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**AN ANALYSIS OF THE TURKISH CADASTRE
IN VIEW OF THE CADASTRE 2014 VISION**

Mehmet CETE, TURKEY

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Outline

- Introduction
- Evaluation of the Turkish Cadastre
 - Mission and Content
 - Organization
 - The Changing Role of Maps
 - Information Technology
 - Privatization
 - Cost Recovery
- Conclusion

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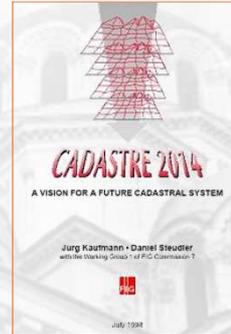


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Introduction

- A well-functioning cadastre is essential for;
 - securing rights in land and property,
 - wealth generation, and
 - contributing to better land and environmental management.
- Cadastres need to be re-engineered over time to response expectations of the societies.
- "Cadastre 2014" vision has become a benchmark to evaluate cadastral systems and directed the re-engineering works in cadastre in many countries.



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Mission and Content

Statement 1 on Cadastre 2014

Cadastre 2014 will show the complete legal situation of land, including public rights and restrictions!

Comment: The population of the world is growing. The consumption of land is increasing. The absolute control of the individual or of legal entities of land is increasingly being restricted by public interest. To provide security of the land tenure, all facts about land must be made obvious by the cadastral system of the future.

Consequences: A new thematic model is necessary. Surveyors must take into consideration public law.

- Main duties of the Turkish cadastre are;
 - property adjudication,
 - construction of boundary markings,
 - surveying of parcel boundaries,
 - drawing cadastre maps,
 - registration of parcel boundaries and owner information,
 - sustaining land registry and cadastre records, and
 - providing a basis for land information system.





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Mission and Content

- Main purpose of the Turkish cadastre is building and sustaining land registry and cadastre records to provide security of the real estate ownership.
- Some rights and restrictions like easements, right of way, usufruct, mortgage, etc. are recorded in the land registry but generally it is not possible to see those rights and restrictions on cadastre maps.
- There are some academic and institutional studies to show the complete legal situation of land in the Turkish cadastre but these are in very early stages of success.
- Considering importance of the statement for a modern cadastre, the Turkish cadastral authorities should more intensively study on realization of this statement.



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Organization

Statement 2 on Cadastre 2014

The separation between 'maps' and 'registers' will be abolished!

Comment: The separation was necessary because the available technology – paper and pencil – did not allow other solutions.

Consequences: The division of responsibilities between surveyor and solicitor in the domain of cadastre will be seriously changed.





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Organization

- In order to abolish the separation between maps and registers, Land Registry and Cadastre Information System of Turkey (LRCIS) has been introduced.
- The project targets;
 - to transfer the paper based land registry and cadastre data into a digital environment using a standard framework throughout the country, and thus
 - to take land registry and cadastre data use to the next level by spreading its benefits to people, businesses and multiple sectors by facilitating better access to real estate information through the e-government platform.
- The LRCIS is going to provide that the separation between maps and registers is abolished in Turkey.



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The Changing Role of Maps

Statement 3 on Cadastre 2014



**The Cadastral mapping will be dead!
Long live modelling!**

Comment: Maps have always been models, but the available technology did not allow for the use of these models in a flexible manner. So in mapping flexibility had to be brought in by different scales. Different scales had to be represented by different data models. Modern technology allows the creation of maps of different scales and registers in different forms from the same data model.

Consequences: In 2014 there will be no draftsmen and cartographers in the domain of cadastre.

- The LRCIS developed based on a data model.
- Afterwards, LADM has become an international standard (ISO 19152).
- It supports showing the complete legal situation of land, and does not separate maps and registers.
- The data model of the LRCIS should be transformed into LADM.



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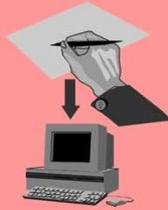


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Information Technology

Statement 4 on Cadastre 2014



'Paper and pencil - cadastre' will have gone!

Comment: Geomatics technology will be the normal tool for cadastral work. Real low-cost solutions are only possible when this technology is used in combination with lean administrative procedures. Developed, developing, and transitional countries need models of the existing situation to resolve the problems of population, environment and reasonable land use.

Consequences: The modern cadastre has to provide the basic data model. Surveyors all over the world must be able to think in models and to apply modern technology to handle such models.

- Cadastre works have been carried out in digital environment since 1987.
- Both land registry and cadastre data are kept and maintained in computer environment.
- Surveying data are delivered, stored and maintained in digital form, while legal documents are delivered on paper.
- Landowners can get property data over the e-government platform.



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Privatization

Statement 5 on Cadastre 2014

Cadastre 2014 will be highly privatized! Public and private sector are working closely together!



Comment: Public systems tend to be less flexible and customer oriented than those of private organizations. Free economies demand flexibility in land markets, land planning and land utilization. Flexibility may be provided better by private institutions. For necessary security, however, public involvement is indispensable.

Consequences: The private sector will gain in importance. The public sector will concentrate on supervision and control.

- Technical part of the Turkish cadastre has been contracted to private surveyors after 2004.
- Licensed Offices of Surveying and Cadastre were introduced into cadastre in 2005.
- Nowadays, public and private sector are working closely together in cadastre, while land registration works are carried out by the directorates of land registry.



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Cost Recovery

Statement 6 on Cadastre 2014

Cadastre 2014 will be cost recovering!



Comment: Cadastral systems need considerable investment. But the land documented and secured by the cadastre represents a multiple of the investment. The investment and operation costs have to be paid back at least partially by those who profit.

Consequences: Cost/benefit analysis will be a very important aspect of cadastre reform and implementation. Surveyors will have to deal more with economic questions in future.

- The Turkish land registry and cadastre system is a self-funding even profitable system.
- In the national and regional levels, LRC are organized under the same ministry and national and regional directorates.
- This structure prevents to see the cadastre as a costly system.
- The yearly income of the LR was more than 2.5 billion USD in 2013.



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Conclusion

- Cadastre 2014 has guided re-engineering processes of land registration and cadastre in many countries.
- Thanks to this vision, many countries have been sure that their re-engineering processes were on the right way.
- In this context, in Turkey:
 - The Land Registry and Cadastre Information System has been designed;
 - Separation between maps and registers has been abolished;
 - Land registration and cadastre works have been carried out in digital environment;
 - Technical part of cadastre has been contracted to the private surveyors; and
 - The Licensed Offices of Surveying and Cadastre have been introduced into cadastre.



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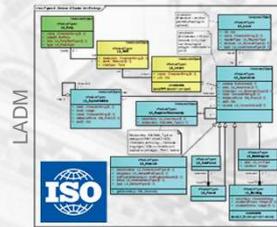


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Conclusion

- However, there are still some works to do for improvement in the Turkish cadastre:
 - A project is needed for RRR cadastre;
 - A reform is required to update current data content of the LRC; and
 - Data model of the LRCIS should be revised based on the LADM.



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Thank you..



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