

PROTECTION AND INCLUSION OF NATURE RESERVE AREAS INTO THE ROMANIAN GENERAL CADASTRE

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Abstract. In the context of the EU integration, it is of maximum importance to generalise the principles of setting up and maintaining a modern cadastre that encompasses the long-lasting experience of Austria in verifying the principles of cadastre and land books, so that there is an unitary system throughout Europe. Therefore, specialty cadastre registers can be created, especially for land that is national heritage – nature reserves and monuments of nature. Thus, these areas will be protected from all human activities and they will be registered and included in the general cadastre of Romania. The present paper proposes a model of computerised Land Book record keeping and the automatic generation of specialty cadastre registers.

Keywords: nature reserve, general cadastre, cadastral registry.

AIMS AND BACKGROUND

Since the earliest times, people have felt the need to record the different information regarding the activities considered to be of maximum importance. At first, these records were kept by the family. Once society developed, the records were kept centralised. Man most emphasised property was land, as it presented a special interest not only for the landlords, but also for the form of state organisation in order to collect taxes¹.

The property right is a fundamental right of the natural or legal persons. The Romanian Civil Code² defines property in art. 480 as follows: ‘Property is the right of an individual to dispose of a thing in an exclusive and absolute manner, but within the limits set by the law.’ The Romanian Constitution, the fundamental law of our country, guarantees this right to all Romanian citizens.

The computer era has opened a new gateway for database creation and management. Therefore, specialised languages have been designed to create and complete this organised mechanism for storing, manipulating and extracting information. In the different languages of designing a database, it is not difficult to collect, to structure and to keep them. However, the most important problem is that of com-

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ing up with a relational model between these data and the way in which they are presented. Codd, who in June 1970 published a paper, entitled ‘Relational Model of Data for Large Shared Data Banks’, presented the principles of the relational model for the first time. Codd proposed a ‘relational’ model for database systems in this paper³.

EXPERIMENTAL

The concept of ‘Individual Land Book’⁴. When analysing the manner in which a database is constructed, to define the relationships between the components of a database, we are faced with the fact that the primary key values defined for the database tables must be singular. Thus, we encounter the issue of Land Book singularity considering that the rule for numbering Land Books is from 1 to n for land outside of the built-up area of an administrative territory and $1-n$ for land inside of the built-up area of the same administrative territory. This requirement is met by attaching a singular primary key, namely the SIRUTA code (which is unique for the land outside and inside the built-up area of an administrative territory), to the Land Book number.

Thus, the need for an ‘Individual Land Book’ as: ‘the attribute of a Land Book that gives it a singular character on Romanian soil’, e. g.: Land Book No 1758 of Alba Iulia will become Land Book No 1026_1758, which is singular in Romania; Land Book No 1758 of Petrosani will become Land Book No 87004_1758, which is also singular in Romania.

The concept of ‘Individual Estate Item’⁴. The need to define the above notion resides in the fact that one Land Book may contain under the same current number several parcels, which together form an estate item. The singularity of this number results from an ‘invisible’ assigning of the Individual Land Book Number to the number of the real estate item. ‘Individual Estate Item’ is ‘an attribute of the Estate Item which gives it singularity all over Romania’, e. g.:

- The real estate item registered at No A+1 in the Land Book No 1758 in Alba Iulia will become 1026_1758_1, which is singular in Romania;
- The real estate item registered at No A+1 in the Land Book No 1758 in Petrosani will become 87004_1758_1, which is singular in Romania.

The concept of ‘Individual Owner’⁴. Due to the many coincidences regarding the owners names, it was mandatory to introduce the concept of ‘Individual Owner’ in order to have a sure identification in case the database query is run by the owner name.

As in the case before, an ‘invisible’ number is assigned to the owner, which is the Personal Identification Number for natural persons or the SIRUES code for legal persons. This ‘invisible’ number appears in the database, but is not printed in Land Book Excerpts (for information or authentication).

Realisation of database. The main element on which this database is based is computer use. Thus, the current Land Book registration system can be turned into a computerised system, which will ensure a double registration system – an analogical and a computerised support⁵.

In this context, a great importance is given to the identification of land belonging to protected natural areas (reservations and natural monuments) so that, the management of various infrastructure works related to the Halls of these administrative territories, they must have a more accurate record of such land regarding their topographical and cadastral location and also the juridical and legal records of them.

Before creating the computer software of immovable evidence regarding of nature reserve areas, data structures are required which may lead to generate the following reports⁶:

- Land Book;
- Registry of Parcels;
- Registry of Land Books;
- Alphabetic Index of Owners;
- Cadastral Registry of Nature Reserve Areas (Registrul Cadastral al Rezervatiilor Naturale).

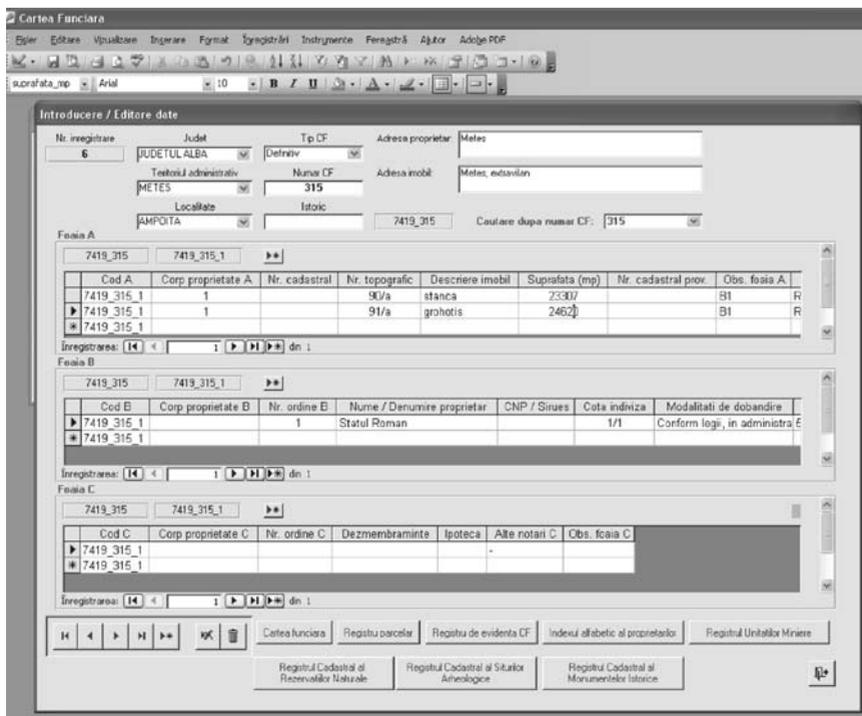


Fig. 1. Entering data in the database

RESULTS AND DISCUSSION

Due to the high volume of information that the evidence documents of immovable in generally and immovable with ‘Nature Reserve Areas’ destination especially contain, we have conducted a case study to identify and introduce information on the legal status of real estate within a block area of ‘Ampoita limestone’ (Calcarele Ampoitei) zones from Alba county⁴.

This study assumed the following stages: opening and running the application; collecting and introducing the data; adding, viewing and erasing records; identifying the geographic data of Land Books; introducing the general data of Land Books; introducing data into the ‘Sheet A’ sub-form; introducing data into the ‘Sheet B’ sub-form; introducing data into the ‘Sheet C’ sub-form.



Fig. 2. Ampoita limestone (Calcarele Ampoitei)

Data viewing is a second mean of validating the created software and it takes place by creating final reports: ‘Land Book’, ‘Registry of Parcels’, ‘Registry of Land Book Evidence’, ‘Alphabetic Index of Owners’ and, for our case study, the ‘Cadastral Registry of Nature Reserve Areas’ report.

Registrul Cadastral al Rezervatiilor Naturale

JUDETUL ALBA

Teritoriul administrativ METES

Localitatea AMPOITA

<i>Nr. CF</i>	<i>Denumire topica</i>	<i>Proprietar</i>	<i>Descriere imobil</i>	<i>Suprafata (mp.)</i>	<i>Nr. cadastral</i>	<i>Nr. topografic</i>	<i>nr_cadastral unic</i>
315	Calcarele Ampoitei	Statul Roman	grohotc	24620		91/a	
315	Calcarele Ampoitei	Statul Roman	stanco	23307		90/a	

Fig. 3. Cadastral registry of nature reserve areas (Registrul Cadastral al Rezervatiilor Naturale)

As regards the development of this application, we can see that when the property is described, the extra fields ‘Special destination’ and ‘Topical designation’ made it possible to generate cadastral registries for the lands included in the national heritage list (archaeological sites, historical monuments, nature reserves, etc.) so that all these areas can be identified from the viewpoint of cadastre and they should be introduced in the Romanian general cadastre^{7,8}.

Judet	Teritoriul administrativ	Localitate	Numar CF	Nr. cadastral	Nr. topografic	Nr. cadastral	Denumire proprietar	Denumire topica
JUDETUL ALBA	METES	AMPOITA	315		91/a		Roman	Calcarele Ampoitei
JUDETUL ALBA	METES	AMPOITA	315		90/a		Statul Roman	Calcarele Ampoitei

Fig. 4. Database interrogation with the ‘Special destination’ (Destinatia speciala) parameter

CONCLUSIONS

To create a series of cadastral registries for land included in the lists of national – natural reserves and natural monuments, so that these areas be protected in terms of human activity and can be identified in terms of cadastre in order to introduce general cadastre in Romania, we have carried out a series of steps for creating and optimising the specific database of real estate records listed⁹.

So, for this application to be used at a national level, in a first stage, it was necessary to create lists that could include information on the counties, administrative territories and localities together with the SIRSUP and SIRUTA codes.

Once these data are introduced, we will be able to notice the optimisation of the operational process by selecting unique data for each county and each locality, which can be identified by the SIRSUP and SIRUTA codes. Also, the optimisation of real estate record keeping consisted in the elaboration of concepts such as ‘Individual Land Book’, ‘Individual Real Estate Item’ and ‘Individual Owner’, which led to the certain identification of a real estate from the point of view of cadastre and land registration through its singularity characteristic in Romania¹⁰.

Given that currently, the sector of activity dedicated to this type of activities is not fully ready with specialty personnel and technical endowment to have an application generated at a national level, this database is the current solution to the current problems. In other words, databases for each locality can be created, which later can be interconnected and put in relation so as to be used from any corner of the country¹¹.

This application only deal with the computerised record keeping of the immovable but it can be further developed by creating new functions in order to carry

out the resulting cadastral registries maintenance operations, of achieving security levels for database access, the issue of land book excerpts, the creation of links to a central server and the possibility of viewing the legal status of real estate by using Internet services.

In the EU context, it is not without significance to generalise the principles to create and maintain a modern cadastre that encompasses the long-time experience of verifying the principles of cadastre and of the Austrian Land Book. Thus, all over Europe, there should be unitary cadastral evidence by identifying real estate items and attaching the country code in order to have a modern European cadastre.

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Received 4 July 2009

Revised 10 September 2009