

## **REALIZATION OF SYSTEM THEORY IN SELECTED MODEL AREAS**

06524/100/3 TÁMOP-4.2.1/B-09/1/KONV-2010-0006

*Ferenc VÉGSŐ, Katalin GOMBÁS<sup>1</sup>*

### **ABSTRACT:**

Our study examines the system of cross compliance within the frame of the land use reform, using data of a selected model area. We place this issue into the regulatory and subvention-political environment of the European Union. We show how the nature rules as well as the farmers' interests are practiced on the selected area. We deal with questions regarding to information, publicity, partnership and system of the licensing procedures. We also examine whether the obligations of the European Union member states cause any competition disadvantage on the farmers, and, whether the farmers are sufficiently prepared for meeting the requirements of the European Union.

**Keywords:** *selected model area, system theory, European Union, system theory.*

## **1. INTRODUCTION**

Cross compliance is a complex system of requirements that consists of environment – friendly farming for healthy food production and environment protection as well as the minimum requirements of responsible food safety. That is why cross compliance has to be enforced in case of changing land use to protect the environment, and, it asserts itself by a licensing procedure of land use and legal conformity. Preliminary documentation for changing land use must focus on observance to legal regulations. It is essential for a landowner to get a licence to change land use and be eligible for subvention in accordance with cross compliance.

## **2. MATERIAL AND METHOD**

### **2.1 Conceptual and practical basis of surface – cover examination in the model area**

We carried out a preliminary environment test in three selected model areas in the surrounding of the impounded reservoir in Pátka in connection with the landowners' application for changing land use. We prepared the documentetion according to §4 of executive decree N<sup>o</sup> 314/2005. (Dec 25).

During the licensing procedure in 2010, Central Transdanubian Inspectorate of Environment, Conservation and Water Concervancy could not have a tour of inspection because of shortage of money. This authority did not require any state-offical maps as there was no legal regulation referring to it. Instead, it did accept a description in words and any map.

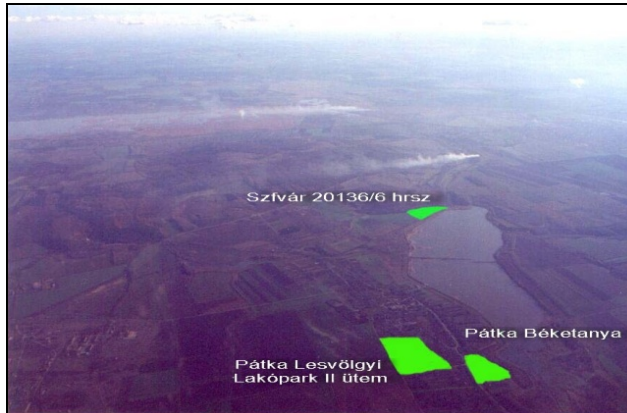
Such conduct goes against the executive decree N<sup>o</sup> 218/2009 (Nov 6) about country planning, which requires plans to be prepared in geographic information systems (GIS). So we found it necessary to obtain offical basic maps to prepare the research documentation of the three selected model areas.

---

<sup>1</sup> *West Hungarian University; Dep. of Geoinformatics Székesfehérvár, Pirosalma u. 1-3, vf@geo.info.hu, gombas@geo.info.hu*

The basic state maps were as follow:

- 1:10,000 scale topographic map made in 1987.
- CORINE 100 surface – cover map
- CORINE 50 surface – cover map



**Fig. 1** The model area of the impounded reservoir in Pátka and its surrounding with the 3 selected model lands

The 1:10,000 scale topographic map is more than 20 years old and shows the situation before the change of the regime in 1989. The data of maps CORINE 100 and CORINE 50 are rather new, and, their geometrical disintegration is 25 and 4 hectares. But they do not meet the requirements of executive decree N0 314/2005 (Dec 25) about single procedure for environment management and environmental impact assessment, §140, appendix 3 of which demands an obligatory environmental impact assessment for land of 3 hectares or more. We could not obtain up-to-date and suitable in disintegration maps either for planning or the licensing procedure.

The following questions arose on the base of all that:

- How can a procedure carried out without using official maps meet the requirements if environmental changes and their possible effects are explained in words only?
- According to which maps should the authority give a licence for changing land use? Who should have the maps made and pay for producing them?

## **2.2. Producing a surface-cover map of the selected model area using geographic information system**

We also examined whether official maps and state data base are suitable for applying them in environmental licensing procedure for changing land use in accordance with the system of cross compliance. Our aims were as follow:

- Creating an own data base by updating the 1:10,000 scale topographic map after a tour of inspection in the area.
- Creating a professional model system in accordance with licensing.
- Applying the theory of cross compliance in licensing procedures of changing land use.

### 3. RESULTS

Our professional model CORINE 10 surface cover CLC 10 data base, created for environmental licensing procedures, is based on official 54232; 54234 1:10,000 scale topographic map segments and CORINE 50 EU compatible code system. We carried out tours of inspection in 2006-2010; so we could trace the changes of surface cover in the model area. The updated map data file was created in digitized format of topographic maps in 2010.

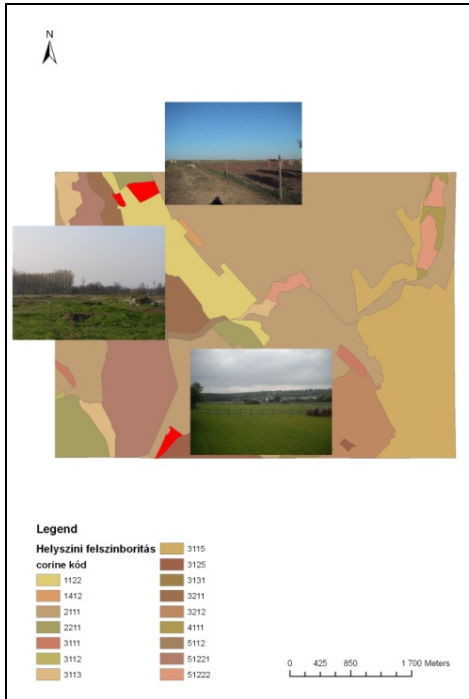


Fig. 2 CORINE10 surface cover .shp file

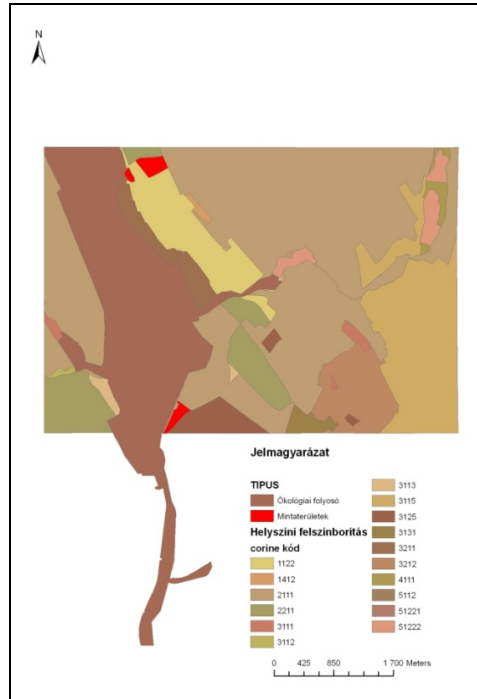


Fig. 3 NOH shp file

We examined environmental restrictions separately from the legal regulations restricting changing of land use. We asked for a National Ecology Network coverage for the selected and examined area (Fig. 3) from the Ministry of Rural Development.

Our aim was to show that geographic information data base required for environmental procedures has to be supplemented with the data of special authorities involved in the procedure (e.g. protection of heritage, water reserve and, conservation). Landowners should also be provided for the information so that they would not face the legal restrictions and obligations during the licensing procedure only after setting the documentation of preliminary inspection.

Landowners should be provided for the opportunity to meet the requirements of cross compliance, and not to face subsequent restrictions. We can also improve the market interest of landowners this way because we make their position more reliable during the procedures in the network of public administration.

#### 4. CONCLUSIONS AND SUGGESTIONS

We suggest updating 1: 10,000 scale surface cover topographic maps with geographic information systems and involving special authorities such as environment, heritage, water reserve, soil, landscape conservation and forestry in environmental licensing procedures.

It could help citizens involved in procedures for changing of land use to practise their rights for gathering information if they could see possible environment changes in pictures by the help of a 1:10,000 scale geographic information data base. We suggest realising all that within the „Client-gate” system of public service and the data base could be accessed for them at environment, conservation and water reserve authorities.

Realization of system theory makes it necessary for authorities of rural development and special authorities of environmental issues to cooperate.

So it is necessary to run an interoperable data base of geographic information system between different authorities to examine relations and assess environmental impacts, which makes it accessible for every one involved to learn about possible effects.

As a part of cross compliance, those who receive agricultural subvention can request the authorities to comply with 15 legal regulations referring to forming requirements and the right agricultural and environmental conditions of agricultural lands.

#### REFERENCES

- Katonáné Gombás K., (2006), *Előzetes környezetvédelmi hatásvizsgálat a Pátka Lesvölgyi lakópark II. ütem építéséhez*, Nyugat-Magyarországi Egyetem.
- Katonáné Gombás K., (2007), *Előzetes környezetvédelmi hatásvizsgálat a Pátka Béketanya beépítésének szabályozási tervéhez*. Nyugat-Magyarországi Egyetem.
- Katonáné Gombás K., Végső F., (2010), *Előzetes vizsgálati dokumentáció a Székesfehérvár 20136/6 hrsz-ú ingatlanra vonatkozó szerkezeti és szabályozási tervhez*. Nyugat-Magyarországi Egyetem Geoinformatikai Kar, Székesfehérvár.
- Katonáné Gombás K., (2010), *A kölcsönös megfeleltetés és a birtokrendezés, digitális jegyzet*, TÁMOP BTRI 14. modul, Székesfehérvár.
- Vonatkozó rendelkezések, szabályozások.