The Land Administration Domain Model and the Continuum of Land Rights

Engaging the Membership

- Communications
- Commissions
- Conference

Engaging Global Challenges

- Collaborating
- Contributing
- Connecting

Vision
A Profession, armed with knowledge and best practices, extending the usefulness of surveying for the benefit of society, environment and economy, increasingly positioned in significance and relevance, next door to everywhere.

Engaging the Challenge: Enhancing the Relevance

2011 - 2014 Work Plan: Enhancing the Significance and Relevance towards the Betterment of Society, Environment, Economy

Figures of International Symposium on Geoinformation (FIG2013)
Professionals are equipped with both additional knowledge and training to make informed decisions and judgment and perceived to bring with it both authority and standing in society.

"climate change is becoming a risk multiplier for the poor and the vulnerable and a core development challenge for both developing and developed economies alike."

**Problem statement**

1. 70% of developing country populations outside formal register (Zevenbergen: 2011)
2. Increasing insecurity of tenure - globalisation
3. 1.5 billion out of 6 billion rights registered (McLaren: 2011)
4. Conventional land administration too expensive (Zevenbergen: 2011)
5. Problems of sustainability (Childress: 2004)
6. Cannot go to scale (Zevenbergen: 2011)
7. No secondary rights, affordable group rights etc
8. Need to develop affordable scalable approach – ‘continuum’

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (M)</th>
<th>Urban (M)</th>
<th>Rural (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>2,519</td>
<td>309</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>4,480</td>
<td>494</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>6,672</td>
<td>820</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>8,939</td>
<td>1,236</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>10,383</td>
<td>1,556</td>
<td></td>
</tr>
</tbody>
</table>

World urban/rural population 1850-2050

**Table 1: Population and rural area in square of the world and development review, indicators and urban economy, 1950-2000**

Median Age in Years

<table>
<thead>
<tr>
<th>Period</th>
<th>Latin America and Caribbean</th>
<th>Africa</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>20.1</td>
<td>19.2</td>
<td>23.9</td>
</tr>
<tr>
<td>1980</td>
<td>20.1</td>
<td>17.5</td>
<td>23.1</td>
</tr>
<tr>
<td>2010</td>
<td>27.9</td>
<td>19.8</td>
<td>29.4</td>
</tr>
<tr>
<td>2050</td>
<td>41.0</td>
<td>26.4</td>
<td>37.0</td>
</tr>
<tr>
<td>2100</td>
<td>46.6</td>
<td>35.9</td>
<td>41.0</td>
</tr>
</tbody>
</table>
One of the most successful efforts of economic upliftment of the poor people ever carried out in any developing country... Land for the Landless... Good Land for Good People.

Tun Haji Abdul Razak
(Second Prime Minister, Malaysia, 1971 – 1976)

Global growth is projected to remain subdued at slightly above 3 percent in 2013, the same as in 2012. This is less than forecast in April 2013...

The High Level Panel Report is of the view that “business-as-usual is not an option. We concluded that the post-2015 agenda is a universal agenda. It needs to be driven by five big transformative shifts.”

Land
44. We will support greater transparency in land transactions including at early stages, and increased capacity to develop good land governance systems in developing countries. Last year, the G8 welcomed the UN Committee on World Food Security’s Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests.

Food Security and Nutrition
53. G8 member reaffirm their commitment to respond with the scale and urgency needed to achieve sustainable global food and nutrition security.

Climate Change
56. Climate change is one of the foremost challenges of our future economic growth and well-being.
“Recognize the importance of comprehensive hazard and risk assessments, and knowledge and information sharing, including reliable geospatial information”

‘The Future We Want’
2012 Rio +20 Conference

“Sound geospatial information is crucial for addressing the complex problems the world is facing today. These problems are global in nature and affect different regions, rural and urban areas alike, requiring coordinated efforts, more innovative and sophisticated approaches, as well as effective tools to ultimately guide our way to sustainable development”

Prof. Paul Cheung
(UN Statistics Division & GGIM Secretariat),
February 2012

“Recognize the importance of comprehensive hazard and risk assessments, and knowledge and information sharing, including reliable geospatial information”

Fédération Internationale des Géomètres
International Federation of Surveyors
Internationale Vereinigung der Vermessungsingenieure

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Statement 1 on Cadastre 2014

Cadastre 2014 will show the complete legal situation of land, including public rights and restrictions.

Concurrent: The population of the world is growing, the proportion of land is decreasing. The entire scale contract of the individual or of legal entities of land is increasing, being protected by public law. The problems of land use, area, security, land law and taxation in the new era are being studied also. In this situation, the cadastral system of the future.

Consequences: A new theme is needed. Furthermore, the new theme will be considered a part of law.

Statement 2:
The separation between “maps” and “registers” will be abolished

Statement 3:
The Cadastral mapping will be dead! Long live modelling!

Statement 4:
“Paper and pencil cadastre” will have gone!

Statement 5:
“Cadastre 2014 will highly privatized! Public and private sector are working closely together!”

Statement 6:
Cadastre 2014 will be cost recovering

Land tenure is not changed by Cadastre 2014, but it is a part of it. If a legal land object is the property of an individual or juridical person, it is a form of individual land tenure. If the property right belongs to a traditional tribe or clan, it is a customary tenure; if it is given to a co-operative it may be called a co-operative tenure, and if the property right belongs to the state, we can call it a communist tenure”

(Fig Cadastre 2014, 1998)

Cadastral Template

A Worldwide Comparison of Cadastral Systems

Cadastre comparison based on a joint study: FIG and University of Melbourne.

(Fig Cadastre Template 2.0 (2013–2014) is currently being copied and prepared for its launch in 2014. It is a collaborative activity between FIG and University of Melbourne.)

Land Administration systems provide the infrastructure for implementation of land policies and land management strategies in support of sustainable development.
1. **Multipurpose Cadastre** (German style)
2. **Title or deeds tenure style Cadastres** (Torrens/English style)
3. **Taxation driven cadastre** (French/Latin/USA style)

**Tenure**
- Value
- Development
- Spatially enabled
- Land policy
- Sustainability
- Land tenure
- Land management
- Land governance

**Data Integration Concept**

### Three pre-conditions:
- Legal map institutional independence
- National geodetic reference framework
- Standardized data modeling concept

**Society can be regarded as spatially enabled when location and spatial information are commonly available to citizens, businesses and governments to encourage creativity, innovation and product development, evidence based decisions and informed actions. It promotes transparency and e-Democracy**

**Significance of the Cadastre**

**Data, & Information**

**Spatial information infrastructure**

**LA_SpatialUnit**
**LA_Party**
**LA_RRR**
**LA_BAUUnit**
"Land is a scarce resource involving a wide range of rights and responsibilities. When poorly managed, it can become contentious often leading to disputes, conflict, degradation and other problems, all of them drivers of slum development and poverty in urban areas."

(UN-Habitat)