

The importance of changes in land surveyors education

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Key words: land administration, roles of land surveyors, extended education, lifelong learning

SUMMARY

It's a world wide experience, especially in developed countries that the interest in the traditional land surveying is decreasing. Many of the technical universities close down or reduce capacity of land surveying, geodesy faculties due to lack of students.

The measurements and computations have been highly automated and not necessarily require university education nowadays. The priorities in the land surveying profession have been changed during the last decades, the importance of land and real estate property related activities increased rapidly.

Land administration is one of the most important infrastructure for economic growth and implementation of sustainable development, the establishment, modernisation of land administration institutions is an increasing interest world wide.

The International Federation of Surveyors, FIG, has recognised the changing priorities in the land surveying profession and tries to define the new, extended roles of the land surveyor profession. To answer new challenges the university education of land surveyors has to be changed according to the new priorities. The field of education must be extended with legal, management and other knowledge, besides traditional subjects, in order to qualify so called "land professionals"

Many international players, UN organisations-FAO, Habitat, others-, World Bank support the development of land administration world wide and in the same time the education of "land professionals" As result of changing priorities in the land surveying profession, ITC in Enschede, The Netherlands opened the first University of Land Administration in 2007. In Hungary, Székesfehérvár, the University of West Hungary also intends to open land administration education at international level.

The other important issue is the lifelong learning. Universities should extend their activities and contact land administration institutions, cadastre land registry, to provide different education, courses, following new priorities in the profession and technical development.

INTRODUCTION

It's a world wide experience, especially in many developed countries that the interest in the traditional land surveying profession has been decreasing during the recent years. In many

technical universities the land surveying and geodesy faculties reduced capacity or closed down due to lack or small number of students.

The measurement and computations have been highly automated for today and not necessarily require university education. The priorities in the wider land surveyor profession have been changed during the last decade, the importance of land and real estate property related activities have been increased rapidly world wide.

The roles of land administration matters have been changed during the recent decades, land administration is one of the most important infrastructure for the economic growth and the implementation of sustainable development today. In respect of above the establishment, modernisation of land administration is an increasing interest world wide. Land administration activities have been the part of the land surveyor profession since long time but it was not the most important field of the profession.

Priorities in the land surveying mapping activities have been continuously changing and the profession must answer the new challenges if land surveyors want to play important role, supporting the economy, in the future as well. To achieve above goals the land surveyors' education, especially at university level, must be changed, extended, according to the new requirements and students interest.

The other important issue is the lifelong learning in our profession. This is an individual interest for professionals but also the interest of governmental and other institutions, to keep the knowledge of staff up-to-date. Universities have to follow new developments in the profession extending their activities and contact land administration, cadastre, land registry institutions to provide different education, courses, according to the new priorities in the profession and the technical development. This should give additional tasks and income for universities and lifelong education for the professional staff and groups.

CHANGING PRIORITIES IN THE LAND SURVEYOR PROFESSION

The role of land and real estate in the economy has been changed since 1950s land and real estates haven't been properties only but commodities, generating income and profit. Before only agricultural land generated income. Investments in land and real estates have been continuously increasing world wide and investors could find different fields and ways like commercial (shopping centers, plazas, etc.) residential (condominiums, apartment parks), industrial investments. Big investments require more and more capital, financial support, commercial, mortgage banks are providing loans, mortgages to finance land and real estate developments. To do this, the development of mortgage system and market is important as well. Investors and banks require security of ownership and other rights related to properties and guaranty for the repayment of loans, mortgage. To fulfil above requirements a fully operational legal and institutional framework is needed. Land administration and its institutions, especially cadastre and land registry, can provide all of the services, facilities which guarantees the security of ownership and mortgages.

The valuation, land management, planning and other land and real estate related activities are also essential parts of land administration. I think it's quite evidence that the development or modernisation of land administration institutions, especially cadastre and land registry, is an increasing interest world wide to support the economic growth and the implementation of sustainable development. To operate land administration institutions, more and more qualified professionals, experts are needed and the knowledge must be extended. Land surveyors always played important roles in the operation of land administration institutions but primarily in technical, engineering fields.

The increasing importance and changing roles of land administration require professional staff with different, extended knowledge. Land administration institutions are not administrative offices anymore they provide services, value added products, data for money to different players of the economy and citizens. These extended activities require business like approach, business plan, marketing and IT knowledge and development. New professionals, so called land professionals are needed especially at management level. They have to be familiar with the traditional surveyor knowledge but also with legal, management and IT knowledge.

The question arises how can land surveyor students, professionals pick up this knowledge, by experience or by education, but I think the answer is by both.

FIG, UN ORGANIZATIONS AND WORLD BANK RECOGNITION

The International Federation of Surveyors, FIG has recognised few years ago the changing priorities in the land surveyors profession and also the decreasing interest in the traditional land surveying and mapping by university students. Traditionally FIG supports all fields of land surveying and the 10 FIG commissions cover all of the activities of the profession. Apart from these facts, FIG tries to define the new extended roles of the land surveyor profession and this point has a top priority in FIG long term professional strategy. The final aim is that the land surveyor profession, as general, should play an important role in the economy in the future as well.

Besides the fact that FIG covers all fields of land surveying, FIG has recognised , land administration activities, especially cadastre, land management are one the most important areas of our profession nowadays, required by the economy and the society.

Many international players, UN organizations- FAO, UN Habitat, etc.-, World Bank have also recognized the importance of land and real estate property related activities world wide, looking for solutions, how possible is to create security tenure, ownership, mortgage to support the economic growth and the implementation of sustainable development not only in developed but in transition and developing countries as well. To achieve above goals UN organisations and World Bank support the development, modernization of land administration institutions especially cadastre, land registry, world wide, expertise, financing projects.

What is the reason of increasing interest world wide to develop, modernising land administration ? The political and economic changes in many countries- former Soviet states Yugoslav states in Balkan, former socialist countries in Asia and the extremely rapid

economic growth in China, India- require the development of fully operational, sustainable land administration institutions. In many of these countries there were no cadastre, land registry institutions (former Soviet states) and they had to start from the beginning, developing of legal and institutional framework, the first registration of land and real estate properties. In other countries (former Yugoslav states) there were no operational land administration institutions during the socialist period and these countries had to modernise institutions and update legal and cadastral mapping information of land and real estate properties. To develop, run land administration systems, sufficient number of well educated professional staff is needed at international and national level as well.

FIG, UN organisations and World Bank established long term, common strategy and developed working relation, organising joint events, workshops, seminars in order to contribute to the final aims, improving the living conditions in the developing world, reduction of poverty, accelerating the economic growth and implementation of sustainable development in every continents.

THE IMPORTANCE OF CHANGES IN LAND SURVEYORS EDUCATION

The world is continuously changing. Apart from the rapid technical development, IT revolution, the world face new challenges to be solved, implementation of sustainable development, accelerating economic growth, reduction of poverty in the less developed countries, etc. Land and real estate properties and related activities play extremely important roles in the economy, supporting the successful achievement of above goals. The changing priorities in the world also effect the priorities in different professions. The education, especially at university level must follow these changes, new priorities required by the economy and the society. Sometimes the university education is quite conservative, very theoretical, maybe it would be good to find the balance between the practical and scientific approach.

Concerning the land surveyor education, universities have recognised immediately the importance of IT, extending the education with geo-information knowledge. As a result of this extended education, many of the qualified land surveyors moved to IT fields because of much better salaries.

The increasing importance of land and real estate property related activities and the role of land administration in the economy haven't been recognised by the majority of universities running land surveying faculties. Many of the potential students are not interested in the traditional land surveying and mapping, but quite frequently, they couldn't find other subjects in the faculty which are attractive and useful in practice. I think it would be advised to modify the land surveyors' education introducing new subjects-legal subjects, valuation, management, etc.- and broadening the knowledge of land surveyors.

There are good examples, ITC in Enschede, The Netherlands established the first UN supported University of Land administration in 2006.

In Hungary, Székesfehérvár, the University of West Hungary opened Land and Geo-information Knowledge Center at the end of 2007, intends to introduce land administration education not only at home but international level as well.

LIFELONG LEARNING IN LAND ADMINISTRATION

Lifelong learning, in general, an other important issue in all profession. This is not individual interest only but interest of professional groups, staff of governmental institutions, etc. The staff of land administration institutions, cadastre, land registry also require permanent education. The information technology is developing very rapidly, priorities in the profession are changing, the professional staff has to follow the new developments.

The legal and land surveyor staff in cadastre and land registry needs special knowledge which are not always subjects of university education. What universities, especially technical universities should do ? They should support the lifelong learning for the staff of land administration institutions. Universities should extend their activities and contact land administration institutions, cadastre, land registry, offering special courses, organised education, following the new priorities in our profession and technical development.

There is a good example in Hungary. The University of West Hungary, Faculty of Geoinformatics in Székesfehérvár, among others, dealing with land surveyors and land registrars education, signed a long term agreement with the Ministry of Agriculture and Rural Development. The ministry is the supervisory authority of the land administration institutions in Hungary, including land offices, institutions, running the Unified Land Registry System. According to the agreement, the faculty provides special courses and education for the land offices staff (IT, legal, land surveying) supporting the organised lifelong learning.

Few years ago the faculty introduced land registrar education, providing BSc. diploma. This can be regular or correspondence course providing higher educated staff for land offices and other institutions.

CONCLUSIONS

- the importance and interest of traditional land surveying and mapping is decreasing
- there are new priorities in our profession, the land and real estate property related activities are increasing interest world wide
- land administration is one of the most important infrastructure supporting the economic growth and the implementation of sustainable development
- university education for land surveyors must be modified, following new priorities in the profession, in order to educate so called land professionals, required by the economy
- FIG have recognised new priorities in the land surveying profession, looking for solution to define the new important roles of land surveyors in the future supporting the economy in every countries.

- UN organisations and World Bank support the development of land administration sector world wide. For the operation of land administration institutions, sufficient number of well educated professional staff is needed. Universities should support this trend with some changes in education of land surveyors.
- besides of regular education, universities should offer, provide organised special courses for land administration institutions, based on contract agreement with the government aiming to support lifelong learning for the staff of land administration institutions.

BIOGRAPHICAL NOTES

Academic experience: Dip ling land surveyor, MSc. Budapest Technical University

Current position: Chief advisor, Budapest Land Office

Practical experience: Cadastral surveying and mapping, land administration matters.
International expert in cadastre, land administration

International experience: Expert in Nigeria 1977-79, 1982-86
Consultant, SIDA Cadastral project in Moldova 2007-

Activities in home and International relations: member Hungarian Society of Surveying Mapping and Remote Sensing 1971-
Member of Juridical Experts 1995-
FIG Commission 7 Hungarian delegate 1995-
Chair FIG Comm. 7 working group Land market 1998-2002
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