



## **MENTAL MAPPING IN GEOGRAPHICAL APPROACH AND REGIONAL ENVIRONMENTAL DISPARITIES AT FRONTIERS**

Ildiko HORVATH GALNE<sup>1</sup> – Jozsef GAL<sup>2</sup>

<sup>1</sup>NLG, Ormos E. U. 18. H-6800 Hodmezovasarhely, HUNGARY

<sup>2</sup>University of Szeged Faculty Of Engineering, Szeged, HUNGARY

---

### **ABSTRACT**

Literature follows with attention the process of globalization and inter-regionalisation of environmental market. It offers and requests new possibilities and demands in agriculture too. Using of new, modern technologies in developed countries and conserve outmoded ones take difference among different less-developed and developed countries of the world. Well-known, environmental pollution does not know frontiers, so the gap between countries can be huge. What is the situation and what we can do in this area? Where to invest to win the best output?

Speaking about values we can find different measures in different countries. It takes many difficulties against how to solve problems. One is the most important factor is the disparity of short-term and long-term interests.

It has subjective and objective ways to transform and understand. People often create preconception by their mental map and connect territories and problems. It is not so simple.

We can assert reduction of over mentioned situation can be stimulated. Discrepancy and discrepancy along areas of frontiers cannot sustainable, mainly not in Central and Eastern Europe.

---

### **1. INTRODUCTION**

The process of internationalization can be observed in the case of environmental programs, as well. The importance of financial funds that stimulates new technologies is increasing. This way the emphasis has been put on prevention from cleaning and controlling. It is realized differently in the case of countries on different levels, as the change to a reasonably modern technology from an undeveloped one is a significant leap forward in Eastern Europe. The problem is that the developed world appreciates only „future technologies”. The structure of environmental market in Eastern and in certain Central European countries will be similar to the earlier structure of EU, whereas a certain change in structure is proceeding towards integrated, intensive solutions in developed world. At the boundaries of regions we can often find different indexes, different measuring technologies, and significant differences in attitude (e.g. Finland and Russia) but – mainly in the case of smaller countries – the only solution is reduction of these differences and elaboration of common, harmonized solutions. The members of EU question the unification of problem management in big regions because of their disparity in measurement. Only a unified measuring technology and index system can be regarded as the basis of objective judgment of processes. An essay from Brussels confirms it. (Communication from the Commission 2003) This question is particularly problematic in the successor states of the Soviet Union, as they consider certain cases as successful ones but according to other methods these cases can be valued very modest. Placing the capital outside EU appears in this field, too, so its specific efficiency can be multiplied. Nevertheless, the process (stimulation) of abandonment of conflict between the long-term interests of environment, and the short-term interest of economy has begun in the Central and Eastern European countries-with different intensity and methods.

A kind of idea about the future is required in which different regions can develop in intensive division of labour and not in subordination to each other. The territorial inequality is lessening, the main centers of development are regions and counties, and their cooperation with other regions along the borders creates the opportunity to join the European integrating processes (Gal, J. – Valko, L. 1998). Discrepancies where countries in different state of development can be found will get more important role.

The environmental responsiveness of governments in these countries is very different. A number of enterprises deal with production, development of environmental technology and with environment

protection. The role the government takes has an impact of crucial importance on them. Deriving from the nature of the market, only smaller amounts are typical that are rarely supplemented by a bigger order. This situation requires flexibility, significant capital from the enterprises; therefore a lot of them cannot survive in the rapidly changing market. From the prospect of demand the legal regulation, the lawful behavior of enterprises ensure motivation, and the pulling-impeding-moving unity of market mechanism, too, which is able to move the situation from its deadlock. The condition of its function is that it affects the whole economy including the society. In this terminology „impediment” means that we have to prevent materials, energy, products from leaving the process of production and consumption too soon. It should be realized within national frames. Regulation supporting the pull factor removes by-products from the system and it does not let it accumulate to harm the environment. Recycling, collection and managing of waste materials play important roles in this process. Most processes have regional impacts, so the role of cooperation is appraised. Only a small part of these activities can be done on purely market base, in most cases the token of effective solution is in the hand of the state. We can find both good and unacceptable examples for it in Central and Eastern Europe. For instance, Austria’s efforts prove that results can be reached in the fields of collection of paper refuse and its use as a second raw material etc., which projects have failed in other, mainly Eastern European, countries.

The judgment of environmental market is changing into a favorable direction in Central and Eastern Europe because of the accepted positive externalities of the environment protection. Its effect can be observed in the legal phase, in regional development, in manpower market and in other innovative processes, as well.

## 2. DISCUSION

The above mentioned facts are supported by a study from Tubingen (Valko L. 1998), according to which 45% of the Western European environment technical enterprises can survive the first 5 years, and only 35% of them the first 10 years. It is mentioned that the condition of survival is that the given enterprise can comprehend the whole market scale from planning through analysis, consultation, execution, operation, and service to the after-care. An enterprise with only one of these activities financially runs a grave risk. Long-term situation of services with oversupply in environmental market is getting more risky comparing to firms presenting intensive environmental technique, technology. The condition of survival is adjustment to the regional and local conditions, this way the role of eco-marketing is going to be appraised. In this context the state’s role can be mentioned again, and the dynamic effect of steps that increase demand. There are regional programs not only in EU but in discrepancies, as well. Regional approach is supported by the fact that Eastern European countries that were excluded from joining in 2004 should change their environmental policy and their environment economical programs rapidly, since their backwardness is significant.

Chart no 1

### National Environment Protection Program II Hungary

Source: NKP-II

TAP megnevezése	A 2003-2008 közötti időszak		
	teljes költsége (mFt)	kp-i költségvetésből (mFt)	%
1. Quality of urban environment	1.626.561	900.647	29,3%
2. Water protection and sustainable use	1.095.875	680.100	19,7%
3. Change of climate	961.273	262.575	17,3%
4. Health and safety	682.273	386.757	12,3%
5. Use of fields	541.752	245.046	9,7%
6. Waste management	363.000	94.817	6,5%
7. Biodiversity and ecological protection	181.166	106.706	3,3%
8. Safety of environment	64.527	61.677	1,2%
9. Development of environmental awareness	40.577	32.612	0,7%
Together:	5.556.820	2.770.937	100,0%

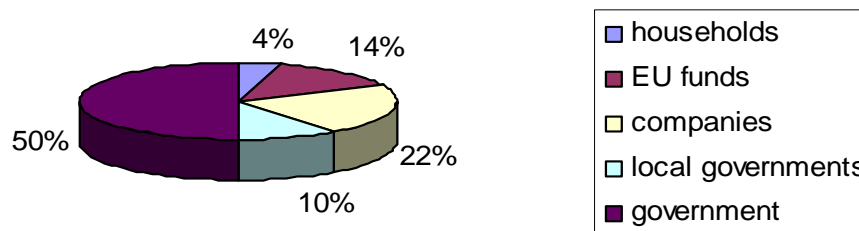
In the National Environment Protection Program II Hungary (chart no 1) has formulated a thematic action program and has planned expenses which show that harmful effects of urbanization and water protection claim the highest expense. These two problematic fields are typical of the Central and Eastern European countries. Technical-technological side of solution is ensured in these countries; the problem is the lack of financial sources. It is worth examining what distribution of sources Hungary planned in order to realize her planned obligation. I suppose that the proportions are similar in other joining countries, as well. The situation is entirely different in the case of other countries as the rate of EU-funds is essentially smaller. The source-proportion (diagram no 1) coming

from the central and municipal budgets exceeds 60%, EU makes a contribution of 13,9 % to it, and finally, there is a problematic self-share, as well.

In the early 60's American psychologists and geographers modeled a special method of cartography, which is surveying the familiarity with a place by means of the mental map. With the mental map we analyze the map formed in people's brain about their immediate environment.

Diagram no 1  
Distribution of financial means in Hungary 2003-2008  
(planned)

Source: NKP-II



This method helps us to see which places, flows approaching solutions are known for the inhabitants of a settlement; according to the data we can get a picture about the question that which the most interesting and the less interesting environmental impacts are, where the cardinal points of a region or a town can be found. It is worth comparing these notes with the mental maps of those who are interested in the environmental flows.

The answers to these questions help us to examine which are the questions about the areas that have aroused the people's attention and which are we have to highlight.

To serve this purpose we have to introduce the following terms: region, factors that form the region, regional development, environmental conditions. Then we show the development of the region and the immediate environment, together with the advantages and disadvantages that follow the development of the given area. If a really consistent and environmentally friendly transformation is expected, it is worth calling the attention to it.

For the sake of the efficient teaching-learning form the students should be able:

- ✚ to analyze the typical region according to different points of view,
- ✚ to recognize the typical region with the help of pictures and descriptions,
- ✚ to recognize and to name its most important features,
- ✚ to make a drawing about the region, to make a description of it,
- ✚ to try to imagine and to draw the possible future changes of the typical region,
- ✚ to inform about the rehabilitation of an environmentally destroyed region from different sources of information.

The question of the method of the process is very important here. It is the most obvious to make a task sheet where the following methodological possibilities can be exploited well:

- ✚ to draw a region on the basis of their knowledge and experience,
- ✚ to make a description of a region on the basis of lesson experiences, visual or map information,
- ✚ to analyze a region according to some given points of view,
- ✚ to make students recognize the process of a regional development with ordering pictures and drawings,
- ✚ comparative regional analysis on the basis of a written text (for example the same region in different times or different regions in the same time).

The analysis was about a region at border of Romania, Serbia and Hungary by means of which it was possible to show the connection between man and his environment, and it pointed out how the natural region became economic region.

Global problems of our environment has been revealed during decades, and at the same time the favorable counter moves have been formulated more accurately. Content of these frameworks (international organizations, contracts, financial funds etc.) depends on the responsibility taken by the region and nation. The level of environmental knowledge of nations and the available system of means move on a very wide scale. Therefore, the different short-term interests of developed and undeveloped countries have a significant impact on the international cooperation of environment protection. It seems that the most effective way of managing global problems is the cooperation between small

regions. This solution is able to handle regional disparities and discrepancies above all. In the Central and Eastern European countries the regional cooperation has been getting stronger in most regions since the 90's –after the former political alliance system had collapsed. „Visegrád countries”, Carpathian-Europe-Region, Alps-Adria or the league of Vajdasag, Transylvania and South-Eastern Hungary are good examples for it. In the field of environmental protection these cooperation could not have results that would take their environmental status closer to the Western European level. The main reason for it is the lack of financial sources.

### 3. CONCLUSIONS

As a result of a new attitude on both sides of discrepancies the more developed country stimulates the environmental problems, rehabilitation of the less developed one with her increased role. In the case of Austria and her Eastern neighbours the regional environmental investments can bring bigger benefit for the less developed countries but at the same time they have a positive effect on the whole region, as well. According to a certain research the economical and ecological profit of Austria's foreign environmental investments can be the triple of the same investment inside the borders of Austria.

This change means that environment political principles have new definitions, so does the principle of prevention which emphasizes the efficiency of prevention as opposed to rehabilitation of damages. The principle of the individual, who caused damage which says, that this individual has to bear the costs of rehabilitation. The principle of subsidiary, which says that adequate steps have to be taken on the most efficient institutional level. The principle of cooperation and harmonization which attempts to synchronize the environment protection policy of different countries in the interest of the most favorable output. According to the principle of compatibility the environment policy should be integrated into the work of other fields, so it has to be in harmony with the social and economical policy.

---

### REFERENCES

- [1] Communication from the Commission [2003], Commission of the European Communities, [http://europa.eu.int/comm/research/industrial\\_technologies/16-04-03\\_compenvironment\\_en.html](http://europa.eu.int/comm/research/industrial_technologies/16-04-03_compenvironment_en.html)
- [2] Gal Jozsef – Valko Laszlo [2000]: Environmental Education in Hungarian Higher Education, (A környezeti nevelés a magyar felsőoktatásban) (angol nyelven), Periodica Polytechnica, Social and Management Sciences, Vol. 8. No. 2, Budapest, p. 121-131.
- [3] Nemzeti Környezetvédelmi Akcióprogram-II, (kezirat), Budapest, [2002].
- [4] Valko Laszlo [1998]: Környezeti ipar és szabályozás, osztrák esettanulmány, OKO, IX. évfolyam, 1998. 3-4. szám, p. 50-72.
- [5] Galne Horvath Ildiko - Gal Jozsef [2009]: Some Educational and Logistic Aspects of Mental Mapping of Rural Areas, AVA Congress, Debrecen 2009.03.26-27. conf. cd