

**Report to the 34th General Assembly
FIG Working Week 2011 in Marrakech, Morocco**

FIG Commission 7 – Cadastre and Land management

End of Term Report 2007–2010

1. General

Commission 7 Work Plan in relation to FIG Professional Strategy

Commission 7 established its concept of activities about 15 years ago. It is in line with the FIG long term professional strategy and selected topics to deal with

- advanced cadastre;
- developing sustainable land administration;
- creating secure land tenure; and
- application of innovative advanced technology in land administration.

Following Commission 7 tradition, the work plan also supported the achievement of FIG goals:

- extending working cooperation with other commissions;
- to continue and extension of working relation with UN organizations, the World Bank and other professional organizations;
- to contribute to organize joint workshops, events with UN and other external organizations;
- to contribute to formulate the professional program for FIG congresses and working weeks;
- supporting regional events, workshops to promote FIG activities in general and new priorities of the surveyor profession;
- to encourage national delegates, representatives to participate in FIG events and disseminate information to national associations and professionals;
- to support the publication of working results;
- following the traditions, Commission 7 very much contributes to the major FIG events, congresses and working weeks
- to encourage member associations and national delegates from Asia, Africa, Latin-America and Eastern Europe to participate in Commission 7 and major FIG events.

Priorities selected in Work plan 2007-2010

To achieve realistic results in the period 2007-2010, we had to prioritise the most important issues based on the Commission 7 activities during the past years, recent developments, challenges concerning land related matters world wide and supported by UN and other professional organizations NGOs as follows:

- Pro poor land management and land administration:

- land administration and land management in customary and informal areas,
- low cost data acquisition (geometric, legal) registration and mapping,
- low cost, innovative tools for land management and land administration.
- Sustainable land administration supporting good governance:
 - how can we develop sustainable land administration in developing countries within a framework of land policies,
 - how can we keep sustainability of land administration in so called developed countries.
- Land administration in post conflict areas:
 - how is possible to create or rebuild land administration after conflicts,
 - approaches in redistribution of land in post conflict areas.
- Disaster management and land administration:
 - relation between land administration and disaster management.
- Economic land use and land use control:
 - supporting how to create economic land use,
 - how to manage land use and informal urbanization in developing countries.
- Land administration and land management in the marine environment:
 - how to develop marine cadastre,
 - how to support coastal zone management.
- Innovative technology and ICT support in land administration and land management:
 - how to extend land administration with 3D cadastre and land registry,
 - how to develop innovative, low cost technology to support pro poor land management and land administration,
 - national and international data infrastructure initiatives,
 - ICT support to develop sustainable land administration (standardization, interoperable systems),
 - sustainable capacity building for land administration.
- Institutional aspects for land administration and land management:
 - how to support the development of institutional framework for land administration and land management.

2. Working Groups

Working Group 7.1 - Development of Pro Poor Land Management and Land Administration

Chair: Christiaan Lemmen, The Netherlands

Tasks:

- recognize and support the development of pro poor land management approaches,
- communicate, as far as possible, the FIG concepts in development of land policy and land management: land law, land tenure and security of tenure, land markets, land taxation, land use planning, land reform, land distribution, post conflict land administration,
- identify (geometric) aspects related to social, informal land tenures,
- support the development of low cost, innovative data acquisition methods,
- develop the social tenure domain model,
- contribute to the UN Habitat Global Land Tool Network (GLTN),
- propose a capacity building approach for pro poor land management.

Working Group 7.2 – Land Administration to Support Sustainable Development

Chair: Søren Fauerholm Christensen, Denmark

Tasks:

- investigate the necessary legal and institutional framework for the creation and development of sustainable development,
- identify other conditions for developing sustainable land administration,
- study solutions for developing land administration in post conflict areas,
- find simple, low cost solutions for creating sustainable land administration in developing countries,
- investigate improvements of land tenure security through new legal frameworks and new and better administrative tools,
- focus on solutions to combine formal and customary (neo-customary) approaches for land delivery process,
- study the role of gender issues in creation of sustainable land administration development,
- find solutions for assisting post conflict areas, disaster areas, etc. in rebuilding and maintaining land administration after wars or natural disasters.

Working Group 7.3 - Application of Innovative Technology in Land Administration

Chair: Dr. Daniel Steudler, Switzerland

Tasks:

- electronic conveyance and governance,
- identify innovative and low cost technology to support the development for pro poor land management and land administration,
- identify innovative, advanced technology for sustainable land administration,
- dealing with standards,
- focus on copyright and fee questions,
- dealing with identification and defining parcel boundaries,
- focus on national and international data infrastructure initiatives,
- 3D cadastre, land registry.

3. Achievements

3.1 General

Following the Work plan, Commission 7 addressed the selected issues in various ways within FIG and in cooperation with other organizations:

- During the 2007-2010 period, Commission 7 was one of the major contributors of big FIG events, conferences, formulating technical programs and presenting papers during FIG and joint events,
- Commission 7 continued its tradition, based on the consensus of delegates for organizing Annual Meetings separately from major FIG events,
- Commission 7 achieved its goals through working groups' activities,
- Commission 7 has been working in cooperation with other FIG commissions,
- Actively cooperated with UN World Bank and other organizations and participated in joint FIG/UN/WB events

- The Commission 7 secretariat has been keeping informed its delegates, correspondents and friends regularly primarily via e-mail, also issuing newsletters, and on the website.

3.2 Working Group Activities

Working Group 7.1 Development of Pro Poor Land Management and Land Administration

Pro Poor Land Management approaches have been recognized and supported by the development of the specifications of a first prototype of the **Social Tenure Domain Model (STDM)**. The STDM is intended to introduce new, unconventional approaches in land administration by providing a land administration management framework that would integrate formal, informal and customary land systems, as well as administrative and spatial components. The identification of aspects related to social and informal land tenures has been performed by the introduction of continuum in the representation of spatial units in the Land Administration Domain Model (LADM).

The Land Administration Domain Model

It has been discussed for several years during Commission 7 meetings. The results of these discussions served as a basis for further development of the LADM. The developments of this model have been presented in Commission 7 sessions during the major FIG events since the FIG Congress in Washington D. C., USA in 2002. The model has been discussed in the FIG Standards Network where Dr. Daniel Steudler from Switzerland represented Commission 7. At the beginning of 2008, FIG submitted a proposal to develop an International Standard concerning the LADM to the Technical Committee 211 on Geographic Information of the International Organization for Standardization (ISO/TC211). The proposal received a positive vote from the TC211 member countries and a project team started to work on the development of the standard.

The International Standard intends to provide an abstract, conceptual scheme with five basic packages related to (1) parties (people and organizations), (2) rights, responsibilities and restrictions (ownership rights), (3) spatial units (parcels, buildings and networks), (4) spatial sources (surveying), and (5) spatial descriptions (geometry and topology). It enables the combining of land administration information from different sources in a coherent manner. It should be noted that there can be no interference with (national) land administrative laws.

Within TC 211, many issues and comments have been discussed during several meetings held with a project team composed of 21 delegates from 17 countries. The chair of this team was Christiaan Lemmen on behalf of FIG and the editor was Harry Uitermark also on behalf of FIG.

The majority of the developing countries are not members of TC211, that's why UN-Habitat was represented in the project team by Solomon Haile. A significant contribution to the development of the standard has been provided by the research community of ITC and Technical University Delft (especially Prof. Peter van Oosterom), The Netherlands.

This concept has been introduced in several papers; one of them was presented in the Sydney Congress.

In 2008, FIG submitted a proposal to develop this International Standard to the Technical Committee 211 on Geographic Information (TC 211) of the International Organization for Standardization (ISO). There was a positive vote for the Draft International Standard (DIS) at the ISO/TC 211 plenary meeting in Quebec City (Canada) in November 2009. Editing Committee is now working on the final document of the DIS, which is expected to be available in January 2011. The final International Standard is expected in 2012.

The Social Tenure Domain Model

Based on the LADM, a model has been developed to accommodate social tenures, termed the Social Tenure Domain Model (STDM). Existing Land Administration systems require extensions to include all existing types of tenures, but the need for this is not always recognized. The STDM allows recording of all types of tenures and enables to show what can be observed on the ground in terms of tenure as agreed within local communities. This agreement counts as evidence from the field.

From 2002, the chair of Commission 7 Working group 7.1, Christiaan Lemmen took the lead in the development of the STDM in close cooperation with UN-Habitat. The International Institute for Geo-Information Science and Earth Observation, ITC, financially supported by the Global Land Tool Network (GLTN), developed a first prototype of STDM that is supported by World Bank. FIG publication nr. 52 is dedicated to the description of the Social Tenure Domain Model.

In the period 2007-2010, altogether 45 presentations have been given on the topic during FIG events, Commission 7 Annual Meetings.

Working Group 7.2 Land Administration to Support Sustainable Development

During the Geo-conference held in Quebec, Canada in 2007, the Working group co-organized a workshop on “Land Administration for Sustainable Development”. The workshop was supported by World Bank and UN organizations. The Working group 7.2 worked in close co-operation with Working group 7.1.

Working Group 7.3 Application of Innovative Technology in Land Administration

Over the last four years, the Working Group 7.3 has mainly been looking into the topic of open source software and its potentials for cadastre and land registry systems. The working group has had a close working relation with UN/FAO, supporting “FLOSS Cadastre” Project, organizing several events since 2007. The main initiative comes from the Land Tenure group of FAO, which has seen several projects fail in developing countries, often due to the high software and license costs involved.

The first phase of the project has been concluded with an Expert Group Meeting in Rome on 22-23 October 2007 with participation of FAO, World Bank and other professionals. Daniel Stuedler and András Osskó represented Commission 7.

In May 2008 a workshop was organized in Dunedin, New Zealand. The discussion at the workshop showed that it would be a tremendous benefit if large national projects declared their software development as open source. Many others could potentially profit from that. FLOSS needs to be based on open concepts, and standardized data modelling is essential.

The Working group completed a publication that explored the field, and examined the risks and opportunities of open source software with the title “FLOSS Cadastre and Land Registration - Opportunities and Risks”. The publication comprises contributions from 15 authors, who give an insight in the need and development worldwide. The publication was launched at the FIG Congress in Sydney.

4. Events

4.1 FIG Conferences and major events

2007

FIG Working Week, XXX. General Assembly, Hong Kong, SAR China, May 13-17, 2007

- Commission 7 organized 14 sessions and 5 joint sessions with 70 papers.

6th. FIG Regional Conference, San Jose, Costa Rica, 12-15 November, 2007

- Commission 7 organized 6 sessions and presented 12 papers.

2008

FIG Working Week, XXXI. General Assembly, Stockholm, Sweden, 14-19 June, 2008

- Commission 7 was involved in 39 sessions.

2009

FIG Working Week, XXXII. General Assembly, Eilat, Israel, 3-8 May 2009

- Commission 7 was involved in 7 Commission 7 sessions with 30 papers and 6 joint sessions.

7th. FIG Regional Conference, Hanoi, Vietnam, 19-22 October 2009

- Commission 7 was involved in 6 sessions and joint sessions with 35 papers.

2010

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

- About 200 papers have been offered in Commission 7 topics.
- The commission was involved in 21 Commission 7 sessions, 14 joint sessions with commission 2, 3, 5, 8 and 9.
- Commission 7 organized 2 Francophone sessions, 6 Commission 7 and 2 joint commission flash sessions.

4.2. Commission 7 Annual Meetings

In cooperation with national member associations, Commission 7 organized four annual meetings between 2007-and 2010, including open symposiums:

- 2007: Seoul, South Korea,

- 2008: Verona, Italy,
- 2009: Kuala Lumpur, Malaysia,
- 2010: Karlovy Vary, Czech Republic.

Seoul, South Korea, 18-23 May 2007, International Open Symposium “Good Practice in Cadastre and Land Administration”

- The Annual meeting was organized in cooperation with Korean Cadastral Survey Corporation (KCSC). 40 delegates attended from 16 countries. 500 Korean and international professionals participated in the open symposium and 14 papers were presented.
- During the Annual meeting, KCSC organized a Cadastre Expo. About 3000 people, including high-ranking politicians from the host and neighbouring countries participated in the opening ceremony.

Verona, Italy, 11-15 September 2008, International Open Symposium “Big Works for the Defence of Territory”

- Co-organizer: Italian Association of Land Surveyors (CNG)
- 51 delegates from 24 countries attended the event.
- International Open Symposium with about 450 participants, 400 Italian professionals. Keynote paper was given by FIG President Stig Enemark.

Kuala Lumpur, Malaysia, 12-16 October 2009, International Open Symposium “Progressing toward “U” Cadastre”

- Co-organizer: Association of Authorized Land Surveyors of Malaysia (PEJUTA)
- More than 40 delegates from 22 countries attended.
- International Open Symposium with 200 host professionals, 4 sessions, 13 papers. Keynote paper was given by FIG President Stig Enemark.

Karlovy Vary, Czech Republic, 6-10 September 2010. International Open Symposium “Digital Cadastral Map”

- Co-organizer: Czech Union of Surveyors and Cartographers
- It was a record participation in the history of Annual meetings: about 60 delegates attended from 32 countries, which shows the raising interest in the Commission 7 activities.
- International Open Symposium with about 200 professionals from the host and neighbouring countries, 3 technical sessions with 10 presentations. The keynote paper was given by FIG President Stig Enemark.

4.3 Joint conferences, events and meetings with UN organizations, the World Bank and other professional organizations

2007

Geoconference - Quebec, Canada, 2-5 October, 2007

- Commission 7 Working group 2 co-organized a workshop on “Land administration for Sustainable development” The workshop was supported by World Bank and UN organizations. 50 professionals attended from 22 (mainly developing) countries.

UN FAO Expert Group Meeting on the “FLOSS Cadastre” project, Rome, Italy, 22-23 October, 2007

- András Osskó, chair Commission 7 and Daniel Steudler, chair Working group 7. 3 attended the meeting. The project was supported by the World Bank. (The project was successfully completed in 2010).

Joint UN Habitat Expert Group meeting “For African Land Registrars”, 26-27 November, 2007 Nairobi, Kenya

- Christiaan Lemmen, chair Working Group 7.1 attended the meeting and gave a presentation on the Social Tenure Domain Model, STDM. 20 professionals participated from 13 countries.

2008

Joint FIG/FAO International Seminar on “State and Public Land Management”, 9-10 September 2008, Verona, Italy

- The seminar was organized just before the Commission 7 Annual meeting.
- 64 professionals, including invited experts from 26 countries attended the seminar and 25 papers were presented.

2009

Joint FIG/World Bank Conference “Land Governance in Support of Millennium Development Goals” Washington DC, USA, 9-10 March 2009.

- Participation was by invitation only. 200 invited international experts attended the conference.
- There were 20 sessions with 80 high quality papers. 8 Commission 7 delegates have been invited, Prof. Paul van der Molen, the Dutch delegate to Commission 7 was one of the chief organizers of the event.

2010

FAO Voluntary Guidelines on Responsible Governance on Tenure of Land and other Natural Resources. Regional Consultation Meeting, Bucharest, Romania, 22-24 March 2010

- The Bucharest event was the Central Eastern European Regional Meeting with about 100 participants from 30 countries including representatives from UN FAO, World Bank, FIG, GTZ and other organizations. András Osskó, chair Commission 7 was invited and participated in the event.

4.4. Joint FIG Commission activities

2008

Joint Commission 2 and 7 International Workshop “Sharing Good Practices on e-learning in Surveying, Geoinformation Sciences and Land Administration”, Enschede, The Netherlands, 11-13 June, 2008

- The Workshop was organized by ITC, FIG Commission 2 and 7.

- András Oskó, chair Commission 7 and delegates Paul van der Molen, Christiaan Lemmen and Richard Grover presented papers.

2009

Conference on “Citizens’ Right to the Real Property” Chisinau, Moldavia, 30 November - 1 December 2009

- The conference was organized by the State Cadastre Agency of Moldova and supported by FIG Commission 3 and 7. The conference closed “The Technical Assistance to Support Moldova First Cadastre Project” supported by SIDA.
- Representatives participated from SIDA, WB, WPLA, CLGE, EU Commission, Dutch Kadaster and the Norwegian Mapping Authority.
- FIG Commission 7 contribution: András Oskó, chair and Daniel Steudler, chair WGr. 7.3.

2010

Joint FIG Commission 3 and 7 conference “Information and Land Management. A Decade after the Millennium”, Sofia, Bulgaria, 15-17 November 2010

- The joint event was organized by Commissions 3 and 7 in cooperation with the Chamber of Bulgarian Graduated Surveyors. 56 professionals participated in the meeting from 17 countries not only from Europe but from Egypt, USA, Nigeria, Israel and UN FAO was also represented. There were 41 presentations held. András Oskó, chair, Gyula Iván, vice chair of administration and other 5 delegates represented Commission 7 with four papers.

5. Publications and communication

5.1 Publications

The Commission published the following books:

- Lemmen C. H. J.: The Social Tenure Domain Model: a pro-poor land tool. 2010. FIG publication Nr. 52 ISBN: 978-87-90907-83-9
- Free and Libre Open Source Software, FLOSS, in Cadastre and Land Registration: Opportunities and Risks, 2010. FAO-FIG publication. 15 authors

5.2 Journals

Christiaan Lemmen, chair of Commission 7 Working Group 7.1 is the editor of GIM International magazine. The magazine published many articles and information on the Commission 7 activities and paid a lot of attention on land administration issues.

5.3 Newsletters

Commission 7 published 6 newsletters and forwarded much information to delegates, correspondents and friends both directly and through FIG website.

5.4 FIG Commission 7 website

The FIG Office in Copenhagen maintained the FIG Commission 7 website. All the information, proceedings of the annual meetings are available on the web.

6. Other activities

6.1 International Seminar in Colombia in 2010

András Osskó, chair Commission 7 was invited and attended the International Seminar on “Victims of Dispossession Initiatives to Settle the Debt” – Bogotá, Colombia 24-26 November 2010.

6.2 Cadastral Template

The “Cadastral Template” is a good comparison of different cadastral systems worldwide based on country reports. FIG supports to continue the maintenance and updating of the Cadastral Template, which was also in Commission 7 work plan 2007-2010. Daniel Steudler, chair of Working group 7.3 has made a lot of efforts since the beginning to keep the Cadastral Template alive.

There are in total 44 country reports and about 10 updates arrived up to the end of 2009.

The information is available at the website www.cadastraltemplate.org

The number of visits in 2009 was 2813 (Sept.24), in 2010 it was 4660.

6.3 OICRF

The International Office for Cadastre and Land Records is one of the permanent institutions of FIG. OICRF serves as a documentation and study centre for land administration field.

About 9,000 papers and publications on land administration can be accessed in OICRF digital library. Since 2009 the performance has been measured.

About 8,000 papers were downloaded on annual basis and there are more than 28,000 “real” visitors annually. This means that between 2007 and 2010 more than 100,000 visitors downloaded more than 30,000 papers, presentations and publications from all over the world.

Christiaan Lemmen succeeded Prof. Paul van der Molen as director in 2010. Prof. van der Molen was OICRF director for more than 15 years.

Ms Pauline van Elsland succeeded Christiaan Lemmen as OICRF Secretary.

7. Appreciations

Thanks are due to all those member associations, which hosted, co-organized and supported the successful Commission 7 Annual meetings.

Many thanks to the Working group chairs, all delegates, correspondents and friends for their active work, participation and contributions, which were the key elements of the success of the commission.

The commission thanks the FIG Office for their continuous help and support and also for the maintenance of the commission website.

Thanks to the FIG Council for their support, especially to President Stig Enemark for his valuable contribution to the success of the Commission 7 Annual meetings.

My special thanks to Mr. Gyula Iván, vice chair administration and Ms. Maria Tóth, assistant for their permanent work and help.

Last but not least, the Hungarian team highly appreciates the financial and professional support by their employers, the Institute of Geodesy Cartography and Remote Sensing (FÖMI) and the Budapest Land Office.

András Osskó
Chair, FIG Commission 7, 2007-2010
Web site: www.fig.net/commission7

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