Land Administration in Hungary¹

Institutional support for the implementation of the agricultural, rural development and land tenure policies

The Land Administration in Hungary

In Hungary, the land and property registration is operational since one and a half century having Austrian origin. In 1972, the landbook and the cadastre has been integrated under the Ministry of Agriculture. Today, the Department of Lands and Mapping (DLM) of the Ministry of Agriculture and Regional Development (MARD) and its Land Office Network (LON) with the Institut of Geodesy, Cartography and Remote Sensing (FÖMI) serves as the Land Administration. Since the Act on Surveying and Mapping Activities has been adopted by the Parliament in 1996, DLM MARD has shared responsibility as National Mapping Agency, focusing on the base mapping at larger scales.

Single institution network under the supervision of the Minister of MARD is responsible for the strategic planning, operation and development activities of the nationwide Land Administration and the Mapping Agency. High priority mission objective is to secure the ownership rights, to facilitate property transfer and to strengthen the mortgage and loan market.

Tasks to be performed

Financed partly by government funding and partly by fees from customers, the institution network performs the following tasks:

Integrated land & property registry and cadastre

- The system is open for the public and is backed by state guarantee.
- registration of ownership of lands and immovable properties (recording the legal rights, mortgages etc. in the registry with reference with the technical parts using parcel id). Fully computerised. System operates arrangements to secure priority for applications;
- maintenance of the map base of the land registry (surveying base map, or simply called cadastral maps);

Other land related services

- registration of users of rented agricultural lands (since January 2000);
- land use and land protection including operating the Land Protecting Fund; Land use information is collected by reporting, by field surveying and inspection or by using aerial survey/remote sensing and related on-site checking (ground truth). Information wholly held in computer format.
- classification/evaluation of land; (There are no land taxes. The valuation system expressed in Gold Crown value/ha was used for assessing compensation and it has also indication value in land exchange);
- land consolidation piloting and preparation of the National Land Fund;
- land related statistics; The categories arable land, orchards, vineyards, grazing land, wetland, forests and fish ponds together gives the agricultural land which is 78,914 km2, about 85% of the total area of the country (93,030 km2)

Reference systems, digital mapping

¹ Draft compiled by dr.Gábor Remetey-Fülöpp Comparative Study FAO SEUR Budapest, March, 2001

- maintenance of the reference systems, projection systems, complete geodetic network incl. GPS-based supporting the Land Administration;
- topographical and cadastral survey and mapping at the scale range 1:1000 1:10 000 (complete coverage in analogue form) and establishing databases;
- development of public and application tailored GIS/LIS services;
- establishment and maintenance of multilevel, multipurpose administrative boundary database and related services,
- development of metadata services and facilitating advanced data/product distrubutions;

Remote sensing application

- development and use of aerospace remote sensing especially in agriculture and environment, a service provided by the Institut of Geodesy, Cartography and Remote Sensing (FÖMI) since 1980;
- participation in the development of the Integrated Administration and Control System according to the Common Agricultural Policy of the European Union

Legislation, regulation, knowledge transfer and links

- development of the legislation and technical regulations in harmony with those used in the EU member states (incl. Land consolidation, National Land Fund);
- guidance in education and training, awareness raising, promotional activities, marketing and public relations;
- forging international links, networking on regional, European and Global level (EuroGeographics, Eurogi, UNECE WPLA, FAO SEUR, ECAI, AGI, FIG, ISPRS, ICA, EARSeL etc)

In order to ensure transparent land and property registration as well as to strengthen the protection of property rights and built safety mechanisms in creation of immovable property markets, the land registry has been computerized in Hungary by massive support and assistance provided by the European Commission under the Phare programme since 1991. Towards the EU accession, in the framework of the National Programme of the Adoption of the Acquis Communautaire (NPAA), a high priority task of the DLM MARD is the implementation of the related tasks in lands, mapping and GI supported remote sensing.

Structure of the Land Administration

The institutional network includes the Country Land Offices (19) and the Capital Land Offices as well as the 115 District Land Offices plus the Budapest District Land Office, alltogether 136 regional and local ,,data shops" are providing services for the citizens, the local, regional and central governments and agencies, the lawyers, notars and courts and clients from the private sector.

As far as the organisation structure is concerned DLM MARD has three departments devoted to the topics land registration, surveying and informatics as well as land use and land protection.

FÖMI, the R+D institute of the network performs also authoritive tasks (quality control) and public services (metadata and browse room services, archive data, product delivery, but also provides consultancy and value added service for the wide public including governmental agencies, NGOs and companies, data brokers.

The District Land Offices provide maintenance and service of the land and property registry, containing the property sheets, legal documents and the land registry maps. Since year 2000 there is a second registry containing information on the user of the lands. This land use registry D:\gisopen\Rfg2.doc, 2. oldal 2001.03.09.

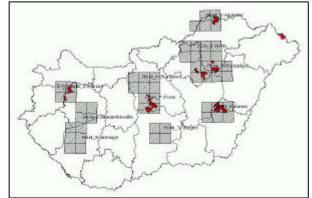
is fully compatible with the land registry. The County Land Office manages, supervises and controls the activities of all of the DLOs located in the county. The first level of the handling of applications is the DLO level. CLO provides the second level in case of claim or discrepencies. The thrird level in the claim clarification is the DLM MARD.

In a Land Office usually there are four functional departments as follow:

- Department of Land registration. Works based on the incoming applications. All kind of the land and property registry related action belongs to this department.
- Surveying Department. Maintains the land registry map (often called cadastral map) by preliminary and final updating, performs field measurements as setting out, reallocation of parcels etc. Evaluates and signs surveying documents submitted by the licensed surveyors and companies if these have any effect on the land registry map
- Department of Land Protection, land valuation and land use. In classified cases issues permission for land use change. In some cases, there are restrictions and fees are to be paid for the Land Protection Fund. Controls the permitted use of land by field check.
- Client service and data/document delivery. Here the in-house application processing, property sheet delivery is fully computerised. Documents are served in form of hardcopy.

Information technology infrastructure building at the Land Administration

The district level Land Offices and some dedicated institutions have been equipped by the integrated system called TAKAROS and the institution network including the county level Land Offices are interconnectected by the Intranet/Extranet file and document transfer service TAKARNET. Since January 2000, FÖNYIR, the registry of the land users is operational. Maintenance is provided by the District Land Offices. Value added service capability is envisaged to the regional Land Offices if the implementation of the EU supported META (the regional level version of TAKAROS) will be realised. The available IT infrastructure at the Land Offices helps DLM MARD and FÖMI to build the institution as required by the Integrated Administration and Control System (IACS) and Agri-environmental Measures (AEMs) of the EU. The implementation of the dedicated Land Information Service for Agriculture and Rural Development (LISARD) project means the central operational service of three major, integrated components, the area-based Subsidy Control with Remote Sensing (CwRS), the centralised hardware environment (CENT) and the Land Parcel based Information System (PARCELLA) all hosted by FÖMI. This development is based on the results of the Phare aided Computerisation of Land Offices (TAKAROS, TAKARNET and the ongoing META) as well as the two decades of experiences FÖMI Remote Sensing Centre and its products and services such as the CORINE Land Cover Database (CLC), the operational, nationwide Crop Monitoring and Yield Estimation (CROPMON), and the newly applied area-based subsidy control.



Location of the 1: 50 000 scale CLC campaigne

From TAKAROS to META: Phare-aided Computerisation of the Land Offices²

Following an agreement signed in 1990 between EU and the Hungarian government, the EU PHARE supported programme called "The computerisation of land offices" has started to establish the infrastructure background for this complex process. Besides the technological development the legal, operational, marketing and other related problems are also investigated within this programme.

As a general result, DLM MARD aims at creating a decentralised nation-wide Land Information Service system with electronic access to appropriate records both at county and district levels, to realise a more service-oriented land management in line with the EU requirements. In this modernisation programme it is a great advantage that all major tasks of land management are concentrated within one institutional network – including the land offices, DLM and FÖMI – so the integrated Land Information Service can be created on a common base.

The main milestones of the implementation are as follows:

- Complex Decentralised Property Sheet Registration System (CDPRS): computerised property sheet databases in the district land offices (finished in 1994)
- Computerisation of the Capital District Land Office System (1997-98)
- Mapping System for the Capital District Land Office (1997)
- Upgrading the District Land Office System (TAKAROS DLO): computerisation of land office procedures (1995-98)
- Wide Area Network for the Land Offices (TAKARNET): remote access to land office data (1997-98)
- Computerisation of the County Land Offices (META TAKAROS CLO): GIS products, new services support for EU harmonisation (1999-2002)

All of the property sheets (the land register) of the country were loaded into PC based computer systems in the district land offices by the end of 1997. This speeds up the management and updating processes as well as potentially making the land office information available for electronic on-line access by clients, banks, lawyers, public notaries and other interested parties. From technical point of view, information can be accessed electronically from remote sites by connecting all of the land offices in a Wide Area Network (WAN). In the series of IT infrastructure projects, establishing this network means both internal and external communication links.

The introduction of the TAKAROS/TAKARNET systems allows an opportunity for the land offices to transform their information service requirements into proactive suppliers of structured spatial information. The county land offices are to be developed as the regional centres for spatial information, and this will involve the development of marketing skills, product development, project management, and the definition of goods and services to be supplied.

Land Administration and the spatial data infrastructure

Based on the data assets of the lands and mapping sector, as well as the results of research and technology development at FÖMI - supported by the EU Phare Programme and the National Committee for Technological Development – made possible to establish the basics of the national spatial data infrastructure (NSDI) in Hungary.

After the elaboration of the National Strategy on Informatics of NGO experts and the approval of the Strategy of the Governmental Informatics by the Inter-governmental Committee on Informatics, a overnmental Commission has accepted the most important actions on 15 October 1997 as follow:



National Cadastral Programme

- Harmonised address registry
- National Topographic
 Programme
- Administrative boundary database
- Metadata service and clearinghouse
- Multipurpose parcel-based information system
- Aerial survey as imagery
 backbone of the NSDI

Sample digital orthophoto with cadastral and

topographic overlays Courtesy by Eurosense Hungary Ltd., FÖMI, 2000

The Scientific Committee on Geodesy of the Hungarian Academy of Sciences has accepted the action plan of the Subcommittee on GIS with the objective to support the development of the National Spatial Data Infrastructure.

In awareness raising and opening Internet-based access to public information potential partners of the Land Offices are among others the recently established village workshops of the rural development small regions, the "Teleház" (telehouse) network, as well as the local governments and regional agencies.

Capacity building at the Land Administration

Universities such as the BMKE, ELTE and West-Hungary (College on Surveying and Land Management, CSLM) are mostly involved in the education and vocational training of the appr. 4600 employees of the institutional network These courses have been elaborated using EU supports in Phare, Tempus or Copernicus framework. Some of them are especially relevant tool for human capacity development to support the implementation of governmental policies as follows:

Staff Development in Land Administration

The SDiLA project financed by the European Union Tempus aims to establish a new programme of educational and training courses designed for the staff of the Land Administration. UWH CSLM as potential principal centre of excellence for staff development in Land Administration provides viable, developing educational programme, a developing system of delivery and strengthen working links with EU educational providers and professions in Land Administration. SDiLA project will develop several short courses, and a management course in land administration and retrain 120 land administrators, 60 technicians in lands and mapping and will enlarge the existing tutoring network. Recently, the pan-european project's PANEL-GI Compendium has been translated and will be used in the management level course. Target groups include civil servants in administrative, technician and managerial level at the institutions of the Land Administration, as well as local, regional and central governments, but also public notaries, bank officers, lawyers, private surveyors are envisaged.

Land Information Management for Executives - LIME

The project aims to have a multiplier-effect on the existing materials and methodology developed in previous projects, exploitation, further development, improvement of OLLO and UNIPHORM learning systems. The anticipated outcome will be a concepts of the widespread and flexible use of the Open Learning Training course materials providing new profession:

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assistant in land information management. Target groups of the 500 hours - 18 weeks distance learning system are the high school graduates in land offices, local governments, regional development offices, ministries, banks, insurance companies, lawyer assistants, other professionals and service providers. The content of the course's optional subject "Rural development and land consolidation" is coordinated

by the Departments of Lands and Mapping as well as the Rural Development Programmes. The thematics covers among the rural development basics the following issues related to land consolidation:

- retrospective look on the historical changes in land ownership structures,
- conceptual definitions,
- legislation background,
- importance of the land consolidation in the recent situation,.
- land exchange and complex land consolidation procedures a necessity for the sustainable rural development,
- institution as needed for the land consolidation and the Land Administration,
- objectives and achievements of the Hungarian-German bilateral pilot on "Computer-aided land consolidation" (TAMA).

The textbook is now available and the course has been started.

Land Administration and the land tenure policy

In the 90's, the integrated land registry and cadastre had a great challenge to take part in the land privatisation having impact on more than 50% of the total area of the country and a consequence of about 2.5 million new properties. This process (result of the compensation and the privatisation) directly effected about 20 % of the population.

Few of the new owners were actually able and willing to start with agricultural activity as a main occupation. In 1991 the agricultural census registered 1.4 million farmers, whereas the average plot size was around 0,5 ha. Accordingly, the breakdown by the different user types has been changed drastically. By the same time, the breakdown by ownership capital type in the agriculture has been also totally changed. The privatisation is now near to completion. In 2000, the agricultural census registered 960 000 farmers and the average plot size had increased to 2,75 ha.

Agricultural land - ownership structure (%)		
Users	2000	
State-owned	17.5	
Production co-operatives	1.5	
Company and other economic societies	6.1	
Natural person ³	73.5	
Others ⁴	1.4	

Agricultural land - user structure (%)			
Users	1990	2000	
State		14.5	
Production co-operatives	55	15,3	
Company and other economic society	315	15,2	

³ 14.6% farming in co-operative

⁴ e.g. local governments

⁵ inc. State farms

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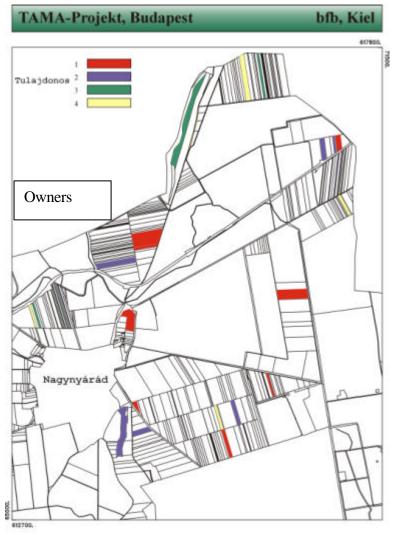
Private, single user natural person	14	50
Others		5

Ownership capital structure in agriculture (%)			
	1992	1998	
State-owned	52	12	
Privat ownership-share of non- domestic	1	8	
Owned by natural persons (domestic)	31	61	
Ownership of co-operatives	16	8	
Owned by domestic legal entities		11	

In 1999, the breakdown of the ownership of fertile land was 88% in private property, 10% of the lands were rented from the state and 2% of the lands were owned by non-single private entities.

During the 90's, the ownership and use of lands have been significantly divorced. From the ownership point of view the parcels have been fragmented, dispersed their shape and average field size doesn't support the viable and sustainable family farming. It was necessary to find appropriate solutions for the benefits of competitive family farming.

Applicable, GIS-based land consolidation methodology was investigated in pilot areas using



German expertise in bilateral governmental level framework project called TAMA started in late 1993. Taking also into account the project's experiences the new legislation on land consolidation was formulated. It is anticipated, the new legislation on land consolidation and the institution of National Land Fund will serve as facilitator to establish real land market and support the viable agriculture and sustainable integrated rural development.

By the operation of the planned institution of the National Land Fund, the land offered by the NLF makes possible:

- Establish a harmony of the land market and the land use
- strengthen the land market

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• execute land consolidation for a more effective farming

improve the viability of the family farming by enhancing the conditions.

As shown by the table, the average size of the parcel which is owned by private natural person is less than 3 ha. 90% of the single owners cultivate less than 5 ha, which is not viable for family farming as main occupation. In order to improve the life quality in the rural areas and to promote land consolidation ensuring more competitive farming a 7-years long series of methodological pilots have been executed.

Land consolidation

The TAMA project was launched in 1993. 4-4 village in 4 counties were selected to start with the critical adoption of the proven land consolidation methodology (supported by GIS) as used in the Federal Republic of Germany in the last 50 years. The German Federal Ministry for Agriculture has selected the Kiel-based BfB consulting company subcontracted by GFA and financed in the TRANSFORM framework. In 1998 the 3 Brooks Smallregion invited the project to investigate the methodology working together the willage workshop aiming village renewal and preparing rural development plan. In the TAMA-2 phase, two additional small



regions with 15 000 - 15 000 ha areas have been selected in close co-operation with the Department of the Rural Development Programme, MARD based on the feasibility and overall evaluation of the newcomers commitments and other relevant condition.

•County	·Villages	
•Baranya	•Bóly	
	•Majs	
	•Töttös	
	 Nagynyárád 	
•Békés	•Hunya	
	•Kamut	
	•Kondoros	
	 Örménykút 	
•Pest	•Érd	
	•Pusztazámor	
	•Sóskút	

	•Tárnok		
•Somogy	 Balatonboglár 		
	•Fonyód		
	•Oracsehi		
	 Szőlősgyörök 		
 Veszprém 	•Dabrony 3 Brooks		
	Smallregion		
	•Iszkáz		
	•Kisszõlõs		
	 Nagyalásony 		
	•Somlóvecse		
	•Vid		

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•Somogy	•Balaton-Park 2000
	•Smallregion

•Baranya	•Hegyhát Smallregion
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As illustrated in the Nagynyárád case, the impact of the land-related compensation and other land privatisation resulted inadequate size and shape, too fragmented distribution of plots belonging to one single ownership, which doesn't support the viable family farming and the competitiveness. It was realised, the introduction of a well established land consolidation procedure and the planned institute of National Land Fund could significantly contribute to a better quality of life in the rural areas. The proven methodological approach used in Germany seems to be an ideal implementation of the land rearrangements as integrated part of the rural developments and taking into account also the agri-environmental measures obligatory in the EU member states.

Well prepared legislation, gradually improved multiagency co-operation, trained and skilled personel at the participating Land Offices and FÖMI, curricula for distance learning course (LIME) as well as valuable local datasets collected for the small region's workshop are the direct benefits of the project. It is anticipated that the results of the small region based land consolidation pilots can serve the remaining 200 small regions to follow the approach and learn from the lesssons. The experiences have high value also for the implementation of the National SAPARD Plan till year 2006.

As follow-on action, the Land Tenure Policy has to be formulated and execution order for the draft laws waiting for Parliament approval have to be elaborated. To do so, the implemented pilot projects' experiences can be used directly. The education and training and raising the awareness are vital points. The institutional, technological, financial, organisational aspects have to be clarified and requirements have to be met accordingly.

About the data used in the project: land registry data including information on owner, the properties, and related legal circumstances (alltogether about 35 items) from the computerised District Land Office Land Registry and its large scale map sheets. Information on the land users from the District Land Office's relevant registry. Topographic maps at scale of 1:100k and 1:10k. Aerial photographs (optional) and high resolution satellite imagery (so far SPOT, IRS). Land Offices are accessible using the TAKARNET wide area intranet/extranet network. At the beginning of the project, the institution framework was established. Additional actions were related to the local awareness raising and to train the co-operating Land Office staff members. The full organisational procedure of the land consolidation was modelled in the carefully selected areas. All of the participating Land Offices have been equipped with GIS workstations. In-depth data collection have been made. Open days, road shows, interagency consultations, video-editing, television broadcast and one stop shop has been arranged. After the Land Policy Workshop of UNECE MOLA held in Budapest and heavily participated by the TAMA and the Hungarian lexpert community on December 1999, the project closing International Workshop was held in Budapest in late 1999 under the auspices of MARD again, participated by the Embassy of the Federal Republic of Germany in Budapest, the Subregional Centre of the UN FAO in Budapest, the World Bank regional representative and experts from the countries of the CEE and EEA regions. The results of TAMA and the relevant presentations in the subject are still available in form of CD Proceedings for nominal cost.

The project has been extended to the late 2000 in order to pave the way for the pilot implementation of an integrated rural development program in three small-region pilot areas in Somogy, Baranya and Veszprém counties. The project called TAMA-2 had the objective to support the local village workshops's rural development activities by methodological consultancy, awareness in use of GIS based land consolidation and execution of the preparation of the consolidation procedure. The project was closed by an international Seminar on the topic Land Consolidation, Land Fund and Rural Development in December D:\gisopen\Rfg2.doc, 9. oldal 2001.03.09.

11, organised by TAMA and hosted by the Ministry of Agriculture and Regional Development. All of the presentations are available on CD for nominal cost at FÖMI. Additional detailed description of the project objectives, the execution and the gained experiences, the introduction of the land consolidation procedures fully completed (in County Baranya) as well as the comments on the coming legislation and the way of sharing of tasks in a multiagency environment of the integrated rural development and the Land Administration have been also summarised and will be available in the second quarters in 2002.

Experiences in a small region from the Land Office perspective⁶

A good co-operation has ben set up with the 3 Brooks Small Region Village Renewal Public Benefit Company, which was representing the interest of the major players in the area. Actually, the work with TAMA project team was started in late 1996 involving a larger area with 42 settlements, but it was soon realised, the area of interest has to be reduced for a more homogeneous one, where the agricultural activities are dominant.

The 6 village selected has a total area of 6134 ha, inner (built in) part total 357 ha. The private ownership is over 92%, state-owned lands are about 7% while the local governments own less than 1 %. Cropland is dominant with 70%. The motivating factors for the voluntary based land exchange were as follow:

- Too many properties belongs to one single owners
- To collect the fragmented parcels into a single cultivatable one, preferably in the same village where the owner is living
- To collect the fragmented parcels owned by family members into a single larger one, preferably in the same village, where the family is living
- To establish parcels which are over the threshold to meet the size eligibility requirement of the agricultural area-based subsidies
- To raise the value of the owned land after the exchange.

In September 1999, an open day was arranged by the District Land Office in form of roadshow.

All the data and related products have been moved to the village workshop in Dabrony for two days in order to survey the needs by consultation with the local owners, and interested parties. Several village assembly meeting has been arranged, followed by personalized consultations if requested so. The number of the volunteers were 10 in average with extremities 2 and 20.

Voluntary based land exchanges in the 3 Brooks Small Region				
Village	No.of parcels affected	Ownership ratio affected	Area affected by exchange needs in hectars (rounded)	Land value of the areas to be exchanged in Gold Crown
Dabrony	15	31	57 40%	835
Iszkáz	20	36	32 22%	513
Nagyalásony	10	20	22 16%	338
Kisszõlõs	2	10	9 6%	112
Somlóvecse	8	15	17 12%	215
Vid	6	10	6 4%	103

Notice: the population of the villages varies in the 100- 500 range.

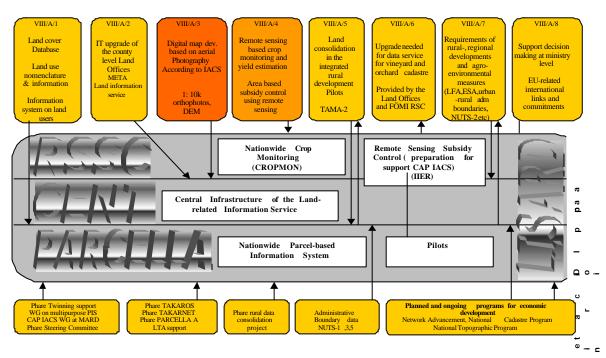
The preliminary procedure of the land consolidation has been completed. Digital cadastral maps for all of the villages of the 3 Brooks small region have been completed. A simplified content of the small region will be provided for the village workshop, where the personel,

⁶ As summarised by F.Friedrich of the Ajka District Land Office D:\gisopen\Rfg2.doc, 10. oldal

hw/sw infrastructure is already available for using the Land Office data and later subscribing for the periodic update.

The project clearly shown, the voluntary based land exchange is not a feasible solution especially in the complex environment of the integrated rural development. The procedure is time consuming and requires in-depth investigations based on a series of meetings with the aims to survey the needs (ideas, requests and expectations), to discover the conditions and to start the planning, which also needs frequent consultations and feedbacks. The merit of the draft law on Land Consolidation is, that it does not requires full concensus or fully voluntary based exchange. After being in force, the Act will facilitate the consolidation procedure significantly. But even using also the waited and useful National Land Fund, it is anticipated, even these legislations cann't provide dramatic change in the land market, because of the mind of the owners. This is why the role of awareness raising is a continuous task.

EU accession related institution building



Institutional building of the Land-related Information Service in Hungary as needed for support of the adoption of the Acquis Communautaire

The table reflects the complexity of the 3-year NPAA programme's subchapter VIII devoted to Lands Admisnistration and Remote Sensing. Details can be found in the references listed (Stresa). Note the 5th block on the first row, which is related to land consolidation. According to the plan, beeing TAMA phased-out, this block receives new elements supported by bilateral and multilateral technical/methodological co-operation The Netherlands, Mecklenburg-Vorpomerania/Germany and FAO.

Present status and follow-on actions in related legislation

Present environment

The Hungarian legislation in force - taking into account also the very recent delelopments already in final stage - provides efficient support to meet the requirements of the market-

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based economy and to face the challenge related to the features of the emerging information society .

- Act No. III of 1952 on Civil trials
- Act No. IV of 1957 on general rules of the Public Administration
- Act No. IV of 1959 on Civil Law
- Act No. II of 1992 on the Co-operatives
- Act No. LXIII of 1992 on the Protection of Personal Data and the Disclosure of Public Information
- Act No. LV of 1994 on ProductiveLand (Land Law)
- Act No. XV of 1995 Subject: Amendment of Act on Committees of Land reorganisation...
- Act No. XXXVIII of 1995 Subject: Amendment of the Compensation Act (Act No. XXV of 1991)
- Act No. LIII/1996 on Nature Protection
- Act No. LXXVI of 1996 on Surveying and Mapping Activities

This Act was passed by Parliament in late October 1996. Basic aim of the act is to ensure that series of maps be available covering the total area of the country, that are suitable as bases of real property registration, geographic information systems, defence, as well as of various economic, scientific and social subjects. The legal measure also sets the rules to what degree users of maps are to cover the costs of maps. The act is supported by two Ministerial-level executive orders such as 16/19997 (III.5) FVM (FVM-Ministry of Agriculture and Regional Development) and 21/1997 (III.12) FVM-HM (HM -Ministry of Defence), and the order 63/1999(VII.21.) of FVM-HM-PM(PM-Ministry of Finance).

- Parliament's Resolution No. 83/1997(IX.26.)OGY(Parliament) on Hungary's National Environmental Programme
- Act No. CXLI/1997 on Land Registration and the related executive order 109/1999(XII.29.) of FVM.
- Parliament's Resolution No. 35/1998(III.20.)OGY(Parliament) on the National Regional Development Concept
- Government Decree No. 236/1998 (XII.30.) Korm.(Government) on registration of farmers as condition for receiving state aid. In the first year 145 000 private farmers registered for area-based aid. (7% of their applications have been controlled by satellite remote sensing by the FÖMI Remote Sensing Centre of MARD.
- Order 62/1999(VII.21) FVM on the detailed regulations of land classification
- Government Decree No.184/1999(XII.13)Korm. on the detailed regulations of the registration of land use (by setting up and maintaining the Registry on Land Users at the Land Offices)
- Order 105/1999(XII.22) FVM on the detailed regulations of land classification
- Government Decree No. 113/2000. (XII.27.)Korm. on the Registration of the Data Property of Public Administration

In order to promote the access to public interest information managed by public administration and the better exploitation of the data property of public administration as a key resource a framework system has been established for the registration of public administration data property and its operation will be ensured on continuously base under the responsibility of the Minister in charge of the Prime Minister's Office.

In the interpretation of this Resolution, the registration of public administration data property shall mean an information system capable of recording the sources of public interest data managed in public administration and the concepts related thereto, of free access to the key

characteristics of data sources and related concepts on a public network as well as of querying the access information of data sources on the basis of such characteristics.

The typical data of statistical and administrative purpose data sources available at central public administration bodies and organisations controlled by such bodies as well as of concepts related thereto shall be uploaded into the public administration data property register (initial loading of data is 30 June 2002); the continuous updating of such data shall be assured, the resources, regulatory, organisational, professional and other prerequisites of the commencement and maintenance of such service shall be provided for. By this Governmental Resolution also the voluntary accession of all municipal and other public bodies to the public administration data property register shall be facilitated to the extent possible

New regulations

Land consolidation and additional tools such as the institute of National Land Fund (NLF) is handled as an important issue also in the National Development Scheme. NLF is a vehicle to facilitate and support the implementation of agricultural land tenure policy via selling and buying leasing and exchanging lands.

The major elements of the land tenure policy include

- the intention to complete the privatisation of the agricultural lands as soon as possible
- to facilitate the concentration of the fragmented parcels by supporting the voluntary initiated exchange of lands or buying lands for merging purpose by the present agricultural subsidies framework,
- to adopt the draft law on Land Consolidation by the Parliament as soon as possible and
- to adopt the draft law on National Land Fund.

It is anticipated that tools such as the new legislation for land consolidation (which regulates the share of costs among the interested parties including the state also providing long-term credit by attractive interest rates), as well as the establishment of an efficient institution of the National Land Fund (based on state-owned areas) will ensure

- a more adequate parcel size required by the viable and competitive family farming contributing to the sustainable agriculture and rural development;
- the strengthening of the land market in general and provide a sound market with reasonable transaction prices (today the average market price is about 150 000 HUF/ha);
- promoting the states's interest to change the land use patterns especially in areas, which are endangered by frequent logwater, floods or suffered by erosion.

The 2-year budget adopted by the Parliament in late 2000 provides financial resources for the implementation of the land tenure policy programme with the expectation, the draft laws will be adopted by the Parliament in 2001.

Finally, the draft of the Act on the Digital Signature have to be mentioned, which was just submitted by the Government. If adopted by the Parliament, its impact on the operation and service of the Land Administration is also anticipated.

EU regulations

The currently running projects of the Land Administration are in association with the preparation of the institutional and infrastructural development in order to provide the requested service as needed by CAP IACS and related measures. Within CAP there are a number of country specific regulations that have needed to be implemented due to unforeseen country specific issues related to lands. This is also the case for Hungary, this is why legal and technical assistance provided by the European Institutions to enable these regulations to be drawn or enhance may be required. Special emphasis is given here to the related land tenure

policy and its implementation tools such as land consolidation, land fund and the related public registries and land use.

Land Administration is affected by the following "vertical themes of the EU's agrienvironmental (AE) matrix: soil quality, soil erosion, as well as landcover, land use, landscape, land conservation, biodiversity. AE regulations, which are mandatory for the member states includes (EC) 2080/92, and especially 2078/92, 1257/99, 1750/99 on support for rural development, where AE measures form compulsory part. The related actions needs improved and updated registries as well as GIS-based products and services. The planned cadastrebased agricultural parcel identification and information system (PARCELLA) and the already operational system of using remote sensing for area-based subsidy control (CABS) will be helpful also for AE measures with objectives environmentally-beneficial productive farming, managing no-productive lands.

Land parcel identification system (LPIS) and the control with remote sensing (CwRS) are key elements for the area-based subsidy control, as integrated part of CAP IACS. After the Regulations 3508/92 and 3887/92, the recent 1593/00 one is explicitly formulating that "provision should be made for the introduction of computerised GIS techniques for the identification of agricultural parcels". It recalls again the increased value of the data, products and service provided by the Land Administration segment (including the remote sensing center) in the implementation of the EU-conform agricultural policy and support agrienvironmental measures in a multiagency environment.

Facilitating tools

International relations

The implementation of the land tenure policy is not only supported by the developments in the legislation environment and the service improvements in the countrywide public administration of the Land Offices in line with the relevant e-Europe concept using the information technology extensively, but also by the the experiences gained by the wide range of international professional relations built-up systematically since the early 90's including the

- Hungary's presence in the work of CERCO since 1992 and in MEGRIN since 1994. (Since 1st January 2001 these have been fusioned into EuroGeographics), whereas the Land Administration is representing the large scale mapping segment,
- Bilateral co-operation with the German Federal Ministry of Agriculture, Forestry and Food Supply in the "Computer aided land consolidation programme" called TAMA started in 1993, financially supported by TRANSFORM and just completed,
- The expertize and consultancy fora of the UN European Commission for Economy's Task Force on Cadastre lead by *Professor Peter Dale*, the Meetings of Officers of Land Administration (MOLA), where Hungary was one of the founder in Geneva in 1995 and later the thematic workshops of the Working Party of Land Administrations (WPLA), which usually verified the Hungarian approach presented on expert discussions,
- Hungary's presence in the work of EUROGI since 1995. EUROGI is the EURopean umbrella Organisation for Geographic Information. It has more than 20 national and pan European GI associations as members. In this capacity it represents over 3000 separate organisations in 20 different countries. Its mission is to maximise the effective use of geographic information for the benefit of the citizen, good governance and commerce in Europe and to represent the views of the geographic information community in discussions with the European Union and other bodies.

- The European Commission funded ACE project lead by *Dr.Richard Baldwin* entitled Development of Land Markets in Central and Eastern Europe⁷, which highlighted and summarised the developments in Latvia, Poland, Czech Republic, Slovak Republic, Slovenia and Hungary through case studies in terms of the legal position, institutional matters, technical aspects, economic matters, transition experience,
- Exchanges of views and discussions on methodologies, national reports and other official documents of the Working Group meetings held in Luxembourg on Land use/Land Cover of EUROSTAT lead by *Rainer Muthman*, where the representatives of the Hungarian Central Statistical Office and the Department of Lands and Mapping of the Ministry of Agriculture and Regional Development is invited participant since 1998,
- The cross-fertilisation with representatives of remote countries' approaches (such as Canada, Australia etc) at the thematic Bertinoro Seminars on Land Tenure and Knowledge Transfer in 1988 and 2000 respectively orchestrated by the FAO Headquarters,
- The emerging professional links with the FAO SEUR, Budapest and their active involvement in joint actions such as meetings, open days and workshops with international participations (Proceedings of this latter event are accessible on CD-ROM by nominal cost), as well as the comparative Study on the Land Consolidation, which served the networking and cohesion effects both on international and domestic level.

Some of the near future actions include

- The submission of a FAO TCP proposal on the pilot devoted to the methodological development of the land consolidation adopted to the new legal environment using the new tools and institutions as instruments available for land use change especially in area(s) endangered by flood/logwater or soil erosion,
- In Dutch and German relations, bilateral pre-accession proposals with special emphasis on how to contribute to find the best practice in integrated rural development during and after Sapard, as well as to find efficient organisational solution for the land management issues respectively,
- Investigation of the possible scenario concerning the realisation of the institutional setup of the Europe and Central Asia Initiative on Property Rights providing service as regional anchor in Budapest for the EU candidate and Balkan countries,
- Taking part in the organisation and hosting the first EU Workshop on the Use of cadastre as component of the spatial data infrastructure supporting the implementation of agrienvironmental policies, scheduled for June 7-9, 2001.
- Taking part on the UNECE WPLA Workshop "EU Accession from a Land Administration Perspective" between 13-15 June in Gavle, Sweden by highlighting of the overall status, (basic legislation, extent of privatisation and registration, organisations involved), emphasizing the important issues connected to the Land Administration and mentioning, to what extent have this institution's issues been part of the EU negotiations. These national reports will be subject of special round table discussion.

References

¹ with special emphasis on its major components (selected by R.B):

[•] the regulating institutions (land register, the cadastre, valuation & financial institutions)

[•] the players (land owners and tenants),

[•] the goods and services (land and its usage)

the financial instruments (mortgages, credit, capital, revenue generation, tax raising capability).D:\gisopen\Rfg2.doc,15. oldal

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