

# Capacity Building in Land Management

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## SUMMARY

Current development in many countries demands a new type of land professionals who will be able not only to adequately cope with the reality but also to act efficiently in the rapidly changing society. In other words, economical as well as legal and environmental issues must be taken into rapt consideration by surveyors while solving complex problems of management of land for economic, social, and environmental sustainability. Thus, land management shall be on the top of the modern agenda of practice and education. In particular, special attention is to be paid to building up a capacity of land professionals at university level.

One step in this direction has been made by Royal Institute of Technology (Stockholm, Sweden), which since 1996 with support of the Swedish International Development Cooperation Agency (SIDA) trains Master students in property law and economics within the International Master programme in Land Management. This programme was from the beginning open only for students from some specific countries. However, from autumn 2010 (the application deadline is annually January 15) it will be available for students from all over the world. The emphasis in the new Master programme is placed on land policy and land administration with deepened studies of how to use legal, economic, and organisational tools for changes of rights to land without jeopardising sustainable development.

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## 1. INTRODUCTION

Efficient land management<sup>1</sup> in a broader context contributes to food security and intensifies economic growth of a country in general. Importance of efficient land management has come to the agenda of various international bodies such as UN-HABITAT, FAO, and FIG. Social development is also directly connected with land management through a wider stakeholders' participation (e.g., women, indigenous people etc). Environmentally friendly land management facilitates sustainable development of a civil society.

Besides, land management provides instruments for formalising irregular urban settlements and diminishes insecure property rights. The latter is the result of inadequate implementation of land policies. Onerous decision-making processes in turn lead to expensive and complicated land transactions and in thus increase overall costs for the society. Urban land use needs to be redefined with help of land management due to enormous expansion of the cities worldwide and especially in developing countries. Growing resource conflicts require urgent resolutions. This can be fulfilled with help, among others, of modern land management tools such as participatory meetings, property adjudication procedures and fair compensation in a case of compulsory purchase of land for public purposes.

Solution of the above mentioned problems is in the hands of individual professionals and respective organisations. The lack of institutional capacity in land management inhibit many developing and transition countries from approaching sustainable development and successful implementation of the Millennium Development Goals. Therefore, capacity building is becoming more and more of vital importance among the international surveying community. The latter is proven by a wide range on recent FIG activities such as, among others, the last FIG Regional conference in Vietnam (2009) covering Building capacity in Land governance and the Environment. The International Food and Agriculture Organisation (FAO) has established the Capacity Building Portal<sup>2</sup> in order to strengthen national capacities for securing food supply and facilitating agricultural development. On the whole, capacity building is an emerging issue, which is actively approached by the initiatives of UN General Assembly (UNGA), UN Development Group and Organization for Economic Cooperation and Development (OECD) through UNDP Capacity Development and Triennial Comprehensive Policy Review (TCPR).

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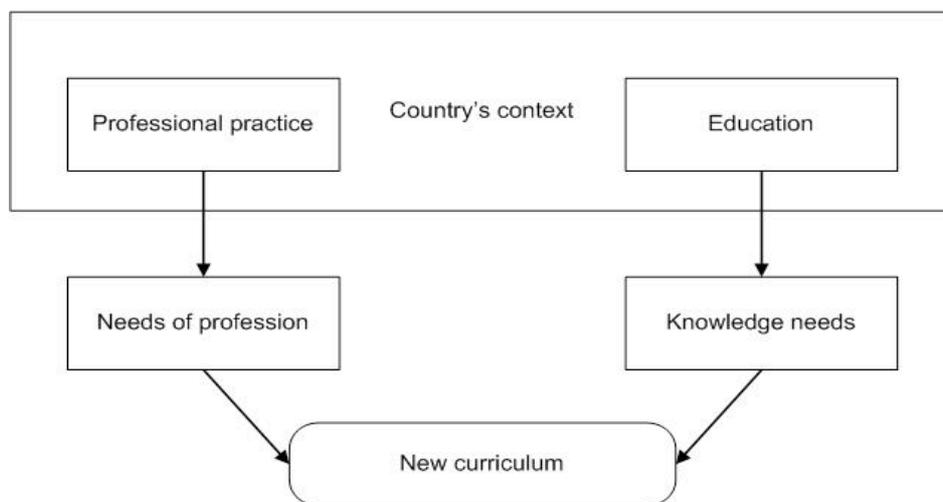
<sup>1</sup> Land management is equal to land administration here. It comes from assumption that administration is seen resource management.

<sup>2</sup> <http://www.fao.org/capacitybuilding/index.jsp?lang=en>

## 2. CAPACITY BUILDING IN LAND MANAGEMENT

Capacity as quoted by Enemark and van der Molen (2008) from UNDP (1998) is “the ability of individuals and organizations or organizational units to perform functions effectively, efficiently and sustainable”. Thus, the authors consider capacity as a continuing process. Groot and van der Molen (2000) have identified capacity building in land administration as a process contributing to sustainable development. Magel, Espinoza, Klaus and Masum (2009) have in turn identified capacity building as “the process of developing knowledge” and in particular, capacity building in land management is seen not only as a facilitator in identifying the goals of land management, but also as an capacity generator of land policy implementation. Thus, they have pointed out two sides of a process, namely demand and supply if speaking in economical terms. To identify an optimal correlation between demand of knowledge through practice and knowledge supply through education in the first place is a challenge. To approach this, Groot and van der Molen (2000) as well as Magel et al. (2009) have proposed for the international surveying community to establish a strategic alliance on capacity building in land administration and global academic partnership (respectively).

In particular, educational institutions build up the capacity in land management through communicating with land professionals and delivering this knowledge to students. Thus, capacity building process is directly connected with a process of curriculum development. Figure 1 presents a general overview of a curriculum development process.

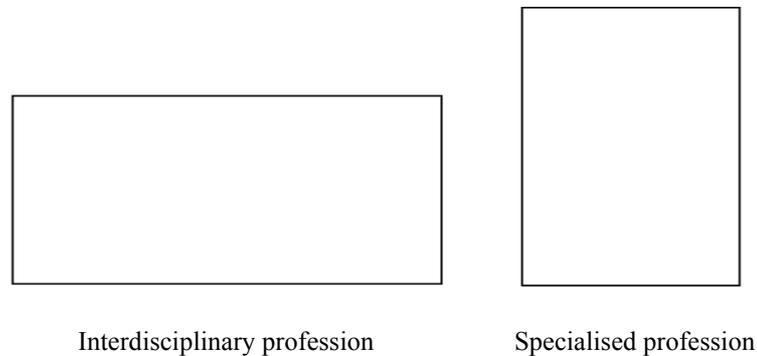


**Figure 1 Curriculum development process (based on Magel et al., 2009)**

As it was described above, professional practice and education within national land management context correspond to the needs of profession and knowledge needs (accordingly). These in turn relate to demand and supply in economical terms. It is self-evident that as soon this correlation is understood, it is easy to develop a curriculum equitably meeting the modern requirements of the society and therefore, facilitating its economical growth.

**Two alternatives of building up a curriculum should specifically be emphasised.**

Figure 2 represents two models of curriculum development in accordance with demands from a profession. Specifically, an interdisciplinary profession like a surveyor in Nordic countries requires a wide range of knowledge in several fields like land law, economics, and surveying, while a surveying profession in several European countries, e.g., the Netherlands, Germany, and Belarus demands a deeper knowledge in surveying.



**Figure 2 Volume of professional knowledge**

In our opinion, the first “wide” approach to curriculum development in land management is more vital as of today than the second “deep” one since activities in modern society are becoming more and more linked and interconnected and therefore professionals with complex knowledge seem to be more demanded. At present, a society tends to need specialists in land management with a wide professional scope. However, the latter does not exclude an availability of a stable demand in narrow-specialized professionals. Surely, professional practice within a national context identifies a scope of demanded knowledge to be obtained by students while studying.

### **3. INTERNATIONAL MASTER PROGRAMME IN LAND MANAGEMENT**

An International Master programme in Land Management existed at the Royal Institute of Technology (KTH) since 1996 up to 2009. During that period more than 500 specialists in surveying, law, economics, geography, IT, and architecture have been trained in land tenure, property rights, real estate economics and plan implementation. Thus, the programme unified students with different academic backgrounds for studying land management field placed at the crossroad of surveying, economics and jurisprudence. Specifically, the programme has put into practice the Nordic approach in educating surveyors. To get a wider overview of different approaches in surveying education across Europe, Allan (1996) and Mattsson (2001) might further be consulted. Mattsson (2007) has given a detailed overview of this MSc programme as well as of other KTH international activities in land management education. In general, the MSc programme has been aimed at training the specialists in land management who, after having completed their studies at KTH, should work in governmental organisations dealing with land management issues as well as at the universities at their home countries. In other words, the graduates have been supposed to work as advisors and decision-makers as well as assistants in building up long-term cooperation among the universities. The MSc programme

has been limited to several countries of Eastern Europe, Balkan and Africa specifically identified by the Swedish International Development Cooperation Agency (SIDA) that has provided the whole financial support of the programme including students scholarships for study at KTH. The specific survey implemented by SIDA and KTH showed a high level of appreciation of quality of specialists among the counties' governing bodies and the university administrations. The main positive response has concerned a broad students' ability of alternative thinking and applying international knowledge to local environment. It is really an application to the reality of the widely accepted statement "think globally, act locally".

Due to a growing popularity of the MSc programme in Land Management at KTH, it has been decided to continue this type of MS education for international students in spite of completed financial support of the programme by SIDA.

#### **4. NEW LAND MANAGEMENT TRACK**

The Royal Institute of Technology starts providing an open Land Management track within the International Master of Science Programme in Real Estate Development and Financial Services from September 2010. The Land Management track aims in general to deepen the understanding of efficient land use management, land development, and land administration. It thus seeks to prepare students to put land to efficient use as well as to advance institutional reforms in order to implement these. The Land Management track provides unique multidisciplinary tools in the fields of land law, land development and land valuation. It takes up many global challenges of today, which are calling for more nuanced, interdisciplinary views on land issues.

Current experience of the former Land Management students shows that having completed the study on the Land Management track, the graduates will be able to continue their carriers within academia as a lecturer and/or researcher at universities, colleges or specialized vocational educational institutions. Moreover, they will be prepared to work at governmental land administration sector as professionals dealing with cadastre and land management at local or national level. Land development is another area of employment for the future graduates. In particular, the graduates may become professionals treating issues of rural and urban planning and implementation as well as infrastructure development. Within National Ministries, some will be working as officials addressing land policy and legislation, while others as judges or lawyers dealing with land disputes and expropriation issues. Also, many of graduates will be able to start carriers as land and property valuers.

##### **4.1 The objective and curriculum**

The objective of the programme and course selection is to train the students to be able to assume leadership positions in the land management sector. In order to achieve this, graduates are expected to be able to identify and comprehend a variety of perspectives on how land can be viewed. An understanding of the importance and necessity of well developed institutions to ensure that land and natural resources are put to good effect is also a goal of the programme.

This MSc study is open for Bachelor students from all over the world. However, in order to be admitted to the track, the applicants shall have at least a Bachelor's degree in Land/Real Estate Economics/Development, Surveying, Law, Urban Management, Planning or Human Geography. They must also have at least:

- 15 ECTS in Cadastre, Property and/or Planning Law; and
- 10 ECTS in Economics and/or Mathematics.

The deadline for application is annually January 15. It has been planned that a group of 20-30 students will annually be admitted to the Land Management track at KTH.

The detailed curriculum of the Land Management track is presented in the Table 1. The study lasts for two years, during which students are to learn several legal, economical and a wide range of professionally oriented courses such as Property Formation and Cadastral Mapping, Urban Land Development, etc.

**Table 1 Curriculum of the Land Management track**

**Year 1**

Period 1	Period 2	Period 3	Period 4
Property Formation and Cadastral Mapping 7,5 ECTS	Property Transactions 7,5 ECTS	Comparative Analysis of Real Estate Laws 7,5 ECTS	Development of Property Rights I 7,5 ECTS
Investment Analysis 7,5 ECTS	Urban and Regional Economics 7,5 ECTS	Urban Land Development 7,5 ECTS	Real Estate Valuation in an International Context 7,5 ECTS

**Year 2**

Period 1	Period 2	Period 3	Period 4
Compulsory Purchase 7,5 ECTS	Development of Property Rights II 7,5 ECTS	Degree Project 30 ECTS	
Advanced Issues in Real Estate Development and Financial Services 7,5 ECTS	Theory of Science and Research Methods 7,5 ECTS		

Notwithstanding the Land management track is a successor of the International Master programme in Land Management, it has some distinctions both in form and content. From content point of view, the new Land Management track differs in a range of available courses. In particular, the courses in Land Information Systems and Mass Valuation with GIS have been taken away from the curriculum and replaced by the courses in Urban and Regional Economics as well as in Comparative Analysis of Real Estate Laws. The latter course needs to be separately described since students obtain not only knowledge on modern real property laws worldwide but also are provided with the reference/theoretical framework for their analysis. In particular, students are given tools for formalising national real property laws. The students learn UML (i.e. Unified Modelling Language) modeling through development of

UML diagrams. In the future, students will be able to apply this reference framework for solving practical problems connected with land policy, land reform and real property law.

## **5. JOINT TEMPUS PROJECTS AND SIDA PROJECTS**

Joint TEMPUS projects of curriculum development in land management are another capacity building option for universities in developing and transition countries. Up to now seven TEMPUS projects has been/is being run by KTH in cooperation with Helsinki University of Technology, Delft University of Technology, University of Ljubljana, University of East London, and University of Agriculture in Krakow. These projects are aimed at introducing new MSc programme in Land Management at universities in Armenia, Belarus, Macedonia, Moldova, Russia, Serbia, Ukraine, and Uzbekistan. They are financed by the EU through the TEMPUS framework. The overall objective of the projects is to develop new MSc curriculum with a whole range of courses and corresponding teaching materials. Moreover, establishment of technical facilities for new study programmes is also available through the project framework. Capacity building of academic staff of the Partner universities has been carried out in the first place through English courses for improving English skills of the lecturers as well as through regular study visits of teaching staff to the EU consortium members for increasing their professional competence. Dissemination of the project results is considered as a crucial for long-term cooperation not only among the consortium members but also among the universities of a particular country. The dissemination activities are aimed at sharing the gained experience and obtained knowledge, as well as at establishing new framework for further cooperation in education and research.

Bozic & Raskovic (2008) might be referred for detailed information on the completed TEMPUS project with University of Belgrade (Serbia). Hovhannisyan & Stepanyan (2008) have provided extensive information on the completed TEMPUS project at the Yerevan State University of Architecture and Construction (Armenia), while Tsurcanu, Bejenaru & Levitskaia have elucidated achievements and problems of the TEMPUS project on development of the new Master programme run at Technical University of Moldova.

It should also be mentioned that KTH with support from SIDA have assisted in development of land management oriented curricula in seven former republics of the Soviet Union as well as in Ethiopia. Currently KTH provides the same assistance for the universities in Kenya, Tanzania, and Uganda.

## **6. CONCLUSIONS**

The new Land Management track at Royal Institute of Technology is a successor of the well established International Master programme in Land Management held at KTH between 1996-2009. Such continuity will allow for retention of the gained volume of knowledge and for building of new one capitalising on it.

Curriculum development is a process of permanent changes through meeting the day-to-day challenges of the profession. Thus, it is crucial for any new study programme to face modern

development of the society through permanent adjustment of the curriculum. Nowadays environmental issues and climate change are to be elaborated into the curriculum. It might be done either through introduction of the new specific course/s or changes into the content of the existing course/s. Furthermore, the issues of poverty alleviation, gender equality in property rights are also to be dealt with.

Furthermore, to strengthen capacity in land management of any country, a range of various measures is reasonable and welcome. To name several, it might be international/national conferences where both practitioners and academia participate, curriculum development projects among the universities of several countries or regions and supported by various donors, an international network/s of universities. To conclude, the more they are, the more beneficial it is for a society.

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## **BIOGRAPHICAL NOTES**

Hans Mattsson is surveyor, DTech, Dr h.c. (mult) and Professor of Real Estate Planning at the Royal Institute of Technology, Stockholm. For many years he has been concerned with cadastral issues in practice. Recently, together with Nordic colleagues, he concluded a project concerned with comparing the property purchase and parcelling processes in the Nordic countries. He is in charge of the Land Management track at KTH and has been actively involved in the TEMPUS projects mentioned in this paper.

Marina Vaskovich acts as the Director of Studies of Land Management track at the Division of Real Estate Planning and Land Law of Royal Institute of Technology (Stockholm, Sweden). She made her basic studies in Geography (Belarus) and holds MSc. in Land Management (Sweden). Her scientific interests lie in the area of land administration with focus on land tenure.

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