Spatial Enablement and the Response to Climate Change and the Millennium Development Goals

Prof. Stig Enemark
President
Aalborg University, Denmark

Outline of presentation

The global agenda
- Facing the Millennium Development Goals

Land governance
- Managing land rights, restrictions, and responsibilities

Spatially enabled government
- The significant role of the cadastre

Climate change
- Land administration in support of climate change adaptation

Natural disaster prevention and management
- Land administration in support of natural disaster risk management

The Millennium Development Goals

Goal 1: Eradicate extreme poverty and hunger
Goal 2: Achieve universal primary education
Goal 3: Promote gender equality and empower women
Goal 4: Reduce child mortality
Goal 5: Improve maternal health
Goal 6: Combat HIV/AIDS, malaria and other diseases
Goal 7: Ensure environmental sustainability

Goal 8: Develop a Global Partnership for Development

The framework includes 18 targets and 48 indicators enabling the ongoing monitoring of annual progress

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>47%</td>
<td>53%</td>
</tr>
<tr>
<td>2030</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Total world population: 6.5 billion
Total urban population: 3.3 billion
Total slum dwellers: 1.1 billion

Gross Domestic Product

Per capita in PPP US dollars

- More than 25,000
- 15,000 to 25,000
- 10,000 to 15,000
- 7,000 to 10,000
- 4,000 to 7,000
- 2,000 to 4,000
- Less than 2,000

Kibera, Nairobi, 250 ha, 1 mill+ people
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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**Land governance**

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.

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**A global land management perspective**

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

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**Interests in land**

Land administration systems are the basis for conceptualising rights, restrictions and responsibilities related to people, policies and places.

**Rights:** Registration and security of tenure positions

**Responsibilities:** Social, ethical commitment to environmental sustainability and good husbandry

**Restrictions:** Planning and control of land-use and land development

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**The increasing role of property rights**

"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

**Continuum of rights**

From: illegal or informal rights
To: legal or formal rights
The free market approach (current debate in the US)
- Land owners should be obligated to no one and should have complete domain over their land.
- The role of government to take over, restrict, or even regulate its use should be non-existent or highly limited.
- Planning restrictions should only be imposed after compensation for lost land development opportunities.

The central planning approach (European perspective)
- The role of democratic government include planning and regulating land systematically for public good purposes.
- A move from every kind of land use being allowed unless it was forbidden to every change of land use is forbidden unless it is permitted and consistent with adopted planning regulations and restrictions.

Property Restrictions
- two conflicting approaches

Responsibilities:
A cultural map of the world

Uncertainty avoidance:
The preference of structured situations over unstructured or flexible ones

Power distance:
The degree of inequality among people accepted by the population


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Understanding the land management paradigm

Sustainable Development
- Economic, Social & Environmental

Land Policy Framework
- Land Administration
- Land Tenure and Land Value
- Land Development

Country Context
- Institutional Arrangements

A land management vision

Social Context
- Sustainable Development
- Spatially enabled Land Administration
- Land tenure, Land Value, Land Use, Land Development
- Country Context
- Business & Citizens

**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.

“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.

**Institutional Challenges**

- There is a range of stakeholder interests
  - This includes Ministries/Departments such as: Justice; Taxation; Planning; Environment; Transport; Agriculture; Housing; Interior (regional and local authorities); Utilities; and civil society interests such as businesses and citizens.

- Creating awareness of the benefits of developing a shared platform for Integrated Land Information Management takes time and patience.

- Mapping/Cadastral Agencies have a key role to play

**Significance of the Cadastre**

- 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 reasoning to overcoming 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 of officials and politicians and the affairs of government.

Adapted from FAO, 2007
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.

Climate change impacts

Based on Climate Change 2007: Climate Change Impacts, Adaptation and Vulnerability, Summary for Policymakers, Intergovernmental Panel on Climate Change, April 2007.

Climate change

“Climate change is the defining challenge of our time”

Combining the impacts of climate change with the current global financial crisis we risk that all the efforts to meet the MDGs will be rolled back. Those that contributed the least to this planetary problem continue to be disproportionately at risk.

Ban Ki-moon, UN secretary general

“Climate change also provides a range of opportunities”

Prevention of climate change can be greatly enhanced through better land-use planning and building codes so that cities keep their ecological footprints to a minimum and make sure that their residents, especially the poorest, are protected as best as possible against disaster.

Anna Tibaijuka, Executive Director, UN-Habitat

The impact of climate change
Climate Change

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 land and the use of land in relation to climate change and disaster risk
- Controlling building standards and emissions in relation to climate change
- Improving resilience of existing ecosystems vulnerable to climate change

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USA

Billion Dollar Weather Disasters 1980 - 2008

The disaster risk management cycle

- Risk identification/assessment
  - Hazard analysis & monitoring
  - Vulnerability analysis
  - Determination of risk

- Prevention and mitigation
  - Land use planning
  - Land management
  - Early structural measures

- Preparedness
  - Early warning
  - Evacuation
  - Emergency planning

- Disaster risk management
  - Rehabilitation
  - Reconstruction

- Recovery
Disaster risk prevention and management

- 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.

Post Disaster Land Guidelines developed by FAO/UN-Habitat

Building the capacity

Key for sustainable development and disaster risk reduction

Capacity Building
- Training activities
- Disaster education programs
- Public information
- Technical assistance
- Improvement of organizational abilities
- Dissemination of knowledge
- Improvement of infrastructure

“While many people are aware of the terrible impact of disasters throughout the world, few realise this is a problem that we can do something about”

Kofi Annan, 2004

Climate Change ...

160 My Reconstruction

We cannot change the Hazard but we can manage the Risk

The role of FIG

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”

FIG publications

The XXIV FIG International Congress 2010
Sydney, Australia - 11 to 16 April 2010

WWW.FIG.NET
Thank you
For your attention