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Hellenic cadastre: state of the art experience, proposals and future strategies

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Abstract

In 1994, the Hellenic government, with the support of the European Union, started a project for the establishment of the Hellenic Cadastre (HC), which will be a title registration information system in fully digital form. It is estimated, that this project will last 20 years and it will cover the whole country. So far, digital photogrammetric Cadastral Surveys (CSs), named Pilot Phase and Main Program, of a total area of 893,000 ha have been commissioned and executed in various areas of Greece; 250,000 ha more were commissioned within the year 2000. Through this work, a surprisingly high level of cooperation between the private and public sector has been achieved. This paper focuses on the research and the progress that has been made in all scientific fields, such as the definition of the content of this project, the implementation of the responsible institutions/agencies for the HC, their administrative structure, the proposed regional structure, the development of the National Legal Framework for the compilation of the CSs, the adjudication procedure and maintenance issues. An emphasis is given to the experience so far gained in the legal and technical aspects, and especially to the proposals for an improvement of the methods, and to the attempt to create a cost recovery business culture for maximizing the products and services, which can be supported by the HC. This project requires major international and local experience and a high level of research in all the above mentioned issues, which has to be applied successfully. © 2001 Elsevier Science Ltd. All rights reserved.

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1. Introduction

More than 5 years have passed since the institution of the project for a big reform in Greece, which is the establishment of the Hellenic Cadastre (HC). In the meantime immense challenges had to be faced in getting the project off the ground, including: obtaining and sustaining the necessary support, working out a strategic plan (HEMCO, 1994; Ktimatologio SA, 1999; McLaughlin, 1998), adopting the necessary legislation, managing the joint venture relationships and responsibilities, working out the technical aspects using modern methods and tools, continually striving for greater efficiency and providing constant attention to quality control. Significant challenges may still remain (McLaughlin, 1998). While there is much to be learned from international experience, ultimately the scope and direction of the HC will be dictated by the unique institutional landscape of Greece. So far a great deal of high level, multidiscipline research (in collaboration with local and international experts) in organizational, administrative, legislative, technical, and fiscal issues has taken place within the Hellenic Mapping and Cadastre Organization (HEMCO) and Ktimatologio SA, concerning its implementation. The result of all this joint effort is what we call today: 'Hellenic Cadastre'. This paper gives an overview of this multidiscipline approach, at all levels.

In Section 2, the most important historical information concerning all critical efforts to introduce a cadastral system, since the establishment of the Hellenic State, is given. The Mortgage Bureaux System, still in operation in Greece, is briefly mentioned, yet, its main weak points are clearly defined, proving the necessity for a reform, which will satisfy the modern needs of the land market and will provide the tools for sustainable development.

In Section 3, the target of the project, its content with its main legal and technical characteristics and some general information about its execution are given.

In Section 4, the administrative structure of the responsible state organization, Ktimatologio SA, for the compilation of the HC is given, together with a proposal for the further expansion and the regional structure of the HC. This proposal has not been applied yet, it is still under development.

In Section 5, the state of the art of the legal cadastral framework, such as the adjudication procedure and, to a certain extend, the maintenance of the cadastral data is given. More legal issues concerning the detailed specifications for the subdivision of the parcels, etc., are still under development.

In Section 6, main technical information concerning the accuracy of the Cadastral Surveys (CSs), the selected scales, the content of the maps, the cadastral code number, the quality control, etc., are mentioned. A statistical analysis of the acquired results and some comments are derived through that. New approaches to the execution of the project, based on the gained experience, are proposed. In addition, the state of the art of the research made for the development of the IT strategy for the HC is briefly given; this issue is still under development, the final results will be presented in a later paper.

In Section 7, the ideas for a cost recovery policy through the development of a marketing strategy are presented, and in Section 8, some general remarks are given.

2. The necessity of a modern cadastral system

Greece has tried several times to establish a cadastral system but unfortunately has not, until recently, managed to devise and operate a reliable system (Larson, 1991; Toerhoenen, 1995).

In the year 1825 the new Hellenic State was established. The first effort to introduce a cadastral system took place in 1836, after the publication of a Royal Decree by King Othon, in order to improve the land market and to enable the mortgage loans. In 1853, the *French Mortgage Bureaux System* was introduced, a deed registration system not connected with a map. This is the until today operating system.

In 1895 a proposal for a Law for the Cadastre was made and in 1910 a new Law (called ΓΧΝΖ/1910) for the HC was published. In 1917 a great fire destroyed Thessaloniki, the second largest city in Greece, so a big effort started after that to establish the Cadastre in Thessaloniki. In 1923 a Legislative Decree, concerning the codification of the cadastral surveys of *urban areas* was made. Between 1926 and 1929 a cadastral system was established on the islands of Rhodos and Kos in Southern Greece, known as the *Dodecanesean Cadastre*. The system continues to operate until today, according to a special Regulation. The operation of this cadastre today faces a lot of difficulties mainly due to the *very poor maintenance* of information, *both graphical and textual*, the *lack of personnel* and the *unwillingness of the public to register the changes of cadastral data, especially when it comes from inheritance, in order to avoid taxation*.

Another effort for the implementation of a cadastral system was made in the year 1932, which was focused on rural areas, the *rural cadastre*. Its aim was the registration for the *raisin producing areas*. In 1943 two *cadastral bureaux* were established in *two counties in the vicinity of Athens named Kallithea and Paleo Faliro* (total area: 1200 ha), which operate until now.

According to the Mortgage Bureaux system, the main system that still operates in Greece, all legal rights concerning land (surface, subsurface resources, buildings, etc.), such as land ownership, lease, mortgage, charge, easement, seizure, claiming etc., are registered and available to the public under special prerequisites. The 394 Mortgage Bureaux (the number of them changes from time to time due to amalgamation or splitting of some of them), operate throughout Greece, some of them since 1856. These offices are responsible for the *registration of deeds, but they do not guarantee the content of the deeds*. This is a system, that maintains *regional records and deeds* with the legal rights on the real estates that the persons have at the particular region. The registrations are based on the names of *persons*, this means, that the entry to the system can only be achieved by the name of the person, at each individual region separately. It is a deeds registration system, *not in digital form and with a description of the real estate totally inadequate for the identification of parcels*, usually referring only to the names of the bordering neighbors. The result of this is that in many cases the parcel cannot be located. The records are not associated with the general map and very frequently not even with a special individual plan. Some contracts are accompanied with topographic plans, prepared privately, but these plans are not in a unique reference system, nor do they follow any technical specifications.

The system ensures publicity, but it does not guarantee the real estate rights. Due to this fact, quite frequently it is necessary to search the archives in order to find out the history of a particular real estate till its first title, sometimes even till the middle of the previous century. All the above make the need of a title registration system, connected with an updated map, very clear. Many efforts have been done for the establishment of a *positive Cadastre*, but didn't have any real result.

From 1971 until 1974 the first phase of a new cadastre started. In that period a great percentage of Greece (25 Prefectures out of 54 in total) was covered, among them Crete, Peloponese, Central Greece, Thessaly and a part of Thrace. The adjudication process was made on copies of simple air photography, by a plain declaration made not obligatory by the owner, but by anyone who might know the area and the owner of the land parcel, as well. The land parcels were outlined directly on the photos and coded. It was a big effort, but it was stopped immediately after the political change in the year 1974. In 1976, there was another attempt concerning *the registration of forest land*. Also, some cadastral information has been collected indirectly, as part of the activities of Urban Planning according to the Law 1337/83, which introduced the *Urban Plan Implementation Act*.

Then, an essential step for the implementation of the Cadastre in Greece was the Law 1647/86. This Law established HEMCO, which belongs to the Ministry of Environment, Physical Planning and Public Works and is responsible for the mapping of the country, the implementation and the running of the Cadastre and the creation of Databases for the national resources and the environment.

In October 1993, the Minister of Environment, Physical Planning and Public Works of Greece asked the Technical Chamber of Greece and the National Union of Rural and Surveying Engineers to prepare a strategic proposal for the compilation of the HC. Four committees, legal, financial, technical and administrative were established and they presented their work on that to HEMCO, in April 1994. In July 1994, was the final proposal — actually the original strategic plan for the Hellenic Cadastre — ratified by the Ministry and the European Union (EU) together. According to this plan, the HC is designed to be a modern Information System, which will improve the efficiency of land transactions and guarantee land tenure. In addition it will provide all levels of information to both private and public sector, necessary for land management, urban and rural planning, agricultural policy, land administration and above all *environmental monitoring*. (Economic Commission of Europe, 1996; National Research Council, 1980).

3. The content of the HC project

The “Hellenic Cadastre Project” is considered to be the most significant infrastructure project under construction in Greece, in recent years, and one of the most important projects of that kind all over the world (McLaughlin, 1998). *Its purpose is the systematic collection, registration, organization and multipurpose management of the spatial information in relation with its legal/ownership status all over the jurisdiction*. Some of its main features are: