

NEW: A School for Land Administration Studies

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SUMMARY

At 23 March 2006 the International Institute for Geo-Information Science and Earth Observation ('ITC') and the Cadastre, Land Registry and Mapping Agency ('Kadaster'), both in the Netherlands, signed an agreement to establish a School for Land Administration Studies.

Land administration is challenged by both global institutions and local governments to encompass innovative ideas on land tenure, legal security, and technology to provide simple, transparent, cheap and manageable systems.

ITC and Kadaster believe that enhancing knowledge and expertise on land administration requires scientific concepts, methods and models on one hand, and governance, management and operational skills on the other hand. Both are well served by a combination of a University (ITC) and an operational Agency (Kadaster) in developing and delivering education, services and research.

Through ITC the School operates in association with the United Nations University, UNU.

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1. INTRODUCTION

At 23 March 2006 the International Institute for Geo-Information Science and Earth Observation ('ITC') and the Cadastre, Land Registry and Mapping Agency ('Kadaster'), both in the Netherlands, signed an agreement to establish a School for Land Administration Studies. The agreement was signed by ITC's Rector prof. dr. M. Molenaar (left) and Kadaster's Member of the Executive Board G. Barnasconi (right).



The aim of the agreement is to create a strong and unique combination of actors in the field of land administration that is recognised in the world, and is marketable. The combination represents two major institutions and has a transparent identity. The assignment of ITC as provider of land administration knowledge to the United Nations University has been a further encouragement to proceed in this direction.

2. UNDERLYING DEFINITION OF THE WORK FIELD

'Land administration is the 'process of determining, recording and disseminating information about ownership, value and use of land, when implementing Land Management Policies'. (UN, 1996).

Important components in this definition are:

- it is a process, thus dynamic

- it is about information, thus data should be meaningful
- it is about ownership, in a broader sense: land tenure
- it is about value and use
- land is to be considered as inclusive of subsurface and above surface fixtures, including multi use of space
- aim of land administration is the realisation of land policies through the implementation of instruments and tools, both from an institutional and operational perspective, which is called 'land management'.

Land administration is an activity with both scientific aspects (concepts, models methodology) and professional aspects (operations, management, governance). For land administration organisations which need to change because of meeting increasing demands of societies, both aspects are of vital importance. The combination of Kadaster and ITC can offer both approaches.

The land issue is of growing interest in the world, including the aspect of land administration (e.g. WB, 2003). Donors are increasingly interested to invest in loans and grants for the establishment of appropriate land administration systems. Capacity building (in a broad sense, including institutional building) is a major prerequisite for successful establishment of land administration systems, and there is a growing demand.

Also the influence of business developments and IT opportunities urge land administrations to change substantially.

Meeting these demands (both from a point of view of education, research and consultancy), will exceed either the capacity of ITC (especially the scientific parts) or the capacity of Kadaster (especially the professional part). A joint effort is necessary. The framework of the United Nations University provides additional profile to this joint effort.

3. DESCRIPTION OF THE PARTNERS

The *International Institute for Geo-Information Science and Earth Observation* (ITC) is an international education institute based in the Netherlands. ITC offers a Professional Masters and Master of Science degree course in Geo-Information Science under the following educational specialisations:

- Geo-Informatics
- Geo-Information Management
- Urban Planning and Land Administration
- Natural Resources Management
- Water Resources and Environmental Management
- Earth Resources and Environmental Geo-Sciences

The Institute also has a comprehensive research programme with some 50 PhD candidates. In addition, it has a sizeable projects portfolio. ITC has about 120 scientific staff members. The average annual intake of students is around 400.

The *Cadastre, Land Registry and Mapping Agency* is an independent public body under the auspices of the Ministry of Housing, Spatial Planning and Environment. The Agency's tasks are country covering land registration and cadastre, national triangulation, land consolidation and topographical mapping. The organisation is fully IT supported in all operations and in management support. The Agency has about 2200 employees over 16 branches and is internationally active in various projects through its branch Kadaster International.

Extension of this cooperation with *other partners* is not excluded. In the future, partners could be invited which offer complementary knowledge and services, that might enhance the portfolio of the School.

Both partners have extensive networks, both in the form of associated institutions (for ITC: Bolivia, China, India, Nigeria, Iran, Tanzania, Sweden, UK), international professional associations (FIG, UN/WPLA, ISPRS, Eurogeographics, EULIS, United Nations University etc.), and networks under own management (ITC-Alumni network, ITC-Geo Information network for education and training 'GI-net', FIG Commission 7 network)

4. INVOLVEMENT UNITED NATIONS UNIVERSITY (UNU)

The agreement signed on 5 April 2005 between UNU and ITC includes a capacity building programme on disaster management and land administration to support and complement the UN mission. Regarding land administration, the programme encompasses:

- the organisation of workshops for decision makers (workshops of limited duration)
- training courses combined with demonstration of real life examples for professionals (training courses of medium duration)
- the organisation meetings, workshops and symposia on topics of interest
- the development and maintenance of communication among developing countries
- advise and help in the setting up of capacity building programmes
- advise and help in the setting up of cooperation amongst scientists and institutions in different countries

UNU has considerable experience in developing and coordinating networks of scientists. UNU will furthermore make available its network of institutions and partners for the implementation of the ITC/UNU land administration programme.

5. THE TARGET

There are at least 4 global documents that underpin the need for sound land administration in support of poverty eradication, sustainable agriculture, sustainable housing, management of

natural resources and economic growth. The World Bank adopted a vision for land policy (including land administration) related to poverty reduction and growth (World Bank, 2003). The EU adopted a similar policy guideline (EU, 2004). UN Habitat pursues the Global Campaign for Secure Tenure (UN, 2004a, 2004b). FAO identifies land tenure as important for rural development (FAO, 2002). Also national development agencies have similar documents for national policy purposes (GTZ 1998, DFID 2002, DGIS 2003).

What comes out of all these documents, is that access to land and land related opportunities plays a substantial role in achieving political objectives of poverty eradication, sustainable development, and social inclusion under the condition that it is embedded in a wider context of land policy, implementation instruments, and supporting tools.

The annex to the earlier mentioned agreement between UNU and ITC summarizes: 'Secure access to land and land related opportunities promotes the reduction of poverty, sustainable housing and agriculture, and the strengthening of the role of vulnerable groups (e.g. women, indigenous people). Land tenure security, land markets, micro-credit mechanisms, appropriate land use planning and development, land taxation, and land reform cannot be improved without support of appropriate land administration systems. The determination, recording and dissemination of information about land tenure, land use and land value provides necessary input for good governance and the rule of law with respect to land related issues. Land policy, legal frameworks, and adequate mandates for public administration are prerequisites for good land administration. To make land administration work, attention must be paid to information- and data-communication technology (ICT), not necessarily high-tech, but also to practical- and low-cost solutions. The impact of application of ICT to land administration organisation's strategy, system architecture, and work processes require a good understanding of information management at both strategic and operational level'.

A major donor for land administration projects is the World Bank. The portfolio over years is as follows:

1990-1994: 3 projects
1995-1999: 19 projects budget 0.7 billion \$
2000-2005: 25 projects budget 1.0 billion \$

The World Bank expects the positive trend to continue (WB, 2006). Current and future WB-projects over 5 years count for 1,4 billion (Kadaster, 2005).

The need for capacity building in land administration is manifold:

- capacity of land administration organisations (Institutional building)
- capacity of individuals (Human Resource Development)
- capacity of research on land issues (Research capacity)

Regarding the capacity of land administration organisations:

- management teams to enhance business administration capacity
- project teams to enhance project management skills
- teams of experts and consultants to enhance land administration knowledge.

Regarding the capacity of individuals:

- professionals to enhance skills and knowledge
- managers to enhance business administration capacity
- decision makers to create awareness about land issues
- young students as part of their education.

Regarding the capacity of research:

- cooperation among scientist and institutions
- research plans to provide focus and leadership.

6. POSITION OF THE SCHOOL IN THE EDUCATIONAL ENVIRONMENT

There is a variety of institutions active with education in land administration matters, world wide.

BSc and MSc programme are offered by e.g. University of New South Wales (School of Geomatics Engineering), the Royal University of Agriculture in Phnom Penh, the University of Technology of Malaysia, the University of Munich (Institute of Geodesy, GIS and Land Management), the University of Lund (Department Technology and Society), the Royal Institute of Technology Stockholm (KTH). Short courses and single modules are e.g. offered by the University of Florida (Department Civil and Coastal Engineering), the University of Melbourne (Centre for Spatial Data Infrastructures and Land Administration), RMIT Melbourne, the Technological University of Delft (Department Technology, Policy and Management), University College London (Department Geomatics Engineering), Olds University College Alberta Canada, Lincoln Institute of Land Policy, Cambridge US, University of Toulouse, the University of Wisconsin, Land Tenure Centre, University of Aalborg Denmark (Division of Geomatics), Swedesurvey Gävle Sweden.

Within this spectrum, the School favours some special features:

- the School is cooperation between a University and an Agency
- the School will offer different options like long and short courses, workshops, symposia, meetings, communication, and research
- the School addresses the full spectrum of land administration, with a focus on application of geo-information technology.

So other educational institutes offer a wide range of educational opportunities, however many of them are covering sub-aspects of the wider land administration field. The combination of strategic and operational component of land administration aligned to IT policy and application appears to be a niche in the market. This is in line with the promotion campaigns of ITC where the emphasis is put on the use of geo-ICT for certain applications.

The mission of the School is:

‘The School wishes to contribute to the development of institutions and individuals in the field of land management and land administration for both strategic and operational level, with a strong alignment to geo-information policy and systems’

7. THE PORTFOLIO OF THE SCHOOL

According to the agreement ITC-UNU the land administration component of the UNU-programme will comprise workshops and training courses.

- a) workshops of limited duration aiming at generating awareness among decision makers about the importance of land administration as a prerequisite for the implementation of a country’s land policy
- b) short and long training courses, combined with demonstration of real life examples, that will aim at providing professionals with knowledge and experiences on the application of land administration systems in the context of land policy, at both conceptual, strategic and operational level.

To meet the mission of the School, the proposed content of the land administration field that should be addressed comprises:

- policy issues: the role of land tenure in poverty reduction, economic growth, sustainable agriculture, sustainable housing, strengthening the role of vulnerable groups (women, children, poor, indigenous), public administration and good governance.
- Issues of land policy: policy options, rule of law, good governance, institutional economics (transaction costs, theory of complete property rights), macroeconomic aspects (land and GDP), microeconomics (markets, households, business community, credit sector), aspects of ideology.
- implementation of land policy: land tenure and security, regulation of the land market, land use planning, land taxation, management of natural resources, land reform, need for information infrastructures, conflict resolution mechanisms,
- land administration (strategic aspects): organisation of the public administration, legal frameworks, business objectives, ICT policy, strategic alignment, role of land administration systems in the implementation of land policy, strategic management (planning and control, financial management, quality management, customer satisfaction, pricing)
- land administration (operational aspects): design and maintenance of work processes (adjudication, registration, surveying), data acquisition, data processing, data distribution

- technology, customer relations, workflow management, ICT architectures, information management
- information management issues, regarding information modelling, information system design and development, data-acquisition, database design and management, SDI development and technology.

Based on these starting points, the structure of the portfolio should be as follows:

- workshops for decision makers
- short training courses for professionals
- long training in the form of a specialisation on Land Administration, within the accredited ITC's MSc Geo-Information Science
- meetings, workshops and symposia
- communication among developing countries
- advise of capacity building programmes
- network of scientists
- research, according to approved ITC-research plans

8. PERFORMANCE SO FAR

Although the School is still building its own staff capacity, current activities are:

- decision makers workshop to be held 4-6 December 2006 in Addis Ababa, Ethiopia
- short courses were provided in Ghana (June 2006) and Indonesia (September 2006)
- involvement at the International Conference on 'Enhancing Land Registration and Cadastre for Economic Growth in India' - New Delhi, India, 31 January - 1 February 2006
- involvement Expert Group Meeting on Secure Tenure: New Legal Frameworks and Tools - Bangkok, Thailand, 8-9 December 2005
- involvement Global Land Tool Network UN/Habitat
- curriculum Development Group working on MSc Land Administration (see annex)
- Land Administration Research Plan under development

9. CONCLUSIONS

The initiative taken by ITC and Kadaster is expected to contribute actively to the challenge of the land administration world for appropriate and innovative approaches to land administration, in such a way that countries can benefit from more and better available knowledge and expertise, in order to enhance existing land administration systems to support poverty eradication and economic growth.

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BIOGRAPHICAL NOTES

Paul van der Molen, Arbind Tuladhar, Johan de Meijere, Javier Morales, Christiaan Lemmen, Tom Loran are scientific staff, project staff in the field of land administration and geoinformation management, of the International Institute for Geoinformation Science and Earth Observation ITC in Enschede (NL). **Pauline van Elsland** is Office Manager of the School.

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ANNEX

The text of the ITC-Brochure MSc Land Administration (to be distributed in due course)

Land Administration

| Degree | Duration | Start date | ECTS | Tuition fee |
|--------|-----------|-------------------|------|-------------|
| MSc | 18 months | 20 September 2007 | 118 | Euro 9,500 |

ITC's vision to land administration

Land is at the basis of all societies.

Land policy regulates the access to- and management of land. A sound land policy is a critical success factor for economic growth, food security, nature conservation, protection of vulnerable groups, poverty reduction and housing.

Reports of international Agencies such as World Bank, EU, Habitat, FAO, UNDP all pay attention to land issues and land policies.

A land policy and land- policy instruments determine how a Government can provide access to land, tenure security, regulate the land market, implement land reform, protect the environment and levy land taxes.

These items are even more challenging in post- conflict or post- disaster areas and where government systems are in transition.

Central in the course on Land Administration at ITC is the definition of Land Administration given in the UN Land Administration Guidelines:

‘the process of determining, recording, and disseminating information about ownership, value and use of land, when implementing land management policies’.

Land administration is considered to be an appropriate instrument to serve the implementation of a countries' land policy.

‘Blue prints’ of land administration systems do not exist; we believe any land administration system should be respectful to the existing institutional arrangements in a country, taking into account a country's history and cultural values.

The Land Administration course comprises two aspects:

- The understanding of scientific concepts , models and methods of Land Administration
- The operational aspects of creating a Land Administration Organization that performs on a day by day base.

ITC cooperates in this course with the Netherlands' Cadastre, Land Registry and Mapping Agency (Kadaster), a well known, advanced and well operating land administration agency.

The course provides theoretical and practical knowledge and expertise on how to build a viable land administration organization, while applying relevant principles of business administration and information-technology.

What will be achieved?

Upon completion of the course the student will

- Be able to analyze from an academic perspective Land Administration components and land administration systems to serve the society
- Understand the concepts of Land policy and policy instruments for the provision of access to land, tenure security, land markets, land reform, land use planning and land taxation.
- Be able to formulate institutional, operational and technological requirements for the operation of land administration procedures in a transactional environment.
- Be able to specify and operate (geo-) information technology relevant for the functioning of Land Administration Systems (data acquisition, data storage and manipulation through database systems, (re)design of information architecture, dissemination and web technology, service provision, quality management and business administration).

For whom is the course relevant?

The course is designed for professionals (to be) involved in developing land administration systems both from an academic and a managerial- technical- operational point of view.

A substantial part of the course is dedicated to information technology and information management for land administration systems and spatial data infrastructures.

ITC and the Netherlands Kadaster do their best to make you a respected and valuable land administration expert in your country.

Course content

The course comprises academic, institutional, operational and information technology topics

Course modules address:

- Concepts of Land policy and land management
- Land administration and land administration systems
- Process design, simulation, management of workflows
- Adjudication, cadastral and social tenure mapping
- Value assessment and land use classification
- Business administration, planning and control, financial management
- Modelling of data, processes, stakeholders analysis, community participation
- Information-system design, development, (re-) engineering
- Data-acquisition methods, technology and use of remote sensing images and GNSS
- Geo- Database technology
- Information management (legal aspects, authentication, pricing, costing)
- Concept of SDI's and application – authentic registers
- Interoperability and standards

Why follow the Land Administration course at ITC?

The cooperation between ITC and the Netherlands' Kadaster provides a unique foundation for the course. The international networks of both institutions give access to academic developments and the latest policies and guidelines of international donors and UN agencies.

Since 2005 ITC is an associated institute of the United Nations University in theme Land Administration and in the theme Disaster Management.

The links to the academic and operational environments distinguish this course from other education offered elsewhere in the world. The strength of this course is the combination of the institutional aspects of land administration and the development of sound information systems operated by viable land administration institutions.

When you are interested in the development of viable land administration systems in a well-understood context of your country's land management and legal framework, this is the right course for you.