From Cadastre to Land Governance: the Evolving Role of Land Professionals and FIG

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CADASTRES OF THE FUTURE
FAREWELL SYMPOSIUM FOR PAUL VAN DER MOLEN
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To Paul
– as we all know him
Setting the scene

The people to land relationship is dynamic and reflects the cultural and institutional setting of the country or jurisdiction.

Evolution of the land administration discipline

Tomb of Menna, Ancient Egypt, ca. 1500 BCE

<table>
<thead>
<tr>
<th>Human kind to land evolution</th>
<th>Feudalism - 1800</th>
<th>Industrial revolution 1800-1950</th>
<th>Post-war reconstruction 1955-1980</th>
<th>Information revolution 1980-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land as wealth</td>
<td>Land as a commodity</td>
<td>Land as a scarce resource</td>
<td>Land as a community scarce resource</td>
<td></td>
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<tr>
<td>Evolution of cadastral applications</td>
<td>Fiscal Cadastre Land valuation and taxation paradigm</td>
<td>Legal Cadastre Land market paradigm</td>
<td>Managerial Cadastre Land management paradigm</td>
<td>Multi-purpose Cadastre Sustainable development paradigm</td>
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</tbody>
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Evolution of Western Land Administration Systems
The FIG Agenda ...

1996 FIG Statement on the Cadastre Concepts and standards

1996 Bogor Declaration FIG/UN initiative on the role of cadastral infrastructures

1998 Cadastre 2014 A FIG vision in six statements for future cadastre systems.

1999 Bathurst Declaration FIG/UN initiative on land administration in support of sustainable development

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 guarantied.
## Table 2.3 - General Relationships Between Land Registries and Cadastras

<table>
<thead>
<tr>
<th>Style of System</th>
<th>Land Registration</th>
<th>Cadastre</th>
</tr>
</thead>
<tbody>
<tr>
<td>French/Latin/U.S. style</td>
<td>- Deeds system&lt;br&gt;- Registration of the transaction&lt;br&gt;- Titles are not guaranteed&lt;br&gt;- Tenures, registries, lawyers, and insurance companies (U.S.) hold central positions&lt;br&gt;- Ministry of Justice&lt;br&gt;- Inseript in the deed is described in a description of mines and bounds and sometimes a sketch, which is not necessarily the same as in the cadastre</td>
<td>- Land taxation purposes&lt;br&gt;- Taxable reference or map is used for taxation purposes only; it does not necessarily involve surveys&lt;br&gt;- Cadastral registration is normally a follow-up process after land registration if at all&lt;br&gt;- Ministry of finance or a tax authority</td>
</tr>
<tr>
<td>German style</td>
<td>- Title system&lt;br&gt;- Land book maintained at local district courts&lt;br&gt;- Titles based on the cadastral identification&lt;br&gt;- Registered titles guaranteed by the state&lt;br&gt;- Another boundaries nor areas guaranteed</td>
<td>- Land and property identification&lt;br&gt;- Field boundaries determined by cadastral surveys carried out by licensed surveyors or government officers&lt;br&gt;- Cadastral registration is prior to land registration&lt;br&gt;- Ministry of environment or similar</td>
</tr>
<tr>
<td>Torrens/English style</td>
<td>- Title system&lt;br&gt;- Land records maintained at the land registry office&lt;br&gt;- Registered titles usually guaranteed as to ownership&lt;br&gt;- Another boundaries nor areas guaranteed</td>
<td>- Property identification is an annex to the title&lt;br&gt;- Field boundaries determined by cadastral surveys carried out by licensed surveyors (Torrens)&lt;br&gt;- English system uses general boundaries identified in large-scale topographic maps&lt;br&gt;- Cadastral registration integrated in the land registration process</td>
</tr>
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</table>

**Cadastral Systems**

The concept of the multipurpose cadastre
Land Administration is about: “the processes of determining, recording, and disseminating information about the ownership, value, and use of land, when implementing land management policies”

The focus on information remains, but modern land administration systems should act as “an enabling infrastructure for implementing land policies and land management strategies in support of sustainable development”

Land Information Infrastructures

- **Land Tenure**: the allocation and security of rights in land; the legal surveys of boundaries; the transfer of property through sale or lease; and the management and adjudication of disputes regarding rights and boundaries.
- **Land Value**: the assessment of the value of land and properties; the gathering of revenues through taxation; and the management and adjudication of land valuation and taxation disputes.
- **Land Use**: the control of land-use through adoption of planning policies and land-use regulations at various levels; the enforcement of land-use regulations; and the management and adjudication of land-use conflicts.
- **Land Development**: the building of new infrastructure; the implementation of construction planning; and the change of land-use through planning permission and granting of permits.

LAS provide the infrastructure for implementation of land policies and land management strategies in support of sustainable development.
"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

Table 1.1 – Traditional Benefits of LAS

<table>
<thead>
<tr>
<th>Benefit for Governance and Rule of Law</th>
<th>The formalisation of private land for land management engages the public and taxes, and in turn, this engagement leads to their support for the institutions of government.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abatement of poverty</td>
<td>A primary means of alleviating poverty lies in recognizing the homes and workplaces of the poor and their agricultural assets as worthy of protection.</td>
</tr>
<tr>
<td>Security of tenure</td>
<td>This is the method of protecting people’s associations with land. It is the foundation of formal land administration. Enhancing security throughout the range of tenures used in a country helps promote social stability and incentives for responsible land use. Conversion of some of the rights into property is the core process of commercialisation of land needed for effective markets.</td>
</tr>
<tr>
<td>Support for formal land markets</td>
<td>Security and regularity in land arrangements are essential for assuaging, organised land markets. It also manages the transparent processes that assist land exchange and build capital out of land.</td>
</tr>
<tr>
<td>Security for credit</td>
<td>International financing norms and lending practices require secure ownership of land and indicate credit concerns that arise when security interests in land that can only be sold in formal LAS.</td>
</tr>
<tr>
<td>Support for land and property taxation</td>
<td>Land taxation takes many forms, including tax on passive landholding, on cadastral activities, and on transactions. However, all taxation systems, including personal and company taxation, benefit from formal LAS.</td>
</tr>
<tr>
<td>Protection of state lands</td>
<td>The existence of individual LAS is dependent on a coverage of all land. Thus, management of public land is assisted by LAS.</td>
</tr>
<tr>
<td>Management of land disputes</td>
<td>Stability in access to land requires defined boundaries, titles, and interests. It also provides simple, effective provisions for settling these conflicts, land disputes are reduced. The disputes also lead to additional disputes, an example of how (disputes) caused by administrative forms, corruption, fraud, theft, or transaction fees.</td>
</tr>
<tr>
<td>Improvement of land planning</td>
<td>Land planning is the key to land management, whether the planning is institutionalised within government or achieved by some other means. Improving quality and urban land use effects adjoining land and beyond. These impacts lead to be understood and managed by effective land planning assisted by LAS.</td>
</tr>
</tbody>
</table>

Continuum of rights (GLTN-agenda)

From: illegal or informal rights
To: legal or formal rights

Informal rights cannot be recorded in traditional cadastral systems

Formal land rights can 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 – Spatial unit – Social Tenure

- **Parties** ("who"): Not only a (legal) person – but a range of subjects such as person, couple, groups of people, unidentified groups, authority, etc,
- **Spatial Unit** ("where"): Not only an identified (measured) parcel – but a range of objects such land parcels, buildings, etc and identified in various ways – such as one point, street axes, photos, etc.
- **Social tenure** ("what"): Not only ownership and formal legal rights – but also range of informal, indigenous and customary rights as well as financial issues such group loans and micro credit.
The FIG Agenda from Cadastre to Land Governance

- Holding of rights to land
- Economic aspects of land
- Control of land use and development

Administering the people to land relationship through
- Land Policy
- Land Management
- Good Governance
- Building the capacity to deal with this
Land governance is about the policies, processes and institutions by which land, property and natural resources are managed.

This includes decisions on access to land; land rights; land use; and land development.

Land governance is about determining and implementing sustainable land policies.

Land Management includes all activities associated with the management of land and natural resources that are required to fulfill political objectives and achieve sustainable development.
Significance of the Cadastre

1. Multipurpose Cadastre (German style)

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

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

Cadastral engines... SDI

Mapping agencies and other data providers

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

Land management paradigm

Tenure

Value

Use

Development

Spatially enabled government

Sustainable development
- Economic
- Environmental
- Social
- Governance

Global Partnership on Land Governance

FIG is strongly committed to the MDGs and the UN-Habitat GLTN agenda

No development will take place without having a spatial dimension
No development will happen without the footprint of the surveyor
Good governance
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

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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*
Facing the new challenges

Focusing on land Governance and achieving the MDGs, also includes facing the big challenges of the new millennium:

- Climate change
- Food shortage
- Energy scarcity
- Urban growth
- Environmental degradation
- Natural disasters
- Global financial crisis

All these challenges relate to governance and management of land

Land professionals play a key role

Urban population growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>2000</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>2030</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>

2007:
- Total world population: 6.5 billion
- Total urban population: 3.3 billion
- Total slum dwellers: 1.1 billion
Kibera, Nairobi, 250 ha, 1 mill+ people

Mega cities of the world 2015
Climate change - The world in terms of carbon emission

Climate change - The world in terms of increased mortality

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

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 access to and use of land in relation to climate change and disaster risks
- Controlling building standards and emissions in relation to climate change
- Improving resilience of existing ecosystems vulnerable to climate change
Humanitarian actors are often confronted with land issues when undertaking emergency shelter and protection activity.

The information on the people to land relationship is crucial in the immediate post disaster situation.

Disaster risks must be identified as area zones in the land-use plans and the land information system with the relevant risk assessment and information attached.

Measures for disaster risk prevention and management should be integrated in the land administration systems.

Land and Natural Disasters
Guidance for practitioners

UN-Habitat/FAO
The FIG Agenda

Flying High
- Global partnership with the UN-agencies incl. the World Bank in support of the global agenda such as the MDGs

Keeping the feet on the ground
- Professional and institutional development at regional, national, and local level in support of the needs of our member associations and individual surveyors.

FIG intend to play a strong role in building the capacity to design, build and manage Land Governance systems in response to Climate Change and in support of the Millennium Development Goals

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