

**Land Surveying and
Land Management**

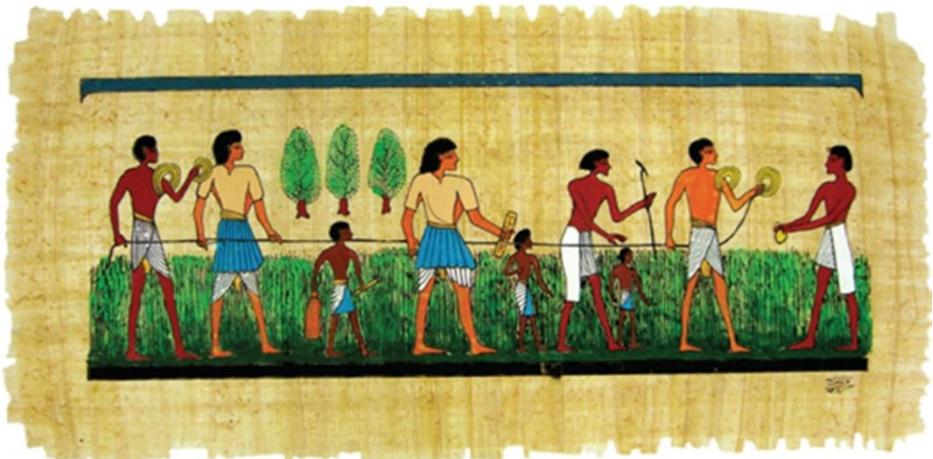
in an International Perspective

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Honorary President
Aalborg University, Denmark



CADASTRE IN A DIGITAL WORLD – NORDIC AND GLOBAL PERSPECTIVES
INTERNATIONAL SEMINAR, FIG COM 7, BERGEN, NORWAY, 24-25 SEPTEMBER 2018

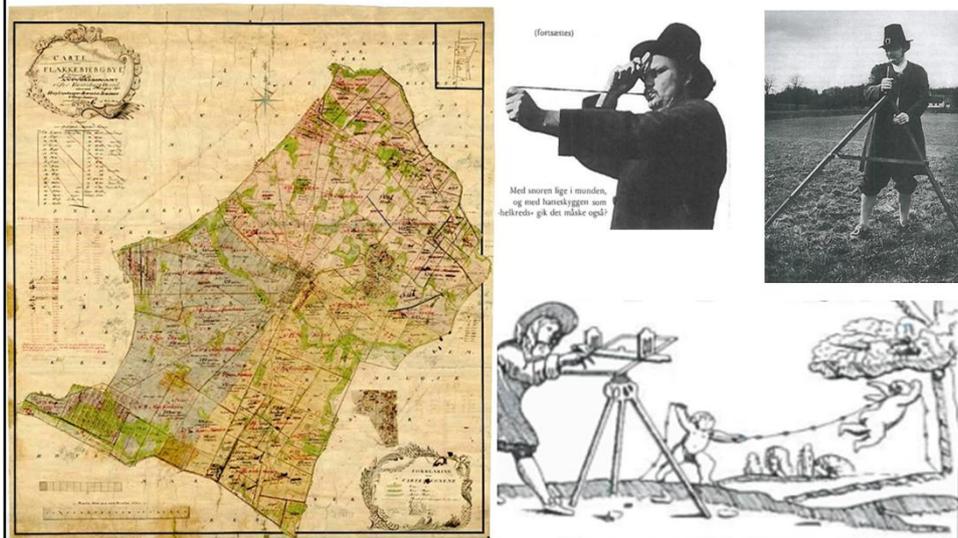
Land surveying
is probably the (second) oldest profession in the world



Tomb of Menna, Ancient Egypt, ca. 1500 BCE

Surveyors in action

Beautiful old maps form late 1700s

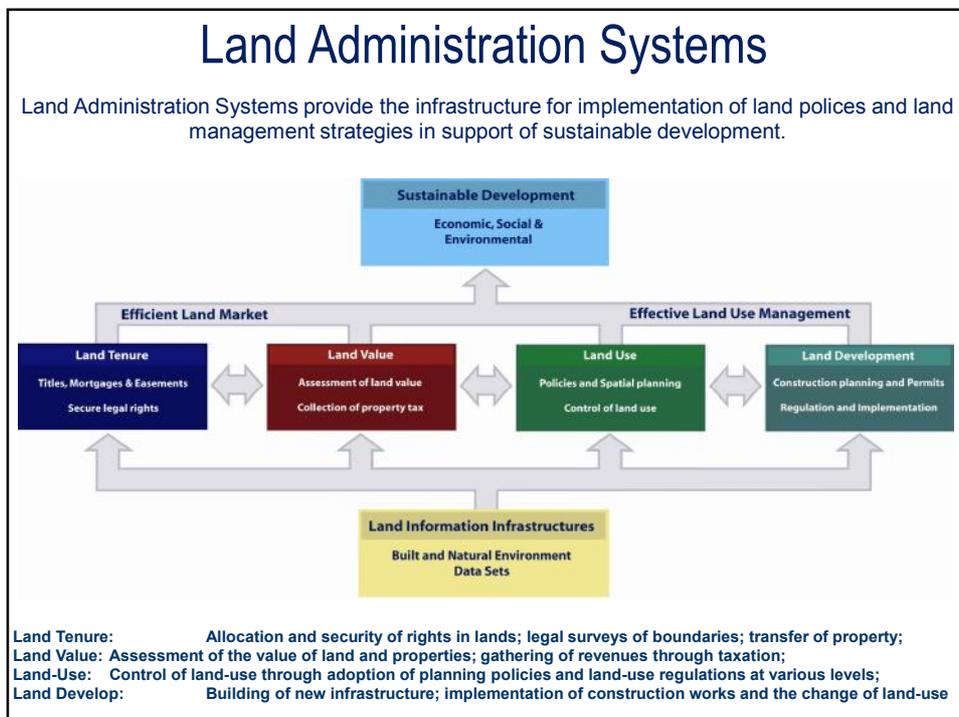
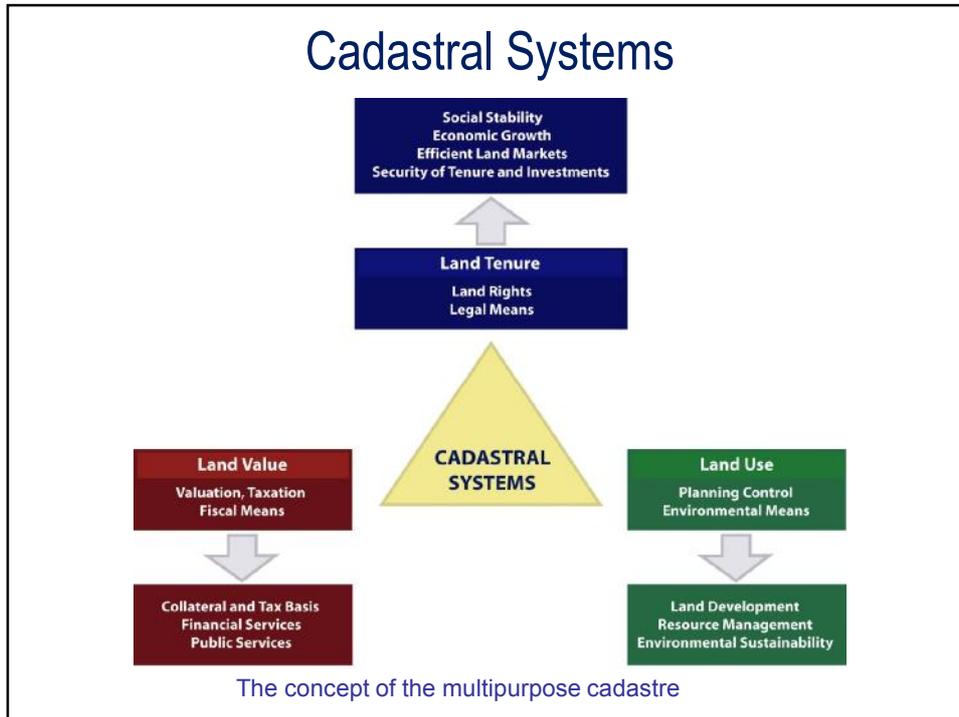


The enclosure movement in DK late 1700s

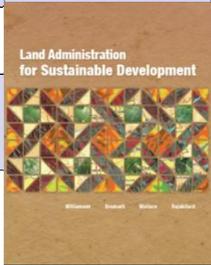


The cadastre put into in force 1844





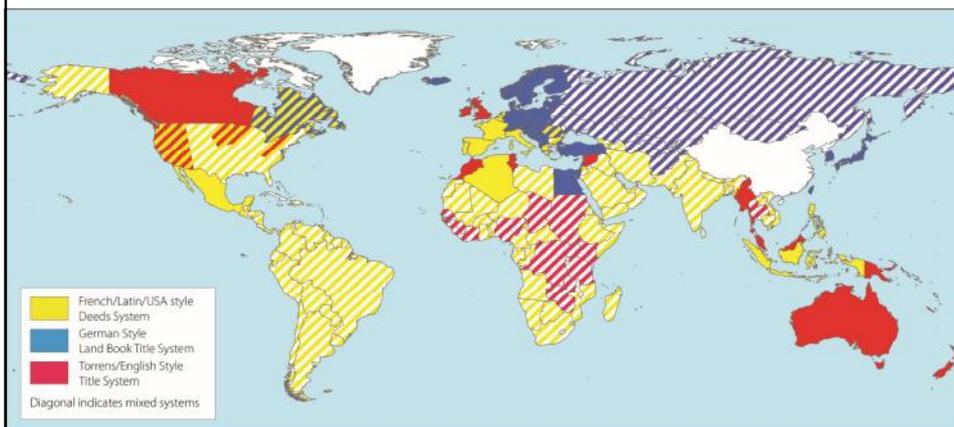
Benefits to Society

<ul style="list-style-type: none"> • Support for governance and the rule of law 		<ul style="list-style-type: none"> • Protection of state lands
<ul style="list-style-type: none"> • Alleviation of poverty 		<ul style="list-style-type: none"> • Management of land disputes
<ul style="list-style-type: none"> • Security of tenure 		<ul style="list-style-type: none"> • Improvement of land use planning
<ul style="list-style-type: none"> • Support for formal land markets 		<ul style="list-style-type: none"> • Development of infrastructure
<ul style="list-style-type: none"> • Security of credit 		<ul style="list-style-type: none"> • Management of resources and environment
<ul style="list-style-type: none"> • Support for land and property taxation 		<ul style="list-style-type: none"> • Management of information and statistical data

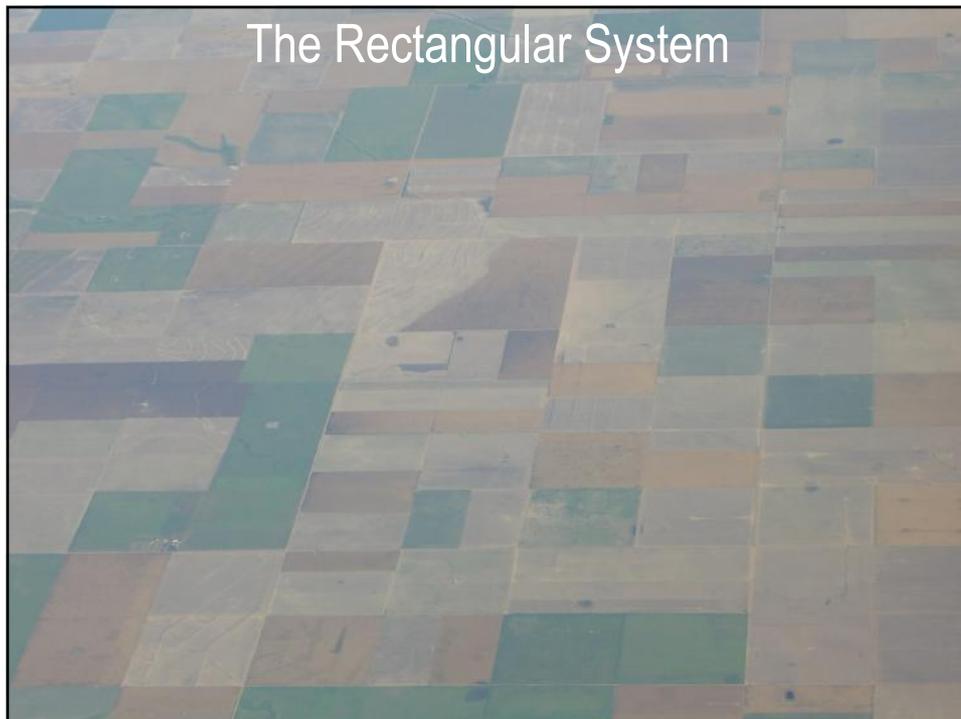
Available online English, French, Spanish
<http://go.esri.com/landrecords-ebook>

Williamson, Enemark, Wallace, Rajabifard,
 ESRI Press, 2010, 500 pages.

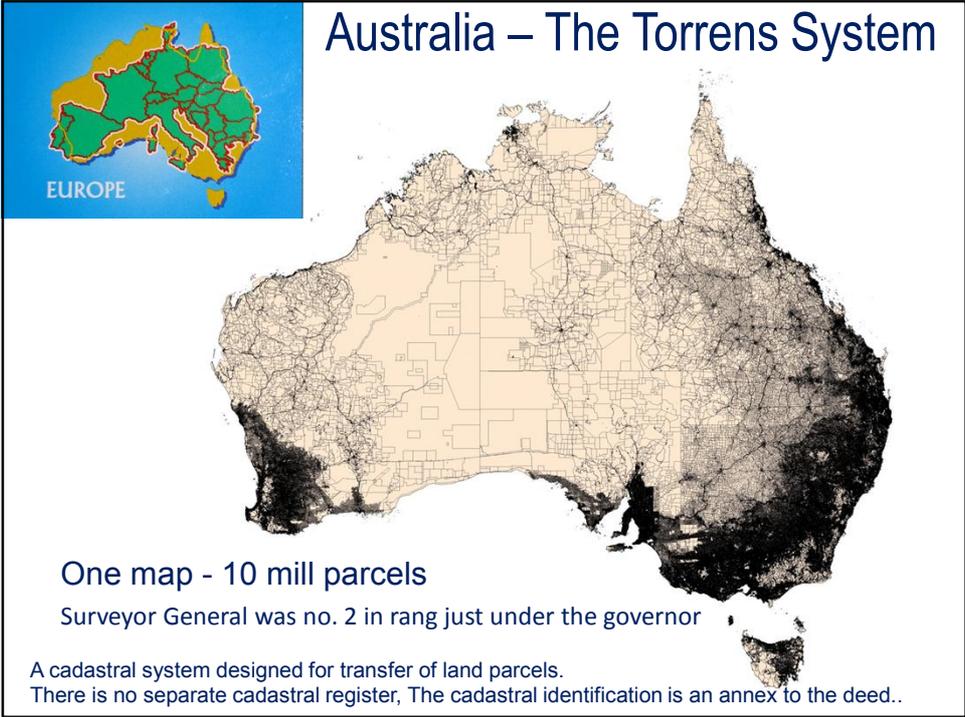
Land Registration Systems around the World



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.



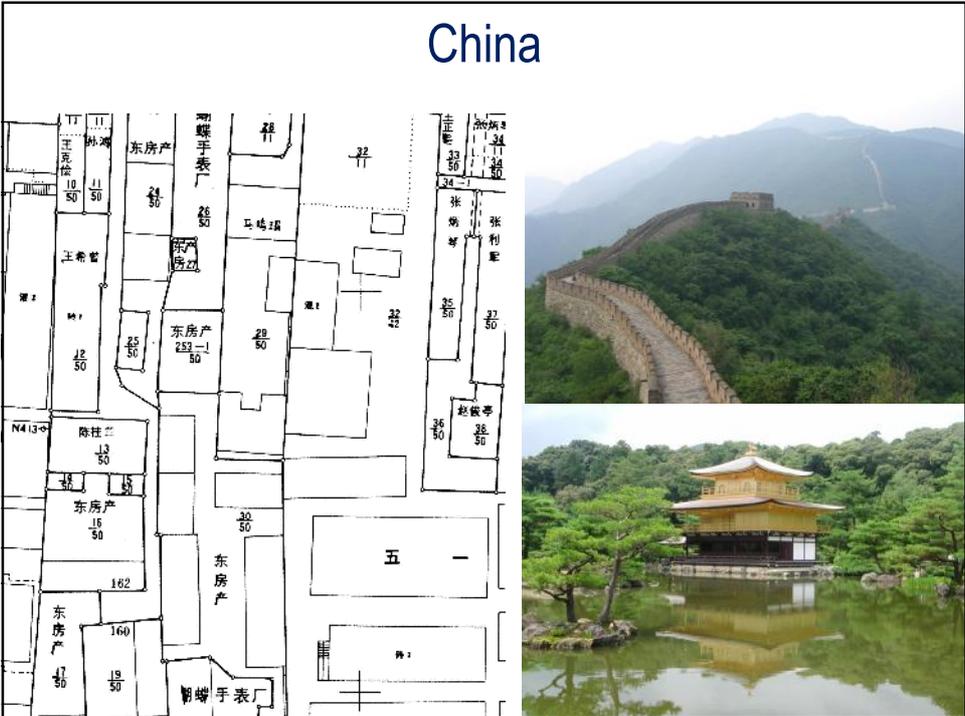
Australia – The Torrens System



One map - 10 mill parcels
Surveyor General was no. 2 in rang just under the governor

A cadastral system designed for transfer of land parcels.
There is no separate cadastral register, The cadastral identification is an annex to the deed..

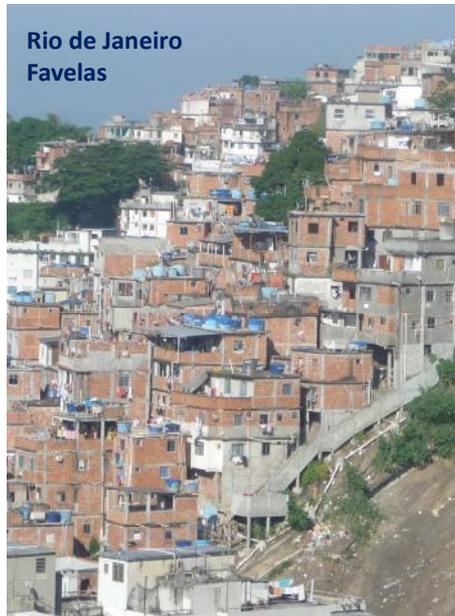
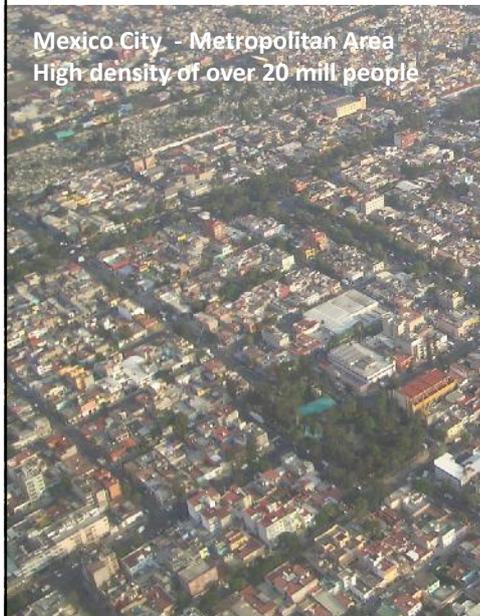
China



The map shows a grid of land parcels with various labels in Chinese characters and numbers. Labels include '东房产' (East Property), '手表厂' (Watch Factory), '王克伦' (Wang Kelun), '王希管' (Wang Xiguan), '陈柱立' (Chen Zhuli), '马鸣瑞' (Ma Mingrui), '张炳琴' (Zhang Bingqin), '张利军' (Zhang Lijun), '陈敬亭' (Chen Jingting), and '五一' (May Day). Numbers like 10, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36 are scattered throughout the map.

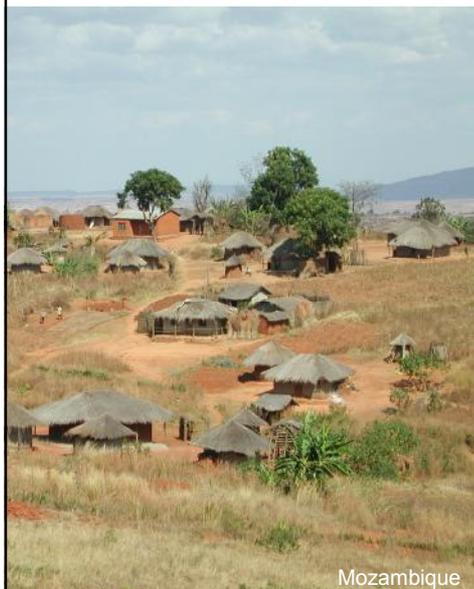
The photographs show the Great Wall of China winding across a mountain range and a traditional Chinese pavilion with a golden roof situated on a small island in a pond.

Latin America

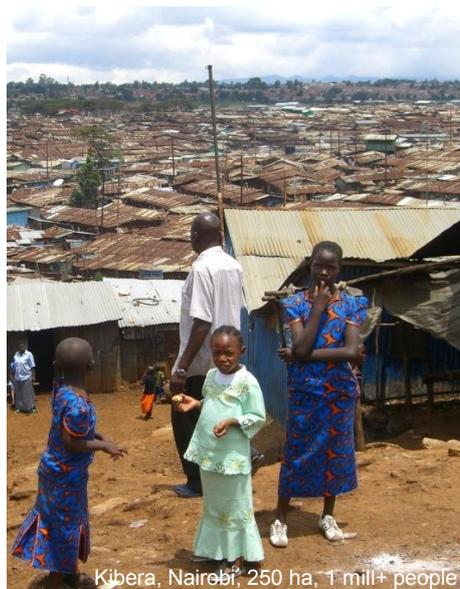


Africa

Customary tenure and informal settlements



Mozambique



Kibera, Nairobi, 250 ha, 1 mill+ people

The International Federation of Surveyors

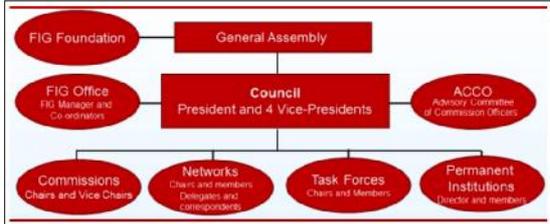
105 member associations (91 countries)



www.FIG.net



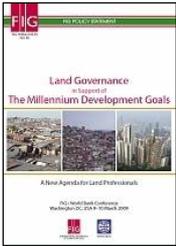
Click a country to display information on member associations in that country.



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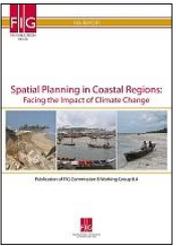
    graph TD
      FA[General Assembly] --- FO[FIG Office  
FIG Manager and  
Co-ordinators]
      FA --- ACCO[ACCO  
Advisory Committee  
of Commission Officers]
      FA --- C[Council  
President and 4 Vice-Presidents]
      C --- COM[Commissions  
Chairs and Vice Chairs]
      C --- NET[Networks  
Chairs and Members  
Delegates and  
correspondents]
      C --- TF[Task Forces  
Chairs and Members]
      C --- PI[Permanent  
Institutions  
Director and members]
      FO --- COM
      FO --- NET
      FO --- TF
      FO --- PI
      ACCO --- COM
      ACCO --- NET
      ACCO --- TF
      ACCO --- PI
    
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Examples of Recent FIG Publications



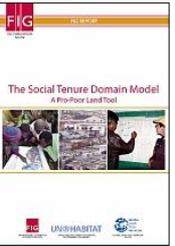
Land Governance
in support of
The Millennium Development Goals

AFI/Asia Agenda for Land Professionals
FIG World Bank Conference
Washington DC, USA 9-10 March 2009



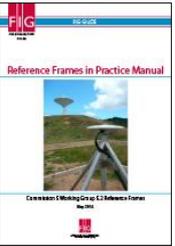
Spatial Planning in Coastal Regions:
Facing the Impact of Climate Change

Publication of FIG Commission Working Group 14



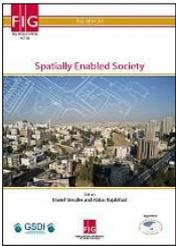
The Social Tenure Domain Model
A Pro-Poor Land Tool

UNEP/HABITAT
"Habitat for Humanity"



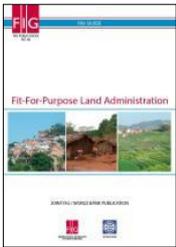
Reference Frames in Practice Manual

Commission Working Group 11 Reference Frames
2009



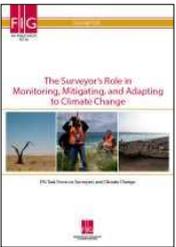
Spatially Enabled Society

Expert Studies and Global Application
GSDI
FIG
Professional



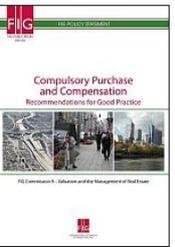
Fit-For-Purpose Land Administration

FIG/FAO/UNEP/World Bank
2011



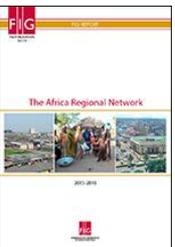
The Surveyor's Role in
Monitoring, Mitigating, and Adapting
to Climate Change

FIG Best Practice Series and Global Change
2011



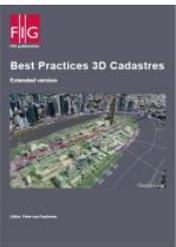
Compulsory Purchase
and Compensation
Recommendations for Good Practice

FIG Commission 6: Urban and the Management of Urban
2011



The Africa Regional Network

2011-2015



Best Practices 3D Cadastres

Emerging systems
Urban Data Management

About 70 publications in total - Available at www.fig.net/resources/publications/figpub/

The 2030 Agenda

17 Goals, 169 targets, and 230 indicators



Goals specific land related

Goal 1: End poverty in all its forms everywhere

Target 1.4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to ownership and control over land and other forms of property.

Indicator 1.4.2: Proportion of total adult population with secure tenure rights to land,

The Wider Global Agenda



Promoting human rights and gender equity

Applying responsible governance of tenure

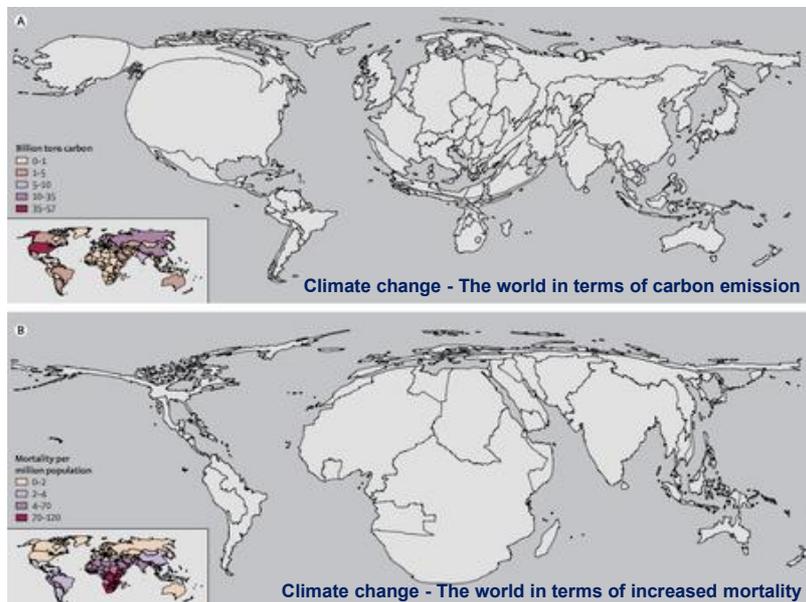
Applying the social tenure domain model
Recording legitimate land rights

Building Fit-For-Purpose LA systems
- fast, affordable and upgradeable.

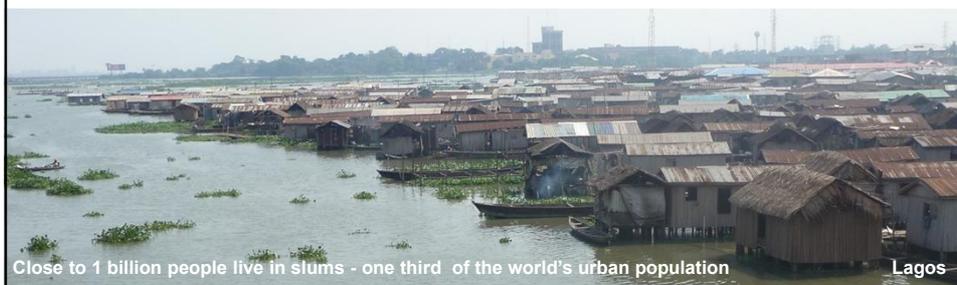
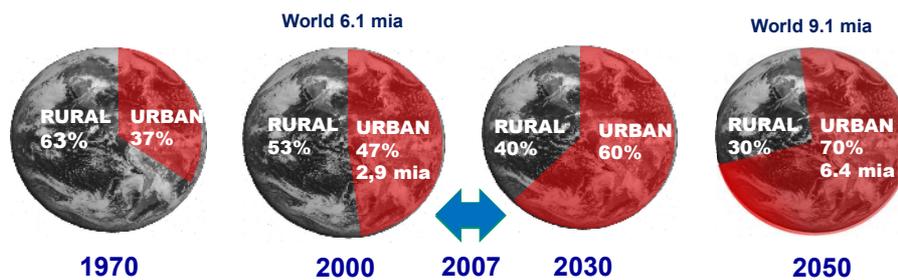
Climate change mitigation and adaptation

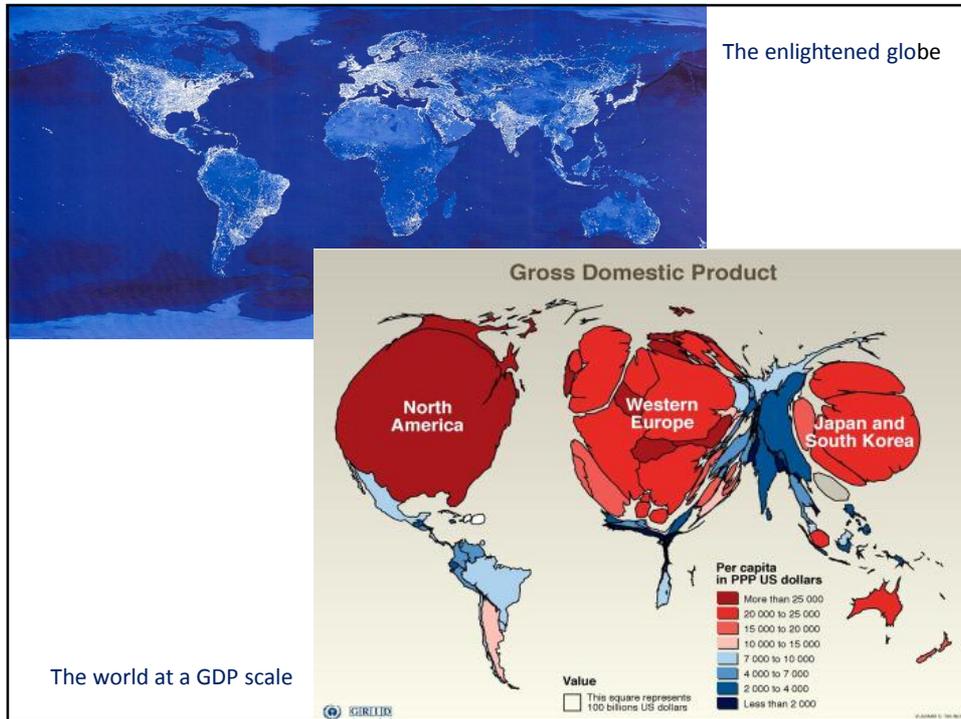
Rapid urbanisation and slum upgrading

Climate Change Impacts

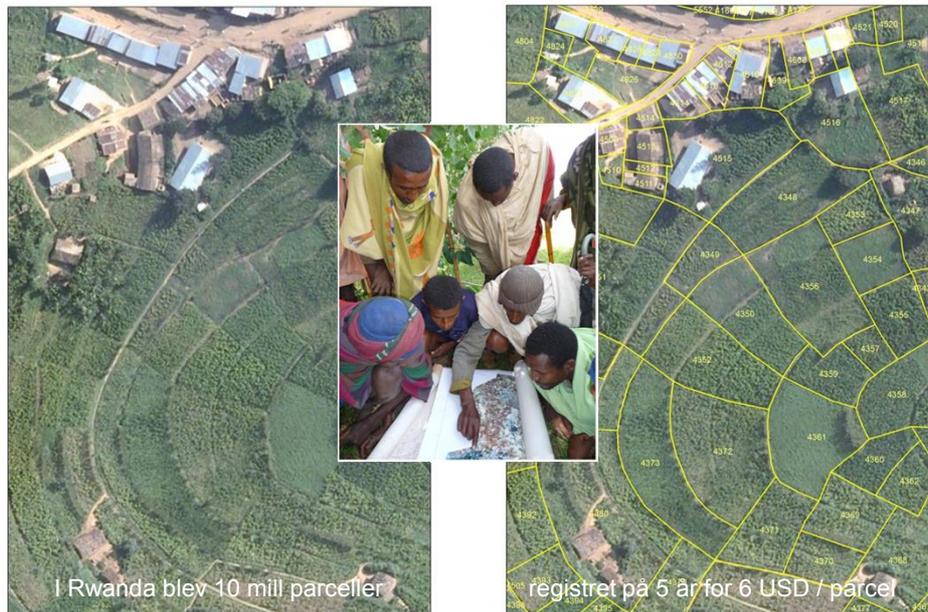


Rapid Urban Growth – Sustainable Cities





The Spatial Framework



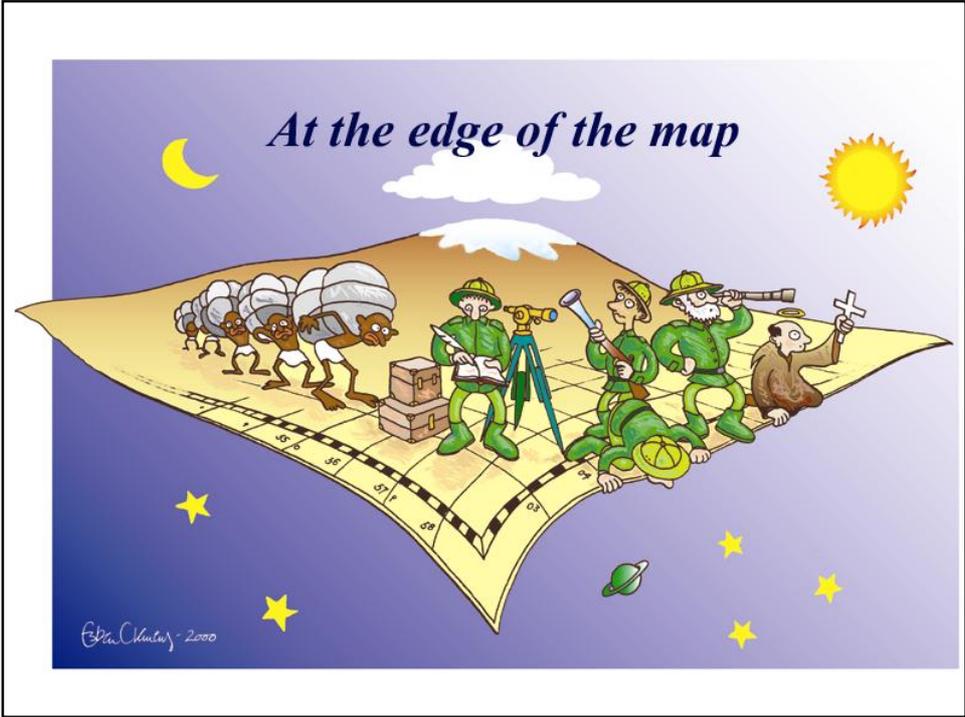
New challenges / opportunities

- Contribute to achieving the Sustainable Development Goals
- Implementing a sustainable and "Fit-For-Purpose" model for securing land rights for all in developing countries
- Moving from 30% of the world's population having secure rights to land in 2015 to 80% in 2030
- Contribute to remedy the damage caused by climate change and rapid urban growth
- The surveyors' professionalism is challenged and in the centre
- The coming decades are the era of the surveyors...



The big swing:
from
Land Surveyor
to
Land Professional





Good land governance is about building a sustainable future



Beautiful Bergen

..... Thank you for your attention

1966

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