


Land Governance in support of the Global Agenda

The Role of Land Professionals

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 President 2007-2010
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AfricaGEO, Developing Geomatics for Africa, Cape Town, 30 May – 2 June 2011

Where are we heading ?

Three major trends:

- **From Measurement to Management**
 - From land surveying to land management.
- **From Cadastre to Land Governance**
 - From security of tenure to governance of the people to land relationship
- **From Local to Global**
 - Surveyors have a key role to play in contributing to the global agenda

Where are we heading ?

Is the role of the Surveyors changing ?

Yes !

From land surveying to land management

From land surveyors to land professionals

The big swing

- **From Measurement**

Surveyors will still be high level experts within measurement science, but due to technology development the role is changing into managing the measurements

- **To Management**

Surveyors will increasingly contribute to building sustainable societies as experts in managing land and properties

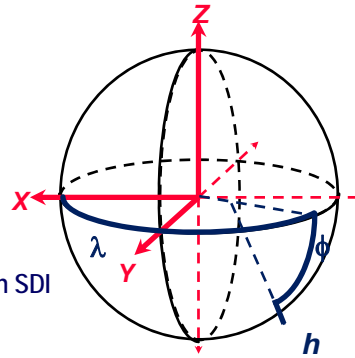
The Land Professionals

Positioning infrastructures Versus traditional Geodetic Datum

- Enables description of position as latitude, longitude and height and underpins all geo-spatial data;

- Characteristics:

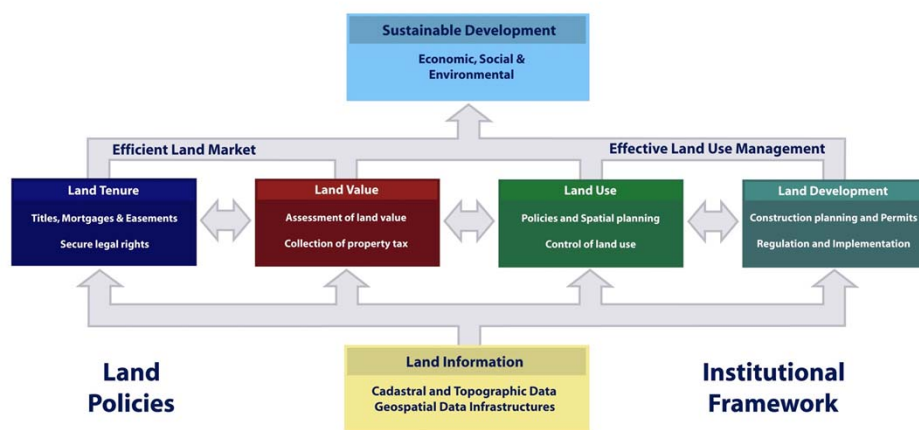
- Coverage: from local to national or continental
- Measurement: from ground-based to GNSS
- Data management: from analogue to integrated in SDI



Positioning infrastructures are the only truly global infrastructure underscoring capture and management of spatial data world wide

Source: Matt Higgins, Washington, 2009

A global land management perspective



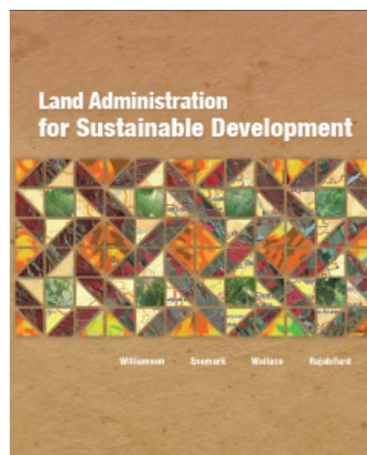
Land Tenure: Allocation and security of rights in lands; legal surveys of boundaries; transfer of property;
 Land Value: Assessment of the value of land and properties; gathering of revenues through taxation;
 Land-Use: Control of land-use through adoption of planning policies and land-use regulations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

Land administration

Land Administration Systems provide the infrastructure for implementing land policies and land management strategies in support of sustainable development.

A “state of the art” book – rather than a text book

Williamson, Enemark, Wallace and Rajabifard
487 pages - ESRI Press Academic, 2010



Benefits to society

TABLE 1.1 – TRADITIONAL BENEFITS OF LAS

Support for governance and rule of law	The formalization of processes used for land management engages the public and business, and, in turn, this engagement leads to their support for the institutions of government.
Alleviation of poverty	A primary means of alleviating poverty lies in recognizing the homes and workplaces of the poor and their agricultural land as assets worthy of protection.
Security of tenure	This is the method of protecting people's associations with land. It is the fundamental benefit of formal land administration. Ensuring security throughout the range of tenures used in a country helps provide social stability and incentives for reasonable land use. Conversion of some of the rights into property is the core process of commodification of land needed for effective markets.
Support for formal land markets	Security and regularity in land arrangements are essential for successful, organized land markets. LAS manage the transparent processes that assist land exchange and build capital out of land.
Security for credit	International financing norms and banking practices require secure ownership of land and robust credit tenures (that is, tenures which support security interests in land) that can only exist in formal LAS.
Support for land and property taxation	Land taxation takes many forms, including tax on passive land holding, on land-based activities, and on transactions. However, all taxation systems, including personal and company taxation, benefit from national LAS.
Protection of state lands	The coherence of national LAS is dependent on its coverage of all land. Thus, management of public land is assisted by LAS.
Management of land disputes	Stability in access to land requires defined boundaries, titles, and interests. If LAS provide simple, effective processes for achieving these outcomes, land disputes are reduced. The systems also need additional dispute management processes to cover breakdown caused by administrative failure, corruption, fraud, forgery, or transaction fees.
Improvement of land planning	Land planning is the key to land management, whether the planning is institutionalized within government or achieved by some other means. Impacts of modern rural and urban land uses affect adjoining land and beyond. These impacts need to be understood and managed by effective land planning assisted by LAS.
Infrastructure development	Construction of power grids, gas supply lines, sewerage systems, roads, and the many other infrastructure elements that contribute to successful land use require LAS to balance private rights with these large-scale infrastructure projects, whether provided by public or private agencies.
Management of resources and environment	Integration of land and resource uses is a difficult aspect of LAS design. Land and resource titles require complicated and mutually compatible administrative and legal structures to ensure sustainability in the short and long term.
Information and statistical data	Each agency needs to appreciate the importance that the information generated through its processes holds for the public, businesses, and governments in general. More importantly, everyone needs to understand the fundamental importance of integrated land information for sustainable development.

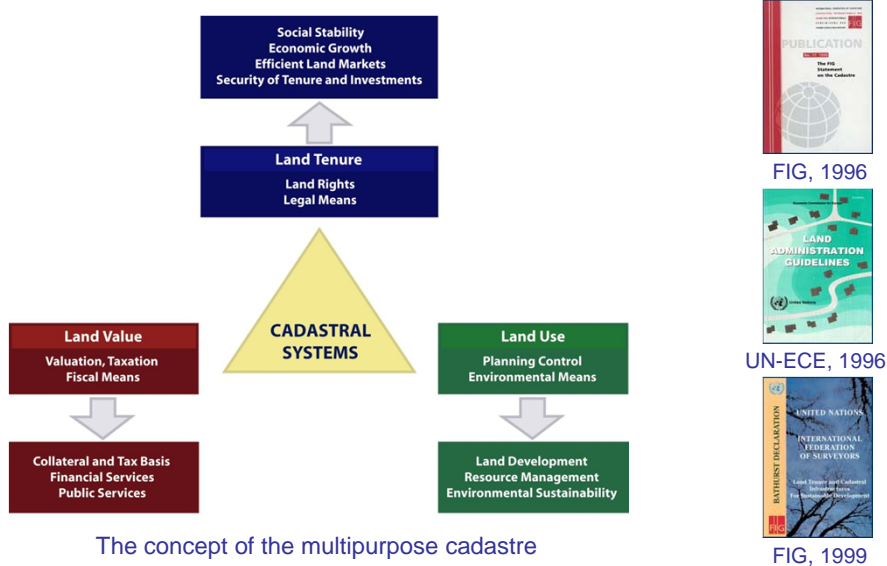
Williamson, Enemark, Wallace, Rajabifard, 2010



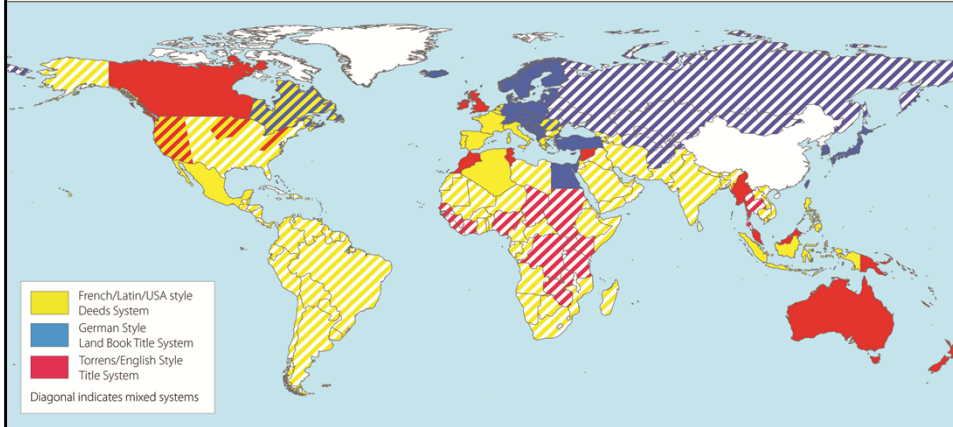
Where are we heading ?

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Cadastral Systems



Land Registration Systems around the World

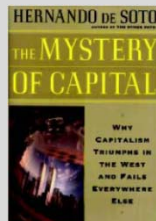


Deeds System (French/Latin/USA style): A register of owners; the transaction is recorded – not the title.
 Title System (German, Torrens/English style): A register of properties; the title is recorded and guaranteed.

Limitations of Formal Cadastral Systems...

"Civilised living in market Economies is not simply due to greater prosperity but to the order that formalised property rights bring"

Hernando de Soto – 1993

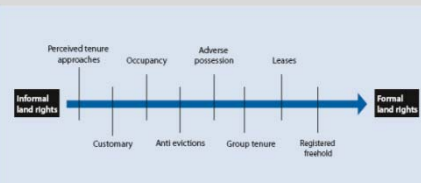


Formal land rights can be recorded in traditional cadastral systems

Continuum of rights (GLTN-agenda)

From: illegal or informal rights

To: legal or formal rights



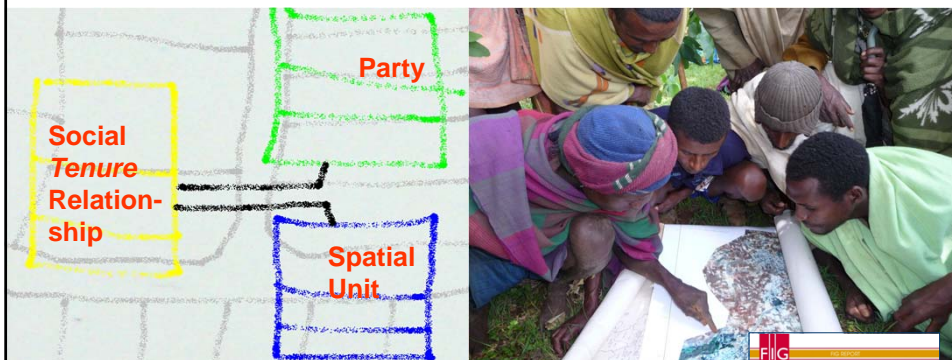
Informal rights cannot be recorded in traditional cadastral systems

Limitations of Formal Cadastral Systems

- More than 70 per cent of the land in many developing countries are outside the formal systems of land registration and administration
- This relates especially to informal settlements and areas governed by customary tenure
- Traditional cadastral systems do not provide for security of tenure in these areas.



The Social Tenure Domain Model: Closing the Gap

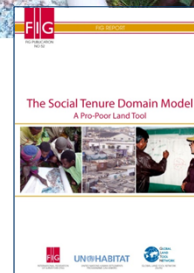


Modeling the relation between Parties ↔ Social Tenure ↔ Spatial Unit

Parties (who): Not only a (legal) person – but a range of subjects such as person, couple, groups of people, unidentified groups, authority...

Spatial Unit (where): Not only an identified (measured) parcel – but a range of objects such as land parcels, land objects, buildings, etc., and identified in various ways – such as a point, street -axes, photos...

Social tenure (what): Not only ownership and formal legal rights – but also a range of informal, indigenous and customary rights as well as financial issues such group loans and micro credit.



Systematic Registration of Land Rights



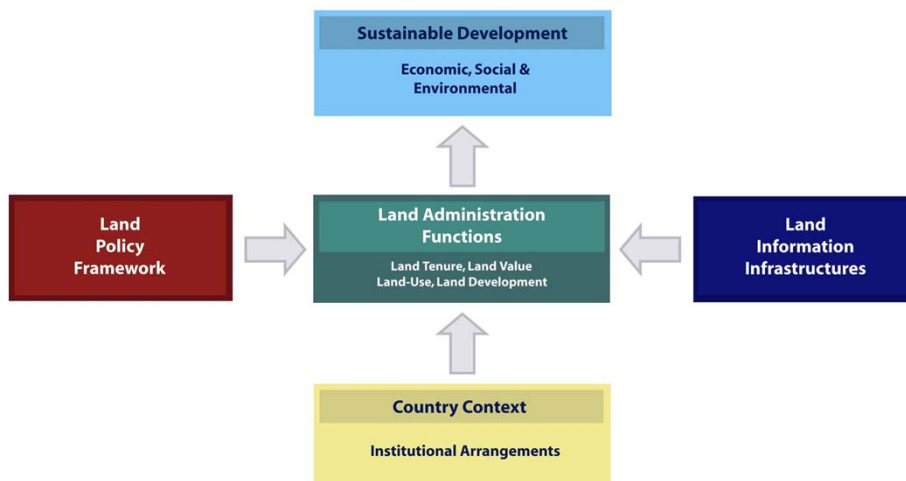
Nairobi



Malawi

Including all areas and all kind of tenure rights in the systems of land registration and administration

Understanding the Land Management Paradigm



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



FAO, 2007

Good governance

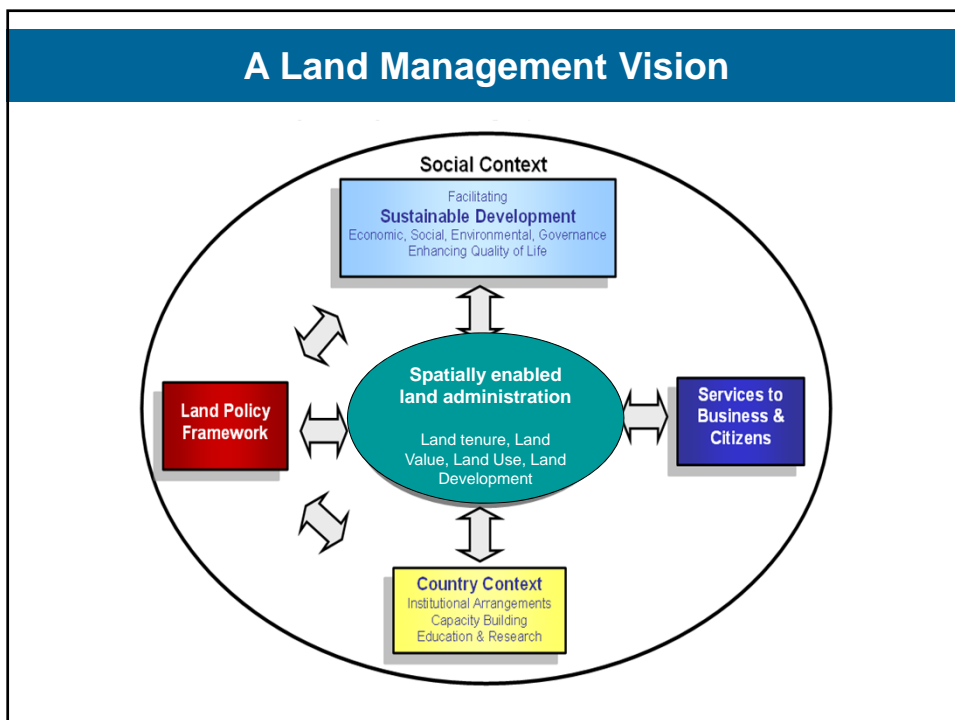
Good governance is

- **Sustainable and locally responsive:** It balances the economic, social, and environmental needs of present and future generations, and locates its service provision at the closest level to citizens.
- **Legitimate and equitable:** It has been endorsed by society through democratic processes and deals fairly and impartially with individuals and groups providing non-discriminatory access to services.
- **Efficient, effective and competent:** It formulates policy and implements it efficiently by delivering services of high quality.
- **Transparent, accountable and predictable:** It is open and demonstrates stewardship by responding to questioning and providing decisions in accordance with rules and regulations.
- **Participatory and providing security and stability:** It enables citizens to participate in government and provides security of livelihoods, freedom from crime and intolerance.
- **Dedicated to integrity:** Officials perform their duties without bribe and give independent advice and judgements, and respects confidentiality. There is a clear separation between private interests.

Adapted from FAO, 2007



FAO, 2011



Place Matters

Everything happens somewhere

“If we can understand more about the nature of “place” where things happen, and the impact on the people and assets on that location, we can plan better, manage risk better, and use our resources better.”

Location Strategy for United Kingdom, 2008

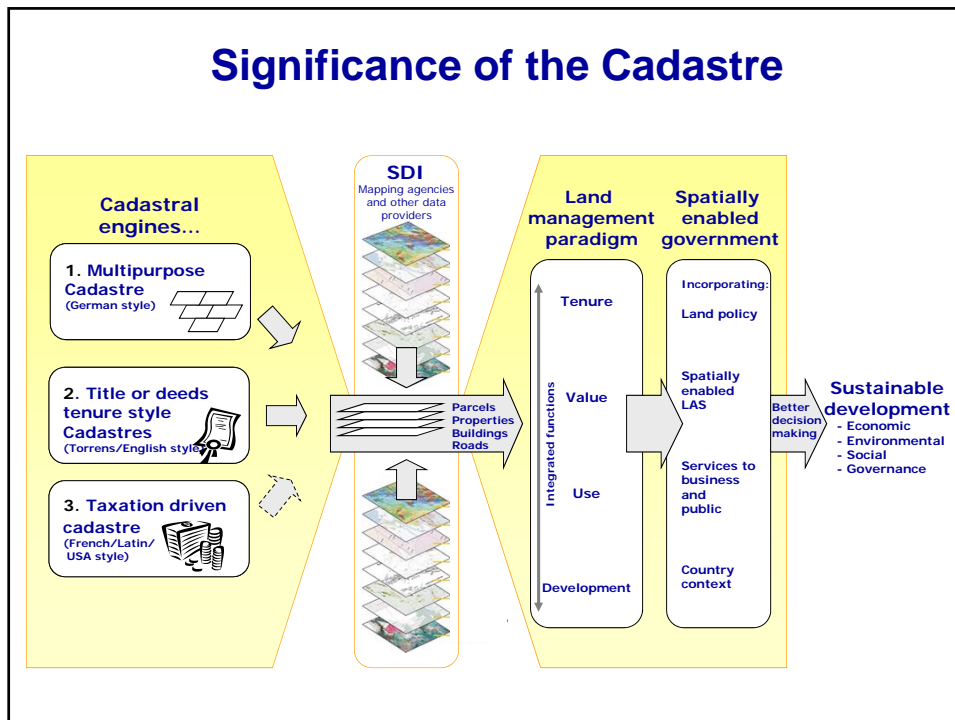
“Heading toward spatial enabled society”

Spatially Enabled Government

A spatially enabled government organises its business and processes around “place” based technologies, as distinct from using maps, visuals, and web-enablement.

The technical core of Spatially Enabling Government is the **spatially enabled cadastre**.

Significance of the Cadastre



The Role of FIG

FIG intend to play a strong role in building the capacity to design, build and manage Land Governance systems in support of the Global Agenda

“Building the capacity for taking the land policy agenda forward in a partnership with the UN-agencies and the World Bank”

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- **From Local to Global**
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Current policies

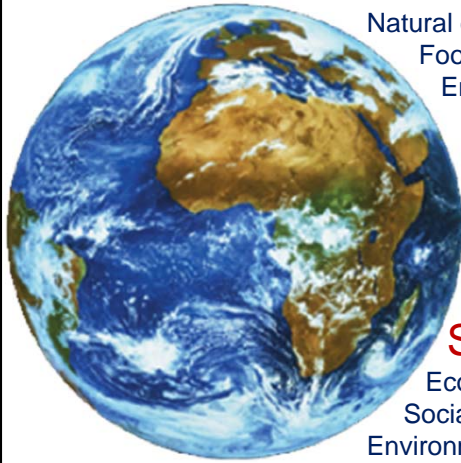
Do Surveyors have a role to play in the global agenda?

Yes !

Simply, no development will take place without having a spatial dimension

And no development will happen without the footprint of the surveyor

The Global Agenda



Climate Change 2010's

Natural disasters
Food shortage
Environmental degradation

MDGs 2000's

Poverty alleviation
Human health, education
Global partnership

Sustainable Development 1990's

Economic
Social
Environmental

Climate change is a fact...

**YOU CONTROL
CLIMATE CHANGE.**



Climate change is a fact
- but it is not new...

What is new is..... that it is
enforced by humanity

Global warming
Drought
Environmental
degradation



A range of impacts
and indicators



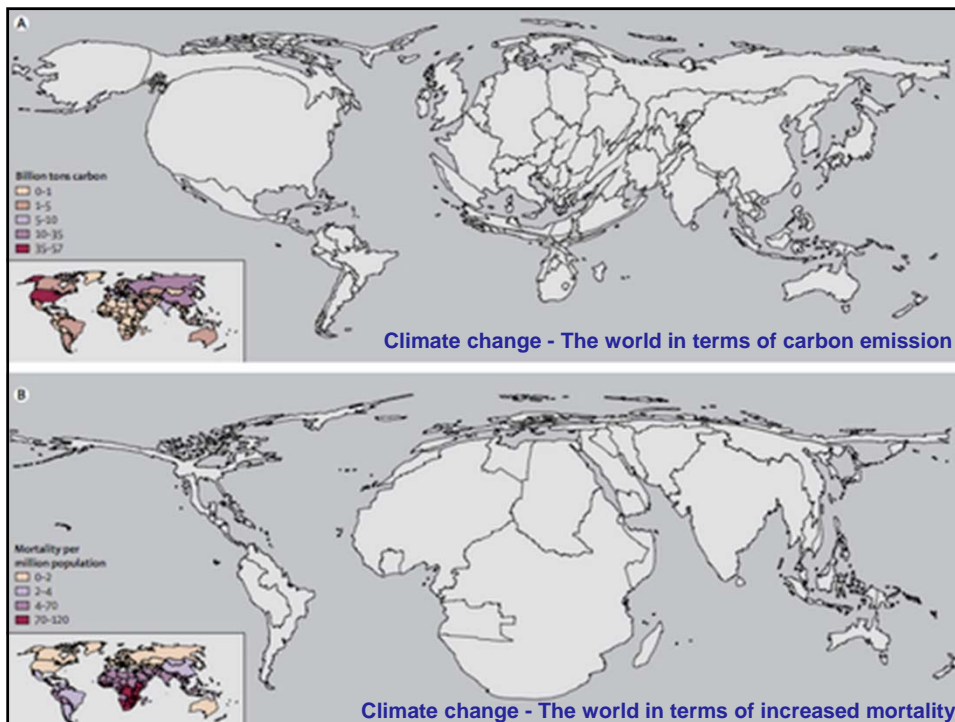
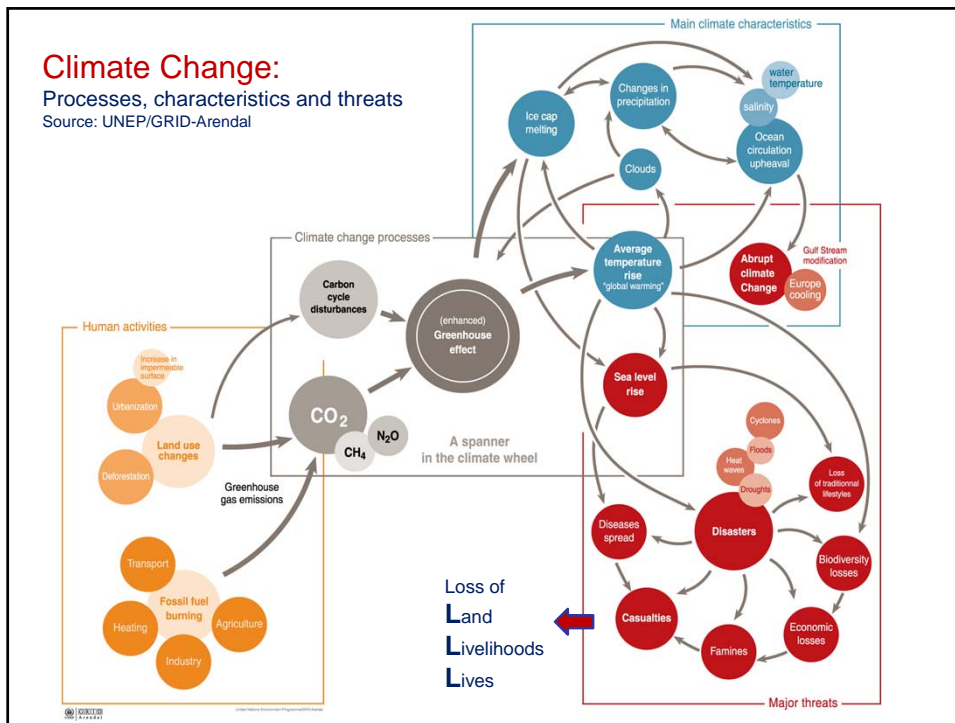
Sea level rise
Flooding
Natural disasters



Climate change will affect the basic elements of life for people round the world – access to water, food production, health and the environment.

(UN-Habitat 2009)

Climate Change:
Processes, characteristics and threats
Source: UNEP/GRID-Arendal



Addressing the Challenge

No matter the inequity in terms of emissions and climate change consequences..... there is a need to develop relevant means of adaptation to climate change in both the rich and the poorer countries.

Poverty reduction is - in itself - a means of adaptation to climate change

Sustainable and integrated land-use management is another means

Land Governance and Climate Change

Sustainable **Land Administration Systems** should serve as a basis for climate change mitigation and adaptation as well as prevention and management of natural disasters.

Incorporating climate change into current land policies
Adopting standards for energy use, emissions, carbon stock potential...
Identifying prone areas (sea level rise, drought, flooding, fires,...)
Controlling the use of land in relation to climate change and disaster risks
Introducing carbon footprint assessments in relation to land use developments
Controlling building standards and emissions in relation to climate change
Improving resilience of existing ecosystems vulnerable to climate change

The Millennium Development Goals Report



8 Goals
18 Targets
48 Indicators

2010

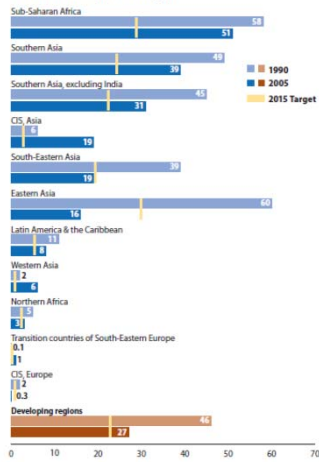


Goal 1, target 1:

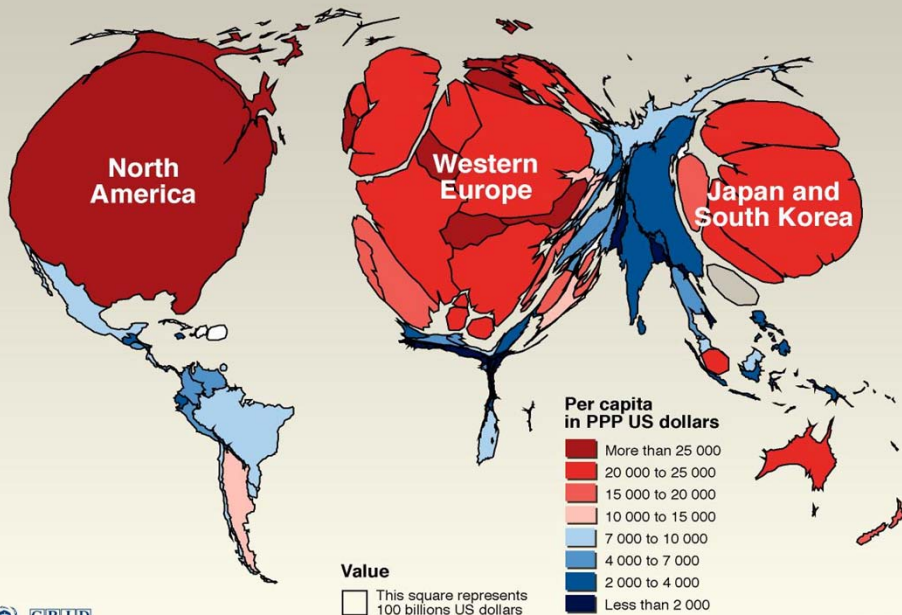
TARGET
Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day

The global economic crisis has slowed progress, but the world is still on track to meet the poverty reduction target

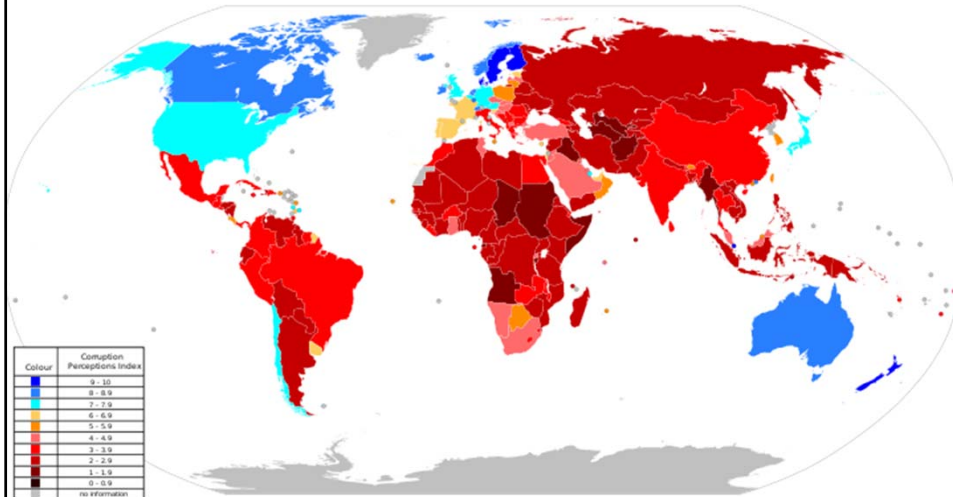
Proportion of people living on less than \$1.25 a day, 1990 and 2005 (Percentage)



Gross Domestic Product



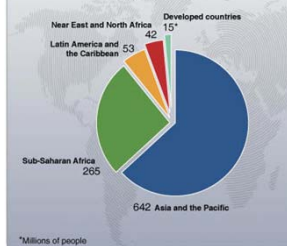
Good governance



Corruption Perceptions Index 2010

Food shortage – land grab – large scale agri-business

More than 1.02 billion hungry people



One sixth of humanity undernourished



Climate Change and Food Production, FAO 2008.

Urban Growth – sustainable cities

	1950	1975	2007	2025	2050
World Urban Population (million)	737	1,518	3,294	4,584	6,398
Percentage	29.1%	37.3%	49.4%	57.2%	69.6%
More Developed Region (million)	427	702	916	995	1,071
Less Developed Region (million)	310	817	2,382	3,590	5,327

Source: *World Urbanization prospects, UN, 2008*



Close to 1 billion people, or 32 per cent of the world's urban population, live in slums in inequitable and life-threatening conditions, and are directly affected by both environmental disasters and social crises, whose frequency and impacts have increased significantly during the last few decades.

*Planning Sustainable Cities
UN-Habitat, 2009*

It is all about:

People, human rights, engagement and dignity
Politics, land policies and good governance
Places, shelter, land rights, and natural resources
and Power, decentralisation and empowerment



Facing the Global Agenda

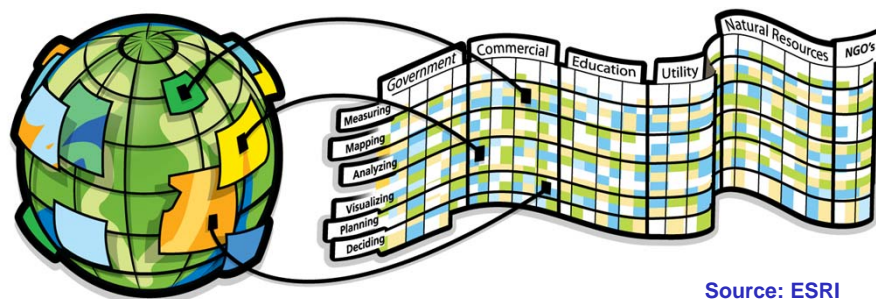


Good Land Information and Good Land Governance is fundamental for:

- **Coping with Climate Change**
- **Meeting the Millennium Development Goals, and**
- **Achieving Sustainable Development**

Land Information....Geo-information

...creates a strong foundation



Source: ESRI

...for sustainable action

The Role of FIG

- **Professional Development**
 - Global forum for professional discussions and interactions through conferences, symposia, commission working groups,
- **Institutional Development**
 - Capacity building through task forces and institutional support for educational and institutional development at national level
- **Global Development**
 - Cooperation with the UN agencies, FAO, UN-HABITAT and World Bank, and sister organisations through Joint Board of Geospatial Information Societies.
- **Information and Communication**
 - Website, annual review, publications – www.fig.net

FIG Publications 2007– 2010



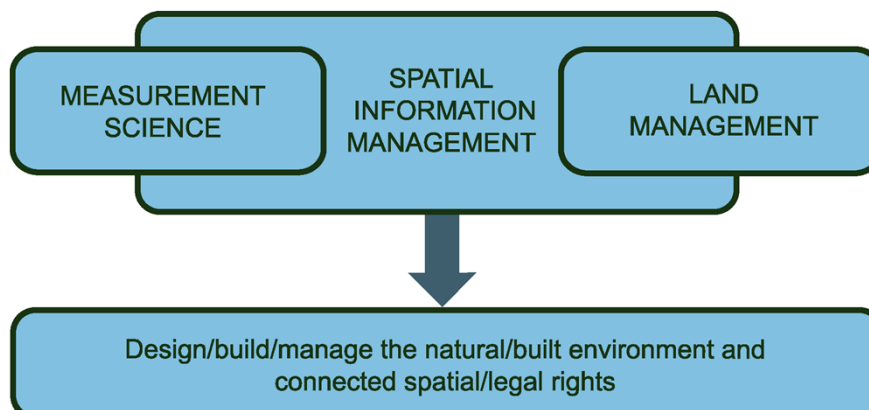
The Role of Land Professionals

Dealing with the land issue will require skills in the following areas:

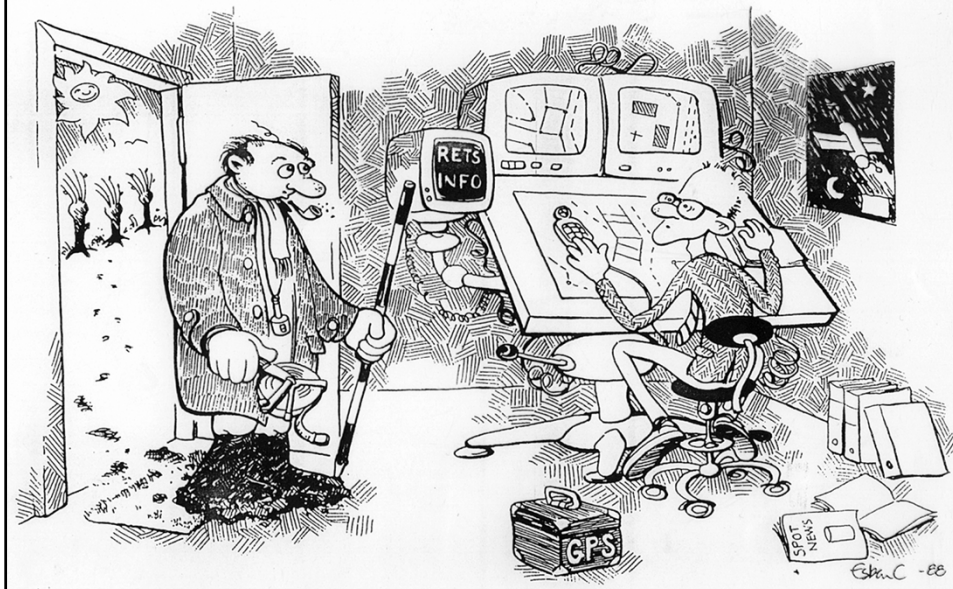
- High level geodesy models to predict future change
- Modern surveying and mapping tools to support management and implementation
- Spatial data infrastructures to support decision making on the natural and built environment
- Secure tenure systems and sustainable systems for land valuation, land use management and land development
- Systems for transparency and good governance

Land governance is an interdisciplinary and cross-cutting area mixing technical, natural and social science

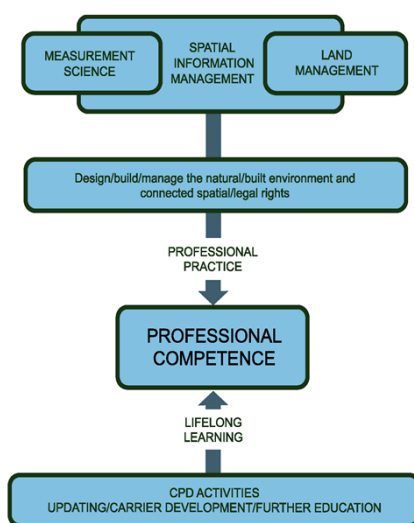
The Educational Profile of the Future



The only constant is change...



Lifelong Learning

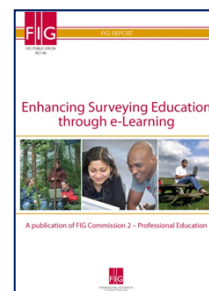


The status as professional expert cannot be achieved only through university graduation and it cannot be achieved solely through professional practice.

The idea of “learning for life” is replaced by the concept of lifelong learning.

E-Learning and innovative interaction between education, research and professional practice is essential in this regard.

Professional ethics are fundamental.



Key Message

The importance of good land governance in support of the global agenda should be self evident- but this is not well understood by the public in general.

Land Professionals are custodians of enabling technologies and practices, and should take a lead role in:

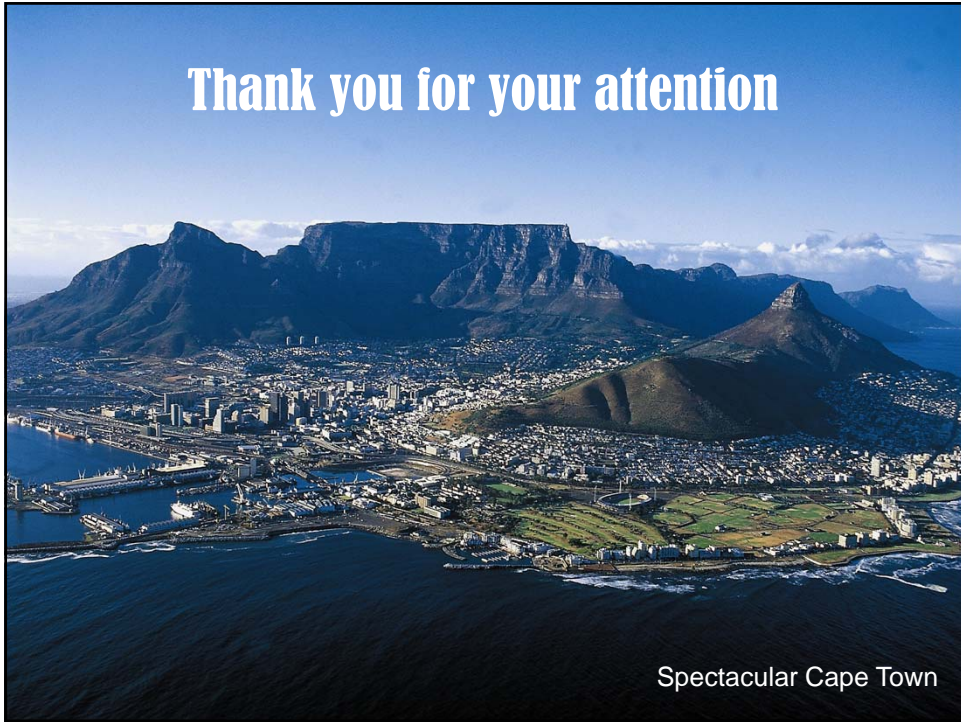
- Explaining the role of good land governance to the wider public, and
- Facilitating action

This should also ensure that the land governance perspective, and land professionals, attract high-level political support and recognition.

The future belongs to our children



Thank you for your attention



Spectacular Cape Town