Land Administration and Cadastral Systems
In support of sustainable Land Governance

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3rd LAND ADMINISTRATION FORUM FOR THE ASIA AND PACIFIC REGION
TEHRAN, IRAN, 24-26 MAY 2009
Greetings from Copenhagen
Greetings from the FIG Home Base
Outline of Presentation

Land Administration Systems
- Rights – Restrictions – Responsibilities
- Spatially Enabled Government

The Global Challenges
- The Millennium Development Goals
- The Role of FIG and the Global Surveying Community
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.
LAS provide the infrastructure for implementation of land policies and land management strategies in support of sustainable development.

**Land Tenure:** the allocation and security of rights in lands; the legal surveys of boundaries; the transfer of property through sale or lease; and the management; 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.
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
"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 (GLTN-agenda)

From: illegal or informal rights

To: legal or formal rights
World Status of Land Tenure and Property Rights

Status of Land Tenure and Property Rights, 2005

- Moderately severe concern
- Serious concern
- Extremely serious concern
- Not ranked
What is a good property system?

- People in general can participate in the land market; widespread ownership; everybody can make transactions and have access to registration.
- The infrastructure supporting transactions must be simple, fast, cheap, reliable, and free of corruption.
- The system provides safety for housing and business, and for capital formation.

Only 25-30 countries in the world apply to these criteria.
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.
Cadastral Template

A Worldwide Comparison of Cadastral Systems

Cadastral country reports based on a jointly developed PCGIAP/FIG template.
Established under UN mandate by Resolution 4 of the 16th UNRCC-AP in Okinawa, Japan in July 2003.
UN endorsement for cooperation with UN-ECE WPLA, UN-ECA CODI, and PCIDEA.

Data per Country
(last update: 31 Dec. 2007, 42 countries)

Field Definitions

I. Data per Data Fields
(last update: 4 Jan. 2006, 42 countries)
Select a Field

II. Principles and Statistics
(last update: 4 Jan. 2006, 42 countries)
1.1 Cadastral Principles
2.1 Population
2.3 Parcels
2.7 Professionals

Documents
• Questionnaires for Download (English, Español, Portugues).
• Publications
• Administrative Documents

Latest Updates
• Country report of Cyprus (31 Dec. 2007)
• Country report of Norway (6 Aug. 2007)
• Country report of Israel (16 Oct. 2006)
• Updates of Latvia and Netherlands (5 Aug. 2006)
• Country report of Austria as 39th country (15 Jan. 2006)
• Country report of Tanzania (12 Jul. 2005)
• Country report of Finland (28 Apr. 2005)
• Country report of Namibia (7 Jun. 2004)

The "Cadastral Template" has been developed by a research group at the Department of Geomatics of the University of Melbourne. It consisted of Prof. Ian Williamson, Dr. Abbas Rajabifard, and Daniel Steudler, supported by Prof. Stig Enemark from Aalborg University, Denmark.
Property Restrictions
- two conflicting approaches

• 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.
Integrated land-use management

- **Land Policies**
  - Overall Land Policies
  - Sectoral Land Laws and Policies
    - Agriculture
    - Environment
    - Water Supply
    - Housing
    - Heritage
    - Natural Resources
  - Sectoral Programmes

- **Land-Use Management**
  - Regional and Local Spatial Planning
  - Construction Planning
  - Implementation through
    - Planning permissions
    - Building permits
    - Sectoral land use permits

- **Land Information**
  - Land Data Registers
    - Land Tenure
    - Land Value
    - Land Use
  - Cadastral mapping
  - Topographic mapping
  - Natural resource maps
  - Utility mapping
  - Coordinated Land Information Systems

**Implementation for Sustainable Development**
Three core principles

Decentralisation of planning responsibilities
- Local representative democracy responsible for local needs
- Combining responsibility for decision making with accountability for economic, social and environmental consequences.
- Providing monitoring and enforcement procedures

Comprehensive planning
- Combining aims and objectives, land-use structure planning, and land use regulations into one comprehensive planning document covering the total jurisdiction

Public participation
- Providing awareness and understanding of the need for planning regulations in respond to local needs.
- Legitimising local political decision making
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

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.
A land management vision

Spatially enabled land administration

- Land tenure, Land Value, Land Use, Land Development

Social Context

- Facilitating Sustainable Development
  - Economic, Social, Environmental, Governance
  - Enhancing Quality of Life

Land Policy Framework

Country Context

- Institutional Arrangements
- Capacity Building
- Education & Research

Services to 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”
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

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

Land management paradigm
Tenure
Value
Use
Development

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

Integrated functions
Parcels
Properties
Buildings
Roads

Sustainable development
- Economic
- Environmental
- Social
- Governance
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 of officials and politicians and the affairs of government.

Adapted from FAO, 2007
Good governance
e-Government

“E-Government” refers to the use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government.

E-Government initiatives should be part of broader reforms to improve public sector performance in:

- Delivering services to citizens
- Delivering services to businesses
- Increasing efficiency
Knowledge management is about optimising the use of the basic asset of any organisation namely knowledge.

Knowledge management is an integrated approach to managing the information assets of an organisation/enterprise

Knowledge management is – in fact – just common sense.

- **Knowledge Management in e-Government**
  
  Is about the sharing and organising of knowledge just like spatial information management is about organising and sharing of data.

  It is about designing and implementing a suitable IT-architecture for organising spatial information that can improve the communication between administrative systems and also establish more reliable data due to the use of the original data instead of copies.
The Service-Oriented IT Architecture

Users: All kind

User services:
Self services collect and organise data from different sources for specific purposes
Case systems design and support the processes in government administration

Common services:
Information services support the distribution of data
Administrative services secure the process of access to and updating of the data

Data services: Provide functionality
For distribution and administration

Data: Official (authentic) governmental Registers and map databases
- Quality, authenticity, and actuality
- Flexibility and accessibility
- Standardisation
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Global Partnerships in Land Management

Is strongly committed to the MDGs and the UN-Habitat agenda on the GLTN
The UN 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.
World status of poverty

Infant mortality as poverty indicator

- > 100
- 75
- 50
- 20
- < 9

Infant deaths per 10,000 live births, adjusted to the year 2000

Source: CIESIN 2005
Urban population growth

1970:
- RURAL: 63%
- URBAN: 37%

2000:
- RURAL: 53%
- URBAN: 47%

2030:
- RURAL: 40%
- URBAN: 60%

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
It is all about:

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

- **FAO**, projects on capacity building, good governance, land economics, etc.

- **UN-HABITAT**, partner in the GLTN network, projects on informal settlement, informal development, gendered land tools, etc.

- **World Bank**, joint conference on Land Governance in support of the MDGs
98 FIG Member Associations from 80 Countries
28 affiliates, 34 corporate, 15 correspondents, 80 academic members
Annual General Assembly
98 member associations (80 countries)

Council
President and 4 Vice-Presidents

FIG Office

ACCO
Advisory Committee of Commission Officers

Chairman, vice-chairs, national delegates, work plan, working groups, seminars etc

www.FIG.net
The Role of FIG

- Professional Development
  - Global forum for professional discussions and interactions
  - Conferences, symposia, commission working groups, …..
- Institutional Development
  - Institutional support for educational and professional development at national and international level
- Global Development
  - Cooperation with international NGO’s such as the UN agencies, World Bank, and sister organisations
  - Joint activities and common policy-making to reduce poverty and enforce sustainable development
The Role of FIG this way, intend to play a strong role in building the capacity to design, build and manage national surveying and land administration systems that facilitates sustainable Land Governance.
Thank you for your attention