ASPECTS OF SPATIAL ECONOMIC PROCESSES OF DISADVANTAGED AREAS IN HUNGARIAN AND INTERNATIONAL PERSPECTIVE

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ABSTRACT – The examination of disadvantaged regions goes back to a long history, greatly influenced by the ever-changing natural, economic and human resources. Consequently, while examining the disadvantaged areas, we face new systems of coherences. Today's regional policy also needs to answer the question whether the spatial development funds of the past have been efficient or not and whether the land use distribution influences the spatial competitiveness or not. As we move towards 2015, we must consider the actual state of delivery of the Millennium Development Goals (MDGs) in the Least Developed Countries (LDCs) and address the above-mentioned issues in order to realise the international political commitment to leave no one behind. In this paper, we have shown some aspects of spatial economic processes through the example of the Hungarian disadvantaged areas. These issues are timely because the usefulness of the research is important, ranging from rural development to spatial planning and the elaboration of local and regional development strategies. Spatial discrepancies in Hungary cause the disadvantage of rural areas, contributing to their lagging behind compared to the urban areas (Kollár, 2012).

Keywords: disadvantaged regions, developing countries, Millennium Development Goals, Hungarian micro-regions

INTRODUCTION

To achieve the UN's goals worldwide, less developed countries need to address weaknesses in health systems and policy makers need to look beyond aggregate national figures to inequalities in outcomes. In September 2000, the largest ever gathering of heads of state ushered in the new millennium by adopting the *UN Millennium Declaration*. The declaration, endorsed by 189 countries, was then transformed into a roadmap setting out goals to be reached by 2015. The eight goals in the section on development and poverty eradication are known as the *Millennium Development Goals* as per below:

- Eradicate extreme poverty and hunger;
- Achieve universal primary education;
- Promote gender equality and empower women;
- Reduce child mortality;
- Improve maternal health;
- Combat HIV/AIDS, malaria, and other diseases;
- Ensure environmental sustainability;
- Develop a global partnership for development.

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They build on agreements made at major United Nations' conferences of the 1990's and represent commitments to reduce poverty and hunger, to tackle ill health, gender inequality, lack of education, lack of access to clean water, and environmental degradation. The big difference from their predecessors is that rather than just set targets for what developing countries aspire to achieve, the goals are framed as a compact that recognises the contribution that developed countries can make through fair trade, development assistance, debt relief, access to essential medicines, and technology transfer (Haines and Cassels, 2004; The Millennium Development Goal Report, 2011). Without progress in these areas (summarised in the final goal), the least developed countries will face an uphill struggle to achieve the other goals. The notion of the goals as a compact between North and South was reaffirmed at the international conference on financing development in Monterrey, Mexico, in 2002 (Haines and Cassels, 2004).

These issues occur every day while analyzing the efficiency of the past 20 years' regional policy. On the other hand, the Least Developed Countries (LDCs) are unlikely to meet most of the Millennium Development Goals (MDGs) despite progress with regard to some of the goals in different LDCs (Post-2014 and Post 2015 UN Development Agenda). Progress remains slow and uneven across the LDCs. Rwanda is in the top position, followed by Bangladesh and Cambodia. At the bottom of the list, there are three African countries: Somalia, Equatorial Guinea, and Sudan. Four countries are unlikely to meet any of the targets: Mozambique, Sierra Leone, Somalia, and South Sudan. Not all LDCs have accelerated progress towards attainment of the MDGs in the post 2000 period (WHO, 2003). It is becoming increasingly obvious that the post-2015 international development framework and its goals will be universal in nature. It remains to be seen how, in an uneven world, a universal framework can accommodate the specific concerns and interests of countries with special needs including the LDCs (Post-2014 and Post 2015 UN Development Agenda).

Tarrósy (2009) pointed out that the principle of the modernist theory is wrong in the case of African countries and societies that for the development of these newly formulated nations and states it was a critical issue whether it was possible and, if so, in which extent to implement industrialization in classical agricultural regions. Models suggesting increasing rates of industrialization might not be relevant for Africa.

HEALTH AND THE MILLENNIUM DEVELOPMENT GOALS

Health is central to the achievement of the Millennium Development Goals - both in its own right (see goals 4, 5, and 6) and as a contributor to several others. For instance, the impact of poverty on ill health is well known and extensively documented. Ill health can also be an important cause of poverty through loss of income, catastrophic health expenses, and orphanhood. Thus, improving health can make a substantial contribution to target 1, which aims to halve the proportion of people whose income is less than USD 1 a day between 1990 and 2015 (Haines and Cassels, 2004).

Achieving the health MDGs represents some of the greatest challenges in international development, not least because they include the goal of reversing the global epidemic of HIV/AIDS. To this, we have to add the steep declines required in child and maternal mortality, where progress lags far behind aspirations in many parts of the world. Improving health outcomes will not be possible without major improvements in healthcare delivery systems, which, in turn, depend on changes in public sector management, new forms of engagement with the private sector (leading, for example, to wider availability of affordable drugs, vaccines, and diagnostics), more research directed at improving health systems as well as policies and interventions well beyond the health sector itself. Moreover, improvements in health are essential if progress is to be made with the other MDGs, including the reduction of absolute poverty (Haines and Cassels, 2004; Bálint and Tóth, 2014).

In our opinion, the topic is timely because the usefulness of the research is important, ranging from rural development to spatial planning and the elaboration of local and regional development strategies. Spatial discrepancies in Hungary cause the disadvantage of rural areas, contributing to their lagging behind compared to the urban areas (Miskó, 2006; Káposzta, 2014).

Table 1. *Summary of Progress Regarding Selected MDG Indicators in the LDCs (by Region Group)*

MDG targets No.	Indicators	African LDCs	Asian LDCs	Island LDCs	All LDCs as a group
1.1	Proportion of population below USD 1.25 (PPP) per day	Slow Progress	On track	Slow progress	Slow progress
1.5	Employment-to-population ratio	Slow Progress	Off track	Slow Progress	Off track
1.9	Proportion of population below minimum level of dietary energy consumption	Slow Progress	Slow Progress	Off track	Slow Progress
2.1	Net enrolment ratio in primary education	Slow Progress	Slow Progress	Slow Progress	Slow Progress
2.3	Literacy rates of 15-24-year-olds, woman and men	Slow Progress	Slow Progress	Slow Progress	Slow Progress
3.1	Ratio of girls to boys in primary, secondary and tertiary education	Slow Progress	Slow Progress	Slow Progress	Slow Progress
4.1	Under-five mortality rate	Slow Progress	On track	On track	Slow Progress
4.2	Infant mortality rate	Slow Progress	Slow Progress	Slow Progress	Slow Progress
4.3	Proportion of one-year-old children immunised against measles	Slow Progress	Slow Progress	Off track	Slow Progress
5.1	Maternal mortality ratio (per 100 000 live births)	Slow Progress	Slow Progress	Slow Progress	Slow Progress
6.1	HIV prevalence among population aged 15-24 years	Off track	Off track	Off track	Off track
7.1	Proportion of land area covered by forest	Off track	Off track	Off track	Off track
7.8	Proportion of population using an improves drinking water source	Slow Progress	Slow Progress	On track	Slow Progress
7.9	Proportion of population using an improves sanitation facility	Slow Progress	Slow Progress	Slow Progress	Slow Progress

Source: Development Agenda Post's calculation based on United Nations (2013)

Hungary, while acceding to the OECD and the European Union, assumed the responsibility to work out and implement an international development policy conforming to OECD and EU principles and practices. It agreed to fulfil the commitments and the targets set out in the UN Millennium Declaration and the Millennium Development Goals. Determined to meet these obligations, in 2001, the government adopted the concept paper of the Hungarian international development cooperation policy, taking into consideration the actual economic and social background and previous International Development Cooperation (IDC) experiences. Before the political transformation, the Hungarian government provided considerable assistance to developing countries, but this aid served basically the ideological and political purposes. Before the OECD and EU accession, Hungary had already started to give preferences for goods imported from developing countries and eased or lifted the debt services of some of them. This policy has continued and the strictly professional positive elements of the past

aid activity have been utilised in formulating our new IDC policy. The main objectives of the Hungarian international development policy are the following:

1. To preserve and support international peace and security, to create and sustain regional political and economic stability.
2. To contribute to the sustainable economic and social development of developing countries, with special regard to LDCs, and with particular emphasis on reducing poverty.
3. To protect human rights and equal opportunities, to strengthen democracy and civil society structures, to support local community autonomies.
4. To support efforts aimed at creating economic and social development (basic necessities, healthcare provision and primary education).
5. To promote good governance.
6. To protect and improve environmental resources, to promote sustainable development.
7. Active participation in the international institutional network of development cooperation.

As priorities and actions on the way towards 2015, the Hungary's Report on the Millennium Development Goals (2004) set, among others, the following considerations: Hungary will strengthen the legal and institutional framework of its international development policy in the years to come. In accordance with our capacities, we will try to approach the target of 0.1% ODA/GNI by 2006 and gradually catch up to the level of other EU member-states in the subsequent years. Hungary will further strengthen its ties with partner countries (through framework agreements, country strategies, involving the private and civil sector into international development projects). Hungary also strives to increase Africa's weight in our international development activities both on a bilateral level and with joining EU-ACP co-operation. Hungary will become a contributory country to the next European Development Fund (EDF) (Hungary's Report on the Millennium Development Goals, 2004)

Since 2010, Hungary has been trying to give unique, so-called unorthodox answers to the socio-economic challenges and contradictions that are different from the traditional approaches. Hungary is a medium-developed country, but with considerable differences in terms of the level of development among its regions (in our examinations, we focus on the micro-region NUTS 3 level). Many developing countries are facing serious economic and social difficulties as well and consider that the classic economic policy instruments could not work any longer.

We assume, therefore, that it may be interesting for professionals, businesspersons, or even policy makers to get acquainted with the methods and experiences which have been tried and applied with success in Hungary. In our opinion, this is a topical issue, since there are significant territorial differences in most of the EU countries and in the world as well. The gap between the urban and rural areas is also significant. The focus of our research is to examine the economic and social dimensions of the spatial imbalances, concerning the land-use relations. This restructuring can be observed in Hungary, in the Carpathian basin, in Central-Eastern Europe as well as in the European Union and in the world. In order to get a real picture about today's spatial processes, it is necessary to learn the processes resulting in the spatial imbalances as well as their impacts on the change of spatial structure. These discrepancies can be observed at various territorial levels. During micro-regional investigations, researchers conduct researches in larger areas than the town-village dichotomy, but in a narrower territory compared to the West-East investigations (Molnár, 2007; Káposzta, Kollár and Péli, 2012).

MATERIAL AND METHODS

The aim of this subchapter is to define the time and spatial scope of the research, to compile the necessary database as well as to introduce the applied statistical methods briefly. We are introducing the possible methods to carry out territorial competitiveness analyses on land-use, for which we collected the data from the TeIR[3] electronic database and the spatial statistics yearbooks. These databases include most of the statistical data at settlement and micro-regional level. In the case of such indicators, where there were no micro-regional indicators available, we had to aggregate the

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[3] TeIR: National Information System for Regional Development and Spatial Planning – a digital information system established in Hungary on the basis of Act No. 1996/XXI on development and spatial planning.

settlement data before the statistical analysis. During our investigation, we used the following data sources:

- Agricultural Economics Research Institute (AKI)
- Central Statistical Office (KSH)
- National Tax and Customs Authority (NAV)
- National Employment Service (NFSZ)
- Agricultural and Rural Development Authority (MVH)
- VÁTI Kht.

While collecting the data, it was clear that there are data collected by several institutions at the same time. However, these institutions apply different methods for calculating the data; therefore, they are different. In our research, we found different definitions for the unemployment rate at the National Employment Service and the Central Statistical Office, but we used the data from the former one, considering the unemployment rate as the rate of people within the active population (aged 15-74).

Territorial scope of the research

In our research, we focused on the 47 least-developed micro-regions, with special emphasis on the 33 ones requiring complex development programs. As mentioned above, we conducted our research at both micro-regional and settlement level. In the given period, there were 3,152 settlements with data available. According to Act 2007/CVII, there are 174 statistical micro-regions in Hungary. Thus, we collected the basic data for the least-developed micro-regions (LDs) according to the categories of the Parliamentary provision No. 2007/67 and Government Decree No. 2007/311. The 33 least-developed micro-regions requiring complex development program (LDCDPs) are located in 4 regions and in 12 counties (Figure 1).
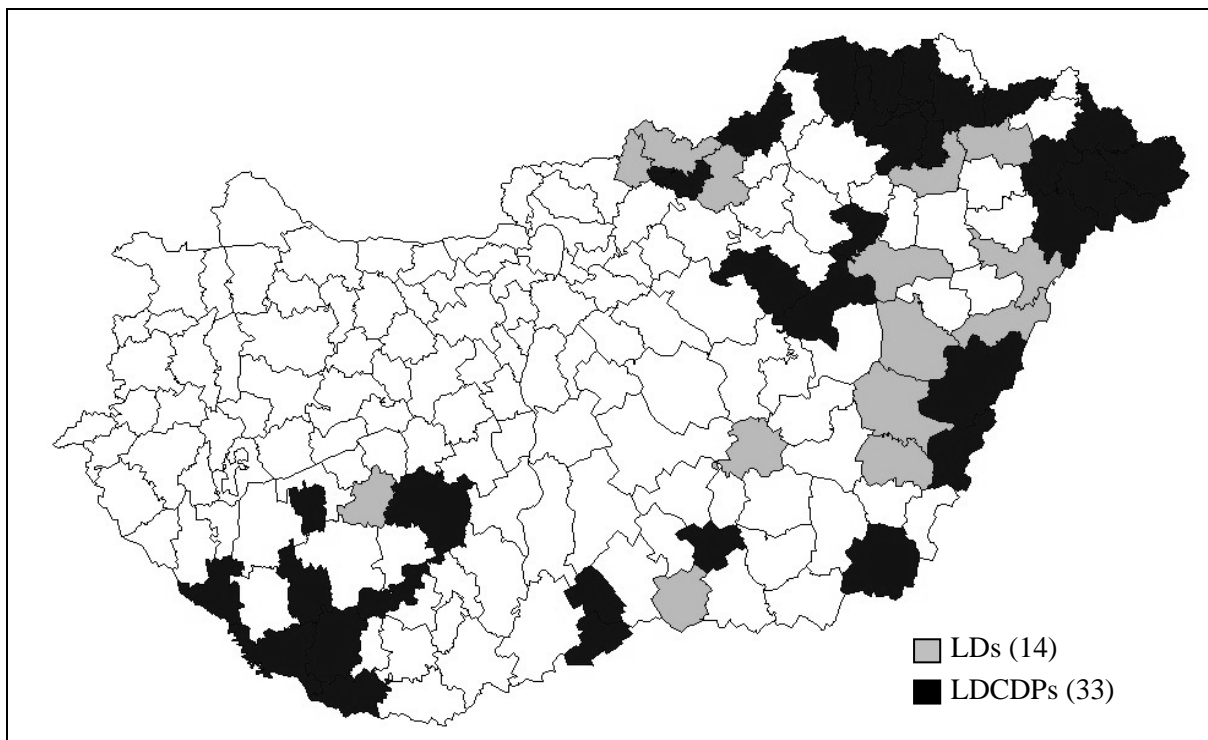

Figure 1. *The location of the Hungarian LD and LDCDP micro-regions*
Source: own editing based on the Central Statistical Office data (2012)

The database of the research

The factors of territorial competitiveness and land-use that can be analyzed are determined by the availability of data. In our analysis, we intended to collect a wide range of data for the micro-regions in question, avoiding the shortage of data if possible. We tried to complete the database with estimated data where necessary. There were only two cases where it was necessary to use estimated data (operating enterprises in 2007, number of cars in 2008), therefore they do not distort the final results. Data have been collected in the following categories: demographic indicators, infrastructural indicators, economic activity indicators, unemployment and human capital indicators, tourism and trade indicators, NHDP and NHRDP funds and land-use indicators.

The analysis is based on the processing of secondary data originating from TeIR database and Central Statistical Office yearbooks as well as the personal practical experience. We managed to collect nearly 70 indicators for the 47 micro-regions in the above-mentioned categories. We tried to collect all the data that can influence territorial competitiveness. We created basic indicators from the data available that helped us compare the various territories. In most cases, we weighted the basic indicators with the number of population and the size of area. We created basic indicators for each year and each micro-region. Our aim was to create such a group of indicators that enabled the selection of the final indicators to reflect competitiveness.

Methods applied during the research

We carried out the investigations for the period 2007-2009, as mentioned before. Our aim was to see the changes of the indicators for the least-developed micro-regions. The average of the three years' data (Figure 2) was calculated.
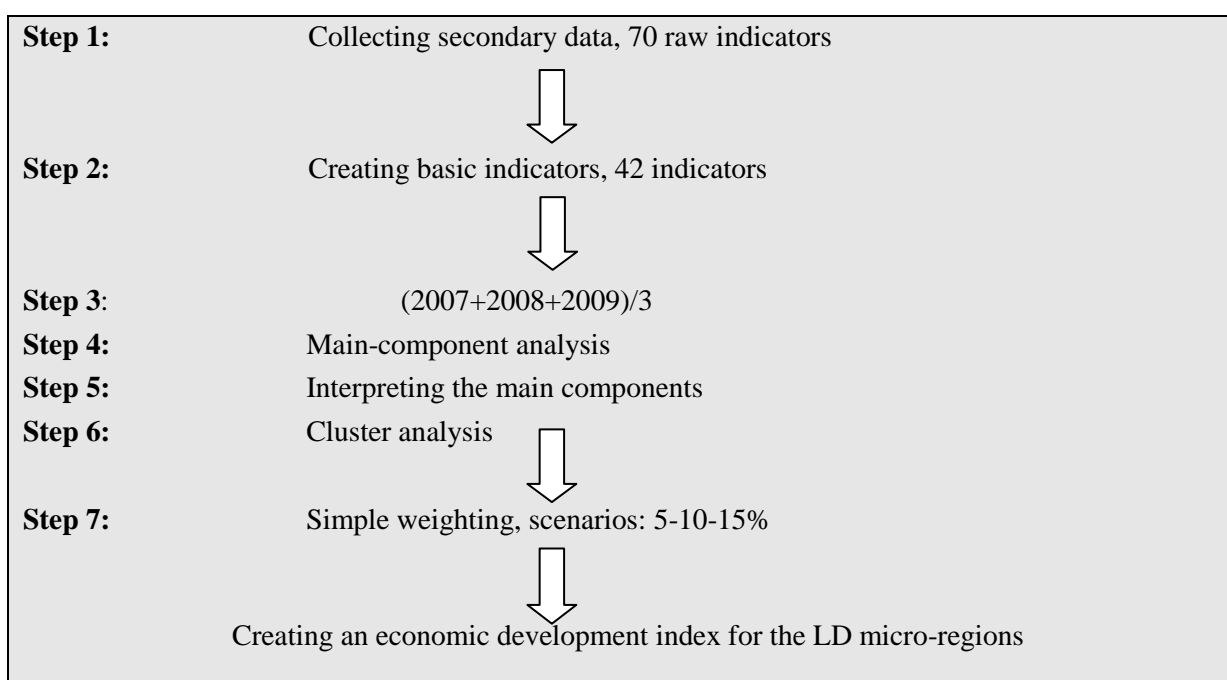
Step 1:	Collecting secondary data, 70 raw indicators
	⇩
Step 2:	Creating basic indicators, 42 indicators
	⇩
Step 3:	(2007+2008+2009)/3
Step 4:	Main-component analysis
Step 5:	Interpreting the main components
Step 6:	Cluster analysis
	⇩
Step 7:	Simple weighting, scenarios: 5-10-15%
	⇩
	Creating an economic development index for the LD micro-regions

Figure 2. *Major steps of the applied research, 2012*

Further to the implementation of all these methods, we reviewed the results of 2012 during the spring of 2015, when, in the TeIR database, the most up-to-date figures of settlements and micro-regions were available for the year 2012. This is the year when we also implemented factor and cluster analysis to examine how competitiveness of the disadvantaged areas has changed.

RESULTS

Our research covered the period of 2007-2009. It was backed by the work of Enyedi (2004), who had already defined the least-developed micro-regions based on nearly 10 years' data (Figure 3). In our investigations, we wanted to find out whether this definition and the current least-developed micro-regions cover the same area or not. In 2004, Enyedi made the following classification for the space structure: the penetration of global network into the Hungarian settlement network, smaller regional networks and mainly underdeveloped villages, out of the networks, restricted to the areas between dynamic axes.
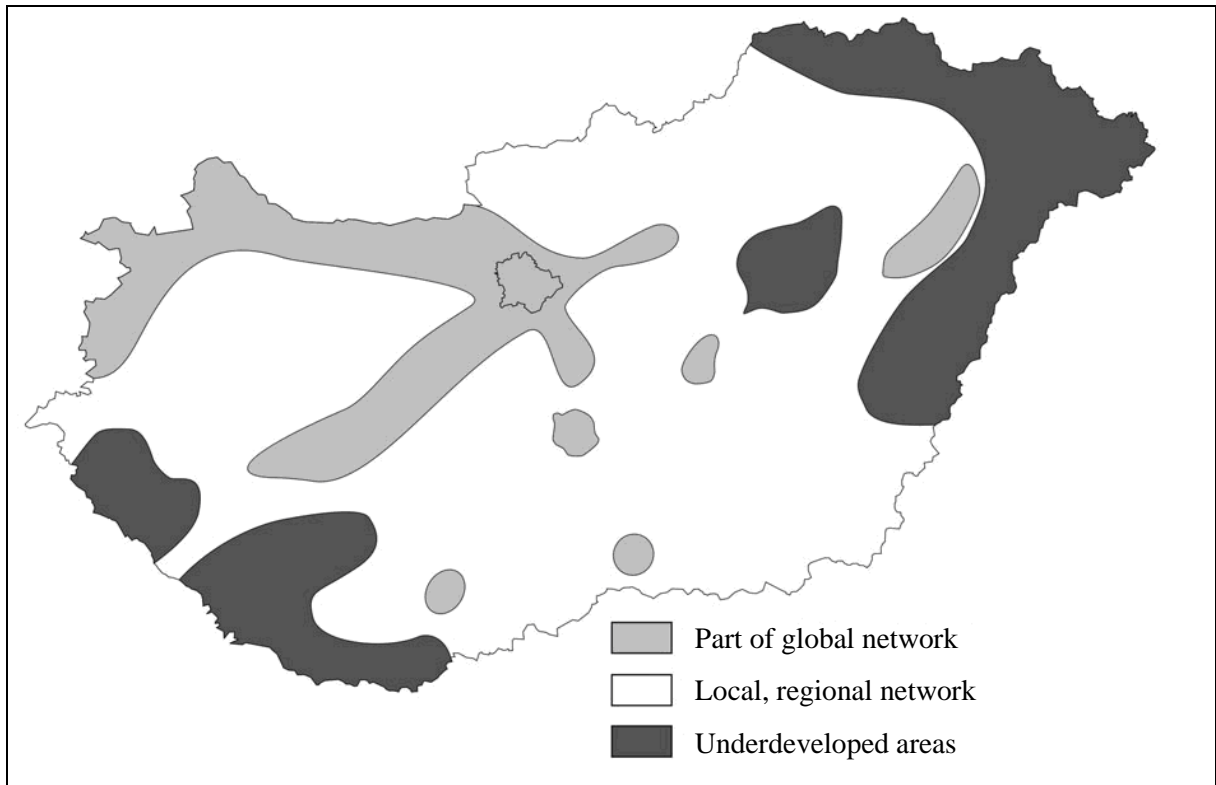
Figure 3. *Three major parts of Hungary*
Source: Enyedi, 2004

We assume that the main component and the cluster analyses point out the problems included in the general situation assessment. The major aim of our research was to find out which LDCDP micro-region could improve its situation and which LD has such economic and social situation that would require complex development help. In the main component analysis for the average of the three years, we found out that the Hungarian micro-regions can be classified into three categories (Figure 4):

Category No. 1 (developing micro-regions): the ones located in the upper ellipse of Figure 4. Ten micro-regions belong to this category, having the best competitiveness potentials. Mainly LD micro-regions constitute this group (7). However, there are micro-regions (Tamási, Jánoshalma, Bácsalmás) which are, for the moment, in the LDCDP category.

Category No. 2 (stagnating micro-regions): the ones in the middle ellipse of Figure 4. The category consists of 23 members with moderate competitiveness factors. The category includes both LD (6) and LDCDP micro-regions (17).

Category No. 3 (micro-regions lagging behind): the ones located in the below ellipse. The category consists of 14 micro-regions with the poorest competitiveness potentials. There are 13 LDCDP micro-regions and 1 LD (Ózd). This highlights that the competitiveness in the Ózd micro-region has decreased so much that it might slip from the LD classification to the LDCDP one if a new classification is elaborated in the near future.
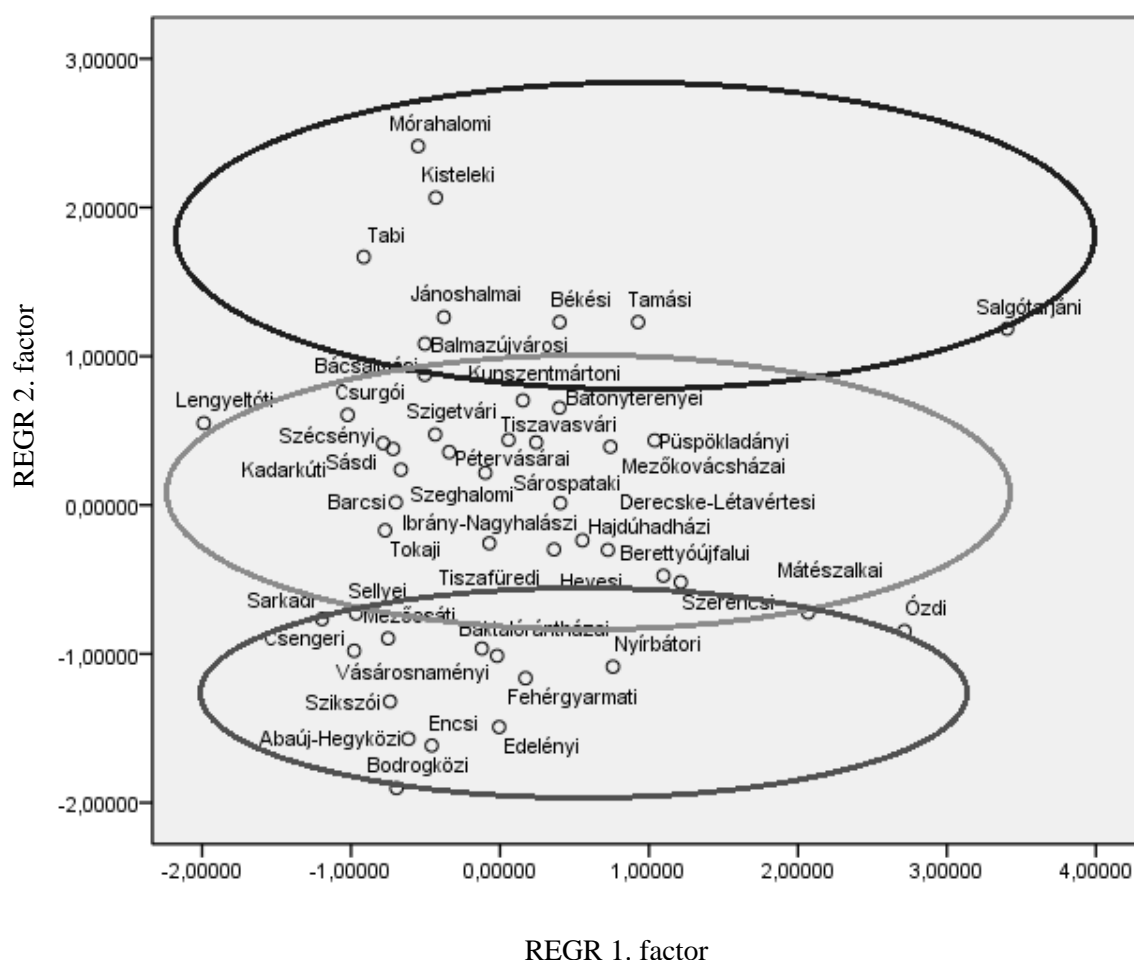

Figure 4. *Results of the main component analysis*
Source: own analysis performed with the PASW 18 software, 2012

The results of the cluster analysis can be seen on the map below (Figure 5): the first cluster includes 6, the second 22, the third 2, the fourth 4, the fifth 13 micro-regions. The elements of the first cluster are those which we considered the most competitive, those of the fifth are the least competitive among the least developed 47 micro-regions. The white ones are those which do not belong to the 47 least developed micro-regions. The black ones are the most competitive, while the gray ones are the least competitive ones.
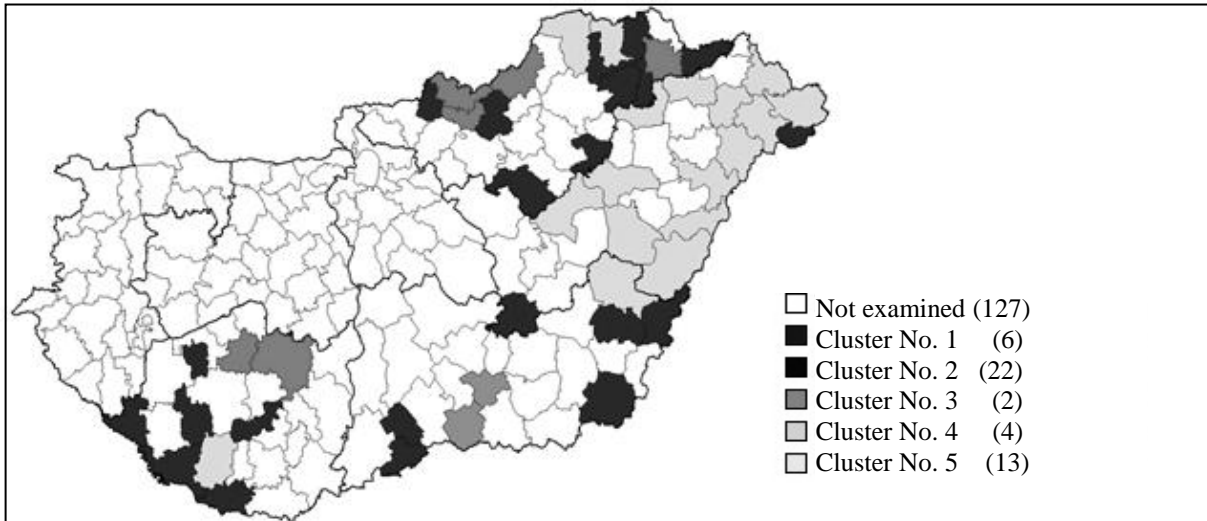
Figure 5. *Clusters of the 47 LD micro-regions*
Source: own editing based on the Central Statistical Office data (2012)

After carrying out the main component analysis, we obtained the indicators that influence the territorial competitiveness of the micro-regions the most. Therefore, we continued with an analysis concentrated only on those indicators. We increased the values of the determining factors by 5-10-15%, which can reflect the change in the competitiveness. The weighted indicators were used in cluster analysis.
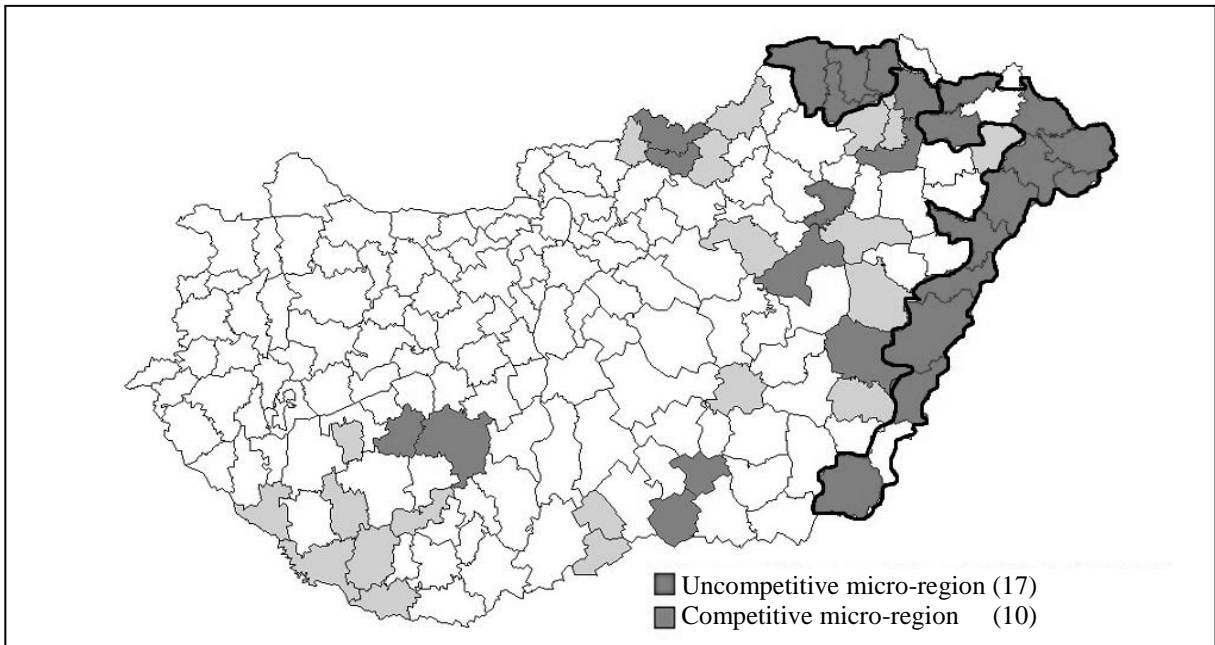

Figure 6. *Territorial competitiveness of the least-developed micro-regions*
Source: own editing based on the Central Statistical Office data (2012)

At first, we carried out the analysis for all the 47 micro-regions, then only for the 17 least-competitive ones. Before detailing the results, we considered it important to list up the indicators that were modified with the above-mentioned percentages in the cluster analysis: number of operating

enterprises, difference in migration rates, businesses in the service sector, share of those receiving regular social benefits, unemployment rate, people over 60, and HDI.

Based on our research results, the economic development index of the least-developed micro-regions could be identified. We needed part indices for which we standardized the indicators based on Nemes-Nagy (2005). In the economic development index, the businesses of the service sector have the highest significance. Thus, these indicators can urge the largest positive achievement in the micro-regions in question. The higher is the economic development index, the more competitive is the micro-region. From our research results, we obtained 17 LDCDP micro-regions that had the least favourable economic and social conditions. In our further investigations, we focused on these micro-regions.

The results of the cluster analysis for the 17 micro-regions (with weighted indicators)

In the last phase of our research, we wanted to find out which micro-regions could break out from the downward tendency, from the least competitive, mainly multi-peripheral areas. We carried out the cluster analysis in three different cases (similarly to the former investigations): the values of the key indicators were modified by 5%, the values of the key indicators were modified by 10% and the values of the key indicators were modified by 15%.

As result of the modified indicators, the following micro-regions showed a developing trend regarding competitiveness: Sarkad, Ibrány-Nagyhalász, Mezőcsát, Csenger, Vásárosnamény, Bodrogköz (Figure 7). The results of the cluster analysis show the same picture in each case (5-10-15%), there is no difference between the clusters. As a conclusion, out of the least competitive, multi-peripheral micro-regions, there were only 5, where the improvement of the indicators resulted in positive effects.

In other micro-regions, the accumulated negative conditions are so serious that even 15% improvement cannot result positive effect. In our opinion, the situation is even worse due to their unfavourable geographical location (peripheral areas, out of the gravitation zones of large cities), the aging population and the poor quality of the human resources (Ritter, Nagy and Tóth, 2013).
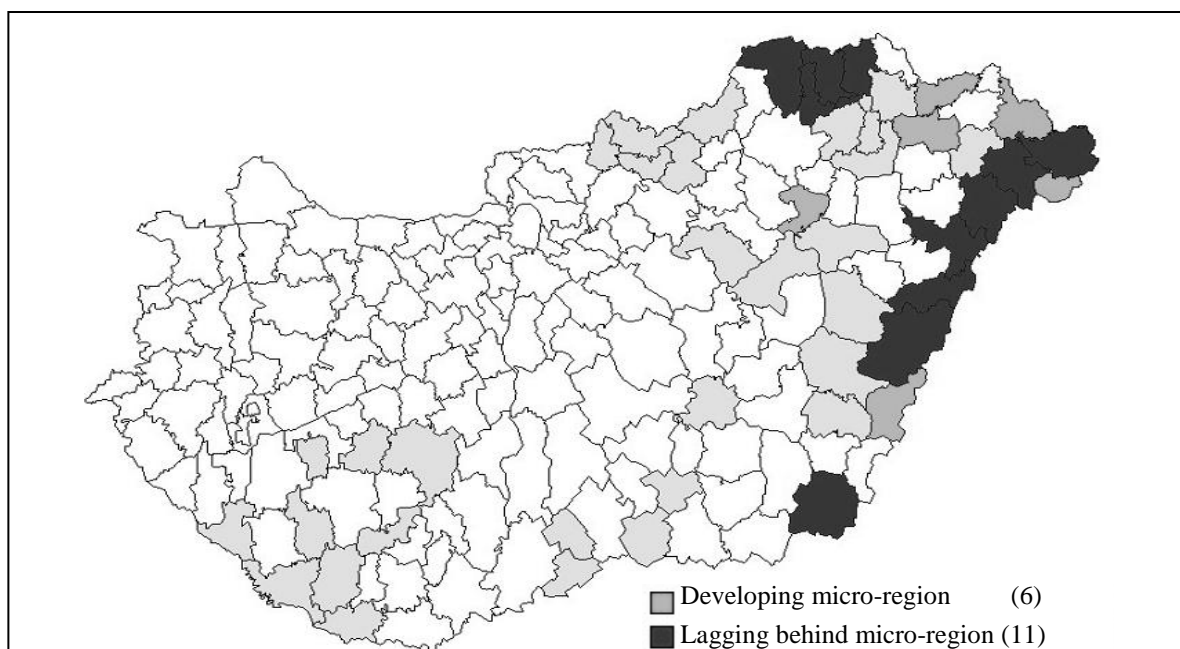

Figure 7. *The change of the most and least competitive micro-regions after modifying their key indicators*
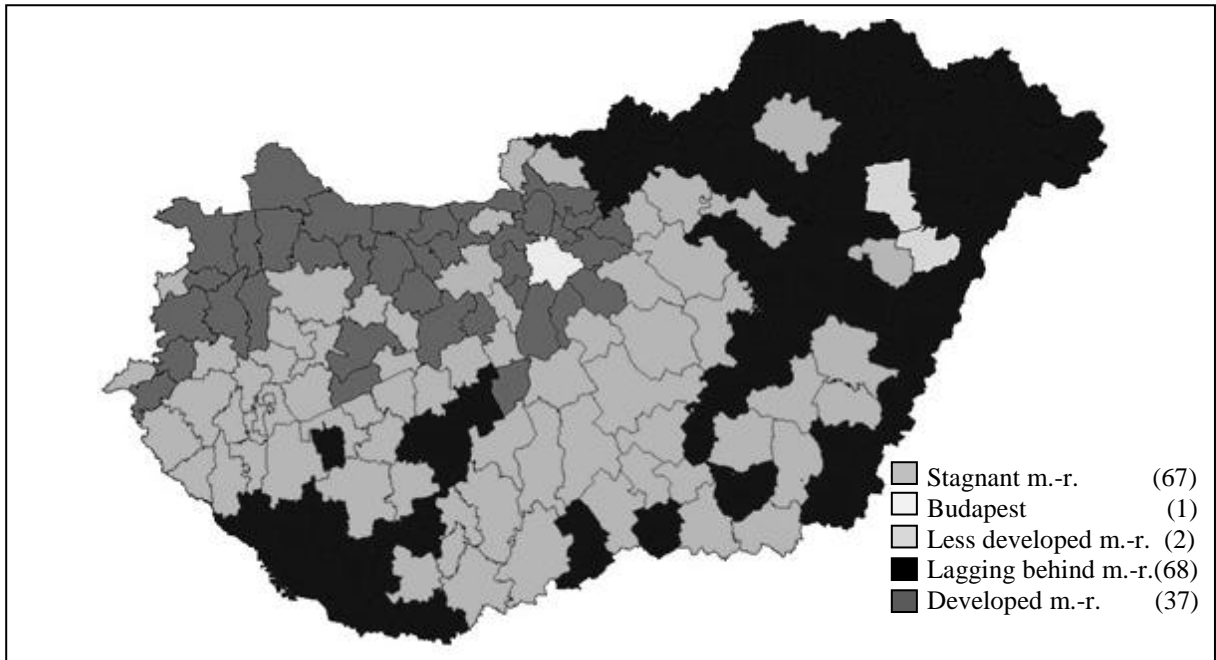Source: own editing based on the Central Statistical Office data (2012)

Figure 8. *The disposition of clusters resulted from the revision (2012) in Hungary*
Source: Karacs, 2015

The Cluster of Budapest

In spite of the economic crisis, Budapest has not lost from its political, economic, transportation and cultural-educational role within the country. In terms of all economic indicators, its results continue to show outstanding results. Budapest continues to keep its per capita GDP at a level more than double than the national average, and more than 40% of the national GDP was generated in the capital city. The economic crisis even strengthened the position of Budapest among the Hungarian regions and counties. This is justified by the data of the Central Statistical Office (KSH), according to which, in 2007, there used to be 162,500 retail trade units in Hungary and this number decreased to 153 thousands by 2012, while in Budapest their number increased with 1,800 during the same period. Hence, we can draw the conclusion that the crisis did not have, or had less impact on the effective demand.

The Cluster of Developed Micro-Regions

By 2012, there were 37 micro-regions on a positive development track. Continuity ceased at a certain level on Budapest – Győr – Bratislava – Vienna axis. It does not necessarily mean that the level of development of these micro-regions deteriorated compared to the situation of 2007, they just reacted to the crisis in such a way that they conserved themselves at a certain level of development. When seeing this process from another point of view, in terms of its dynamism, the formerly developed micro-regions were still moving forward on development tracks, but the pace of development stayed behind the one of their competitors. In 2012, it could be observed that the formerly large agglomeration region of 2007 did not extend to Kecskemét (even if Mercedes-Benz manufacturing plant was put in operation that year). The agglomeration belt was concentrated around the capital city and, by functioning as a protective net, it contributed to the development of Budapest. However, it is a mutual relationship as Budapest also guarantees the development of the agglomeration, adsorbing its labour and providing wide-spectrum services to the population of the agglomeration. Thus, Budapest and Pest County were still generating nearly the half of the gross domestic product of Hungary. There were significant changes also in the *Lake Balaton Recreation Area*. As an impact of the crisis, there was a considerable fall in the numbers of tourists, felt both in

domestic and in foreign guests. The decrease could be felt the most in the micro-regions of Siófok, Balatonföldvár and Balatonalmádi. The availability of Széchenyi Rest Card (SZÉP), which was introduced in 2011, tried to counterbalance this deficit at least partially. In 2012, by the more frequent use and by the growing number of accepting points of SZÉP cards, in Lake Balaton Recreation Area the number of domestic guests increased and the pace of growth seemed to be closing up to the increase of foreign guests. There was a long standing trend that foreign guests spent less and less nights at Lake Balaton while domestic guests spent more and more. From 2005 to 2006, the Hungarian guests used to spend more guest nights at Lake Balaton than foreigners did and this difference just grew further during the crisis.

The Cluster of Less Developed Micro-Regions

During our examination, we found a cluster of two elements. These were Debrecen and Hajdúböszörmény micro-regions, both of them used to belong to the cluster of developed micro-regions. In these two micro-regions, development was moderate. In Debrecen micro-region, the formerly positive migration trends turned back and, in 2012, a slight outbound migration could be observed, while in Hajdúböszörmény micro-region the intensity of the outbound migration slowed down. While the ratio of the young generation (elementary school students) within the population just slightly changed compared to 2007, the ratio of the elder generation grew; hence, the number of pensioners increased as well. While some of the more significant ventures (employing more than 250 people) left the region, the number of SMEs grew. This used to be typical mostly in Hajdúböszörmény micro-region where the number of SMEs per 1,000 capita nearly tripled since 2007. The public utility development can be considered another positive step forward which could be seen in the remarkable extension of the sewage system compared to the drinking water network. In addition, the secondary scissors (widening or shrinking gap) of the public utilities were closed in a significant extent in these two micro-regions.

The Cluster of Stagnant Micro-Regions

This remained as one of the clusters having the biggest number of elements, comprising altogether 67 micro-regions. Based on the spatial dispositions of the stagnant micro-regions it cannot be said that they form a homogeneous group. Due to the spread of lagging micro-regions, these inner peripheries formed up by 2012. In general, the ratio of the elderly generation is high in these micro-regions and the decrease in population is considerable. The infrastructural conditions improved only to a small extent and it did not gain up to the national average but to a small extent. In terms of territory, these inner peripheries are mostly concentrated in the Western Transdanubian region, especially in Zala County. Besides these, a larger number of stagnant micro-regions can be found in the South Great Plain region in Bács-Kiskun County and in the southern tip of Central Hungary region.

The Cluster of Lagging Micro-Regions

The cluster comprises the second largest number of micro-regions. Altogether, there are 68 micro-regions classified into this category, which means an increase with 13 since 2007. In 2012, the low density of population (60 inhabitants/km^2) was typical of these micro-regions. The unemployment ratio improved since 2007 from 18% to 16%; however, this was still very high. The natural loss of population and a 3‰ outbound migration is typical. The ratio of the generation under 14 fluctuated around 16% in this cluster, and the ratio of the 60+ generation, ranged to 1.5 times higher, was around 23%. During this 6-year period, the number of bigger companies did not change, but the number of SMEs per 1,000 inhabitants nearly tripled.
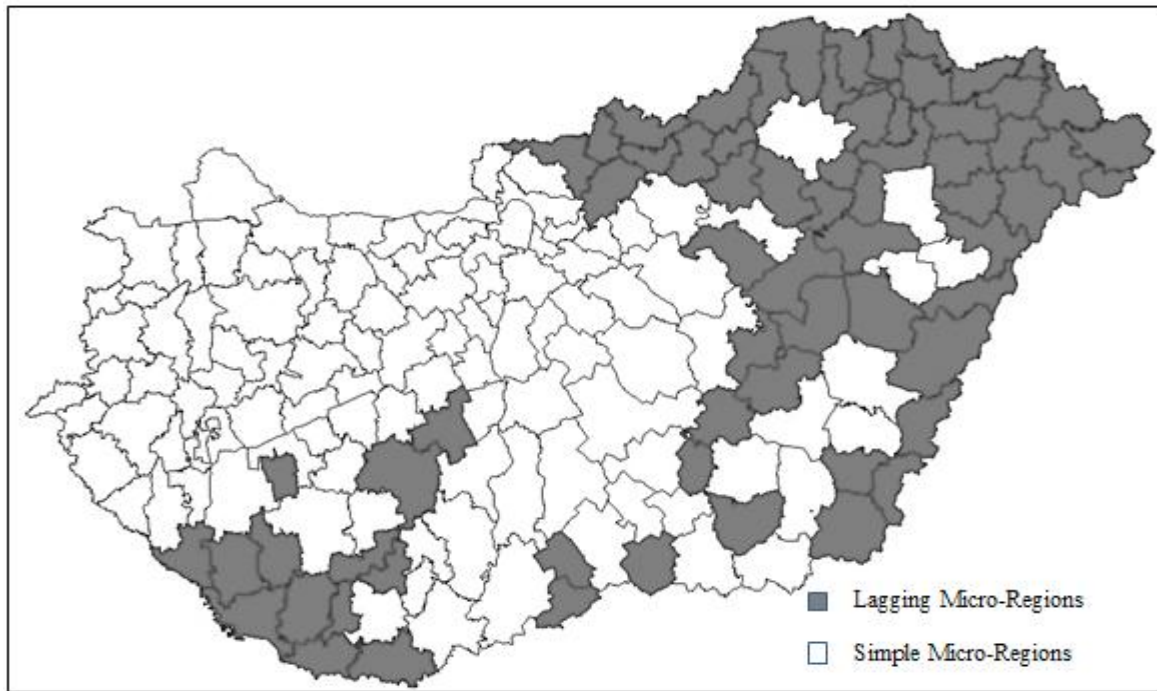
Figure 9. *The location of the lagging clusters resulted from the revision (2012)*
Source: Karacs,2015

Our examinations showed that from the 19 counties of Hungary there were 13 counties comprising lagging regions. The most significant groupings of disadvantaged micro-regions are located in the Southern Transdanubia, in Somogy and Baranya counties, then in the Eastern part of Hungary, starting from the Northern border areas, from the micro-region of Balassagyarmat till the micro-region of Mezőkovácsháza in Békés county, lagging micro-regions can be found in mass along the boundaries. Another, newly forming axis of underdevelopment runs along like a tentacle in the middle of the Great Plain from Balmazújváros to Bácsalmás.

In total, the outcome of the revision of 2015 shows that those micro-regions that showed better results compared to 2007 could climb out from among the disadvantaged micro-regions. Altogether, there were five such micro-regions, namely Dombóvár, Letenye, Marcali, Mezőtúr, and Tab while there were new entrants to the sphere of disadvantaged micro-regions, namely Balassagyarmat, Békéscsaba, Csongrád, Derecske-Létavértes, Eger, Gyula, Hódmezővásárhely, Jánoshalma, Karcag, Komló, Kunszentmárton, Mezőkövesd, a Mórahalom, Nyíregyháza, Pásztó, Sárbogárd, Szentlőrinc, Tamási, and Törökszentmiklós. From the latter group, we wish to point out Eger and Nyíregyháza micro-regions as their results can be considered as ostensive cases.

In the course of a more thorough examination of these two micro-regions, it was found that in the case of Nyíregyháza micro-region the values of the migration balances were 5.25‰ in 2007 and 5.48‰ in 2012. In Eger micro-region, the number of recipients of regular social aids fell drastically to less than one sixth from 2007 to 2012, while during the same period, the chronic unemployment grew by 1.5 times, most likely resulted from an error of data.

Based on all these, we can state that we created an ***economic development index*** specialized for the least developed micro-regions with the following elements/part indices: operating enterprises, businesses in the service sector, human development, migration, persons receiving regular social benefit, unemployment, aging. Therefore, these factors determine the competitiveness of the Hungarian least developed micro-regions the most.

1. We have proven in our research that there are LDCDP micro-regions that could step up to an upper category within micro-regions, while there are others that would require complex development assistance.
2. With the help of statistical methods used (main component analysis, cluster analysis), we created an economic-development index, which was tested on the least developed Hungarian micro-regions.
3. During our research, we defined spatially those multi-peripheral areas, which had not been influenced by the economic development programs.
4. By means of our research, we have proven that there is a spatial link among the least competitive territories due to their locations and similar economic and social conditions. We have also proven that these defined micro-regions had a negative multiplication effect on one another, therefore their break off could be predicted. In order to define these areas, we created the expression of **multi-peripheral boomerang**.

CONCLUSIONS

The key priority of the EU is to facilitate and achieve the economic, social and territorial cohesion and thus to reduce the territorial imbalances. Related issues are raised as key tasks to be done at both the EU and the national level. The literature and the research results also prove that there is a need for a thorough investigation on the Hungarian least developed micro-regions. As a general conclusion, we can state that the least developed micro-regions are on the periphery of the country and it is necessary to prevent their economic and social break off. The classification in the Governmental Act No. 2007/311 requires a revision. Our research has highlighted that there are micro-regions which do not belong to the least developed micro-regions anymore, while there are some which would require complex development assistance. Based on our research findings, it is clear that they lag much behind the national average regarding both economic and social indicators.

In our opinion, the following factors have contributed much to their break off: the low quality of human resources, high rate of migration, bad infrastructure, and problems of social groups.

As result of our researches, we consider it useful to make several recommendations (strategic guidelines) on how to improve the competitiveness of such micro-regions in long-term, which are, at the moment, stagnating or breaking off.

1. In our opinion, such investments should be carried out in these areas which create jobs and require human work by providing job opportunities for the local active population. Just a few examples: the creation and development of industrial parks, energy forests, the collection and use of forestry products. We believe that the rate of migration may be reduced due to such activities.
2. We think that the development of human resources should be a key priority in their future strategies. If the human resource is developed, it will encourage investments, the absorption of funds and the submission of project proposals. At the moment, in several micro-regions, qualified human resource is not available, which would be needed for the efficient use of EU and national funds. The development of vocational trainings should also be a key priority as well as launching trainings focused on family assistance and drug and alcohol prevention.
3. Based on our research it can be seen that micro-regions which are located in the gravitation zone of pole cities (e.g. Miskolc, Debrecen, Nyíregyháza, Szeged, Békéscsaba, Vásárosnamény, etc.) have better competitiveness potentials than the others out of the zones. Therefore, we suggest that most of the funds and investments need to be channelled to the pole cities, with a positive impact on the micro-regions of the zones as well (due to the centre-periphery model).
4. In addition, we suggest the application of demand-oriented regional strategy based on the special internal conditions in the least developed micro-regions as well. Thus, the comparative advantages of the restricted factors of the rural land-use (natural endowments, landscape protection areas, etc.) could be utilized.

5. In order to optimize the rural land-use, we suggest the preference of alternative energy sources, sustainable technologies and food industry, which could result in the increase of rural added value in the least developed micro-regions.

Overall, it can be stated that the areas near the borders form a homogenous peripheral zone and the negative tendencies are due to the accumulated social and economic conditions. Unfortunately, all these problems can be found in developing countries. As we move towards 2015, we have to pay close attention to the actual state of delivery of MDGs in the LDCs and address the abovementioned issues - among others - to realise the international political commitment regarding the "Leave No One Behind", where success is defined by the lowest denominator's level of achievement.

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