

HUNGARY



COUNTRY REPORT HUNGARY AND HER GEODETIC ENGINEERING ACTIVITIES

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BUDAPEST, 2009

Introduction

This country report is compiled for the General Assembly of CLGE held in Krakow, Poland – 27th, 28th, March, 2009. The content is made by using the sources as follows:

- András Osskó, The Multipurpose Hungarian Unified Land Registry System, Integrating Generations, FIG Working Week 2008, Stockholm, Sweden, 14-18 June, 2008
- László Gombas, CELK Country report, 2004
- CIA Factbook

1. GENERAL FACTS



| | |
|----------------------------------|--------------------|
| Geographic coordinates | 47 00 N 20 00 E |
| Total area | 93,030 sq km |
| land | 92,340 sq km |
| water | 690 sq km |
| Landuse: (arable) | 49,58% |
| Landuse (permanent crops) | 2,06% |
| Landuse (other) | 48,36% |
| Population | 9,905,596 |

Administrative divisions: 19 counties, 20 urban counties, and 1 capital city

(Source: CIA Factbook, <https://www.cia.gov/library/publications/the-world-factbook/geos/hu.html>)

2. FACTS ON HUNGARIAN GEODETIC ENGINEERING ACTIVITIES

2.1. THE HUNGARIAN LAND REGISTRATION SYSTEM

2.1.1. The historical background of land registration

The first land cadastre was introduced during the reign of King II. Joseph. The land cadastre based on cadastral survey for the purpose of land taxation. The implementation of general land, taxation failed due to the opposition of the nobility. Finally the land cadastre was established in the Austrian-Hungarian Monarchy in 1875 based on detailed field survey. There were two parts of the cadastre: cadastral register and cadastral maps. The original scale, of cadastral maps 1:1440 in urban and 1:2880 in rural areas. The cadastre was established for fiscal purpose land taxation, based on the yielding capacity of the land. The cadastral system also supported the legal (Grundbuch) system. The descriptive part of the Grundbuch (parcel number, area, address, cultivation, value of agricultural land, etc.) based on cadastral mapping data. Legal registries (Grundbuch) were established at local courts for registration and updating of ownership data, mortgage, easements and other rights, facts related to land and real estate properties according to the law. In 1972 there was a decision to integrate the Cadastre and Legal Registry on legal basis and institutional level, forming the Unified Land Registry System. The integration procedure was completed in 1981. During the socialist period (1949-90) Hungary was the single socialist country operating the Land Registry without any gap. As a result of this there was a fully operational land registry system in 1990 when Hungary introduced the multi party democracy and the market economy.

As a result of the multipurpose nature of the system, with effect from 1st January 2007 became self financing organisation

2.1.2. The purpose and type of Hungarian cadastral system

The Hungarian Unified Land Registry System is the integration of Cadastre and Legal Registry (Grundbuch) on legal basis and institutional level, and serves different purposes. Legally guarantees the security of ownership and other rights related to land and property in the same time supporting the land market providing statistical data to the government and decision makers for economic planning. The multipurpose nature of the Unified Land Registry System is the basic information for external users as local governments, banks, public utilities, lawyers, surveyors etc. The cadastral map is compulsory to use for spatial planning and any land information system. There is only one type of Unified Land Registry System in Hungary. All state, private, cooperative land and real estate properties have been registered including condominium units (apartments).

2.1.3. The concept of the Hungarian cadastre

In the Hungarian Unified Land Registry System two different types of real properties can be registered:

- 1) land parcel,
- 2) other independent property.

All types of properties have a unique identity number and are registered separately.

Land parcel can include buildings (the owner(s) of the land is the same as the building).

There are three different types of other independent property:

- Building, cellar, underground garage, structure, if the owner of the property is not or only partially owner of the land parcel;
- Freehold condominium unit (apartment, shop, garage etc) The land is common property, the unit is independent property;
- Cellar, underground garage, construction with direct access to public domain (street, road).

The cadastral maps show all land parcels with boundaries and buildings. Boundaries based on direct survey, creation of new parcel boundaries-subdivision, road alignment, etc. require cadastral survey, and legal procedure. All types of real properties can be mortgaged and are transferable. If a land parcel or part of it is occupied undisturbed for a continuous period of 15 years a person(s) may apply at the court for adverse possession. For changing of title legal court decision is needed.

2.1.4. Content of the cadastre system

All land parcels and real properties have been registered in Hungary and cadastral maps cover the whole country. There are 7,3 million land parcels and about 2 million other independent properties (condominium units and others). There are two components of the Unified Land Registry System to be maintained:

I. Legal part – property sheets

Each land parcels and other independent properties have property sheet containing three parts:

- a) *Descriptive part*: Parcel number, address of the property, area, status of the property (urban, rural, built in or vacant) building information, in case of rural area different cultivation, quality of soil, value of land;
- b) *Ownership information*: Owners name, address, personal id. number, title, etc.;
- c) Mortgage, restrictions, easements and other rights, facts according to law.⁸⁶

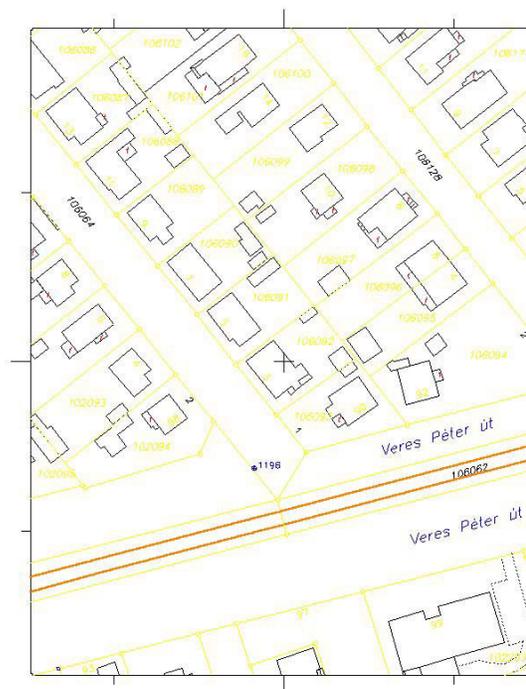
II. Mapping part

The cadastral map consists of parcel boundaries, parcel numbers, buildings and other construction, control points, easements, in rural area sub parcel boundaries with cultivation. Both the legal and mapping part are updated daily and simultaneously to guarantee the data consistency required by the nature of Unified Land Registry System. The mapping and property sheet data must be consistent. Control points are registered and maintained in land offices. All the survey plans, measurements must be archived.

The Cadastral Map

The old analogue cadastral maps (many of them are still in use) are varying in scale and accuracy. The scale is 1:1000, 1:2000 in urban and 1:2000, 1:4000 in rural areas but we still have 1:1440, 1:2880 scale maps. The majority of cadastral maps have been graphical but there are many numeric maps in urban areas (Budapest and other cities). In case of numeric maps, boundary points have co-ordinates based on field survey, boundary points shown by circles. Originally cadastral mapping was carried out in different projection systems. The national projection and grid system was introduced in 1980. Since then the national grid system is compulsory to use in new cadastral mapping. In 1990 there were no digital cadastral maps in Hungary. The National Cadastral Program started in 1994, supporting the new digital cadastral mapping. The majority of digital cadastral mapping in urban area is based on field survey and less in digitalizing old cadastral maps. Using field survey the quality of digital cadastral maps is good but very expensive and time consuming. In 2002 only 15% of cadastral maps were in digital form. It is important to accelerate the progress of digital cadastral mapping. At the end of 2002 it was decided to introduce a new approach digitizing graphic cadastral maps in rural area. The digital cadastral mapping in rural areas, about 80% of the country, will be completed by the end of 2004. The content of cadastral map: The cadastral map shows parcel boundaries, boundary points, parcel numbers, street names and address, horizontal control points, height points, buildings and other constructions, boundary of cultivation in rural area.

A sample of a cadastral map:



The cadastral mapping information is the mapping part of the Unified Land Registry System. The common data of cadastral map (parcel number, address, area, etc. must be consistent with the descriptive data of the property sheet. This is one of the basic requirements of the Unified Land Registry System. The updating and maintenance of common data is a simultaneous task of the mapping and legal part. Before Hungary introduced the Unified Land Registry System the Cadastre also supported the legal registry and cadastral map served information to the economy. Today digital or analogue cadastral maps (land registry map) are the basic information to establish different database supporting development and environmental interests. The land registry map, according to law, is compulsory to use for spatial, town planning, building regulations and basic map for public utility companies. For local governments, municipalities land registry map is basic layer managing their activities. Extracts of land registry map (cadastral map) are widely used for different purposes by the public.

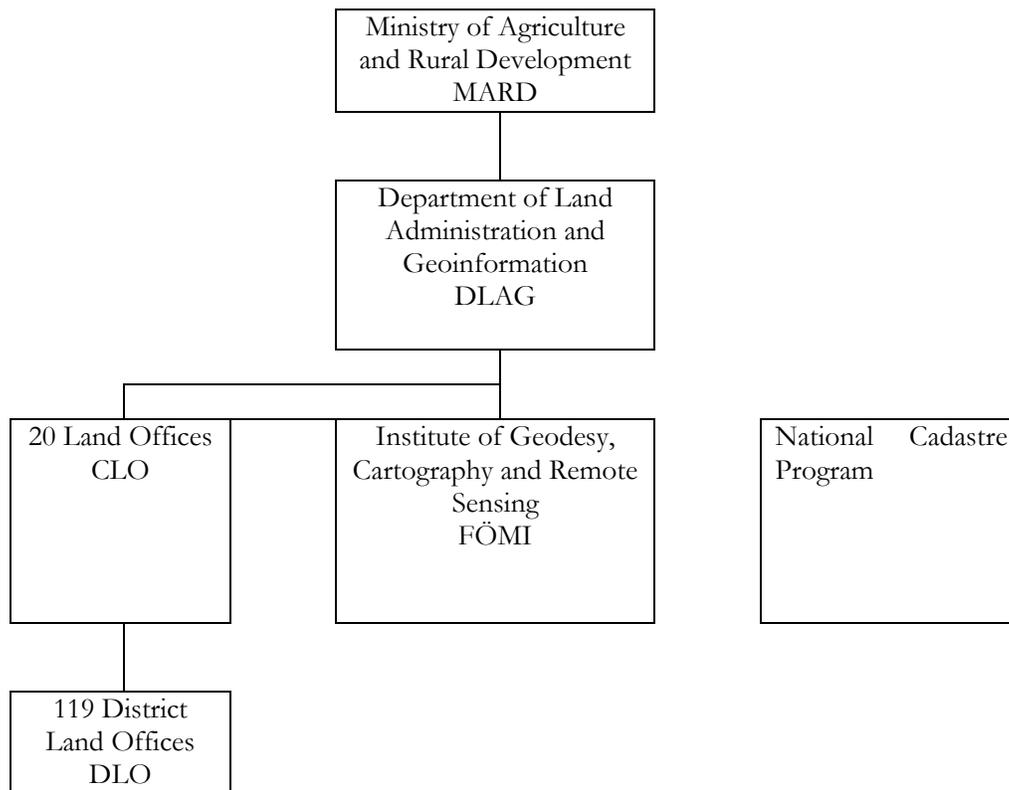
The real estate registration has been in digital form since 1997 and cadastral maps have been in digital form with effect from 1 st. January 2008.

The total number of land and real estate properties: 9 836 000

Number of parcels: 7, 3 million

Number of condominium units: 2, 536 million

2.1.5. The organisational background of the Hungarian land registration system



MARD, DLAG: supervising, managing Land administration activities, creating laws, professional guides, instructions

DLO: registration of legal and cadastral mapping changes maintenance of digital legal and cadastral mapping data base selling of legal and cadastral mapping data, providing services land protection activities maintenance of land lease registration

CLO: second instance authority in legal and cadastral mapping matters supervising, managing DLO Activities maintenance of administrative boundaries of the county quality control of major cadastral mapping works providing mass digital data services

FÖMI: maintaining horizontal and vertical control point network Establishing GPS point network Topographic mapping maintenance of administrative boundary databases of the country developing, supporting IT systems for land administration institutions operating online TAKARNET services (digital legal and cadastral map data services) for external users and land offices remote sensing activities, supporting agriculture operating IT system, supporting EU agricultural subsidy in Hungary issuing professional guides, instructions, etc. international activities

NCP: National Cadastral Program as a governmental non profit company managing, financing countrywide digital cadastral mapping, financed by commercial bank loan

Total number of staff: 4000

- legal departments staff: 2400
- **land surveyors: 820**
- management and administration: 400
- land protection, land use, land lease: 300
- IT support: 100

2.1.6. Performance of the Hungarian land registration system

District Land offices receive 3,0- 3,5 million applications annually:

- 2-3 million applications for legal changes:
 - 700 000 transfers of ownership
 - 800 000 mortgage registration, and release
 - 800 000 other rights
- 200 000 applications for mapping changes and other cadastral mapping related activities

- 162 000 applications for land lease changes and other land protection related activities
- 500- 700 000 other applications (government and other authorities, citizens)

County Land Offices:

- number of appeals (legal, mapping) 15 000
- number of court cases related to land office decisions (legal and mapping) 2000

Land offices and FÖMI provide legal and cadastral mapping information, data and other services for external users and citizens generally for fees. There are exceptions (especially local authorities and government) defined by law. The sufficient revenue is very important because land offices and FÖMI became self financing with effect from 1st January 2007. The Number of property sheet (legal document of the property) information is about 2,8 million annually:

The number of property sheets for fee is about 1, 9 million.

The number of property sheets for free is about 0, 9 million

The number of online information through TAKARNET is about 3,0 million but increasing rapidly

The number of extract of cadastral maps is about 500 000, 400 000 paper copies, 100 000 in digital format.

Land offices and FÖMI also provide mass data selling and services (legal and mapping) for major external users (local authorities, public utilities, etc.), based on long term contract agreement.

2.1.7. Financial results of the Hungarian land registry

As I mentioned before the land office institutions and FÖMI have been self financing since 2007 and their budget is based on their revenue. Unfortunately they have a limited freedom how to use it, the central government still defines the majority of figures in the central budget. The annual revenue and the budget as well, is about 100 million EURO (25 billion HUF)

Components of the revenue(in million EURO)

- registration fee 37,2
- selling of legal information 28,8
- selling of cadastral mapping data 6,8
- cadastral survey services 9,2
- online and other services 18,0

2.2. THE MILITARY MAPPING

The military purposed and topographic mapping is supplied by the Geoinformation Service of Hungarian Defence Forces hosted by the Ministry of Defence (<http://www.topomap.hu>)

2.3. Educational Activities

As for the geodetic surveying education the following institutions are responsible:

- University of West Hungary – College of Geoinformatics
- Budapest University of Technology and Economics
- Eötvös University, Department of Cartography and Geomatics
- 5 secondary schools:

The Budapest University of Technology and Economics has a five years course of study for MSc. in Surveying and IT knowledge. The course is rather theoretical teaching traditional subjects and IT, GIS knowledge. About 30 students graduate annually.

The West Hungarian University College of Geoinformatics in Székesfehérvár has three years course of study gives BSc. graduation. There are three faculties: land surveying, land consolidation, land registry matters. About 40-50 students graduate in regular course and 20-30 in correspondence course annually.

2.4. Membership in professional organisations:

- CLGE
- EUROGI (HUNAGI)
- EUROGRAPHICS
- EUROCADASTRE
- EULIS
- FIG
- INSPIRE
- ISPRS
- WPLA

2.5. Licensing

Cadastral surveying, cadastral work for legal purpose is the monopoly of licensed surveyors in Hungary. The majority of cadastral surveys, mapping have been carrying out by the private sector. The Institute of Surveying Cartography and Remote Sensing (FÖMI) under the Ministry of Agriculture and Rural Development issues the license to surveyors.

2.6. Private geodetic surveying activities

Cadastral survey for legal purpose and preparing survey documents of changes in cadastral map data is the licensed surveyor responsibility. There are 1700 licensed surveyors. Many of them run private business others are employed by bigger survey firms producing new digital cadastral maps, which are checked and certified by Land Offices. In the legal part lawyers, notaries responsible to prepare and counter sign deeds, legal documents of ownership changes and other documents for transactions related to land and real estate properties.

2.7. Professional organisations forming the Hungarian CLGE representation

- Hungarian Society of Surveying, Mapping and Remote Sensing (MF'TTT)
- Section for Surveying and Geoinformation of the Hungarian Chamber of Engineers (MMK GGT)
- Association of the Hungarian Geoinformatic and Geodetic Surveying Enterprises (MFGVE)

Represented Geodetic engineers: 1500

Budapest, 2009-04-03

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