Fourth High Level Forum on United Nations Global Geospatial Information Management

'Good Land Governance for the 2030 Agenda'

Session 1:

Land Information for Sustainable Development

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Cadastral engines...

1. Multipurpose Cadastre
(German style)

2. Title or deeds tenure style Cadastres
(Torrens/English style)

3. Taxation driven cadastre
(French/Latin/ USA style)

SDI

Mapping agencies and other data providers

Parcels
Properties
Buildings
Roads, etc.

Land management paradigm

Integrated functions

- Tenure
- Value
- Use
- Development

Spatially enabled government

Incorporating:

- Land policy
- Spatially enabled LAS
- Services to public and business
- Country context

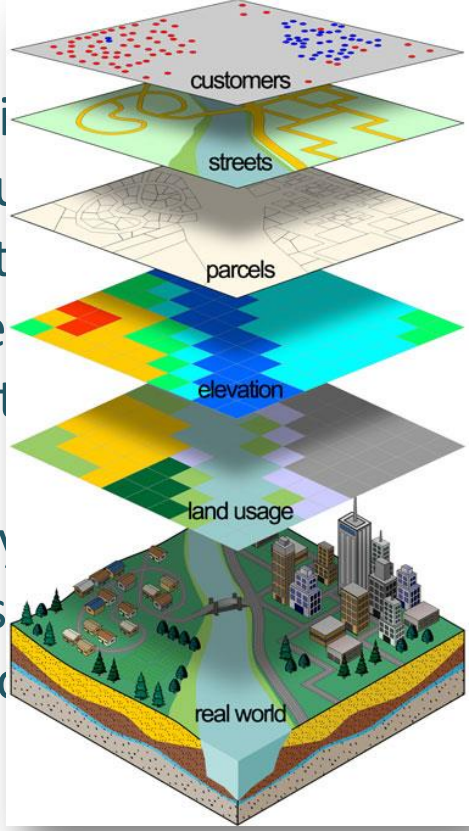
Better Informed decision making

Sustainable development

- People
- Planet
- Prosperity
- Peace

(from Williamson, Enemark, Wallace, Rajabifard, 2009)

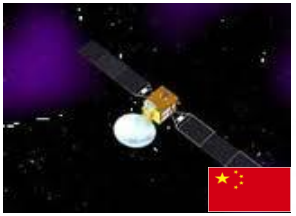
In this recent past, the advancement of technologies, of sensors and mobile computi wide web and the cloud are stimu demands for the integration of different of differing purposes, sources and scale transformed the availability and accessibili and potentials of information and knowledge these integrated data sets, both in daily decisions, as well as at the policy, decis implementation levels, contributing t governance, leading to sustainable development.

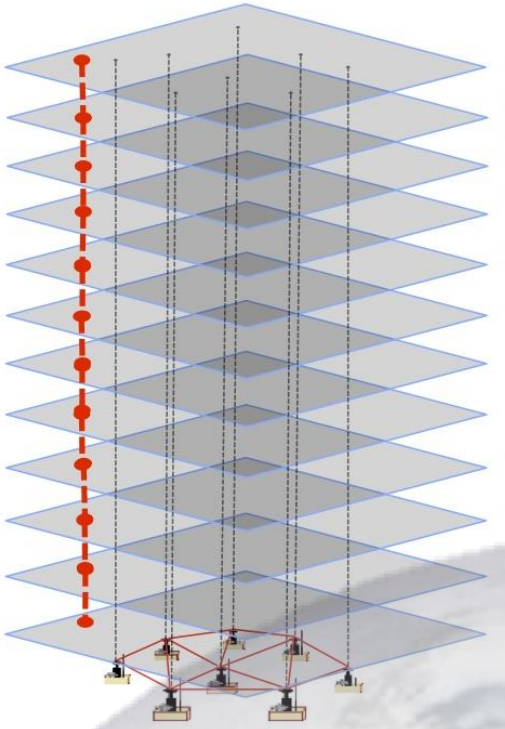


The infrastructure to enable all these has to be considered critical infrastructure for any jurisdictions.

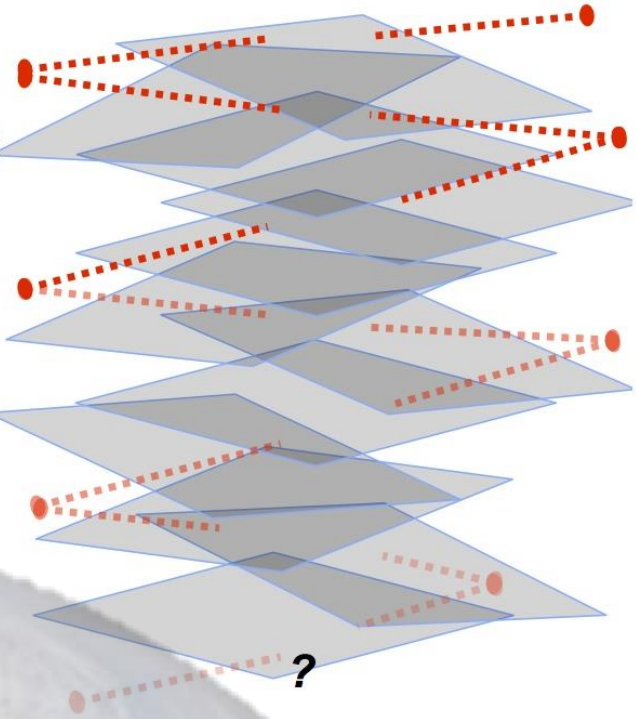
"Land information, together with a jurisdiction's spatial data infrastructure, now has the potential to transform the way a modern society functions"

(Ian Williamson, Uni. Of Melbourne, 2007)





METEOROLOGY
NATURAL RESOURCES
CROSS BORDER UTILITIES
BOUNDARY DISPUTES
URBAN DATA
CONSTRUCTION
MILITARY
GEOLOGY / SEISMOLOGY
REGIONAL PLANNING
TRANSPORTATION
DTM, DEM
NATIONAL BOUNDARIES



Regional Reference Frame

= spatial "dialogue"

Discrete Reference Frames

Positioning Infrastructure based on Global Navigation Satellite Systems

(from John Whitehead, Trimble, 2012)

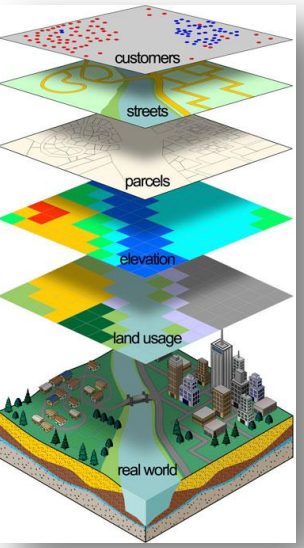
Global Land Challenges:

- Limited coverage (estimated only 30% globally, some countries as low as 3%)
- Complexity of land rights, claims and records (e.g. customary, statutory, informal)
- 70% - 75% of global population's relationship to land not documented, recorded and recognized

Conventional systems cannot deliver tenure security at scale!

(UN-Habitat/Global Land Tool Network)

SDG Indicators –



1.4.1 Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure

2.4.1 Proportion of agricultural area under productive and sustainable agriculture

5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure

5.b.1 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control

15.1.1 Forest area as a proportion of total land area

(source: UN-ECOSOC E/CN.3/2016/2/Rev.1)

TABLE 1.2 Quality of land administration index by region and for study countries

	Max.	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	High Income: OECD	South Asia	Sub-Saharan Africa
Reliability	8	2.9	5.9	3.2	3.7	6.8	1.3	1.6
Transparency	6	2.2	3.6	2.5	1.9	3.6	1.5	1.8
Coverage	8	3.2	3.8	1.1	2.6	6.3	1.5	0.7
Disputes	8	4.6	6.2	4.6	4.4	6.0	3.4	4.3
Total index	30	13.0	19.4	11.5	12.5	22.7	7.6	8.4

(source: World Bank's "How Innovations in Land Administration Reform Improve on Doing Business", 2016)

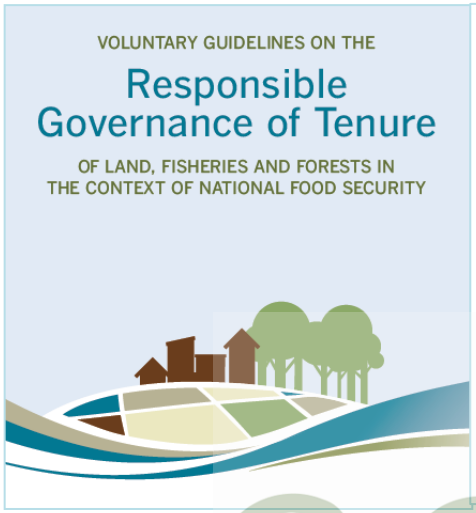
(source: ANGOC/Ekta Parishad, 2016)

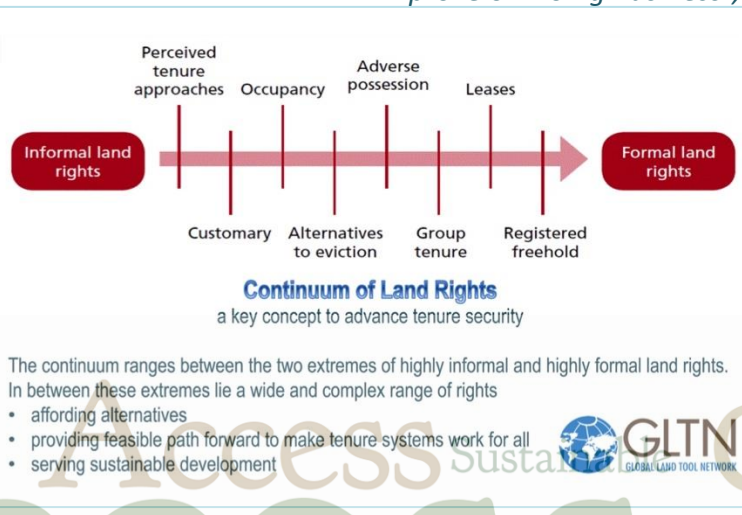
Geographic coverage
Are all privately held land plots in the economy formally registered at the immovable property registry?
Are all privately held land plots in the largest business city formally registered at the immovable property registry?
Are all privately held land plots in the economy mapped?
Are all privately held land plots in the largest business city mapped?
Reliability of infrastructure
Is there an electronic database for recording boundaries, checking plans and providing cadastral information (geographic information system)?
Transparency of information
Who is able to consult maps of land plots in the largest business city?
Is the applicable fee schedule for accessing maps of land plots made publicly available—and if so, how?
Does the cadastral or mapping agency commit to delivering an updated map within a specific time frame & if yes, how it service standard communicated?
Is there a specific and separate mechanism for filing complaints about a problem that occurred at the cadastral or mapping agency?

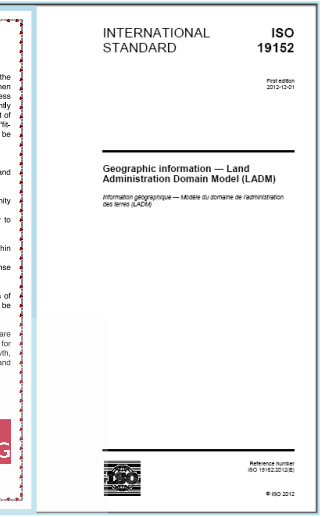
(source: World Bank's "How Innovations in Land Administration Reform Improve on Doing Business", 2016)

"this suggests that most countries are characterized by a large "implementation gap" that can be bridged only if coverage is expanded and measures (which may include clear regulations for implementation) are taken to ensure provision of authoritative, accurate, and up-to-date information"

("How Innovations in Land Administration Reform Improve on Doing Business", 2016)







Governments at all levels should recognize and record people-to-land relationship in all its form, embrace diversity and complexity in the land sector, implement multi-actor fit-for-purpose approaches, improve coverage towards increasing tenure security for all inhabitants as part of the global sustainable development efforts.

ACCESS Spatially enabled Data and Information FOR Knowledgeable Choices; Decisions and Actions

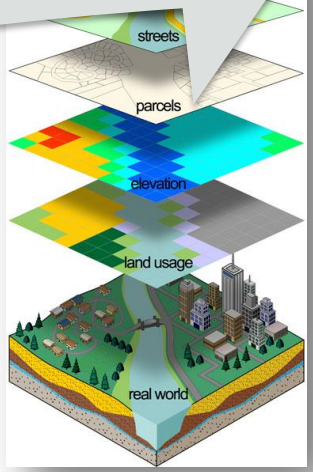
ACCESS Land and water, basic services FOR Adequate sustenance, shelter and safe spaces

ACCESS Opportunities (education, employment, etc..) FOR Dignity, Wellbeing, and Responsible inhabitants

Curate

Collate

Collect



Data and information consistently available and accessible over space and time