

# **An Overview of Turkish Cadastral Organisation: A Good Practice**

**Mehmet CETE and Halil Ibrahim INAN, Turkey**

**Key words:** Land Registry, cadastre, organisational structure, good practice, Turkey

## **SUMMARY**

Organisational Structure (OS) is a statement by which roles and relationships in an organization are defined. It is one of the most important factors which effects successful management of any institutions. In this context, OSs of cadastral systems should be developed appropriately to build up and sustain cadastre effectively. When cadastral systems of different countries are examined, it is seen that there are many kinds of OSs throughout the world. They change mostly depending on the politic and administrative structures and traditions of countries. While some countries have well functioning cadastral systems in organisational context, many have different issues like coordination problems between different levels of the government, and between land registry and cadastre offices. On the other hand, there are general agreements in international literature to manage cadastral systems in a better way. In this context, effectiveness of the OS of Turkish Cadastral System is evaluated in this paper by taking into consideration those general agreements. As a result of the evaluation, it is determined that Turkish cadastral system has a strong OS since 1847 in cadastral domain which could be a good practice for the countries where there is need to re-design cadastral structures. There is only one responsible ministry and central authority for management of both land registry and cadastre in Turkey. There are regional directorates in regional level, and land registry and cadastre offices in local level. Land registry and cadastre offices have close association. Therefore there is no inconsistency between the records of those offices. In this paper, the main administrations, working levels and some good aspects of Turkish land registry and cadastre system is examined.

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## **1. INTRODUCTION**

Interaction of humankind-land results in many economic, social, political and environmental concerns. The dialogue between these competing and overlapping concerns requires a land administration system that is able to support the ever changing relationship between humankind and land, to facilitate complex decision making and to support the implementation of those decisions. Therefore, appropriate and effective land administration is of crucial importance for sustainable development (Williamson, 2001; FIG, 1995). As core component of land administration systems, cadastral systems have vital role in that appropriateness and effectiveness.

Organisational Structure (OS) is one of the most important factors determining effectiveness of cadastral systems. Therefore, OSs of cadastral systems should be developed appropriately to build up and sustain cadastres effectively. When cadastral systems of different countries are examined, it is seen that there are many kinds of OSs throughout the world (Steudler, D., 2004). It changes mostly depending on the politic and administrative structures and traditions of countries. While some countries have good operating cadastral systems in organisational context, many have different issues like coordination problems between different levels of the government, and between land registry and cadastre offices.

In this paper, it is aimed to present and evaluate the OS of Turkish cadastral system. In this context, firstly, general situation of OSs of cadastres throughout the world is summarized. Then, OS of Turkish cadastral system is submitted and evaluated by taking into consideration the general agreements in international literature to manage cadastral systems in a better way.

## **2. ORGANISATIONAL STRUCTURES OF THE CADASTRES THROUGHOUT THE WORLD**

### **2.1 General Structure**

There are different cadastral organisations throughout the world (Enemark, 2005). Most countries have a land recording system consisting of cadastre and land registration components. The cadastral part is normally handled by surveyors, while notaries and lawyers take care of the land registration part. This subdivision has often resulted in two different organisational units dealing with the same matter (FIG 1995; Kaufmann and Steudler, 1998; Steudler, D., 2004).

A certain cross-control which can help to eliminate errors is an advantage of this type of organisation. However, it has, on the other hand, a lot of disadvantages. The system is tiresome. In such a system, the participants in the land market have to address two different

authorities for land transactions. The information is partly redundant which creates the risk of inconsistencies. Every organisational unit has its own fees to at least partly recover the cost of maintenance of the system (Kaufmann and Steudler, 1998).

## **2.2 The Need for Establishment or Improvement of Cadastral Organisations**

In developed countries the cadastre and land registry are working well, thanks for the technical development and modern technology, but there are separate organisations. The situation is very different in the developing countries (Asia, Africa, Latin- South America) and in the majority of Central Eastern European Countries in transition. Which is common in these countries that there is no well functioning land administration (cadastre, legal record), no secure land tenure and there is a very strong need to establish or modernising cadastre and land registry systems. In some countries they have to start from the beginning to establish the modern, effective legal and institutional framework of land administration. In other countries the task is to re-establish, restructure land administration sector to make them fully operational and modernising of the institutional and technical conditions (Osskó, 2006).

## **3. TURKISH CADASTRAL ORGANISATION**

### **3.1 General Information on Turkish Cadastral System**

Turkey is a large country with the area of 780.000 square kilometers and the population of about 67, 8 million. The total area where cadastral works have to be done is 417.000 km<sup>2</sup>. While 40.000 km<sup>2</sup> of it is in urban areas, the rest is in rural areas. 91% of the Turkish cadastral works, in area based, were completed. The completion figure is 99% in urban areas and 90% in rural areas (as of December 2004 data). General Directorate of Land Registry and Cadastre (GDLRC) is planning to complete build up works of cadastre by the mid of 2008 (Cete and Yomralioglu, 2004; URL 1, 2007; URL 3, 2007).

Turkey has a compulsory cadastral system. The main unit of Turkish cadastre is a land parcel and a registration book which are linked by a unique land parcel ID. All boundaries of parcels are systematically surveyed by the mean of fixed boundary. The area, type and owner of a real estate property are shown in the land registry books as well as rights and liabilities concerning the relevant real estate property such as servitude, mortgage and other explanations. So, the purpose of cadastre is to establish ownership rights in land and to make cadastral maps according to the articles of the Turkish Civil Law. As a result of such works, the geometric positions and legal status of the parcels are determined (URL 1, 2007).

### **3.2 Organisational Structure of Turkish Cadastre**

The first Turkish cadastral organisation was established on May 21st, 1847 under the name of 'Secretariat of Defterhane-i Amire' with the main purpose of collecting taxes of each property. After establishment of Republic of Turkey in 1923, it was necessary to register the rights on real estates. Therefore 'The General Directorate of Land Registry' (GDLR) was established in 1924. The section of Cadastre was annexed to GDLR in April 1925 (URL 2,

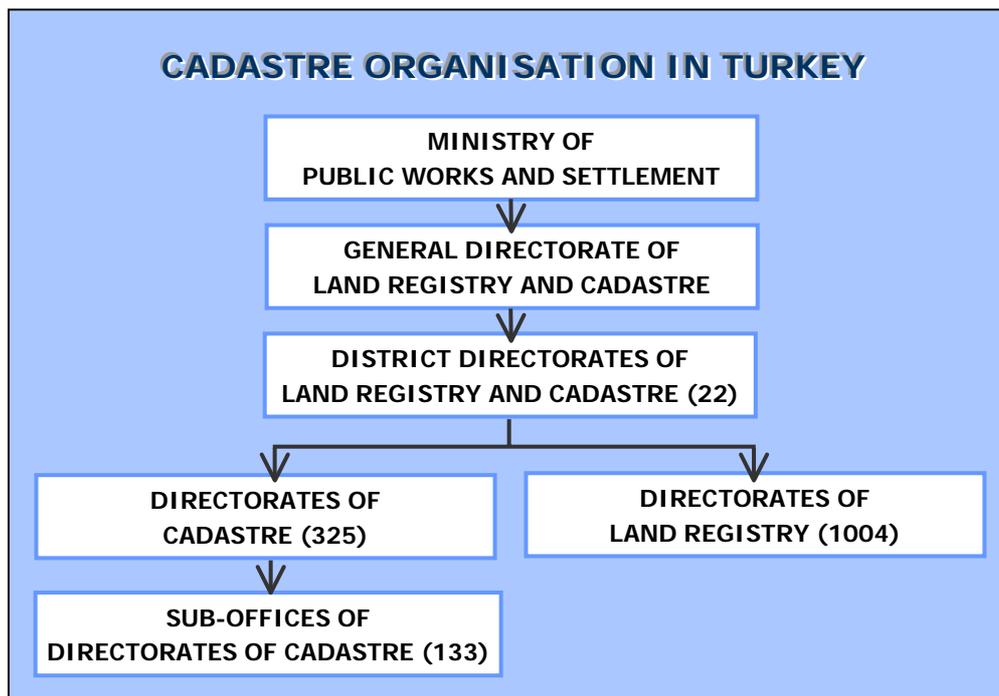
2007). One year later, in 1926, Turkish Civil Code was enacted. According to the code; a land registry system is built up to register the rights on real estates, and registration of real estates is based on a plan formed by an official survey. In order to fulfill these complex tasks, a new OS named ‘General Directorate of Land Registry and Cadastre’ (GDLRC) was constituted in 1936. Since 1936, the execution tasks of GDLRC have been carried out by Land Registry and Cadastre (LRC) offices at local level (Cete et al, 2006).

Today, there are 325 directorates of cadastre, 133 sub-offices of cadastre, and 1004 directorates of land registry in Turkey (URL 3, 2007). Administration and supervision of them are performed by district directorates of LRC in district level (Figure 1).

### 3.2.1 General Directorate of Land Registry and Cadastre

All land registry and cadastre works are sustained under ‘one organisational roof’ in Turkey. It is General Directorate of Land Registry and Cadastre (GDLRC). GDLRC is located in Ankara, the capital city of Turkey. Main service departments of GDLRC are Presidency of:

- Juridical Works,
- Technical Works,
- Land Registration Works,
- Cadastral Works,
- Photogrammetric and Geodetic Works,
- Archive of Land Registry, and
- Foreign Works.



**Fig. 1.** Organisational Structure of Turkish Land Registry and Cadastral System

The main duties of GDLRC are to (URL 4, 2007; URL 2, 2007):

- determine main principles of building up new land registries and cadastral maps,
- organise building up, maintaining, supervising and protecting land registries and cadastral works dynamically,
- provide renovation of old cadastral sheets,
- determine main principles for triangulation points, aerial photogrammetry, aerial triangulation points and cartographic services,
- monitor and supervise mapping services of land registry and cadastre,
- determine quality of the personnel,
- control General National Archives of all mapping affairs in Turkey.

### 3.2.2 District Directorates of Land Registry and Cadastre

The mission of District Directorates of Land Registry and Cadastre (DDLRC) is to make cadastral services fast, economical and effective, and to provide coordination and supervision of directorates of land registry and cadastre at local level. There are 22 DDLRC units covering the whole country (Figure 2). Each DDLRC has its own interest area defined by taking into consideration of geographic conditions of districts.



**Fig. 2.** 22 District Directorates of Land Registry and Cadastre in Turkey

Main duties of DDLRC are to:

- organize building up and renovation works of cadastre inside the district,
- archive the documents of registration and cadastre works in the district,
- prepare statistics for the works carried out in the district,
- meet the needs of the directorates inside the district (personnel, tools, equipments, etc),
- supervise working quality of the personnel.

### 3.2.3 Directorates of Land Registry and Cadastre

All land registration and cadastre works are carried out, at local level, by directorates of land registry and cadastre in Turkey. These directorates carry out their works in different offices but they are generally very near to each other, even in some cases in the same buildings. There is a tight coordination between them. Therefore, all records of directorates of land registry and cadastre are consistent with each other.

#### *a) Directorates of Land Registry*

There are 1004 Directorates of Land Registry in Turkey (Picture 1). Each city and county has one or more land registry office depending on the workload. The settlements other than cities and counties, in case of need, can also have land registry offices.

The officials in land registry offices prepare contracts and then carry out registration for the real estates in their responsibility area. They keep all the registration documents and registry books, and submit them, in case of a request, to the people concerned. They prepare statistical data for the works of the directorate. They are in close contact with other institutions to carry out registration works effectively.



**Picture 1.** A Land Registry Office in Turkey

#### *b) Directorates of Cadastre*

There are 325 Directorates of Cadastre in Turkey. These Directorates carry out their works under the supervision of DDLRC. The number of the personnel of the directorates is about 5400. While about 600 of them are surveying engineers, 2800 personnel work as technicians. Each city has at least one directorate. In case of need, counties can also have one directorate. In the counties where there is no directorate, sub-offices of the directorates are built up to carry out cadastral works. Sub-offices carry out their works under supervision of a cadastre directorate defined by GDLRC. Today, the number of sub-offices of directorates of cadastre is 133 in Turkey (URL 3, 2007).

Main duties of directorates of cadastre are to:

- carry out cadastral works in urban and rural areas,
- renovate the old cadastral sheets,
- control and approve different cadastre-related applications that need to register on cadastral maps (land readjustment, subdivision, etc),
- build up and maintain the geodetic points that are base for cadastral works,
- archive the documents,
- determine and meet the needs for tools, equipments and finance of the directorate,
- organise and manage the sub-offices if there is one or more.

#### **4. EVALUATION OF EFFECTIVENESS OF TURKISH LAND REGISTRY AND CADASTRE ORGANISATION**

Turkish Land Registry and Cadastre (LRC) works have been sustained under the 'one organisational roof' since 1936. It is General Directorate of Land Registry and Cadastre. While directorates of land registry and cadastre carry out cadastral works at local level, the District Directorates organise those works in their districts. It means there are three levels in Turkish LRC system; national, district and local.

Thanks to this OS there are close association between directorates of land registry and cadastre. Therefore, there is no inconsistency, duplication or another problem in the land registry and cadastre works. This is very important characteristic of Turkish LRC when compared to the cadastral systems of many countries.

Another advantage of current OS of Turkish LRC is cost recovery. While land registration is a profitable system generally, cadastral works require important financial support, especially in building up period. Therefore, the countries where land registration and cadastre works are carried out under different ministries or organizations have financial problems in cadastre (Osskó, 2006; Kaufmann and Steudler, 1998). Because the responsibility for land registration and cadastre is under one organisational roof in Turkey, both land registration and cadastral works are carried out without financial problems.

There is a general agreement in international literature that separation between maps and registers will be abolished in the future of cadastre, which means the integration of cadastre and legal registry (FIG, 1995; Williamson, 1997; Kaufmann and Steudler, 1998; Osskó, 2006). In this context, it is conventional wisdom that, in Turkey, directorates of land registry and cadastre will sustain their works in a common digital platform in the near future as a result of developments in information technology.

#### **5. CONCLUSION**

Land administration institutions and infrastructures will have to evolve and adapt themselves to meet a wide range of new needs and technology, and a continually changing institutional environment. They also need to adapt continually to complex emerging humankind-land relationships at the same time as changing relationships between people and governments.

These conditions should lead to improved systems of governance (UN/FIG, 1999). Today, while some countries have to start from the beginning to establish the modern, effective legal and institutional framework for land registration and cadastre, some others have to re-establish or restructure cadastral systems to make them fully operational and to modernise the institutional and technical conditions (Osskó, 2006). In this context, well operating OS of Turkish land registry and cadastre system can be a good practice especially for the countries where there is need to build up or restructure cadastral organisations.

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