

**Report for the 28<sup>th</sup> General Assembly  
FIG Working Week in Cairo, Egypt, April 2005**

**Commission 7 – Cadastre and Land Management  
Report on Activities 2004-2005**

**1. General**

Commission 7 deals with land administration (“the process of determining, recording, and disseminating information about the ownership, value and use of land when implementing land management policies”, ref. UNECE Land Administration Guidelines 1996). “Ownership” should be seen as a broad concept of land tenure within various jurisdictions (statutory, customary, informal etc.). “Land” includes constructions at subsurface level, ground level and above land level (e.g. buildings). Furthermore Commission 7 deals with land management, that is the implementation of land policy, by a wide range of land policy instruments (e.g. land reform, land consolidation, land markets, land taxation, marine resource management etc.).

Commission 7 aims at:

- providing a world wide forum for enhancing and exchanging the knowledge and understanding about land administration and land management
- elaborating the role of land administration and land management for sustainable development
- encouraging the development of appropriate concepts and tools for land administration and land management with regard to the specific institutional and operational context of developed and developing countries
- promoting awareness concerning the role of surveyors in this field amongst stakeholders
- encouraging knowledge, skills and capabilities of surveyors in this field
- playing a leading role in advancing land administration and land management

**2. Work Plan 2002-2006**

Activities of the Commission follow the accepted Work Plan.

**3. Annual Meeting 2004, Clermont Ferrand, France, 8-14 September 2004**

The Commissions Annual Meeting took place from 8 to 14 September 2004 in Clermont Ferrand, France. The Meeting was organised in close co-operation with the French delegate of the Commission, Mr. Frantz Derlich. It was a success, with many interesting presentations and a good atmosphere. About 40 delegates found their way to Clermont.

The welcome address has been given by Mr. Alain Gaudet, President of the National Council of the Ordre de Géomètres-Experts of France. The Commission learned much about the land administration situation in France. Relevant developments and innovations in the GIS industry have been presented by Mr. Kevin Daugherty, USA, (ESRI) and Mr. Pierre le Roux, USA, (Intergraph). The technical excursion went to the land consolidation of Ambert, with a

field trip and an explanation of the processes in France. There were many other presentations by the delegates, both on PhD research issues as on recent developments in several countries; e.g. on progress with the Cadastral Template (Daniel Steudler, Switzerland), on Land Boundary related Court Cases (Conrad Tang, Hong Kong).

The Annual Meeting was combined with a two day symposium on Modern Land Consolidation; see the report under Working Group 7.2 on 'Instruments for land distribution'.

#### **4. Land Administration in Post Conflict Area's, UN, Palais des Nations, Geneva, Switzerland, 29-30 April 2004**

The Commission organised a symposium on "Land Administration in Post-conflict Areas" in the Palais des Nations, Geneva, Switzerland from 29 to 30 April 2004. This meeting was co-organised by the Kosovo Cadastral Agency and UN-HABITAT. About fifty experts involved in emergency and reconstruction activities in post-conflict areas (peacekeeping professionals, land-policy specialists, land administrators, land surveyors, land registrars, land managers, information-managers, donors, non-governmental organisations, officials and politicians) from seventeen countries were invited and participated. The purpose of the symposium was to bundle good practises, lessons learned, experience and knowledge on the issue of land administration in post-conflict areas and thus provide a good knowledge base for future operations.

The causes of conflicts and violence are many. For example ethnic envy, nationalistic tendencies, opposing interests, class conflicts, disputed frontiers, acts of expansion or economic interests. During such conflicts people are killed or disappear, buildings and physical infrastructure is destroyed, legal frameworks are set aside, public registers are destroyed, markets cease to function, properties are taken and lands occupied. If the conflict ends, peace treaties, UN resolutions or national development plans aim at restoring governance and the rule of law in all its variety (security, health, energy, shelter etc.)

In many cases, a substantial component of the restorative process consists of the (re)introduction of secure land tenure, mechanisms of resolution of land conflicts, land allocation, restitution, transparent land markets, land use planning, land taxation and the like. This implies both institutional and operational measures. Some form of land registration and cadastre is needed as a provider of secure property rights, as a facilitator for the land and land-credit market and as an information source for various public tasks like planning, taxation, land reform and the management of natural resources.

During the symposium presentations were given on the following subjects: 'Challenges to Sustainable Peace: Land Disputes Following Conflict', 'Strategic Action Planning in Post Conflict societies', 'Legal aspects of land administration in post-conflict areas', 'Land administration in post-conflict Cambodia', 'Experiences with land administration in Guatemala', 'Putting registration in perspective in rural areas: the case of Afghanistan', 'Land administration in post-conflict Chile', 'Land Administration in Kosovo before and after the War (1999)', 'Land administration in post-conflict Serbia', 'The Creation of an Immoveable Property Registration System in Albania', 'Transition of Land Administration in Post-war Croatia', 'Land administration in Bosnia and Herzegovina after the war', and 'Slovenian Experiences: an example from a transition country'. A paper from Rwanda on 'Land

administration in Rwanda post-genocide' could not be presented; the author was unable attend the symposium due to visa problems.

The chair of the Commission observed that land administration in post-conflict areas was complicated; land was a conflict issue. Land might not always be the direct cause of a conflict but it was always related. The implementation of peace treaties could mark the beginning of economic development or it could equally result in the start of a new war if the land issue was not really solved. One situation might require short-term emergency action, others might allow for less hasty and more gradual response. Conventional concepts of Land Administration did not work in unstable situations. The classical responses to property rights were limited; the restoration of land ownership is not always the same thing as restoration of social justice. 'Fix the Cadastre' was not the solution; land is not always a pressing issue. The (wo)man-land relationship had to be recognised in community or locally-based processes and this did not necessarily mean community participation. Being aware of this might make it possible to identify 'true owners' as recognised by the community and to reach the crucial stage of trust in the authorities and in the registration of property rights.

The chair concluded that land registration represented not the beginning of a reconciliation process, but its end. The relationship between land reform and reconciliation was very strong, so that land reform might indeed be part of the reconciliation process. It was most likely that differing approaches would be needed in different post-conflict situations. Apart from the fact that countries differed in history, culture and attitude, post-conflict situations may themselves differ, requiring a specific policy; land registration concepts might result in unconventional approaches. Often, he added, surveyors failed to be involved in peace treaties.

The relationship to land administration and land policy is relevant and should be recognised in peace treaties. Parties involved in formulation of peace agreements and/or strategic action plans should mention land registration not as an isolated objective but rather embed in such plans a wider development and land policy. Territorial land issues are a basis for conflict; there is acceptance within the international community that we need to be better prepared for this.

Workshops and reference materials have to be organised for humanitarian practitioners.

FIG Commission 7 is committed to informing United Nations on the importance of land policy and land administration in relation to peace treaties in order to improve awareness on this issue – as a start a letter and a copy of the proceeding have been sent to Mr. Kofi Annan, the Secretary General of the United Nations. Effective land-administration institutional frameworks have to be developed. Knowledge concerning this issue has to be collected in the regions.

## **5. FIG Working Week 2004, Athens, Greece, 22-27 May 2004**

The FIG Working Week in Athens, Greece, held from 22-27 May 2004, paid a lot of attention to matters of cadastre and land management. Commission 7 organised 11 sessions on:

- good practices in land administration and cadastre
- development of good land administration organisations (2 sessions)

- appropriate technologies for good land administration (3 sessions, two with Commission 3, including one session on 3D Cadastres and one with the commissions 3 and 5)
- spatial planning for sustainable development (with Commission 8)
- impact of new land law and land reform on good land administration
- marine cadastres (with Commission 4)
- developments in urban and rural land management (with Commission 8) and
- e-commerce and e-governance (with the Commissions 3 and 1)

In total 64 speakers presented their papers in our sessions.

## **6. 3<sup>rd</sup> FIG Regional Conference in Jakarta, Indonesia, 3-7 October 2004**

The 3<sup>rd</sup> FIG Regional Conference was held in Jakarta, Indonesia, October 3-7, 2004. The Commission was represented by its chair Paul van der Molen, The Netherlands and by Mr. András Osskó, Hungary, chair of Working Group 7.1. and chair-elect of the Commission, 2006-2010. The Commission had a good profile during the Conference in Jakarta. The Commission held sessions on:

- land administration and housing issues in informal settlements (with Commissions 8,10)
- e-land administration and e-government (with Commission 3)
- urban and rural land management (with Commission 8)
- marine cadastres and coastal zone management (with Commission 4)
- developing land administration systems
- land administration in post conflict areas
- new developments of imagery (with Commissions 3, 5), and
- a plenary session with the World Bank (contribution)

## **7. Working Group Activities**

### **Working Group 7.1 – Creating Land Administration in formal and informal environment**

Chair: Vice-Chair Mr. András Osskó, Hungary

#### Progress Report

### **Expert Group Meeting on Secure Land Tenure: New Legal Frameworks and Tools, UN-Gigiri, Nairobi, Kenya, 10–12 November 2004**

The subject of this Expert Group Meeting was the improvement of land tenure security through new legal frameworks and new and better tools. New land laws have recently come into power, others are under development. What kind of tools do we need to adequately support the spirit and letter of these new legal frameworks? What are the innovative ideas about information systems and work processes? How can we improve existing land administration systems? Thus, the aim of the meeting was to:

- discuss new legal frameworks for the improvement of land tenure security
- discuss new ideas about tools that may support the implementation of these new legal frameworks
- discuss evolutionary approaches for recording and mapping land tenure forms

- discuss possibilities to improve existing land administration systems
- learn from other countries that face the same challenges
- summarise the experiences and ideas in the form of a booklet that will be widely distributed
- develop a research agenda for a network of research institutes in the region
- encourage decision makers to pay adequate attention to the implementation aspects of land policy

A group of about 60 experts – social scientists, anthropologists, lawyers and surveyors – discussed these issues in Nairobi. The meeting was organised by the FIG Commission 7, UN-HABITAT, the Institution of Surveyors of Kenya (ISK) and the Commonwealth Association of Surveying and Land Economy, with support from the Austrian Development Agency, the Netherlands Ministry of Foreign Affairs, the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ, German Technical Cooperation) and the Netherlands Cadastre, Land Registry and Mapping Agency.

During the meeting some observations regarding various forms of land tenure were made. First of all it could be concluded that countries in Africa are indeed innovative in finding appropriate forms of land tenure that aim at meeting local needs. In general, there is an understanding that informal forms of land delivery are effective in cases where formal land delivery simply does not work. The question, whether the poor can benefit from either formal or informal land delivery processes, has been answered quite disappointingly: the poor do not benefit. Their only chance is plot sharing with parents and plot ownership through inheritance. The combination of formal land delivery processes and customary approaches is identified as a neo-customary land delivery process, which seems to be a good alternative to formal processes, although the viability in the long term has been questioned because of the unclear compatibility within formal land policies.

The conclusions were as follows. Firstly, it has become clear that regarding rights to land, registration and cadastre, and technology, all options are open: nothing should remain unexplored for the sake of identifying innovative approaches to meeting the demands of the people. This includes informal land delivery mechanisms, although it has been recognised that these systems have weak aspects, which possibly should be repaired. It is remarkable that many countries embark on an evolutionary approach to providing land tenure security (Ethiopia, Namibia, Rwanda, Lesotho, Indonesia).

Further, presentations at the meeting revealed the importance of inclusion of so-called derived rights in the process of land delivery (water rights, grazing and pastoral rights).

Experience in Kenya and Uganda shows the attention that should be paid to implementation effects of new land laws, both in an institutional and operational way.

With regard to financial issues, there are good examples of using a sensible form of land tax for the funding of land reform and upgrading programmes. In many presentations technology (orthophotos, satellite images, GPS) was reported to provide a good base for operations; however, some fundamental conditions should be met in order to materialise the benefits and enjoy return on investments. The help of universities is indispensable. Good performance of universities is enhanced if they combine education with research and consultancy. This

provides appropriate knowledge for advice that meets real-world conditions. The same applies to the ICT industry: developing standards has been reported to be necessary in order to provide, for example, software packages that can easily be customised to local needs. Re-inventing the wheel can be avoided in this way. Finally, the presentations show the importance of understanding the dynamics of land administration systems, with respect to coping with evolving forms of land tenure and maintenance issues. Systems should therefore be flexible and scalable to reap the benefits of investments.

The Expert Group Meeting has provided – in our view – much material on innovative legal frameworks and technological tools to contribute adequately to the debate in countries that struggle with the difficult questions of improving land tenure security within a socially acceptable context and at affordable costs.

### **Working Group 7.2 - Instruments for land distribution**

Chair: Vice-Chair Mikko Uimonen, Finland

#### Progress Report

### **Symposium on Modern Land Consolidation, Volvic, France, 10-11 September 2004**

This Symposium, held in the sport complex of Volvic (near Clermont Ferrand), France has been organised by the Commission combined with its Annual Meeting 2004. The Symposium attracted about 65 experts in land consolidation. The Symposium has been organised in close co-operation with the Ordre de Géomètres-Experts of France -the Commission delegate from France, Mr. Frantz Derlich made a lot of efforts in the organisation of this event-, and sponsored by: the Food and Agriculture Organisation of the United Nations, the Netherlands Cadastre, Land Registry and Mapping Agency and the International Institute for Geo-Information Science and Earth Observation.

Traditionally land consolidation is used as an instrument for the improvement of the business structure of farms, through the consolidation of fragmented agricultural parcels. The need for a better structure evolved out of the provision of food security for society at low cost, and a better cost-benefit ratio for individual farmers. When -in the past- it became obvious that the free land market could not solve the consolidation of fragmented lands, many countries embarked on the development of land consolidation regulations. These regulations provided for mechanisms to consolidate land parcels within a certain area in a co-ordinated way.

In fact common characteristics in many countries of the mechanism are that it comprises:

- a set of decision making processes, integrating the interest of the government and the community of farmers,
- a procedure for re-allocation of rights to land (both ownership and use rights) resulting in a re-parcellation
- a procedure for providing agricultural engineering works for the improvement of transport and water facilities, and accompanying landscape elements
- availability of a certain portion of state land to resolve frictions in the allocation
- a system of financing, through which the costs are shared by the government and the farmers

- organisation in the form of projects

During the symposium a series of conclusions was drawn in relation to a set of questions as discussed during the symposium. Regarding the question ‘has agriculture still a political priority that allows for investments?’, a majority of the participants agreed that is still the case, land consolidation is an important instrument for governments. Countries value the contribution of the agricultural sector to the national GDP, and for the security of food supply. Trend is however that agriculture has to compete more and more with other economic and environmental interest. Therefore the land consolidation instrument is increasingly considered as a multi purpose instrument, that not only takes into account the interest of the agricultural sector. In many cases the justification for land consolidation is found outside the agricultural interest! That means that forms of land consolidation that cannot cope with a broader rural development are hardly to survive in the future. The question ‘is modern agriculture still in need for land consolidation of fragmented land parcels or are other economic factors getting more important in the return on investments at farm level?’, one could say that in general there is still a need for consolidation of parcels in order to enhance efficiency and minimising production costs. Regarding the question, ‘has the land consolidation instrument the potential to cope with multi purpose objectives?’, it is questionable whether the ‘traditional’ land consolidation instrument always meets the demands of society (customers of land consolidation) and more specifically the farmers. They tend to be too complex and they take too long time, which casts doubt whether both society and farmers will be in favour of application. The question whether ‘the land consolidation instrument will be replaced by the free market, in those countries where the number of farms and farmers is dramatically decreasing?’, the general observation is that this is hardly to be expected. At micro level the free market will influence the consolidation of parcels, but the free market cannot address the enhancement of larger areas in a comprehensive way. This is even more valid if other interests are to be met simultaneously. Strategies and programmes have to be developed in co-operation with politicians.

Regarding the question ‘what kind of new mechanisms should be comprised in the land consolidation instrument and its application?’, it became clear that the demands of society and its stakeholders most likely cannot be met with the traditional land consolidation instrument only. There is a need for a variety of instruments, that each of those fits best with the specific demand. Land consolidation experts therefore should develop a better understanding of the needs of society in a specific situation, and should be able to offer the instruments that cab best meet these needs.

Regarding the question ‘what are the lessons learned and what are the critical success factors for land consolidation in the future?’, we would recommend as follows:

- the consolidation of parcels for agricultural purposes remains necessary, land consolidation can reduce fragmentation of parcels, can support in the improvement of infrastructure and can improve livelihood
- land consolidation instruments need to include many other interests as well
- land consolidation should be part of a wider rural and peri-urban development
- the needs of stakeholders is dependent of a specific situation
- there should be a variety of options for land consolidation instruments
- land consolidation experts should be skilled in analysing the specific needs of a particular situation and should be able to offer appropriate instruments to meet those needs

- land consolidation experts should have access to a variety of technical tools (such toolbox be developed in co-operation with e.g. GIS industry) that enable high quality projects that are acceptable regarding the duration of projects
- in the financing of land consolidation projects governments should provide general funding which is in accordance with the general interests that are met
- in order to enhance the suitability of existing instruments, and to develop innovative and unconventional land consolidation instruments, land consolidation authorities and universities should strongly work together

Instead of adopting a solution orientated approach we should be more problem orientated, consequently analysing the problems first by asking the relevant questions. We are not only working in the rural or urban environment but dealing with urban-rural interrelations. These relations may have many forms: food production, recreation, new industries (for instance services to the urban dwellers), nature conservation etc. It is necessary to analyse the needs of the local residents and the interest groups very carefully and to work closely with them before starting the actual project (preliminary studies of the effects of the project). There exist many kinds of fragmentation. People usually talk about fragmentation of ownership, but there exists also fragmentation in land use and the age of the owners. All kinds of fragmentations must be taken into consideration, when dealing with preconditions for land consolidation. The responsibility of the steering of a land consolidation project must be in the hands of the local community, surveyors should act as experts and project managers. Surveyors have not always been fast and flexible enough to react to the changes in society. When addressing the customers, the approach must not in the first hand be a technical one. The procedures must be cost effective in order to be successful; for example accuracy of the measurements must be optimised taking into account the whole process and the possibility to use existing data banks. Land banking is used in many countries and found very useful. In former socialist countries of Europe land consolidation as such is not enough to solve the problems of land use. One has to investigate the issues of financing the rural enterprises, educating the farmers, marketing the products and improving the image of farming also.

### **Working Group 7.3 - Advances in Modern Land Administration**

Chair: Vice-Chair Winfried Hawerk, Germany

#### Progress Report

### **International FIG Seminar on e-Land Administration, June 2-4 2004, Innsbruck, Austria**

Thanks to the efforts of the Commissions delegate from Austria, Mrs. Gerda Schennach a successful international FIG Seminar on e-Land Administration could be organised from 2 to 4 June 2004, in Innsbruck, Austria. This Seminar has been organised in close co-operation with the Austrian Society for Surveying and Geo-information. More than 100 participants were present.

Cadastral data as part of geographic information have developed to a new tool for decision-making and are crucial for political, economic and legal decisions. But there is still a lack of awareness on the importance of digital cadastral data.

e-Government has become an issue in all fields of public administration. e-Government needs to transform the procedures behind the surface to models which are able to create simple solutions for the client as a product of different contents on different quality levels and without showing any unique standards.

e-Land Administration is a major part of e-Government and can be considered as a strong fundament for legal, administrative and technical structures for the entire public administration. Land administration data are indicators for a wide range of related information and are essential for creating value added data for e-Government.

Papers have been presented on 'International trends for e-Land Administration', 'e-Government: next steps towards a bright future!?', 'Impact of e-Government for surveyors', 'Standards-based open web services for e-Government', 'Cadastral automation and related e-Government initiatives in NZ', 'Land Information (LIN) – catalyst for integrated e-Government', 'Base Registers as Part of e-Government in Finland', 'e-Government .... Using a mouse to avoid a queue', 'Geo-referenced addresses for e-Government', 'Land Administration – a model by Lithuania', 'e-Government in accession countries – experience in Poland', 'e-Land Administration in Hungary', 'Experiences and Directions in National Portals', 'The German GDI – a public private co-operation model', 'Pricing models for e-government procedures', 'e-Conveyancing – a challenge and a prize', 'Legal issues in future e-Conveyancing in NL', 'e-Conveyancing using PKI technologies', 'Cyberdock – archives for e-Government' and 'Links between Land Administration and Risk Management'.

At the *output* side of Cadastre and Land Registry organisations e-Land Administration contributes to better transparency in the real estate market. It improves B2B activities, it improves efficiency and could decrease transaction-costs representing an economic value.

e-Land Administration, as *core of SDI* supports in easy access to data, increasing use of the data and thus generating more revenues. It attracts new services and new registrations. A single window contributes to improved customer satisfaction; the same is valid for value added products. For this purpose new business models and pricing models have to be developed in close co-operation with the private sector.

In relation to *throughput* it provides opportunities for the introduction of Workflow Management. Furthermore an easy access can be given to digital archives with deed, title and other legal documents. One more opportunity is in the future development of fully automated updating by customers or professionals.

On the *input* side various forms of e-Land Administration have been recognised: e-conveyancing, e-registration and e-lodgement. This enhances transaction procedures in the land market and (again) makes this market more transparent; it resolves chain of titles and allows a quicker transfer of purchase prices.

The *link* between e-Land Administration and SDI is a prerequisite to implement the single window policy. The single window increases customer satisfaction. This link will offer a good opportunity for value added products where the private sector opens the market, on the basis of a public-private partnership or (better) a public-private co-operation. The link between SDI and e-Land Administration increases the use of data and so increases return on

investments. For this purpose the mechanisms of data-sharing based on standards have to be enhanced. SDI with integrated land registry and cadastre may flourish well as base registers as part of a governmental policy, where guaranteed quality in relation to the registers is an item. Apart from parcels the addresses are key to access the information.

e-Land Administration involves *stakeholders*. The development of e-Land Administration can not be done in isolation.

e-Land Administration and *technology*: technology is not a restriction. A good cooperation with IT industry is required, one example here are the efforts being made in core cadastral domain modelling.

e-Land Administration and *political support*. e-Land Administration is only possible in a context of national information policy resulting in new laws (legal framework) and arrangements of the public administration. Evidence has to be given of the benefits in terms of economic justification and customer satisfaction.

e-Land Administration and impact on *organisations* is expected to be substantial: re-engineering IT and workflows, this goes with re-structuring of the organisation and re-skilling of the employees.

### **Workshop on Standardisation in the Cadastral Domain, Bamberg, Germany, 9-10 December 2004**

Within the scope of the European COST Action G9 'Modelling Real Property Transactions' and jointly with FIG Commission 7, a workshop on 'Standardisation in the Cadastral Domain' was held in the Aula of the University of Bamberg, Germany on 9 and 10 December 2004.

One of the big problems in the cadastral domain is the lack of a shared set of concepts and terminology. International standardisation of these concepts (that is, the development of an ontology) could possibly resolve many of these communication problems. There are several motivations behind standardisation efforts, such as meaningful exchange of information between organisations, or efficient component-based system development through applying standardised models. It should be emphasised that a cadastral system entails land registration, the 'administrative/legal component', and (geo referenced) cadastral mapping, the 'spatial component'. Together, these components facilitate land administration and a land registry/cadastral system provides the environment in which this process takes place. Data are initially collected, maintained and, probably *the most relevant issue in standardisation*: disseminated in a distributed environment. This means that could be maintained by different organisations, such as municipalities or other planning authorities, private surveyors, conveyancers and land registrars — depending on the local traditions. Standardisation of the cadastral domain is in the initial phase and many non-co-ordinated initiatives can be identified. An initial model has been developed based on the results of a first workshop held at the International Institute for Geo-Information Science and Earth Observation, ITC, in March 2003 and has been used as a reference during the workshop. However, the workshop in Bamberg was not limited to this specific model alone and also included: (1) efforts at the national level that do not (directly) aim at an international standard,

(2) work that goes beyond the current scope of the core cadastral model and addresses for instance process modelling.

The specific goals for this workshop have been:

- further developing the administrative/legal aspects of the model: rights of persons to lands, customary and so called ‘informal rights’, 3D aspects, legal and survey based source documents
- further formalising the model (semantics ontology, knowledge engineering);
- testing the current model in different countries (evaluation)
- involving the geo-ICT industry and standardization institutes (support for implementations of the model)

Of great importance for the implementation of interoperable cadastral and land information data could be the Land Information Initiative of the OpenGeospatial Consortium (OGC).

The workshop brought together 61 experts from different communities and disciplines from 19 countries and involved in the cadastral domain: legal specialists, surveyors, ICT-specialists, etc. from different organisations. During presentation and discussion sessions 20 papers have been presented with keynotes from Prof. Andrew Frank, Austria and Juerg Kaufmann, Switzerland. Those papers and related presentations have been published on the web. Reviews have been made by the Scientific Committee.

Concerning the question if there should be one general legal model (or many models) it was concluded that there could be a common procedure where differences may occur in methodology. Common steps in workflows have to be identified, where the legal situation in different countries has to be modelled. A single standard model might not be possible but a core model based on common concepts should be achievable; there should be common concepts, this allows talking across boundaries. From the performed test in and between different countries it was concluded that no system is alike.

The Core Cadastral Domain Model is the least common denominator. Additions are needed to the core model. The Core Cadastral Domain Model issues are under scientific debate now, further activities have to be identified in international context, together with ICT industry, academia, COST, EULIS, professionals and with a strong focus to and involvement of users. The Core Cadastral Domain Model might be part of a big machinery with interfaces, data exchange and interoperability. The Geo-ICT industry will be driven by the market; if needed the models will be developed. Semantic aspects require further attention.

From European prospective, it can be expected that financial institutes like banks, mortgages and security and other users could be the drivers for development of a Core Cadastral Domain model, but who takes the lead role? Search for an authority that will drive development of Core Cadastral Domain model further, e.g. the FIG with its network. A co-ordinating group is needed who can further identify the driving force. The ‘model boundaries’ (what should not be included, what should be included) require further investigations; rights, restrictions, responsibilities related to land should be included and an extension of fiscal rights and responsibilities. It is of utmost importance to better communicate the Core Cadastral Domain Model.

**Sub-Working Group – 3D Cadastres. A joint Working Group with Commission 3, ‘Spatial Information Management’**

Chair: Hendrik Ploeger, The Netherlands

Current cadastral registrations use 2D parcels to register ownerships rights, limited rights and public law restrictions on land. In most cases this is sufficient to give clear information about the legal status of real estate. But in cases of multiple use of space, with stratified property rights in land, the traditional 2D cadastre is not, or only in a limited way, able to reflect the spatial information about those rights in the third dimension.

The working group aims to publish a publication on guidelines to establish 3D Cadastres, addressing legal, institutional and technical issues. This “primer on 3D Cadastres” will be presented at the next FIG-congress in 2006.

The working group is subdivided in three sections, dealing with respectively the legal, institutional and technical aspects of a 3D cadastre. Reports from each of the subsections will be published on the FIG website (Commission 7).

**Joint Working Group – Coastal Zone Management (CZM). A Joint Working Group with Commission 4, lead by Commission 4**

Chair: Michael Sutherland, Canada

This Joint Working Group aims to develop and promote Coastal Zone Management in hydrography to include Ocean Governance and Marine Cadastre and to encourage and co-ordinate future developments in CZM, including boundary delimitation, maritime jurisdiction and marine spatial data infrastructures.

**Joint Working Group – Cost Effective Surveying Technology and Techniques for Developing Countries. A Joint Working Group of Commissions 3, 5 and 7, lead by Commission 5**

Chair: Dan Schnurr, United Kingdom

This Joint Working Group aim at identification of more cost effective ways to improve the availability and accessibility of tools of land information. To suggest these methods to aid more effective planning, development and management of the environment. Also to develop innovation, adaptation and resourcefulness in simplifying these tools to fit the local situation.

**Joint Working Group with Commission 8 on Urban and Rural interrelationships, defining formal and informal tenure/property rights**

During the Working Week in Athens the newly appointed chair of Commission 8, Diane Dumashie (UK), approached the Commission to establish a joint working group on the above mentioned subject. This was agreed on and meanwhile Richard Grover, United Kingdom, and András Osskó, Hungary, were happy to represent the Commission here.

## **8. Communications**

The Commission holds a Website as part of the FIG Website, all papers presented at the Commissions events are available here and can be downloaded. The Commission appreciates the active support of the FIG Office.

The Commission published newsletters in April, June and November 2004.

The Commission keeps a list of delegates, correspondents and friends of the Commission.

Mr. Andreas Drees has been the contact person of the Commission in the FIG Council until the end of 2004 and Prof. Stig Enemark since 1 January 2005.

## **9. Contributions to events, institutions**

- the chair gave a keynote address at meeting of the Nordic Surveyors, Helsinki, Finland, June 8-9 2005; participated in the UN ECE WPLA Workshop on Real Property Administration in Developing Information Society, 22-25 September 2004, Vilnius, Lithuania and presented a paper on 'Authentic Registrations' and attended the UN, FIG and PC IDEA Special Forum - The Development of Land Information Policies in the Americas - Aguascalientes, Mexico, 26-27 October 2004 and presented a paper on Good Administration of Land in Europe
- the chair is member of the Advisory Committee of the Central European Land Knowledge Centre in Budapest, Hungary and is member of the Editorial Advisory Board of GIM International, The Worldwide Magazine for Geomatics
- the vice chair administration Christiaan Lemmen is a contributing editor of GIM International. Christiaan Lemmen is guest editor on cadastral systems of the International Journal on Computers, Environment and Urban Systems
- the FIG Office in Copenhagen published the "Marrakech Declaration on the urban-rural interrelationship for sustainable development". The Declaration was launched at the 2<sup>nd</sup> World Urban Forum in Barcelona 13-17 September 2004 by the FIG President. In the Declaration much attention is paid to land administration as a prerequisite for good governance and the control of land tenure, land value and land use
- the booklet Cadastre 2014 (Juerg Kaufmann and Daniel Steudler) is translated into the 34<sup>th</sup> language, Albanian, thanks to the efforts of our Kosovar delegate prof. Murat Meha
- we keep promoting the Cadastral Template and believe this is the first successful attempt to standardise and harmonise the description of cadastral systems all over the world. More than 35 countries already joined

## **10. Future Events**

- the preliminary dates for the annual meeting in 2005 are 19-25 June 2005. This meeting will be held in Madison (Wisconsin, US). The idea is to include a 1 day seminar on the real advanced technical developments that will influence the work process in the near future, both in countries where land administration already is institutionalised as well as in countries where land administration is still developing

- the FIG Working Week Cairo, Egypt, 16-21 April 2005, includes many sessions on Cadastre and Land Management and a meeting of the Commission
- the Commission will participate at the 4<sup>th</sup> FIG Regional Conference, Havana, Cuba, 26-29 September 2005

## **11. OICRF**

The OICRF will report separately to the General Assembly.

### **Paul van der Molen**

Chair, FIG Commission 7

### **Christiaan Lemmen**

Vice Chair-Administration, Commission 7

### **Pauline van Elsland**

Secretariat Commission 7

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