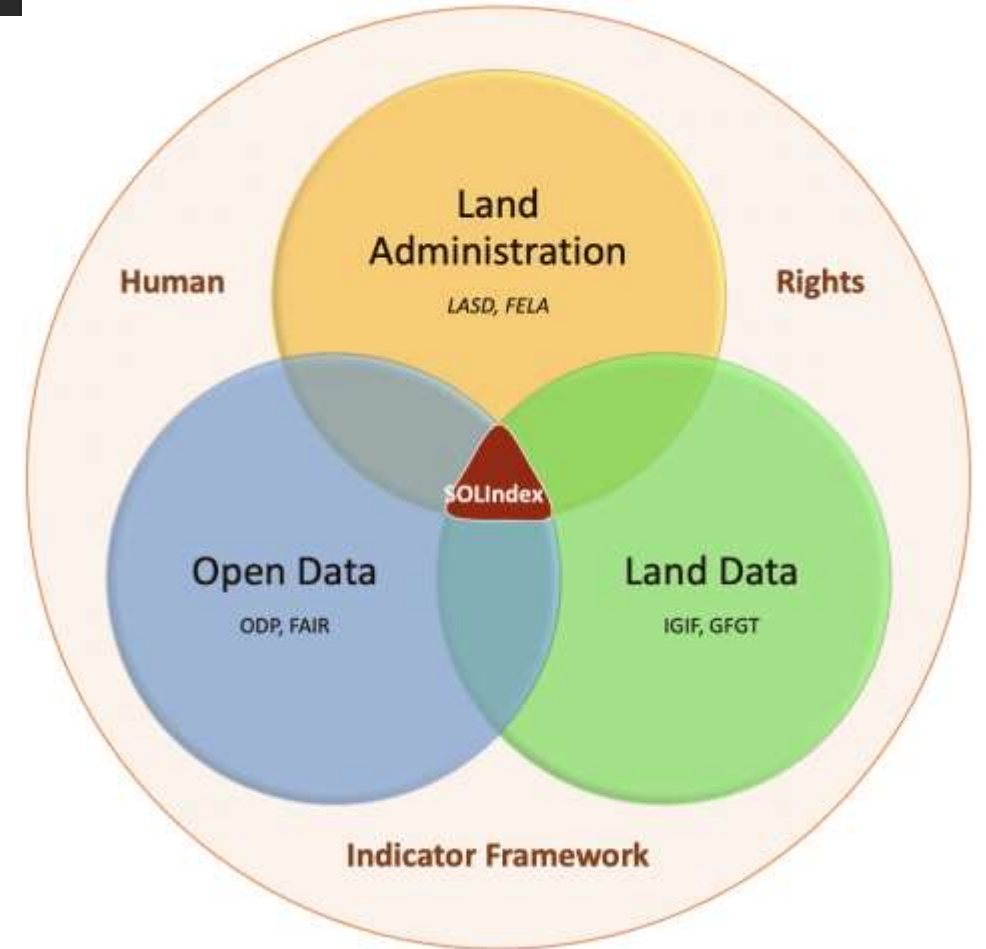
Conceptual Framework

1. *Land Administration for Sustainable Development* *(2010)*

2. *The Framework for Effective Land Administration*, UN-GGIM, - *"data relating to land tenure, land use, land value, and land development are* **fundamental geospatial data themes** *within any jurisdiction".*

3. *The Global Fundamental Geospatial Themes* developed by the UN-GGIM and referred to by the (FELA) as the basis for data on land tenure, value, use.

4. *Integrated Geospatial Information Framework,* a strategic guide to develop and strengthen national geospatial information management.

Data Categories

1. Land Tenure Data
2. Land Use Data
3. Land Value Data
4. Land Development Data

Data Governance

1. International Commitments to ATI
2. National Commitments to ATI
3. Land Legislation Commitments to ATI
4. Data & Information Policies & Practices
5. Data Protection and Privacy

Open Data Criteria

1. Online
2. Accessibility
3. Free
4. Timeliness
5. Metadata
6. Standards
7. Downloadable, API
8. Open License
9. Machine Readable
10. (Linked) Data URI

FAIR

How complete is the coverage of digital land data? (The kinds of data)

How open is the available digital land data? (The open criteria)

(Scoring - No, Little, Partial, Yes)

- Yes fully   Score = 3
- Yes partially   Score = 2
- Yes little   Score = 1
- No   Score = 0

Overall score is a function of availability and openness.

+
−

x/y

Informations

Prescription d'urbanisme

Zoning	Zone Residentielle a Tres Forte Densite
Prescription d'urbanisme	Superficie minimale de parcelle : 150 m²/CES : 70%/ Hauteur : RDC+5 (19m) si les parcelles sont comprises entre 150 m² et 300m²/ Hauteur: RDC+7 (26m) si les parcelles sont supérieures à 300m²

Alignement

Plan parceleire no disponible: Alignement de la voie publique à detérminer sur terrain

Localisation Administrative :

Fokontany :	Ankazotoho

Legal and Policy Framework: $\frac{\sum_{n=1}^{2} P(n)}{Max\ P(N)} \times 100 = PS$

Land Tenure: $\frac{\sum_{n=1}^{11} T(n)}{Max\ T(N)} \times 100 = TS$

Land Use: $\frac{\sum_{n=1}^{6} U(n)}{Max\ U(N)} \times 100 = LS$

Land Development: $\frac{\sum_{n=1}^{10} D(n)}{Max\ D(N)} \times 100 = DS$

Land Value: $\frac{\sum_{n=1}^{13} V(n)}{Max\ V(N)} \times 100 = VS$

Completeness Score (CS) = $\frac{PS+TS+US+DS+VS}{5}$

Legal and Policy Framework: $\frac{\sum_{n=1}^{10} OP(n)}{Max\ OP(N)} \times 100 = OPS$

Legal and Policy Framework: $\frac{\sum_{n=1}^{10} OT(n)}{Max\ OT(N)} \times 100 = OTS$

Legal and Policy Framework: $\frac{\sum_{n=1}^{10} OL(n)}{Max\ OL(N)} \times 100 = OLS$

Legal and Policy Framework: $\frac{\sum_{n=1}^{10} OD(n)}{Max\ OD(N)} \times 100 = ODS$

Legal and Policy Framework: $\frac{\sum_{n=1}^{10} OV(n)}{Max\ OV(N)} \times 100 = OVS$

Openness Score (CS) = $\frac{OPS+OTS+OUS+ODS+OVS}{5}$

$$\frac{CS \times OS}{100} = SOLIndex\ Country\ Score$$

FINDINGS

The SOLIndex Score for the countries in the pilot projects is:

Completeness score (CS) of 26
Openness score (OS) of 28.
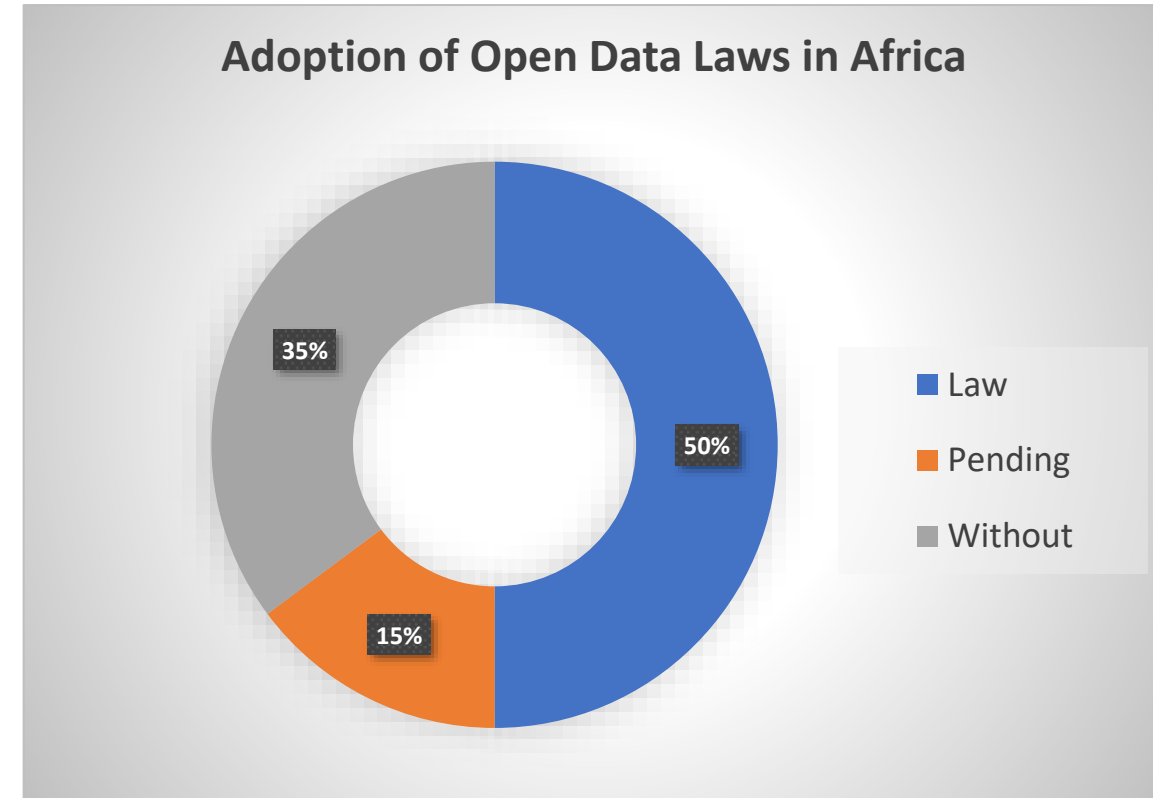**The overall SOLIndex score is 7.2** (CS x OS)/100.

Ratified the African Charter on Human and Peoples Rights

This reflects a broader trend of openness:

27 countries in Africa have enacted access to information laws

8 countries laws are pending

A decade ago only 13 countries had an ATI law.

Adoption of Open Data Laws in Africa

- 50% Law
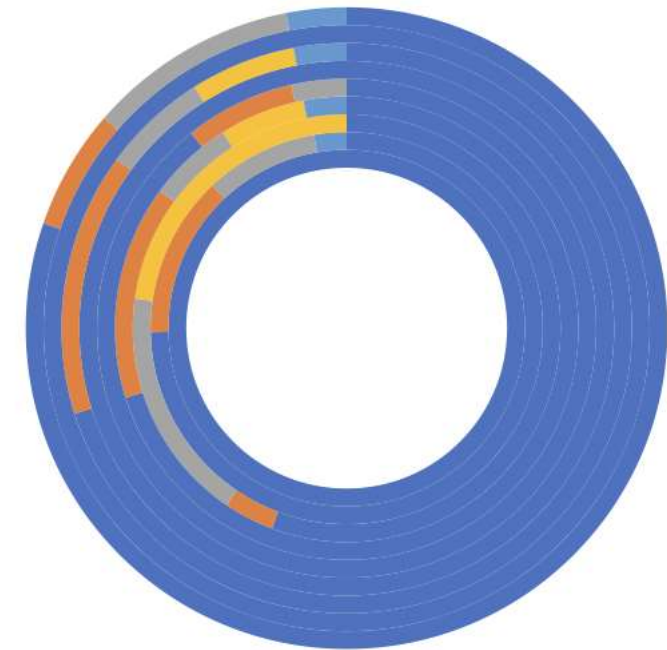- 15% Pending
- 35% Without

Legal and policy information   (45 out of 100).

Land Tenure data   (6 out of 100)

Land Use data   (5 out of 100)

Land Development data   (4 out of 100)

Land value data   (1 out of 100)

It was found that there is more digital data than is reflected by the score, but the data is not complete and open.

Accessibility of Land Data

- C1 Legal and Policy Data
- C2 Land Tenure Data
- C3 Land Use Data
- C4 Land Development Data
- C5 Land Value Data

Discussion

Modern land administration systems are foundational for sustainable social, economic and ecological development.

This requires improved decision making capabilities that requires complex analysis and integrations of a wide variety of data and sources concerning the land administration functions.

Efforts to improve land administration systems are ongoing, this includes understanding and documenting the importance of the land administration system as well as the underlying land information that is so critical to the functioning of a modern cadastre.

Papers Presented

Seek to address the challenge of improving land administration systems.

Notable themes in Comparing and Evaluating cadastral systems and the challenges faced when comparing the systems.

Developing a framework for comparing data needed for the core land administration functions.

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Questions for the Floor

The importance of land data and information.

Q1 - A major common theme emerging from the two presentations is research about the importance of data for land administration development. What kind of data expansions are need to be added to the cadastral information base?

From data and information to digital data services.

Q2 - How do you define digital services in the context of digital transformation of the land administration sector, and why is this vital for the land sector? Furthermore, what has driven the shift from traditional data towards these services, and which specific data is pivotal for the land administration sector/other sectors?

On semantics and land administration data

Q3 - How can a shared ontology benefit land administration data, and what is necessary to enhance globally comparative indicators?