

# **The Recent Reforms in the Turkish Cadastre**

**Mehmet ÇETE, Turkey**

**Key words:** Land registry, cadastre, private sector involvement, licensing, Turkey.

## **SUMMARY**

The works carried out to establish an initial land registration and cadastre throughout the country were almost completed in 2009 in Turkey. Nowadays, the Turkish government targets to improve the overall cadastral system to maintain it more appropriate, effective and contemporary manner. In this context, some considerable reforms have been implemented in recent years in the country. Private sector involvement in cadastre, licensing surveyors, constituting a land registry and cadastre information system, modernization of the land registry and cadastre services, and protection of the property documents inherited from Ottoman times are some of them. The private sector involvement has increased productivity of Turkish cadastre. It is predicted that licensing surveyors will decrease the workloads of the directorates of cadastre considerably. Land registry and cadastre information system is going to provide appropriate and easily accessible cadastral data for both public and private users. The modernization project will support implementation of the land registry and cadastre information system, and protection of the property documents is going to provide preserving the original documents from worn out, and accessing easily to them in digital environment. This paper aims at giving ideas to the countries which are planning to introduce similar approaches or improve their cadastral systems by defining such reforms implemented in Turkish cadastre.

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## 1. INTRODUCTION

Turkey has 162 years of experience in cadastre. Land registry works are carried out by the 1018 Directorates of Land Registry in the local level, while cadastre is dedicated to the 325 Directorates and 133 Sub-directorates of Cadastre (Figure 1). There is a strong coordination between the Directorates of Land Registry and Cadastre in the country. Management of the local directorates is performed by the 22 District Directorates. The national organization responsible from cadastre is the General Directorate of Land Registry and Cadastre (GDLRC) (Çete and İnan, 2008; TKGM, 2009).

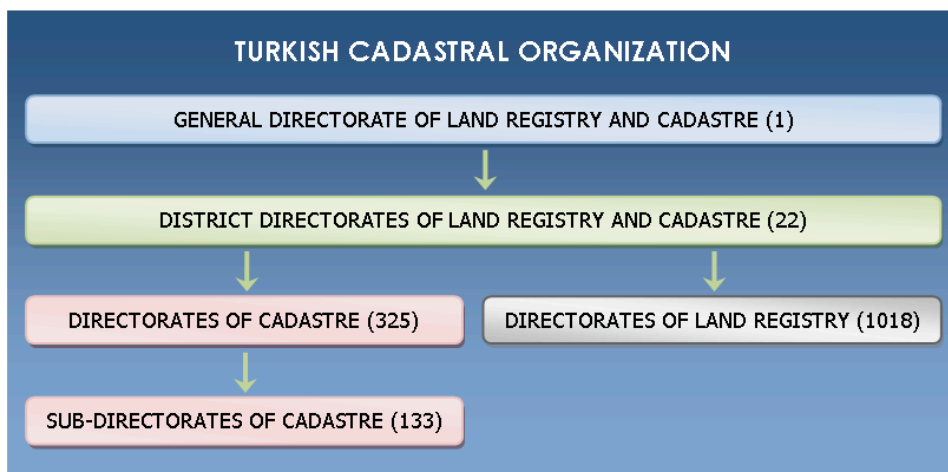


Figure 1: Organizational structure of Turkish cadastre

Establishing an initial land registration and cadastre throughout the country was almost completed in late 2009 (TKGM, 2009). Nowadays, the government targets to improve the overall cadastral system to maintain it more appropriate, effective and contemporary manner. In this context, some considerable reforms have been implemented in the recent years. This paper defines these reforms in order to give an idea to the countries planning to introduce similar approaches or improve their cadastral systems.

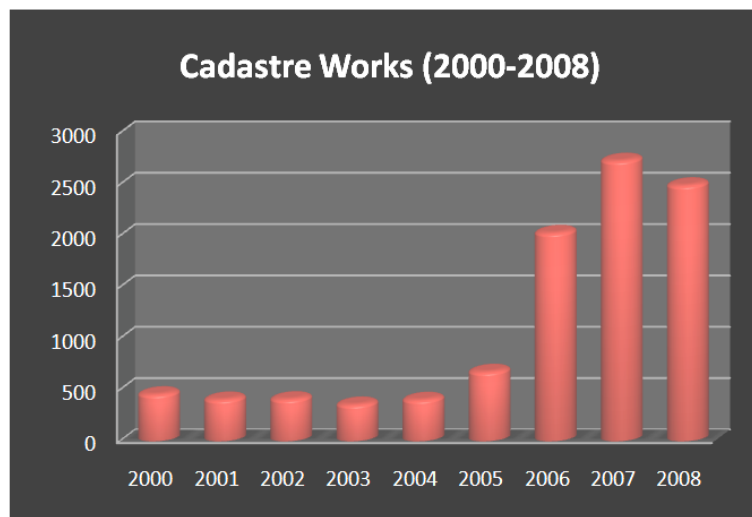
## 2. THE RECENT REFORMS

The major cadastral reforms implemented by the Turkish government recently are private sector involvement in cadastre, licensing surveyors, constituting a land registry and cadastre information system, modernization of the land registry and cadastre, and preserving the land titles inherited from Ottoman times. These reforms are described in the following subsections.

## 2.1 Private Sector Involvement in Cadastre

Private sector involvement in cadastre was regulated in the first cadastral law of Turkey in 1934. The law allowed contracting technical part of cadastral works to the private surveyors in required areas (Cete and Uzun, 2005). Although had not been executed till 1987, the article was kept in the Cadastre Law enacted in that date (Kul, 1998). Non-execution of the article had been continued till 2004 when the project of direct income support has come into order for farmers as an agricultural policy (Demir et al., 2008). Cadastral data was needed in the project but availability of the data was 85% in the country in 2004. Therefore, completion of cadastral works in short period of time was crucial for the project implementation, and thus private sector involvement in cadastre became inevitable. Based on the law, the General Directorate of Land Registry and Cadastre has initiated contracting technical part of the cadastral works to the private surveyors. Surveys of triangulation, traverse and leveling points and boundaries, calculation of the coordinates and sizes of parcels, and drawings have been the main works carried out by the private surveyors. Non-technical parts of the works have continued to be sustained by the officials in the Directorates of Land Registry and Cadastre.

This involvement has increased the productivity of Turkish cadastre considerably (Figure 2), and completion level of the cadastral works reached up to 99% (the remaining 1% is problematic areas) in 2009. Number of staffs of the General Directorate of Land Registry and Cadastre has been reduced. Height values of parcel boundaries which neglected to be surveyed generally before the private sector involvement were initiated to be surveyed. Technological skills and devices of private sector were begun to be used in cadastral works. Costs of the cadastral works have been decreased. Cadastre maps were initiated to be constituted in consistent with the requirements of cadastre information system. About 15,000 people, of whom 5,000 are surveying engineers and technicians, have worked for completion of the cadastre works (Cete and Uzun, 2005; TKGM, 2009).



**Figure 2: The cadastre works carried out between 2000 and 2008 in Turkey (URL-1, 2009)**  
*(Active involvement of the private sector in cadastre was initiated in 2006)*

## 2.2 Licensing Surveyors

As stated above, private surveyors has carried out only technical works in building up of the cadastre maps in Turkey. All other registered (land subdivision, land consolidation, etc) and non-registered (application, setting marks, etc.) cadastral works have been carried out by the 325 Directorates and 133 Sub-directorates of Cadastre in the country. Therefore, workloads of the Directorates are generally high causing some delays in meeting the demands of customers. In order to improve the situation, the Law about Licensed Surveyors and Surveying Offices was enacted in 2005 (Official Gazette, 2005).

The law introduced a licensing system for the surveyors who want to get an authorization to carry out cadastral works. According to the law, a surveying engineer must have a 5-years experience in public or private sector in order to apply for getting a license. Then, he has to pass the licensing exam which is organized by the General Directorate of Land Registry and Cadastre (GDLRC). Professional experiences of the surveyors are also taken into consideration in licensing. This experience is evaluated based on the works carried out by a surveying engineer in the field of cadastre as well as educational level, foreign language proficiencies, professional awards and publications of him. Following evaluation of the exam and the professional experience, the successful surveyors get licenses. Based on the scores and preferences, licensed surveyors are appointed to the cadastre districts to open licensed surveying offices. Each surveyor carries out cadastre works in his own district. The districts are determined based on the cadastral workloads, economical conditions and population criteria. A cadastre district is generally an administrative boundary of a county and has an average 1,000 cadastral processes yearly. In this context, number of the licensed surveying offices was determined as 551 throughout the country (Official Gazette, 2008).

Licensed surveyors are authorized both to carry out and to control the cadastre works which are not registered. The works needing registration can also be performed by the licensed surveyors but control of such works is carried out by the directorates of cadastre. Rate basis of the services done by the licensed surveyors are determined by the GDLRC (Official Gazette, 2008). The first exam for the licensing was held in October 2009. It is predicted that workloads of the directorates of cadastre will be decreased considerably, and customers will get more efficient services when the system of licensed surveyors and surveying offices to be in place.

## 2.3 Turkish Land Registry and Cadastre Information System

Cadastre works had been carried out in analog format till 1985 in Turkey. While they have been performed digitally since that time, land registration works had been continued to be sustained in analog format. In the second half of the 1980's, the need for building a cadastre information system was discussed, and some analyses for construction of the system were carried out in the country. Building Turkish Land Registry and Cadastre Information System (TAKBİS) project came to order at the beginning of the 1990's. Main purpose of TAKBİS was to digitize and combine all Turkish land registry records and cadastre maps, and to provide an appropriate cadastral database for both public and private users. However, the

project could be initiated in 2000 (Demir et al., 2008). Then, a pilot project consisting of determination of the inventory, system analysis and design, and software and infrastructure developments were realized. It took five years, and the second stage aiming at extending the project to the whole country was initiated in 2005. To date, TAKBİS has been put into practice in 389 directorates of land registry, 30 directorates and 3 sub-directorates of cadastre, 22 district directorates, and GDLRC (TKGM, 2009; URL-1, 2009). The works show that transferring the analog cadastral maps into TAKBİS environment is much more difficult than transferring the land registry records into TAKBİS. Therefore, there is a need for developing new solutions to transform old cadastral maps into digital environment to accomplish the target of putting the TAKBİS into practice throughout the country in 2011.

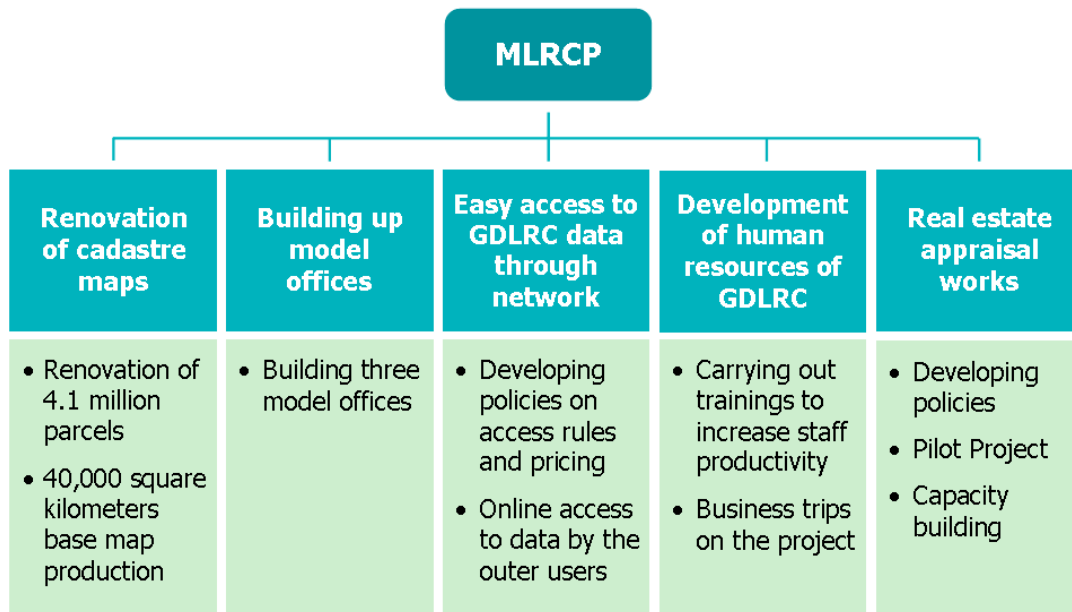
When the target is achieved, TAKBİS will provide a lot of benefits for both public and private organizations, and individuals. For example, organizations and individuals will have a chance to get the appropriate cadastral data in a short period of time, because TAKBİS will eliminate the inconsistencies between land registry and cadastre records. All land registration and cadastre works are going to be carried out in a standard structure throughout the country. The request to find out all real estates owned by a specific landowner in the country will be realized and so on.

## **2.4 Modernization of the Land Registry and Cadastre**

Modernization of the Land Registry and Cadastre Project (MLRCP) was initiated in 2008. Main targets of the project are to build appropriate and legally binding cadastre data in digital environment for the whole country by renovating old cadastre maps, to eliminate the mistakes made in writing in land registry, to remove the inconsistencies between land registry and cadastre data, to add the unique National Identity Numbers of the landowners into their land registry records, to improve the customer services provided by the directorates of land registry and cadastre, and to promote human resources, and to develop national policies for the real estate appraisal (Figure 3). Duration of the project is 5 years, and renovations of 4,100,000 parcels are planned to be realized in this process. Financial support of the project is provided by the World Bank (URL-1, 2009; TKGM, 2009).

Main benefits planned to be obtained by the project are (TKGM, 2009):

- Easy access to the appropriate cadastre data by the public and private users;
- Increasing the cadastral service satisfaction of customers;
- Facilitating implementation of the Land Registry and Cadastre Information System;
- Providing a base to supply core services of the GDLRC through the e-government platform;
- Minimizing number of the disputes and courts in land; and
- Increasing the revenues provided from cadastral services of the GDLRC.



**Figure 3: The outcomes of Modernization of the Land Registry and Cadastre Project (TKGM, 2009)**

## 2.5 Archive Information System of the Land Registry

Turkey inherited important property documents from Ottoman Empire (Figure 4). These documents interest more than 20 countries from Europe, Asia and Africa, and they are used not only for proofs of properties in the courts but also for scientific researches. Therefore, the Turkish General Directorate of Land Registry and Cadastre initiated a project named as Archive Information System of the Land Registry in 2005 in order to protect these cultural heritages. In this context, microfilms and digital copies of the documents are produced to use them in all needs instead of using original ones. This approach will provide protection of the original documents from worn out, and easy access to these historical assets in digital environment (URL-1, 2009).



**Figure 4. Examples of the property documents inherited from Ottoman Empire**

### 3. CONCLUSIONS

The cadastral works, initiated with an appropriate organizational structure in 1920's in Turkey, could almost be completed in late 2009. One of the most important reasons of this delay was trying to complete the works without support of the private surveyors. Recognizing this fact better and better each day, the managers decided to provide involvement of private surveyors in Turkish cadastral works in 2004. Thus, only 5 years later, the works carried out to establish an initial cadastre throughout the country were almost completed, and then, now, a new project which is called as Modernization of the Land Registry and Cadastre is on the agenda. The project primarily aims at building an appropriate and legally binding cadastre in digital environment for the whole country. Private surveyors will play a key role in this process too. The modernization is also going to support implementation of the Land Registry and Cadastre Information System project by providing appropriate data in digital environment. The licensing system introduced recently for the surveyors who want to have an authorization to carry out cadastre works will decrease the workloads of the directorates of cadastre considerably, and thus, will increase the efficiency of cadastral works in the country. Lastly, the project of Archive Information System for the Land Registry is going to provide protection of the property documents inherited from Ottoman times. All these reforms carried out in recent years in order to maintain the Turkish cadastral system in more appropriate, effective and contemporary manner can give an idea to some other countries which are planning to introduce similar approaches or improve their cadastral systems.

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## **BIOGRAPHICAL NOTES**

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