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SMART COMMUNITIES ACADEMY CONFERENCE PROCEEDING

SMART COMMUNITIES
VIRTUAL EDUCATION AND RESEARCH AND DEVELOPMENT AND INNOVATION NETWORK IN THE SLOVAKIAN - HUNGARIAN BORDER REGION

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MTA KRTK
2018, Győr

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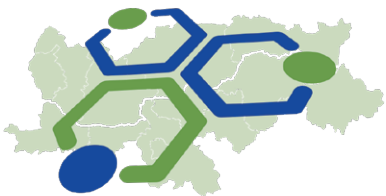

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IN THE SLOVAKIAN - HUNGARIAN BORDER REGION

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Challenges of peripheries in central europe and an international outlook

INTRODUCTION

Global tendencies represent new challenges to all communities, independently from its size, position in settlement hierarchy or geographical location. Answering these challenges is particularly difficult for small communities. We argue, however, that smartness can be the key to face the challenges and overcome the difficulties.

But what is smart? Some may state, that digitalization is a core element, as the main driver of the development is technology and digital services. Nevertheless, this is only one side of the story. We believe that a community is smart, when it is intelligent, digital, sustainable, inclusive, open and democratic. They have well-defined and measurable goals, aiming the environmental sustainability, the creation of smart intellectual capital, the citizens' participation and of course the well-being.

The "Smart Communities" project started in May 2017, aiming to generate new development paths in a peripheral cross-border area of Northern Hungary and Southern Slovakia. The many outputs (like the Smart ICT Competence Center or the Virtual Education and RDI Network) contribute to the rehabilitation, catching-up, increased resiliency and sustainability of the communities – all in all, these initiatives aim to make these communities smarter.

Nevertheless, smart issues also create a great (and growing) interest among researchers, academics, students and practitioners. The Smart Communities Academy had the idea to bring them together, offering them space for interaction, inspiration, debate and networking. The conference was held in a small rural community (Legénd) in Hungary (28-29th September 2017). More than 40 presentations in 6 thematic sessions justified the necessity of such events.

In this proceeding, you can read 15 selected and peer-reviewed studies; all evolve around the smart topic. Chapter 1 positions and introduces the development paths of smart communities (as well as smart cities), by putting the focus on urban sprawl and different smart settlement models. Chapter 2 puts a bigger emphasis on rural communities, presenting new methods of local economic and social development. How can areas like the local food systems, the tourism, the renewable energy utilisation or the enhancement of social capital contribute to the smart development? And last, but not least, Chapter 3 focuses on the challenges of peripheries, as these difficulties are the starting point of smart initiatives in many cases. Examples are given not only from Central Europe, but also from further abroad. Studies in this chapter focus on spatial inequalities, peripheral parties, local employability, ecotourism and regional development.

We hope, that this proceeding will serve the best interest of not only academics and researchers, but also practitioners, who are willing to build a more sustainable future – who are willing to be "smarter".

The editors

Chapter 1

Positioning the development paths of Smart Communities and Smart cities

THE PHENOMENON AND THE EFFECTS OF THE URBAN SPRAWL

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Abstract

More than half of the global population lives in urban areas, and this proportion is constantly growing. The growth of urban population results in many negative changes, both in urban and rural areas. One of the greatest problems is the appearance of urban sprawl. This phenomenon is very complex: it usually appears in the outskirts of larger towns and cities, materialising in areas characterised by typically only one function, such as residential area. These areas, however, usually lack adequate public transportation, services, proper walkability, and they are known to weaken social connections. On the other hand, the urban sprawl takes away area from natural or agricultural spaces, causing environmental unbalance directly and indirectly. This paper aims at discussing the characteristics of urban sprawl, focusing on its negative effects and possible ways to mitigate them. The research showcased in this paper also discusses the situation in Hungary. Although this country is not as affected by urban sprawl as some others, we can observe problematic demographic and land use process in it, which may lead to the formation of undesirable urban patterns.

Keywords: urban sprawl, urban land use patterns, mitigation, Hungary, smart growth

JEL classification: R14

LCC: HT361

Introduction

Every settlement has areas with different functions: shopping districts, residential areas, tourist districts, office districts etc., which have certain distance between them in space. According to the European Environmental Agency (EEA), urban sprawl is the physical pattern of low-density expansion of large urban areas, under market conditions, mainly in the direction of the surrounding agricultural areas (EEA, 2006). The viewpoint of Frumkin (2002) is quite similar, since his definition is also centred on the theory of how cities extend in the direction of rural areas in a low-density pattern and the different forms of

land use, such as housing, retail stores, offices, industry, recreational facilities, and public spaces. Furthermore, these areas are kept separate from each other, with the separation enforced by both custom and zoning laws. There have also been academics (Díaz-Pacheco – García-Palomares, 2014; Ewing, 1997; Galster et al, 2001) who focused on urban sprawl consisting of large housing areas; therefore, their definitions concentrated these types of sprawl. However, they shared the other main aspects of these phenomena in their definitions with the previous two documents, about low-density patterns and about the fragmentation of urban space, respectively.

To counter the negative effects of urban sprawl first their causes must be established. Urban sprawl is not entirely a new challenge, and there is considerable literature dealing with this subject. Population changes are major drivers behind this phenomenon (Liu – Jiang, 2011; Brueckner, 2000; Nechyba – Walsh, 2004), but they are not the only ones.. Two of the many reasons could be derived from structural conditions (fragmented local governance) and policies such as infrastructure subsidies favouring outlying locations (Gillham, 2002). It is quite obvious that an area targeted by the central or local governments to be developed, and where financial or legal steps are taken in this direction, too, will have a better chance to prosper than other regions. If the local government, however, is not able to regulate the growth rate and the shape of the supported area, the development may be uneven and uncontrolled, leading to the creation of areas difficult to maintain. The EEA (2006) also mentions uncontrolled growth and inefficiencies in development. This could be a solid reason behind urban sprawl, and it must be countered. In Europe the European Regional/Spatial Planning Charter (Council of Europe, 1983) describes the major Europe-wide objectives that policies for spatial planning should be based on, and one of its key directives is about sustainable land use patterns, which also indicates the problems of low-quality planning. Keserű (2005) and Gutfreund (2004), however, pointed out another possible cause: motorway investments (this was also supported by the EEA study in 2006). In Denver, the central area of the city experienced a serious depopulation, while the surrounding settlements simultaneously increased their population number. The authors agreed that the change was induced mostly by the expansion of the highway network reaching Denver (Gutfreund (2004) adopted by Keserű, 2005). The latter finding is also very likely, since building motorways (e.g. increasing accessibility) allows the inhabitants of a city to reach the centres (with job opportunities and services) in a shorter time, thus encouraging them to move farther from the centres to find more peaceful and clean environment. If we take a look at Figure 1, we can see that the higher the population density is, the less gasoline people use.

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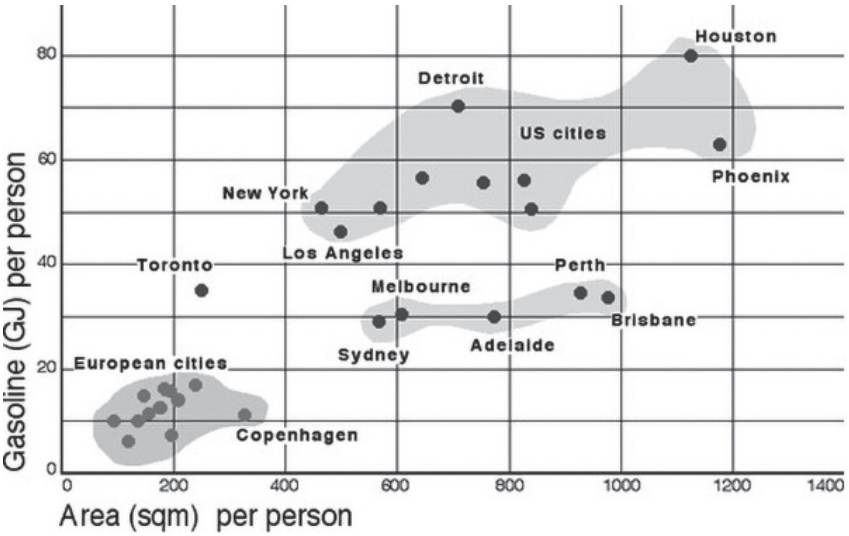

Figure 1. The relationship between population density and fuel consumption in major cities in the world
Source: Newman – Kenworthy, 1989

Mieszkowski and Mills (1993) listed many possible causes, including transportation systems improvements, diversity in choice of users, high taxation and crime rates in their original living areas. All these factors point out that there are push and pull factors as well. For example, low sense of safety in city centres discourages inhabitants to live there, even if other factors are satisfactory. If outlying areas are more advantageous in this sense, citizens living in centres will definitely consider moving to the suburban areas to find what they could not in the city core.

Possible negative effects of urban sprawl

As we could see it above, the population of large cities with lower population density usually has higher fuel consumption levels than more compact cities. Ewing et al (2002) also pointed out this relationship between density and car use. In their study, they investigated 83 metropolitan areas in the US using 22 indicators to measure urban sprawl, and one of their main findings was that that "in relatively sprawling regions, cars are driven longer distances per person than in places with lower-than-average sprawl. Over an entire region, that adds up to millions of extra miles and tons of additional vehicle emissions". (Ewing et al 2002)

There are multiple results of this phenomenon. First of all, based on the assumption above, sprawling cities lead to serious environmental problems (air pollution, noise, particle pollution etc.). Car dependency means that people will use cars to go shopping, to work, to study, to visit recreational areas or to attend administrative issues, and the situation becomes even worse if we consider that

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these areas usually lack proper public transportation systems. Urban sprawl significantly contributes to air pollution. The European Union created the EUROPE 2020 strategy to counter challenges, such as climate change, and one of its objectives are to reduce greenhouse gas emissions by 20% compared to 1990 levels. In this case some countries (for example, the V4 countries) were in a good situation, because of their relatively low carbon emission levels (which they could further decrease in some cases) (Káposzta – Nagy, 2015), but other, industrially more developed countries have to face greater challenges in this issue. This statement is especially true if we consider how urban sprawl seems to correlate with economic development levels (the more, the higher).

Besides the environmental issues, car dependency causes health problems, and not only due to the increasing pollution, but due to the fact that they lose any chance to walk, potentially leading to obesity, living in a monofunctional area (which fact interestingly contradicts one of the basic reasons why people move outside the cities – namely, to live in a healthier environment). Reinforcing the abovementioned, Ewing et al (2002) also observed increased levels of ozone pollution, greater risk of fatal crashes and depressed rates of walking and alternative transport use in these areas. Also, using cars instead of public transportations makes the formation of communities more difficult.

The formation of communities is also hindered by the fact that these areas usually lack cultural attractions, parks, theatres, and other facilities that could provide opportunities for people to get together. Serious infrastructure investments also need to take place in these areas when conscious urban planning is lacking and outward growth occurs too quickly. These infrastructural elements have initial costs, and later maintenance costs, which may require higher taxes so that the local government can satisfy the needs of the inhabitants.

Urban space use, lifestyle and functions invade rural space, changing its social, economic and environmental characteristics. This newly formed spatial structure results in the creation of a conflict zone between the two areas (Vasárus, 2016 referring to Csatári et al, 2013, Pócsi, 2011, Timár, 1993 and Timár - Baukó, 1999).

It is very important to mention that growing cities sometimes take away land from valuable rural areas, decreasing the green surfaces which contribute to cleaner air and could provide recreational opportunities, not to mention their role in food production (Vaz – Nijkamp, 2014). Concepción et al (2016) analyzed the impacts of the different components of urban sprawl (i.e. scattered and widespread urban growth) on species richness of a variety of certain plants and wild animals, and concluded that urban activities expanding in space (i.e. urban sprawl) distorted the natural processes of the investigated species in a negative way (for example, common generalist birds increasing at the expense of specialist birds as urban sprawl grew). Dupras et al (2016) point out another problem with urban sprawl: it fragments natural spaces and decreases their ecological connectivity and, ultimately, biodiversity, further degrading ecological values and resources.

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The phenomenon in Hungary

Since this paper aims to identify ways to mitigate urban sprawl, the authors considered it important to talk about the situation of their home country, which has also been affected by urban sprawl, although the extent of this phenomenon varies in different settlements.

Figure 2 demonstrates the differences in the level of urban sprawl between and within European states. It is based on calculations which use 2009 data from the Copernicus Land Monitoring Service High Resolution Layer (HRL) Imperviousness.

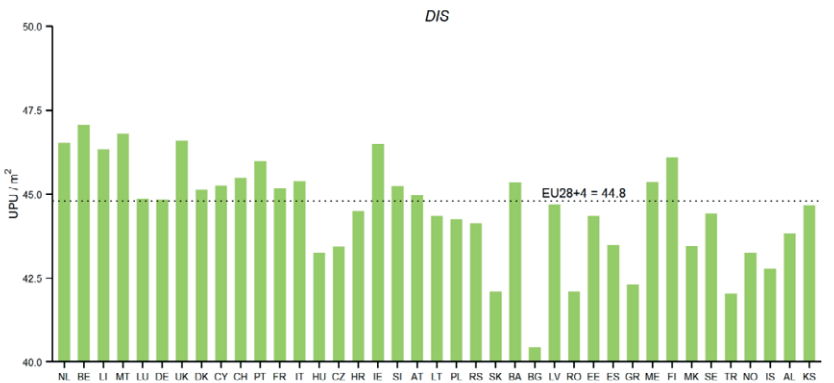

Figure 2. Urban sprawl by country and within countries (2009)
Source: Copernicus.eu, 2015

Figure 2 uses a dispersion indicator which measures the spatial distribution of built-up areas, expressed in urban permeation units per m2 of built-up area. This methodology is based on the idea that the farther apart the buildings or built-up areas from each other, the larger the dispersion values. Therefore, the more compact built-up areas have the lowest values of dispersion (Copernicus.eu, 2015)**.** According to the figure, the most "sprawl-endangered" countries in Europe are the Netherlands, Belgium, Lithuania, Malta, the United Kingdom, Ireland and Finland. From the V4 countries Slovakia is in the best situation, followed by Hungary and the Czech Republic, while Poland is in relative risk. Although we can observe that the main form of land use in Hungary is still agriculture (Csatári et al, 2013), the country is in the process of urbanisation. Figure 3 shows us the changes in artificial land cover[1] in Europe. We can observe that in the case of Hungary the proportion of artificial land has increased by 13% from 2009 to 2015.

1 Artificial land cover is defined as the total of roofed built-up areas (including buildings and greenhouses), artificial non built-up areas (including sealed area features, such as yards, farmyards, cemeteries, car parking areas etc. and linear features, such as streets, roads, railways, runways, bridges) and other artificial areas (including bridges and viaducts, mobile homes, solar panels, power plants, electrical substations, pipelines, water sewage plants, and open dump sites).

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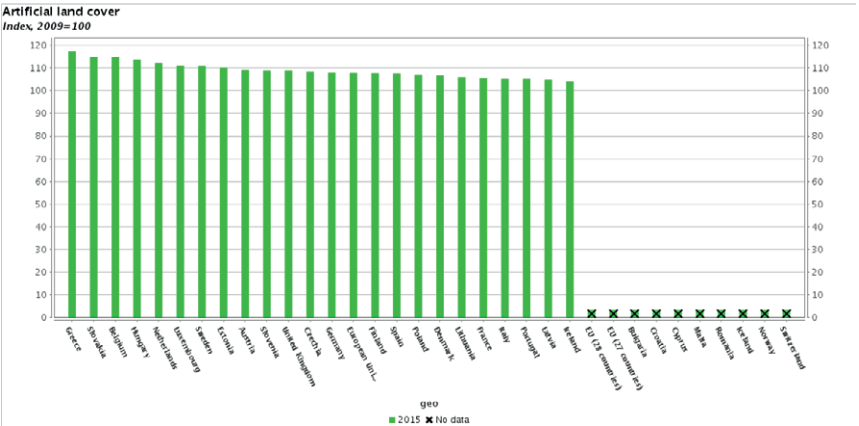

Figure 3. Changes in artificial land cover (%) 2009= 100%
Source: EUROSTAT, 2018

Despite the large rural land stock, the Hungarian population is highly urbanised, as showcased in Figure 4.

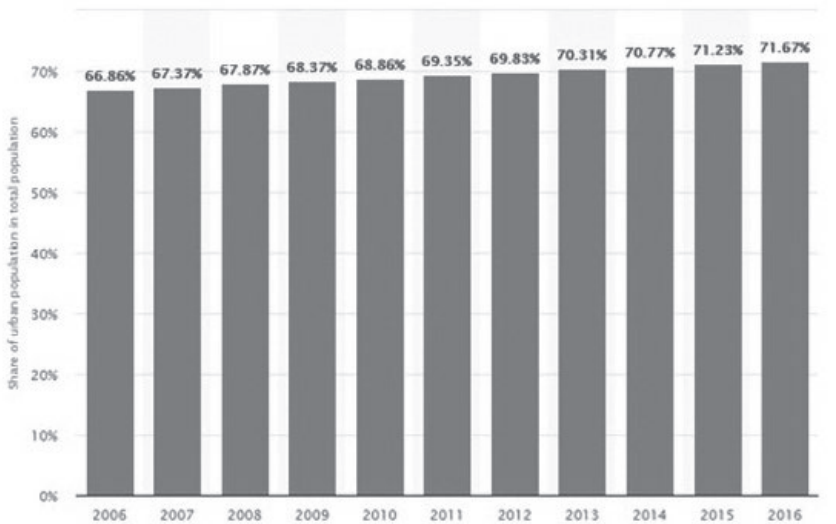

Figure 4. Urban population in Hungary, between 2006 and 2016 (1000 persons)
Source: statistic.com, 2018

This figure and the fact that the proportion of urban population (inhabitants of cities or their surrounding areas) is growing in Hungary and worldwide as well make it rightful to consider the threat of urban sprawl, especially in the case of

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the capital city (Budapest). The country is heavily centralised, and Budapest is its largest city. In fact, from the roughly 10 million inhabitants of Hungary, approximately 1.7 million lives in Budapest, while only about 800 thousand people live in the next five most populated cities together.

Besides the overgrown nature of the capital city, another great problem regarding the spatial structure is the differences between the Western and Eastern parts. According to Némedi Kollár and Neszmélyi (2015), the least developed micro-regions are on the periphery of the country, and the reasons behind their disadvantageous nature are the low quality of human resources, the high rate of migration, bad infrastructure and social problems. Therefore, those who can, try to leave these areas, and they either leave the country, or move to a larger settlement (or to its agglomeration), mostly Budapest, due to the fact that in Hungary the capital city can provide the most jobs and services.

In Hungary, most of the country is losing its population, while some more advantageous regions (mostly on the Western side or around larger towns) gain more inhabitants. However, in the case of Budapest we cannot see that the city itself is growing, rather the population growth of the area surrounding it, and considering the literatures reviewed earlier in this paper, it makes a lot of sense: people would like to benefit from the services the city can provide, but refuse to live in the more crowded and polluted centres. Instead, they move close to Budapest, were they can enjoy greener environment and more peaceful life, commuting to the city every day.

Bertalan and Hegedűs (2016) stated that based on their research involving 80 settlements, urban sprawl is not viewed as an urgent matter in most investigated cities. However, in some Hungarian cities, including Zalaegerszeg, we can observe a suburbanisation driven urban sprawl (Nagy – Hegedűs, 2016). The case was similar in Szombathely, where we could observe the increase of the built-up area, while the population number decreased in the past decades (Mizsei et al, 2010). Budapest, the capital city is also endangered in this sense; Illyés et al (2016) stated that we can observe sprawling areas at the outskirts of the city, and their study found that it is very likely that this situation will be even worse. This statement is consistent with the findings of Kovács (2017) who found that the built-up area consisting of buildings of residential, business and recreational use grew from 180 km2 to 411 km2 in 80 settlements in Budapest's agglomeration between 1959 and 2014.

We could see above that there are many negative effects caused by fragmented urban fabric created by uncontrolled growth. The next section is about some possible ways to counter these effects.

Strategies to tackle the problem of urban sprawl

One of the top reasons for urban sprawl is the lack of conscious planning. However, there are many things urban planners can do to prevent uncontrollable growth. Oueslati et al. (2015) found that land around cities with potentially high

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agricultural value can halt city growth. The reason behind this is that highly productive lands maintain or increase land values, making outward growth more expensive. Therefore, supporting agricultural production with high value added can help decreasing growth, and it has other positive impacts, too (Bakos I, 2017). This solution would also revitalise urban-rural relations and would probably contribute to the formation of shorter food supply chains through which city inhabitants acquire their food.

Another solution could be to make city centres more attractive to people, by incorporating the principles of smart growth into development. More green areas, better public transportation, multifunctional districts and attractive housing solutions are good examples for achieving this goal. Sag and Karaman (2014) and also Ewing et al (2002) pointed out that the main objective of smart growth, in the context of tackling urban sprawl, is to revive the city centres. Indeed, trying to revitalise older infrastructure or finding new functions for them is like cleaning up the city; getting rid of the problem of underutilised buildings and infrastructure, while holding back the growth of the city, making it more compact.

Compactness, less fragmented urban fabric is also a desirable goal, since people move to cities to access many services and find jobs they are qualified for or which satisfy their needs. Therefore, consciously planning the growth of the city, taking into account the advantages of multifunctionality while trying to avoid crowded city structure, is also a possible way to prevent urban sprawl to form.

The focus of every urban development attempt is the welfare of people. To ensure this, decision-makers need to provide improvements in the population's life, which helps them become more satisfied with their city. One step is to establish a good public transport system. The ideal transportation system can be characterised by

- reliability and regularity;
- reasonable pricing;
- favourable network cover;
- intermodality – ensuring good connections between different means of transportation;
- comfortable and safe travel.

Besides public transportation, walkability must be ensured as well (Bhatta, 2010). Walkability, sadly, is not a much discussed topic, although it affects the daily life of the population heavily. People should walk safely and comfortably anywhere in a settlement, since eventually everybody needs to walk to some extent to reach their destinations.

Finally, sprawling areas should be, if possible, transformed into more diverse, more multifunctional areas, for example, by establishing community development facilities (Kassai et al, 2016, Gerencsér et al, 2017). The focus of this idea is that too much car use can damage the environment, people's health and communities' ties as well. Therefore, people should be supported in satisfying their social and other needs as close to them as possible (Oláh et al, 2012). Naturally, by doing

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so, new (and perhaps costly) infrastructural investments will be needed; however, when thinking strategically, long-term benefits should outweigh short-term ones.

Strategic thinking is required not only in relation of urban sprawl, but regarding to urban planning as a whole. One very popular and prominent purpose is to transform cities along the principles of smart growth.

According to the Smart Growth America (2017) smart growth contains the following elements:

1. Mix land uses
2. Take advantage of compact design
3. Create a range of housing opportunities and choices
4. Create walkable neighbourhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

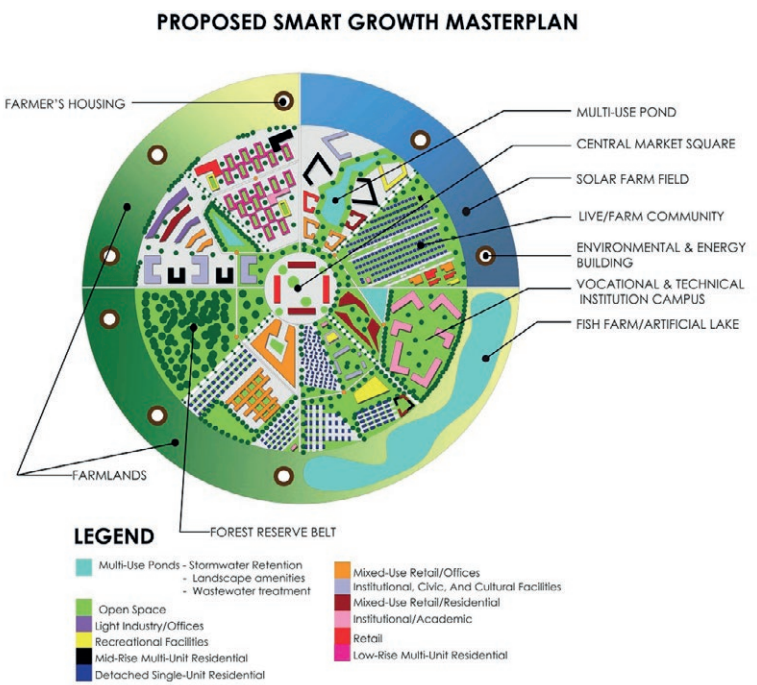

Figure 5. Proposed SMART Growth Masterplan

Source: http://www.canvasarc.com/portfolio/smart-growth-suhum/, 2017

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We can see that all the specific features of urban sprawl mentioned before are in contrast with the elements of SMART growth. To complete the description we could use some other approaches. For example the Grow Smart Rhode Island (2017) draws up explanations which are refer to what smart growth "is not". Here are some examples:

- "Not anti-growth – it's about better growth—growth where it makes the most sense and maximises public investment in infrastructure.
- Not anti-automobile – it's about having transportation options—to drive, walk, bike, or take public transit.
- Not anti-suburb – it's about building stronger suburbs, cities, and new communities. It's about protecting existing investments and quality of life in areas where people, communities, and governments have already made a commitment.
- Not about big government – it's about improving market efficiency, making it legal again to construct the mixed-use small towns and neighbourhoods as they once were, making brownfield redevelopment easier, and getting more value from the tax dollars we spend on roads, sewers, and other taxpayer investments" (Grow Smart Rhode Island, 2017)

An attempt for fostering SMART Growth

Although the expansion of cities towards the surrounding natural areas is not a desirable process, there is a significant difference in how this expansion takes place. The example below was chosen to be showcased, because the project indicates that there is a demand for involving mixed-use in spatial planning. The Tópark Project (Lake Park Project, Figures 6 and 7) was originally planned by the Walker & Williams Investment Group as a 140 hectare office building area in the "golden triangle" surrounded by the MO-M1-M7 motorways.

Figure 6. Tópark Be My City: The city in the city virtual concept
Source: http://topark.hu/bemutatkozas

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The implementation was stopped in 2010 and after several changes in ownership the new owner (Útnet Építő Kft.) continued the construction in 2016. The project area was primarily classified as a water management and forestry area but thanks to the previous investment the creek and the forest lost their separator roles between the two affected settlements (Törökbálint and Biatorbágy). Therefore the new owner had to ask for permission in line with the valid spatial development plans to implement the new concept.

The Tópark multifunctional real estate complex is located in Biatorbágy, 11 kilometres far from the capital city, Budapest. The complex has a 200 thousand square metres useful floor area and offers several high quality services such as office building, residential buildings (with 260 flats from penthouses to studio apartments), retail stores (almost 15 thousand square metres), restaurants, cafés, promenades, service units, sporting and recreational opportunities, conference hotel with 140 rooms and a conference hall suitable for a thousand people, beautiful view, aesthetic environment, 2,600 parking places, municipal operated nursery and kindergarten, medical institution, Tópark Express bus (from September of 2018).

Figure 7. The implementation of Tópark concept
Source: http://topark.hu/galeria-kep

Every segment of the complex has been developed by using green energy and environmentally friendly solutions, such as green roof (it decreases the emission and increases the capacity of the thermal insulation), ceiling heating and cooling (it provides equal temperature in the room), three-layer Super Low-e doors and windows, continuous use of LEED (Leadership in Energy and Environmental Design) in order to gain an international recognised qualification in the field of sustainability. The Budapest-Balaton cycle path will pass by next to the complex (Biatorbágy Tópark Településrendezési eszközei, 2016, Tópark website, 2018).

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Conclusions

There are significant differences between the regions of the world, and the primary cause is population flows (Káposzta, 2014). Population flow is a process that can be amplified by motorway and other road development. In many countries, for example, in Hungary, it was found that there is a strong correlation between the motorways and high development level of the centre areas (Péli, 2015). However, population flow, such as flow from the centres to the surrounding areas could cause significant problems. One of these problems is the urban sprawl. Growing urban areas (and urban population) would not pose as a great threat by themselves. However, if the problem is left unchecked and escalates, there can be serious consequences, because it may lead to uneven development patterns.

It was found that urban sprawl consists of areas being relatively far from each other, thus increasing car dependency, so the residents of such areas need to use cars to go shopping, to reach their workplaces or to visit destinations of recreation (which they could otherwise do by walking or cycling, for instance). Also, public transportation is difficult and expensive to maintain in these areas, so car dependency and negative environmental impacts are also further increased by them.

The authors offered some suggestions based on the reviewed literature, the review of the Hungarian situation and their own professional experience. The most important suggestions are:

- promoting conscious urban planning, based on strategic thinking;
- reviving city centres, making them more attractive;
- focusing on multifunctionality, mixed-use development;
- improving public transportation and walkability;
- keeping in mind the principles of smart growth and compactness;
- developing more "good practices" like Tópark is (notice: it is important to improve the level of sustainability; for example we can involve in this mix-used pattern the idea of passive houses to further decrease the negative environmental impacts).

Mixed-use is one of the most important elements, since urban sprawl is known to have only one function (residential), and it forces their residents to leave these areas whenever they want to satisfy their other needs. However, forming small centres with different kind of services in the sprawls could halt this disadvantageous process.

These are only a few suggestions for urban planners, and it is easier said than done. However, thinking on long-term is our responsibility in order to ensure liveable cities for the future generations as well.

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REGIONAL CHARACTERISTICS OF SMART CITIES IN HUNGARY

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Abstract

In addition to the trends of the current spatial processes in Hungary, both global and EU territorial processes indicate that the role of urban areas is getting more prevailing, as urban areas serve as engines of economic growth (Káposzta et al., 2016). The proportion of urban dwellers exceeds half of the current global population, which is likely to rise in the future (based on estimations). This is an important trend, because this very process was responsible for the creation of intelligent growth and SMART cities. In May 2017 the first step for the participants of the SMART project was to create an exact definition, as well as to collect good practices and models that can be used on the field. In this paper we aim to review the conceptual delimitation of the SMART criteria and definition, which can be adapted in Hungary. A number of SMART cities have launched territorial initiatives that provide a good basis for implementing effective Integrated Urban Development Strategies in the future. In this paper, we aim to find, interpret and define the SMART city and to showcase Hungarian SMART initiatives through document analysis using "good practices" (Budapest, Szolnok, Ljubljana and Copenhagen).

Keywords: SMART cities, liveable settlement, SMART initiatives

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Introduction

Based on the literature on territorial and rural development, the notion of smart growth and the associated SMART cities ("liveable" cities) is gaining ground both in the European Union and Hungary. The definition of the factors determining smart growth and their cardinal areas, which affect areas of education, research and innovation and the digital society, is also a key factor in the European Union's growth strategy for Europe. Based on the current territorial processes that characterise the European Union, cities are the engines of current development and growth, and they are also the dominant participants of global competition. The competitiveness of the settlements is determined primarily by the quality of life and the social, economic and environmental infrastructure involved in it, complemented by the quantity and quality of services available (Kassai-Molnár, 2016). The current theme of our chosen topic is that the European Union's SMART City concept is intended to promote the development of all these factors. The purpose of this study is to provide an overview of smart growth and the main literature related to the SMART cities, the institutional and legal background of the country, the Lechner methodology and some Hungarian and international SMART city initiatives.

Cities in the globalised world

The proportion of urban population is over 50% globally. The dominant role of cities is further emphasised by the facts that 80% of GDP is produced there and 70% of energy is consumed by cities. According to preliminary estimates, the number of city inhabitants is expected to rise to 5 billion by 2030. However, considering the territorial differences that characterise the world, there are significant disparities among continents, countries and regions in the case of urban populations as well. While approximately 66.4% of the population in the United States is currently living in cities, in Europe this proportion is approximately 73%. Figure 1 shows the current situation (3 May, 2017) about the population- and city density of Hungary.

At present, the number of cities and towns in Hungary is 328. Of all the population, 17.4% lives in Budapest, while another 52.1% lives in other cities and towns (TeIR, 2017). As mentioned above, cities are the basic engines of growth; therefore, they require continuous improvement of the technical, institutional, social, economic and environmental infrastructure. This fact makes smart and sustainable growth strategies for cities and other settlements cardinal.

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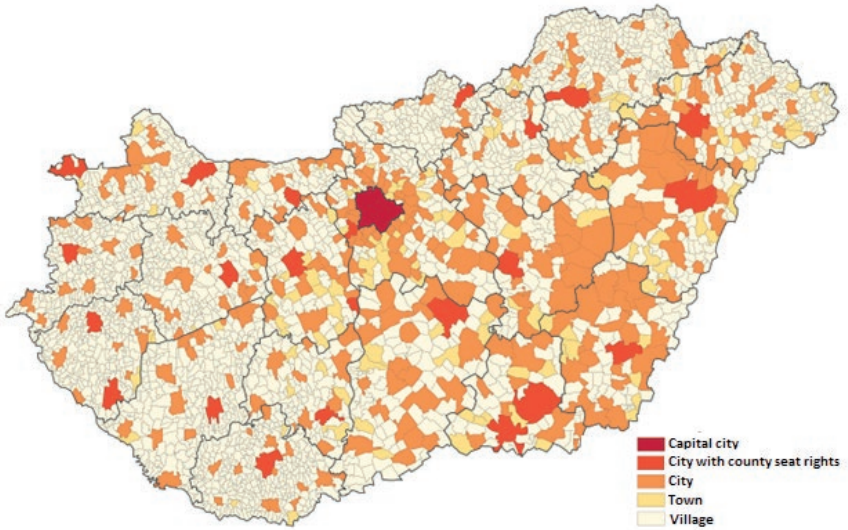

Figure 1. City- and population density in Hungary
Source: https://www.ksh.hu/teruleti_atlasz, 2017

Defining smart specialisation and SMART Cities

SMART cities are based on smart growth, the importance of which is underlined by the fact that it has become an important priority in the Europe 2020 Growth Strategy. Smart growth means a process that aims to improve the performance of the European Union in education, research and innovation and the digital society. In the case of education, the promotion of learning and skills development is a sub-objective. In the case of research and innovation, the most important goal is to promote the production of new products and services, which ensures growth and employment and solves societal problems. Strategies also emphasise the use of information and communication technologies, when talking about digital society. Based on the above, the key three objectives of the European Union in the area of smart growth are as follows:

1. Investment in research, development and innovation from public and private resources should reach 3% of the Union's GDP and also create better conditions for these three activities.
2. By 2020, the employment rate should be raised to 75% among workers aged 20-64 by attracting more people (especially women, young people, older people, low skilled and legal immigrants).
3. The level of education must be improved, especially in the following areas: the drop-out rate should be reduced to below 10% and at least 40% of EU residents aged 30 to 34 must have a tertiary (or equivalent) qualification.

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Urban areas are a key factor in achieving smart growth since the metropolitan regions account for more than half of the EU's population and nearly two-thirds of the GDP produced. In general, in each European Union metropolitan region, per capita GDP is higher than in other regions, but we must point out that this does not always mean that growth rates will be higher. In a number of European countries, per capita GDP grew slower in metropolitan regions than in other regions. Of course, this is justified by the growth rate of regions with lower economic levels. Among the metropolitan regions in the European Union, the growth rate of the capital cities is particularly high, which in our opinion is due to productivity and employment growth. Secondary metropolis regions produced the same growth as the national level, but they fell behind the capital regions, while most rural regions grew even slower. An important test result is that in all OECD countries, productivity and incomes grow in parallel with the size of cities and make a significant contribution to national GDP. One of the reasons for this is that larger cities usually have a high quality and quantity of human resources, though with increasing the size of cities, this is not always straightforward. Another reason is that in large cities there are more sectors with high productivity potential (e.g. financial services). Thirdly, these cities are nodes and service centres that require high added value services as channels of trade and financial processes (Eurostat, DG Regio, 2016).

The Smart Cities concept is connected to notions of global competiveness, sustainability, empowerment and quality of life, enabled by broadband networks and modern ICTs. A holistic definition of smart cities is as follows: *"when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory government"* (Mosannenzadeh F. – Vettorato D.; 2014).

Smart growth is the foundation for SMART cities' concept. The SMART city is a collective term and there is no general and uniform definition for it in professional discussions. In our opinion, the smart city is a collective concept that is essentially a development that is tailored to local needs. They are "up-to-date", "people-centred" and "liveable cities". We call a city smart when its sustainable economic development is achieved through a balanced investment in traditional and digital infrastructure, human and social capital, involving the stakeholders of the community concerned, with its participation in an environmentally conscious manner. "Smart city dwellers are indispensable parts of smart cities, because they are the fundamental condition for the long-term development of a city" (Dobos et al., 2015). Those cities are successful where they have given room to innovation, but it requires service provider approach from the local authorities. Based on the Smart City Handbook, Smart Cities are mediums where technology and intelligent service solutions are complex tools for achieving quality of life, efficiency, ecological and economic sustainability goals. They can work successfully together with other tools to improve the quality and efficiency of services,

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to make energy and other resources more economical, and to involve citizens and improve their quality of life (Dobos et al, 2015).

Legal background

Once the SMART city concept was developed in the European Union, the preparations for the domestic spatial development policy have also taken place. The first such government decision on the SMART city concept for Hungary was published in 2014[2], which outlines the development directions and goals of the infocommunication sector and four pillars of implementation of the National Infocommunication Strategy:

1. digital competence;
2. digital economy;
3. digital infrastructure;
4. digital governance.

Then, in 2015, government regulation 1486/2015. (21 July) was published in the Hungarian Official Gazette, which was about the current tasks related to the implementation of the Digital Nation Development Programme and about the amendment of certain related government declarations. Point 3 of this regulation refers to the Lechner Knowledge Centre as a contributing party in the coordinated introduction of smart urban services and the creation of an organisational and knowledge platform supporting operation. Accordingly, the Lechner Knowledge Centre was established as the Smart City Centre in 2015, which handles the various activities of the Knowledge Centre (City Planning, Geoinformatics, Informatics) as a central coordinating body. The task of the Smart City Centre is to support domestic cities in building their smart strategies, liaising with international organisations of similar profile, and mediating among cities, state and market actors – documenting the process of creating smart settlements in Hungary.

There are many different ways of assessing the smartness of settlements. The first way of evaluation of city smartness is the usage of indicators, elaboration of indexes and city rankings. Indicators and indexes are useful tools of preparation of location choices for enterprises or investments. Various evaluation methods and models for understanding and conceptualising smart cities have been developed to explain smart city concepts, which aim to define their scope, objectives and architectures.

Evaluation helps to

- explore the current status and position of settlements as smart cities;
- present the relative position of cities to each other;
- explore the development or "movement" of cities towards becoming smart cities;

2 1631/2014 (6 December) Decision of the Government on the Implementation of the Digital Nation Development Programme.

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- provide information and model future actions; and
- prepare, establish decisions and to determine development trends (Caragliu A. Del Bo C.-Nijkamp P.; 2011).

Main elements of the city evaluation method created by the Lechner Knowledge Centre

Since 2014, a number of studies have been carried out in the European Union in the field of city evaluations, and they are currently addressing the components and methodology of evaluation of smart cities. There have been several variants for the development of the monitoring system, but in Hungary the following six main groups have been developed in relation to the assessment of cities (Nagy et al.; 2015):

1. smart mobility;
2. smart environment;
3. smart people;
4. smart life circumstances and life quality;
5. smart governance;
6. smart and sustainable economy.

In the *smart mobility subsystem*, the urban assessment model presents the most important elements and integrations of freight and passenger transport, as well as their technical infrastructure. Furthermore, it is also important to know the distribution of transit traffic and modes of transport related to the assessment of environmentally friendly freight and passenger transport. It is worth considering the "SMARTNESS" of the technical infrastructure conditions, which can be measured by introducing smart card systems, running real-time information systems and spreading electric filling stations. The *smart environment subsystem* primarily includes smart buildings, which are currently categorised according to 10 energy quality classifications. According to the assessment method of the Lechner Knowledge Centre, the proportion of buildings certified by the city is mainly determined by the urban assessment, and the energy classification of the city's building stock. The most decisive conceptual background of this subsystem is the climate-friendly nature of the city, which can be measured by the existence of a climate strategy, closely related to the rational use of land, the presence of heat islands and green space management, also affecting the inner and outer areas of the settlement (Nagy et al., 2015).

We agree with the fact that no digital application or technical solution can be disseminated by the adequate adsorption and flexible adaptation ability of the local population without *smart people*. The quality of inclusion and integration is best achieved by having individuals with smart devices (telephones) and the penetration of internet subscriptions. In assessing the community's ability to cooperate and evaluate the capacity and activity of NGOs, their influence, the community's participatory activities, the electoral activity of the local commu-

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nity and, finally, other forms of community actions and activities (e.g. urban Facebook profile, design, users, forums) (Nagy et al., 2015).

In the field of settlement assessment, the *smart living conditions and quality of life subsystem* include the welfare and safety conditions outlining the quality of life, the health status and the health consciousness of the population. In our opinion, it is important to look at other descriptive data of quality of life, such as local unemployment, migration, social assistance, car supply and others, including features describing real estate market indicators. The assessment of settlements should take into account the health status of people living there and assess their lifestyles and levels of health awareness (e.g. the presence of bio-markets).

On the basis of the current division as defined in the legal background, the *smart governance subgroup* is the most widespread group of public administrations and public services. One of the most important elements is the measurement of the spread of online processes, the scope of the types of cases involved in e-administration and their use by the customers through the client interface (Ügyfélkapu). Based on the current measurement system, the first category to be evaluated in the category of public services is education, culture and cultural institutions. It is important to teach e-learning and digital knowledge in the community (e.g. e-journal).

In the *smart, sustainable economy subgroup*, in our opinion, when comparing settlements, the emergence of new and innovative start-ups and the weight of information and R&D are very important. Assessing the entrepreneurial activity of the local population and examining modernity and flexibility in employment could also provide cardinal data. This sub-group manifests best in the market of tourism that is closely related and easily measurable for settlements. Tourism is a local-based industry, which in many ways can provide digital help to visitors in the city, including tourism planning, city marketing and digital reservations. The local and global connections and embeddedness of the settlement can be measured most by the export orientation of the enterprises established there and the importance of international traffic through the frequency of conferences, fairs or the rate of foreign guest nights in various accommodation facilities (Nagy et al., 2015).

Hungarian and international SMART initiatives

Due to the limits of this paper, the following are just a few examples of the domestic and international SMART initiatives and their impacts. Considering the fact that innovative initiatives linked to SMART cities do not have long traditions within urban development, their effects will be formulated based on currently available information.

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Budapest

In January 2017 the Municipal Assembly of Budapest accepted the SMART city vision. The paper proposes practices that could make Budapest a smart city, based on a Western European model. The pre-defined concept does not include specific projects to be implemented, but rather more general principles and values as to what areas are best used with smart solutions for the future. The guidelines set out in this document are aligned with the Budapest 2030 Long Term Development Concept from 2013. The Hungarian Gazette of 20 March 2017 published the government regulation 56/2017 (20 March) on the modification of certain government decrees related to the definition of the concept of "smart city" and "smart city methodology". The government decree officially defines smart city as follows: *"The smart city is a settlement or settlement group which develops its natural and built environment, digital infrastructure, and the quality and economic efficiency of services available in its territory, by using sophisticated and innovative information technologies in a sustainable way"*. Future development will be based on the following points:

1. establishing a regional knowledge centre;
2. sustainable resources;
3. environment protection;
4. mobility;
5. urban environment;
6. social partnership;
7. smart economy.

Regarding to practical implementation, the next step is to create a Smart City Programme based on these policy guidelines in the capital city. One of Budapest's SMART initiatives is the 2014 FUTÁR[3] (Traffic Control and Information Information System) system, which uses the latest technological advances to ensure that the users of the public transport network in the city have access to as much information as possible so that they can reach their destination the fastest. The satellite based vehicle tracking system enables BKK (Budapest Transportation Centre) to provide real-time, continuous 24-hour supervision of the city's traffic, maintaining scheduled traffic and, in extreme situations, rapid and efficient intervention. The participants of the SMART initiative are BKK, BKV (Budapest Transportation Company) and the Budapest Municipality (Rab et al., 2015; BKK). The public information system for reducing traffic and congestion in Budapest has achieved its purpose based on the information currently available, as everyday users of the system report shortening the reach of the destination, but official statistics are not yet public.

3 http://www.bkk.hu/futar/

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Szolnok

The *Optimal Energy Management System* was built in Szolnok. It is a sophisticated, universal energy monitoring system that aims to increase energy efficiency by exploring energy consumption processes, exploring savings potential, thus reducing and achieving cost savings in several stages. The expert team of Magyar Telekom has prepared recommendations for the analysis of measured data and site surveys (e.g. review of energy contracts, benchmarking with industry benchmarks) to achieve cost-cutting at the institutional level through optimisation of energy consumption. Based on current estimates, approximately 4-5 years are needed in order to actually measure the real cost-cutting effect, but the effect of the system's build-up is already perceptible. Participants in the development and implementation of the system are: Magyar Telekom, Szolnok Municipality, János Pálfy Instrumentation and Chemical Industry, Jendrassik György Mechanical Engineering Member Organisation (Rab et al., 2015).

Another SMART city initiative is the installation of the Water Quality Station[4] in the city. The online water quality monitoring tool installed at the Szolnok section of the Tisza provides 24 hours a day access to the most important water quality parameters for the river. The online water quality station is a floating unit suitable for measuring the most important water chemistry parameters of surface water, processing measured data, and transferring data over a mobile network to any IT background system. The special feature of the system is that it is fully powered by solar cells, while its position and possible movement is indicated by a GPS encoder. The buoy SIM card sends data via a data connection to a central server that processes and visualises them.

The development strategy of Ljubljana related to SMART criteria

The Ljubljana City Development Strategy is one of the most important flagship projects in the European Union in the light of the SMART criteria. Ljubljana is called the Green Capital of the European Union, and Slovenia is a leading member regarding to SMART initiatives. Currently, the capital has approximately 271,000 inhabitants, so in its development, Ljubljana is planning to strengthen its already existing home-like and pleasurable atmosphere. The well-functioning social network, community life and social openness are already present in the lives of people as a natural factor. Their official principles are social equality, inclusion and accessibility, which appear in all areas of urban policy. This can be felt in the usually organised urban community events, community support, and social acceptance.

4 http://www.telekom.hu/rolunk/t-city/fenntarthatosag/vizminoseg_meroallomas

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In the following section we listed some of the projects and organisations of Ljubljana, related to the SMART city principles.

ABC Accelerator

The 'ABC Accelerator' is an incubator organisation, which supports new enterprises by mentor programmes, management trainings, capital and office spaces. Its goal is to establish an innovative South-Eastern-European region (https://abc-accelerator.com/).

Ljubljana Urban Region Regional Development Agency

The Ljubljana Urban Region Regional Development Agency (RRA LUR) promotes economic, social and cultural activities in Ljubljana and Central Slovenia with the aim of becoming a friendly and recognisable region with unified common goals (http://www.rralur.si/en).

Technology Park Ljubljana

The development of Technology Park Ljubljana was launched in 1995 with the aim of providing a supportive and stimulating business environment for high-tech businesses. Today, the park operates as an umbrella organisation with a physical space with more than 260 companies. They also engage in community development, incubation and accelerator activities, resulting in many companies entering the international market. Among others, the Cozylab, Vacutech, Educell, BIA Separations, Balder, Raci, Induction, Zemanta, XLAB and Zootfly were all established here (http://www.tp-lj.si/en).

Ljubljana Forum

The annual Ljubljana Forum is a well-known event of urban development at international level where representatives of key areas, city leaders and city users are all present. The main purpose of the Forum is to link, promote and encourage the development and concrete application of good practices. The fifth Ljubljana Forum was held in October 2015 with the title of 'Future of Cities – Smart City – Empowering Cities and People' (http://www.ljubljanaforum.org/2017/).

The development strategy of Copenhagen related to SMART criteria

In recent years, the City of Copenhagen has taken a whole series of steps to support SMART solutions to organise the city's everyday life. These initiatives include "soft" traffic management solutions, air quality monitoring, open data, and fun, informative applications. In 2014, the Copenhagen Solutions Lab won the 'World Smart City Award" for the 'Copenhagen Connecting' project. Copenhagen published its vision of Eco-Metropolis in 2007, with the aim to become the

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capital city with the best urban environment in the world by 2015, which actively takes responsibility not only for its own development but also for environmental awareness around the world. The city's strategy in 2014 won the European Green Capital prize. Eco Metropolis mentions four major holistic directions that are well communicated to both the public and the professionals and are reflected in specific goals. The goals are easy to understand and clearly define the directions of development for the coming period (Dobos et al., 2015).

1. *Bicycle-friendly city:* The best city in the world for cyclists in 2007, the rate of cyclists in Copenhagen was 36% of the total travellers. Creating cycling infrastructure is both physically and digitally exemplary. In order to make cycling more secure, amongst others, strict rules apply to all road users. The programme aims to halve annual cycling accidents by 2015. After snowing, the first thing that happens in the city is to clean bicycle roads. Thanks to all of these measures, today the name of Copenhagen has become a synonym for a pedestrian and bicycle-friendly city and innovative transport planning (http://www.copcap.com).

2**.** *Climate capital:* Copenhagen's annual CO_2 emissions in the 1990s were 7 tonnes per capita, which went down to 4.9 tonnes in 2007. This means a reduction of 25% over the last 15 years, which was achieved by the continuous growth of the city and largely through the modernisation of district heating systems and the transition to cleaner fuels (https://www.energycommunity.org/documents/copenhagen.pdf).

3. The capital of blue-green systems: By 2015, recreational environments (parks, forests, coasts or beaches) became available within 15 minutes for 90% of the inhabitants of Copenhagen. According to the plans, by 2017 the citizens of Copenhagen will spend twice as much time on recreation as they did in 2007 (https://www.energycommunity.org/documents/copenhagen.pdf).

4. Clean and healthy city: The city's aim is to dramatically reduce noise pollution. It was one of the main goals to improve air quality by 2015 as much as it would not be harmful to the health of the population in Copenhagen. It was planned that by 2015, at least 20% of the city's total food consumption would be organic. This ratio would be 90% for public institutions. Copenhagen would be the cleanest city in Europe, where street rubbish is always cleaned within eight hours (http://www.almanac-roject.eu/downloads/M2M_Workshop_Presentations/Session%204/Mia_Copenhagen_smart_city_2015.pdf).

Recently, two key SMART projects have been implemented in Copenhagen, described briefly below:

Coppenhagen Connecting

'Copenhagen Connecting' is a concept for creating a digital infrastructure that enables smart city solutions to be installed in the city. This system for compatibility assists in gathering information about the city's existing infrastructure,

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roads, heating, utilities etc. With the clever operation of the system, significant amounts can be saved annually thanks to operational efficiency and continuous monitoring. The programme was awarded the 'Smart City Award' at the 2014 World Expo in Barcelona.

CITS – smart transport system operation

The CITS 100 is a traffic monitoring and control platform at an experimental stage that can be used to coordinate the city's traffic on real-time basis and to help ensure its continuity, preventing breakdowns and congestion.

Summary

SMART cities are relatively new phenomena in our world, but they potentially hold the key to change urban planning and development. The authors argued that it is important to create new initiatives, serving as flagship projects for further development (Budapest, Ljubljana, Coppenhagen). They can stimulate innovation, growth, prosperity and well-being within and even outside of their territories. The paper discussed the three cities only briefly, because there is relatively few information on these pilot projects. Our opinion is that the complex management and development of the SMART cities is becoming increasingly popular for market players and maybe even more importantly also for locals. In our view, successful cities in the future will need intelligent leadership, which is also reflected by the SMART initiatives. All in all, it is important to emphasise that the development of smart cities is not a one-time spatial development programme but a multi-annual process based on the governmental, constructive work of economic, scientific and civil organisations. The results of these urban development strategies will certainly contribute to the development of viable, smart cities.

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SMART SETTLEMENT MODELS BASED ON INTERNATIONAL AND HUNGARIAN INITIATIVES – POSSIBLE DEVELOPMENT PATHS FOR PERIPHERAL AREAS[5]

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Abstract

The proportion of urban inhabitants exceeds half of the current population of the Earth, which proportion is likely to rise (based on preliminary estimates) in the future. In addition to the concept of SMART Cities, in May 2017, a pilot project called SMART Village was launched in the countryside. In both cases, the first step for the participants of the project was to find the exact definition, as well as good practices and models that can be used on the field. In this paper, we aim to review the conceptual delimitation of the SMART criteria and the available online database and how it can be adapted in Hungary. A number of SMART cities have launched territorial initiatives that can provide a good basis for implementing effective Integrated Urban Development Strategies for the future. In contrast, for SMART villages, the primary goal at the beginning in the current programming period is to create the SMART-Village reference points for which the financial resources will be provided by the European Union. In this paper, we aim to find, interpret and define the SMART village, and to showcase Hungarian SMART initiatives through document analysis using a "good practice" in Hungary (Alsómocsolád).

Keywords: SMART communities, liveable countryside, SMART initiatives, beneficiary districts

JELcode:R11

LCCcode: H1-99

5 This paper is the English version of "Smart települési modellek vizsgálata nemzetközi és hazai kezdeményezések alapján, avagy mi lehet a minta a periférián? ", published in Studia Mundi (2017). Vol. 4. No. 3. pp. 57–66.

Introduction

Examination of disadvantaged areas has a long history that is strongly influenced by the constant change in natural, economic and human resources. As a consequence, the examination of such regions reveals new and unique systems of correlations. In 2017, one can still rightfully say that general characteristics of disadvantaged areas include having a low level of infrastructure supply, low levels of service quality and lacking employment opportunities. These characteristics result in high unemployment rates and low income levels. A general phenomenon is the migration of younger generation from disadvantaged rural areas, which contributes to the development of a long-term unfavourable aging structure. The SMART concept of the European Union (both SMART City and SMART Village concepts) aims at improving the quality of life and the social, economic and environmental infrastructure in this area, complemented by the quantity and quality of available services. It is important to note that, with regard to the study of literature on territorial and rural development, both in the European Union and in Hungary smart growth is gaining ground. The defining factors for smart growth and their areas, which affect fields such as education, research/innovation and the digital society, also appear in the European Union's Growth Strategy (Europe 2020). The purpose of this paper is to provide an overview of the demarcation of the disadvantaged areas in Hungary, their main economic characteristics and the major literature related to the SMART villages, the institutional and legal background of the country, touching on some SMART initiatives in Hungary, in particular the rural areas.

Material and methods

In the study, we primarily use document analysis to compile the changes in the definition of the disadvantaged areas of Hungary over the past decade, and then we present the foreign and domestic literature, which is the basis for the concept of smart village initiatives, including the description of the domestic legal background. The Lechner Knowledge Centre, with its latest online model of smart initiatives, provides a brief overview of some of the international and domestic rural SMART initiatives and impacts. The study is based on a research launched in September 2017, with the involvement of students from the Agricultural Economics and Rural Development (BSc) training of Szent István University. Based on the research plan, SMART Village initiatives will be investigated using empirical research methods based on the SMART criteria, of which we later aim at creating models. This study was made in the initial phase of the research, thus presenting a slice of expected results, paying particular attention to the spatial contexts of disadvantaged priority settlements.

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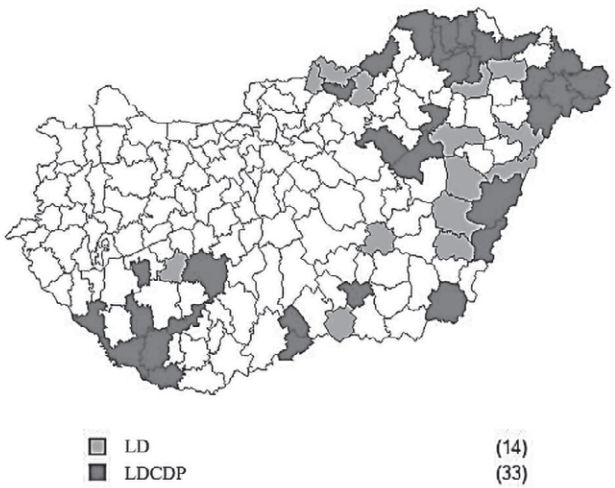
The definition of Hungarian beneficiary regions, the SMART concept

According to the Act CVII in 2007, the territory of Hungary was divided into 174 micro-regions. Based on the 2007/67 Parliamentary Decision and the related government decree, the classification of the beneficiary and disadvantaged micro-regions was determined in Hungary until 2013 (until the introduction of the district system). The 2007/67 Parliamentary Decision sets out the basic document on spatial development subsidies, decentralisation principles and criteria for the classification of beneficiary areas. Due to the topic of the paper, we consider it important to briefly review the system of classification of beneficiary areas and their criteria. According to this Parliament resolution, the distribution of regional development support from domestic and community sources should take into account the complex indicator measuring social, economic and infrastructural backwardness and development of micro-regions and settlements, the main elements of which are: Economic Indicators, Infrastructure Indicators, Social Indicators and Employment Indicators. The Government Resolution 2007/311 contains the classification of the conditionality system according to the level of development of micro-regions. The classification of beneficiary micro-regions – the disadvantaged, and in particular the most disadvantaged micro-regions, and the most disadvantaged micro-regions supported by complex development programmes is set out in the Annex of this Regulation.



LD: least-developed micro-regions
LDCDP: least-developed micro-regions requiring complex development program

Figure 1. The spatial distribution of the most disadvantaged micro-regions supported by complex development programmes in Hungary (until 2013)
Source: the authors' own editing based on HCSO data (2011), 2012.

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Under the Regulation, until 2013, the number of the most disadvantaged micro-regions in Hungary was 47, out of which 33 are multi-disadvantaged micro-regions, supported by complex development programmes[6]. Figure 1 indicates that more than 50% of the previous micro-regions is situated in Borsod-Abaúj-Zemplén and Szabolcs-Szatmár-Bereg counties, which are generally backward regions in Hungary. This fact makes it imperative to solve the problems of these areas, because such concentration of challenges can seriously hinder the development of the whole country.

Factors of underdevelopment

The fundamental aim of regional policies is to reduce territorial differences and to improve the situation of lagging regions. The basic issue of this principle is to classify areas in order to see which are underdeveloped, and what levels of development we need to achieve. It is important to point out that the industrial revolution and the post-industrial era of the present day are different (G. Fekete, 2006). Territorial inequalities can be resulted by many factors. According to G. Fekete's research in Northern Hungary (2006), the five main factors of underdevelopment, as shown in Figure 2, are demographic imbalance, poor regional income generating ability, low or under-utilisation of environmental resources, isolation and unsatisfied local needs.

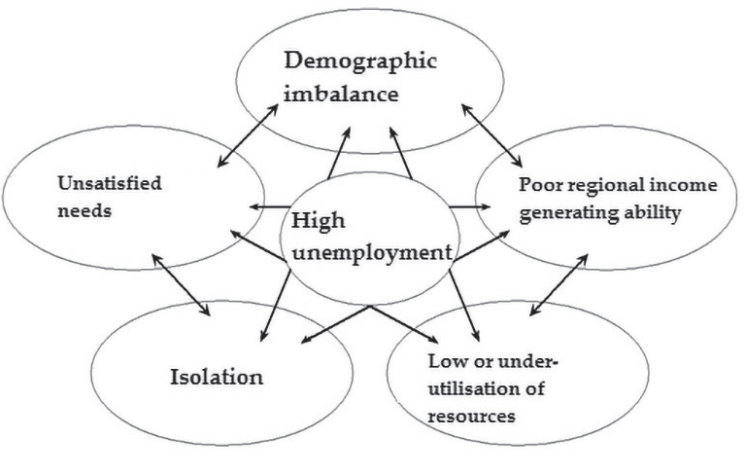

Figure 2. The five main factors of underdevelopment, based on G. Fekete
Source: Molnár M. (2007), referring to G. Fekete (2006)

6 These micro-regions are: the Edelény, Encs, Ózd, Sárospatak, Szerencs, Szikszó, Abaúj–Hegyköz, Bodrogköz, Mezőcsát, Tokaj, Heves, Bátonyterenye, Baktalórántháza, Csenger, Fehérgyarmat, Mátészalka, Nyírbátor, Vásárosnamény, Berettyóújfalu, Tiszafüred, Bácsalmás, Jánoshalma, Mezőkovácsháza, Sarkad, Kistelek, Sásd, Sellye, Szigetvár, Tamási, Barcs, Csurgó, Lengyeltóti and Kadarkút micro-regions.

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Overall, in the backward regions, massive and deepening unemployment, unsatisfied internal needs, ever-falling services, natural values with utilisation problems and emerging conflicts are the most serious problems. Furthermore, it is worth mentioning that disadvantaged micro-regions are less able to adapt to global trends, resulting in insufficient infrastructure and financial conditions. It is clear from all of these that catching up, due to the complexity of the problems and the different kinds of disorder in the different areas, cannot happen by using just one model.

The introduction of the district system, changes in the beneficiaries

In the following, we examine briefly what happened after 1 January 2013 when the Hungarian district system was introduced. In Hungary, the Act XXI 290/2014 (26 December) regulates the beneficiary districts. Pursuant to the regulation's entry into force, disadvantaged micro-regions (47), most disadvantaged micro-regions (14) and disadvantaged micro-regions supported by complex development programmes (33) are distinguished. Nowadays, the new regulation is based on the new system of districts, which was established on 1 January 2013, in which the following categories exist: beneficiary districts (55), districts to be developed (18) and districts to be developed by complex programmes (36).

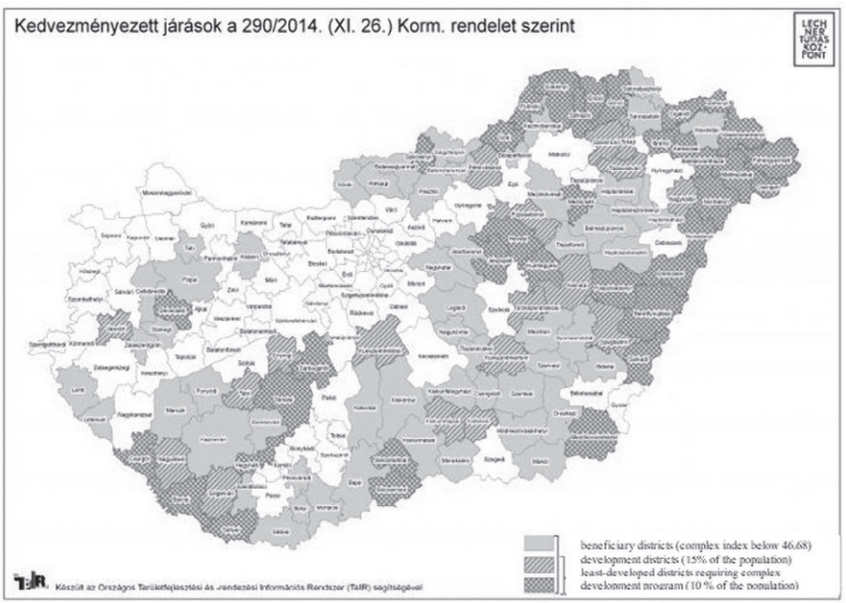

Figure 3. Hungarian beneficiary districts based on Government Regulation 290/2014
Source: www.terport.hu, 2016.

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The 105/2015 Government Decree on the classification of beneficiary settlements and the conditions of classification also has an impact on the regions and settlements. In the case of the districts, there were 4 groups of indicators defined: indicators of the Social and Demographic Situation (6), indicators of Housing and Living Conditions (7), Local Economy and Labour Market Indicators (7) and Infrastructure and Environmental Indicators (4). Analysing the above indicators found in the legal sources, we can conclude that 50% of the 24 indicators for districts could be found in the complex index system for micro-regions.

Social and demographic indicators and the local economy and labour market indicators are almost the same; it was the indicators of housing and living conditions that were more different, as well as infrastructure indicators. Thus, it can be said that the two indexing systems are partially different, but it can be seen that the elements used are similar in content, and only the approach they use is slightly different (Kassai-Molnár, 2016). The number of districts to be developed (which group replaced the most lagging-behind micro-region group) increased from 14 micro-regions to 18 districts. The biggest change is seen in disadvantaged micro-regions / beneficiary districts, where the number increased from 47 to 55.

The SMART Village concept

By May 2017 in parallel with the SMART City concept, the SMART Village Pilot Project was launched in Hungary. Domestic rural development professionals first define the smart villages, then collect good practices and develop models that can be used in practice. At present, a preparatory action plan for the dissemination of the SMART Village concept is underway in Hungary, which, if adapted, will have a significant amount of European Union financial resources available to create so-called SMART Village reference points. Based on the current plans, in principle, each Member State of the European Union can set up benchmarks, so the goal is to associate at least 8-10 member states to use the widest possible data in the reference points. The preparatory action reference programme will start in 2019. After the definitive start of the "smart village" programme in 2021, however, this rural development programme would be supported by a large amount of EU funding from Brussels. In the EU financial cycle 2021–2027, the amount of direct area-based resources may even blend up to half, while the resources of the agricultural stock will not fall, so that the "smart villages" will be solved for the next programming period. Another unseen ambition in the European Union is that the Common Agricultural Policy should be transformed to make rural life attractive. Smart, live, viable villages in Europe: this is the "smart village" initiative, which will also play a major role in supporting high-tech, precision and sustainable agriculture (www.hvg.hu, 2017).

By adapting the SMART City concept into rural areas, it is expected to strengthen the competitiveness of villages as places of residence and as tourist destinations. Numerous international examples also support the intelligent monitoring system, passenger information, tourist applications and public error

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reporting systems in the countryside. The programme could help connecting different tourist attractions and services, boosting local touristic opportunities and digital technology could also be beneficial, for example, if the national Blue Tour Route was mapped digitally. Connecting better data from national and local healthcare institutions could also bring many benefits for small settlements. Villages could also benefit from smart grid energy systems and energy generating communities (Nagy et al., 2015).

During our research, we have investigated a number of SMART Village good practices, based on which we have chosen two ongoing cases from the European Union and from Hungary:

1. Grieth Smart project: It is referred to as a Smart Village best practice in the European Union, which was implemented in a German small settlement in the North Rhine. As part of the project, it is planned to establish a special (multifunctional) "village shop" (with a variety of products and special service structure) and faster internet connectivity. A major problem in the settlement is bus transportation, which is planned to be settled by a municipal bus and a "joint travel" centre. The project is operated by the Rhein-Waal University. The "village shop" would be a post office, a bank, a travel agency, a social care centre and an internet cafe, which would provide space for citizens to strengthen social contacts and exchange information. Another local idea, the "regional taxi" could be a solution to transport problems and the attractiveness of transport could be enhanced by the introduction of car-sharing applications (Nagy et al., 2015).

2. "Smart Rural Areas" project: The Smart Rural Areas project, led by the Frauenhofer Institute, aims to make rural areas smarter, for example, in agriculture, health, mobility, infrastructure and energy. In this context, they intend to help with IT solutions in the field of travel, to apply new solutions in the field of training and to plan the introduction of so-called autonomous travel in rural areas. The latter can also help increase the mobility of patients and the elderly while travelling. Package shipment and delivery would be simplified if public transport could find solutions for parcel delivery. In addition to the people, it would also be possible to deliver these products and even medicines at the same time.

A "Mobility Sharing" application could be used to connect a local bus, private car and public transport, so passengers can reach their destinations in time. In addition, smart vehicle communication (with the repair service providers and with each other) is also an opportunity for real-time tracking of vehicle failures in rural areas and sending automatic alarms to the repair shop. Smart applications already make it easy to find a parking lot or to calculate the route. Vehicles can communicate with each other and communicate with the transport infrastructure, using sensors to indicate the presence of traffic jams, accidents, ice or slippery roads or roadblocks in real time (based on feedback) (Nagy et al., 2015). Elderly care and continuous follow-up helps with the use of a sensor technology that provides discreet information about the lifestyle of the elderly population and thus

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can substitute their preventive care. It is possible to use smart sensors in homes and cars in modern medicine technology, which sensors would indicate the occurrence of the disease (including myocardial infarction) in a timely fashion. However, it should be noted that all these pilot projects can only be implemented if the rural population is receptive to such innovative technologies, but this is difficult for many rural settlements in Hungary (Nagy et al., 2015). Following international examples, we tried to collect the Hungarian example and practice, but we conclude that the number of SMART Village initiatives in Hungary is very low (Rab et al., 2015).

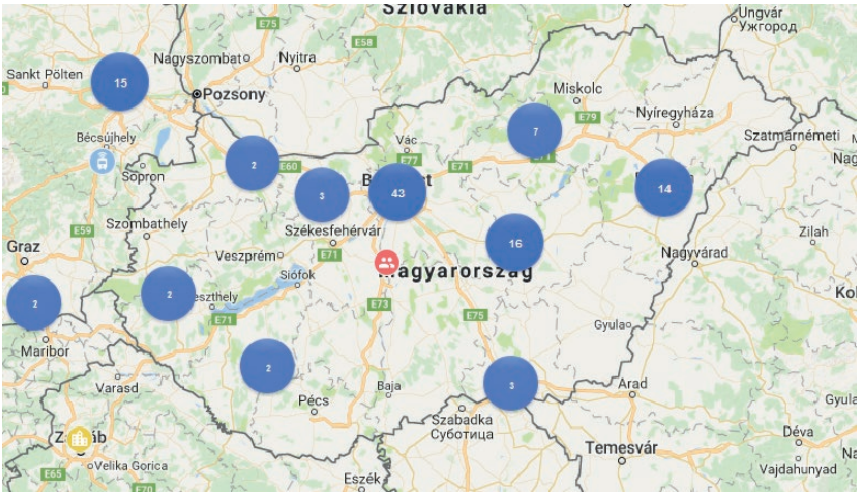

Figure 4. Smart initiatives in Hungary, 2017.
Source: The authors' own editing based on http://okosvaros.lechnerkozpont.hu/hu, 2017.

Based on the Online Best Practice Inventory of the Lechner Knowledge Centre (September 2017), 96 SMART initiatives are available in our country (Figure 4). Figure 4 also outlines the central character of Budapest, as 43 of the SMART initiatives are in Pest County and 36 are in the capital city. In January 2017 the Municipal Assembly of Budapest accepted the vision of SMART City. As spatial development experts, however, we must mention the Hungarian settlements that are located in the poorest districts of the country are in a huge disadvantage to larger settlements, because they need to fight against the depopulation every day. Below we will present the SMART village project in Alsómocsolád.

Alsómocsolád

Alsómocsolád is a dead-end village in a disadvantaged neighbourhood of Baranya. The village was burned four times throughout history. The school has been closed for nearly thirty years and the number of inhabitants has dropped to

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300, but it is still referred to as the region's outstanding SMART initiative. The success of the mayor's activities in this direction is also supported by the fact that Tallinn awarded Alsómocsolád the Innovation Prize in 2016. In this village built near to a fishpond, there are more signs promoting EU-funded projects than street signs. It is hard to drive even a small distance in the settlement without meeting any development funded by the EU, Norway or other funds. Some of these, such as the Teleház, were built mainly for tourists who are visiting, mostly school groups. In addition to the student hostel and a guesthouse outfitted with a conference room, there is a lookout tower above the village. But there is an unusual building in the middle of the village: a Boeing simulator with a planetarium, which were also implemented using European Union funds. There is a meat factory in the village as well, employing 400 people. From the subsidies received for the programme named "Integration instead of segregation" the local government bought real estates, and then rented them as social houses for five families. The local government built a community house as well, where the locals can get household management, financial and job hunting advices and they can also wash and bath. This place has become a real community space.

The inhabitants of Alsómocsolád do not only benefit from subsidies on a village day – although, according to the mayor, these events bring approximately as much revenue for the settlement as the amount of tax local companies pay to the local government (which is quite high, compared to other settlements in the area). A programme funded by the Norwegian Fund was recently completed and it aimed to extend the local retirement home (www.hvg.hu, 2017).

The village, recognising the importance of the European Union's SMART initiatives, has created the Hét Patak Völgye Natural Park and the Észak-hegyhát Micro-regional Association. The five settlements involved coordinate their development strategy and have a common budget allocated to them, partly from their revenue. Despite the fact that Alsómocsolád is small, the settlement has more revenue collected annually than the neighbouring settlements, due to the meat processing company of Pick Szeged Company in the settlement, the pig farm and the fish ponds. According to the management of the settlement, stopping the migration processes of the last decade is only possible if the young people who are leaving will find all the modern developments they need for their comfort or work. In our opinion, SMART Village action plans can be a good basis for these. For example, let's think about a well-functioning mobile Internet, which not only helps to make it easy to post something on Facebook from the Lookout Tower, but it is also essential for precision agriculture that is the future of agricultural production. But the question to be solved here is how to keep the population in the village, and how to attract those who can bring a new life to these communities (Oláh et al., 2013; www.hvg.hu, 2017).

Another question is how attractive the "SMART" system is for young people who are now planning to live in Austria and Germany; they have to be convinced to move to a small village in the hills. The example of Alsómocsolád also

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demonstrates that the solution is to increase the population retaining power in the disadvantaged rural areas. In our opinion, if SMART and innovative initiatives are implemented efficiently in a given settlement, a multiplier effect will be launched in the life of the settlement, which can move the economic, social and environmental processes in a positive direction during the next European Union programming period.

Conclusions

Based on the abovementioned results, we can conclude that the key determinants of both the world and the future of the European Union are cities, which, taking into account regional development considerations, are the engines of growth and development. At the same time, the importance of the population-retaining power of rural areas should be highlighted as regards the positive future of disadvantaged areas. The current regional processes support the fact that states and local governments cannot give responses to urbanisation and the environmental issues of globalisation (Tóth-Káposzta, 2014; Virág, 2017). In complex management and development of SMART cities and SMART villages, actors of the market and local residents are increasingly involved. The SMART City initiatives launched in the central cities have an impact on the settlements in their gravity zone. In order for a settlement to become a successful city and village, local needs need to be taken into account in the practical application of smart methodology. Therefore, we fully agree with the domestic appropriation that every Hungarian settlement will create its own smart programme and its own monitoring system in the future. Furthermore, it is important to point out that the development of smart settlements is not a one-time spatial development programme but a multi-annual process based on the constructive work of economic, governmental, scientific and civil organisations. The SMART Village concept is still largely unmanageable in the country, as relatively few SMART Village practices are available.

The study examined the development, conceptual delineation, application and spread of the SMART Village concept. In Hungary there are already some SMART City initiatives, but the number of SMART Village initiatives in rural areas is still far below them, so mainly foreign pilot projects have been presented, supplemented by the example of Alsómocsolád. The study is based on a research launched in September 2017, in which we carried out an investigation with the assistance of Agricultural and Rural Development Agribusiness (BSc) students at Szent István University. The theoretical background is provided by the monitoring system set up and created by the Lechner Knowledge Centre and by the already available SMART initiatives. Our future goal is to study Miskolc and its surrounding area deeply, regarding SMART City and SMART Village initiatives. Further research results will be published afterwards. Overall, the development of smart settlements is not a one-off spatial development programme, it is a multi-annual process based on the joint work of economic, governmental,

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scientific and non-governmental organisations, for which many European Union resources will be available in the near future.

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MAJOR RURAL DEVELOPMENT COHERENCES OF THE PATH TOWARDS SMART VILLAGE STRATEGY

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Abstract

Issues, definitions of intelligent settlements (including cities and villages) have been the topic of intensive discussions among professionals and researchers systematically analysing the theme for about 10 years. Several international and national theories have been created that can take us closer to the better understanding of the topic. However, the viability of the concepts and the definitions depends on the fact how the realised project improves the living conditions of the population and develops the welfare at local level. They have one thing in common: all the investments depend on the cooperation of the players as well as their attitude, thus one of the most determining factors of the developments lies in the human resource/capital. Therefore, the mental status of the community is of critical significance. Nowadays, in addition to the technological developments in agriculture, more and more intelligent activities play role that improve the welfare at local level through the development of endogenous resources, thus contributing to sustainable development. This study intends to deal with such coherences that are included in the recent "smart city" concept and the intelligent countryside. This study reflects rather theoretical approaches and highlights the importance of smart focus in strategy-making.

Keywords: rural economy, smart village, endogenous resources, human capital, rural welfare

JEL code: R10, R11

LCC: HD72-88

Introduction

Issues of rural development are undoubtedly in the focus of interest nowadays, since moderating the inequalities among regions is a priority for all national governments. Many deal with the increasingly hot problems of rural development that influence the urban areas as well by now. We can state that national

governments globally are interested in the achievements of spatial development, have great influence on its development especially to direct it to the right path from the society's aspect. Over the history, the Hungarian society was able to renew itself based on the strengths of communities in the villages and from rural roots. The countryside is not only a scene of producing profit but the complexity of social, cultural and natural values. Our rural areas are the scenes of living and the harmonious co-existence of nature and the society formed over the history. On the one hand, such areas provide the living conditions for the population, on the other hand, unique ecosystem-services that offer safe food supply, good environment, natural resources and values as well as recreational opportunities for the whole society. Therefore, the issues of the Hungarian countryside are not only the business of rural population but it is the interest of the whole society. The development of rural areas and setting the strategy for the planning is unavoidable while planning the future.

The importance of smart village concept

The concept of smart villages is quite a new one in the EU policy making. It refers to the development of such rural areas and communities that intends to create new opportunities from the existing internal resources, combining the endogenous conditions built on their strengths. Smart villages improve the economic environment of the population and enterprises by using the services of conventional and new networks and by better use of digital and telecommunication technologies, innovations and knowledge. To understand smart villages, we must first outline the key goals of smart cities, as these can be based on the future strategic plans of smart villages (Batty et al., 2012):

- developing a new understanding of urban problems;
- efficient and feasible ways of harmonising urban technologies;
- models and methods for utilising city data through spatial and temporal scales;
- development of new communication and dissemination technologies;
- development of new forms of urban governance and organisation;
- definition of critical issues relating to cities, transport and energy;
- definition of risk, insecurity, and dangers in the smart city.

The implementation of digital technologies and the innovations support the improvement of quality of life, the increase in the standard of living, better access to public services for the society, more efficient use of endogenous resources as well as the decrease in the burden on environment. Based on the above mentioned it can be seen that it is a complex issue and the aim of the strategy cannot be the definition of a uniform development concept since the local combination of regional resources might vary (McLaren-Duncan-Agyeman-Julian, 2015). Though the technological development must be an important element of the concept, the local conditions like infrastructure, business environment, human capital, economic and

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human capacities as well as further features of the territorial capital fundamentally determine the development paths. Based on all this, good governance and the involvement of local population will be the key in the creation of local strategy.

Answers to the actual issues of rural economy could be the basis of strategic planning in the smart village concepts. In addition to access to e-education/e-training, e-health and other basic services, we can think of innovative solutions to decrease the burden on environment, the circular application of agricultural waste, the digital support of technologies based on local resources, the intelligent specialisation of agro-food projects as well as special services of tourism and cultural activities (Káposzta, 2015). However, it is still obvious that the most important EU policy related to the concept will be the Common Agricultural Policy in the future too, since this type of funding is the most determining one in the development of the EU rural economy. Most of the agricultural income in the rural areas still comes from this funding through direct payments and the major channels of rural development policy. Based on all this, I consider it important to deal with the future dimensions of possible rural developments, since they are expected to influence the changes in the funding system of the coming programming period.

Future dimensions of rural development

Rural areas are home to one-quarter of the population of OECD countries. They provide vital food, energy and environmental resources that are crucial to the prosperity of urban and rural dwellers alike. They are a growing source of manufacturing and service-sector production. They provide employment and have quality of life attributes that are increasingly valued by citizens. We need to adopt a rural focus because these areas also face specific challenges. Rural regions are consistently over-represented among the best-performing regions in the OECD on a range of socio-economic indicators, but they are also over-represented among the worst-performing. There are significant differences in the rural economy (OECD, 2014):

- Rural regions are diverse and highly influenced by their specific natural environments.
- Their development path is substantially different from standard urban models.
- The success or weakness of rural regions is more affected by changes in economic conditions than urban areas.
- Rural regions employ different development models adapted to reflect specific features of having a low density of population and economic activity.

In order to urgently stop the decline and negative processes in the living conditions of rural population of the past decades, fundamental shift in the economic and social policy, middle-and long-term strategic development and action plan as well as adjusted short-term crisis management measures are needed (Goda-Tóth, 2013). It

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is not enough only to see the directions of revival of the peripheral countryside any more; clear aims and future objectives have to be set along with matching strategic programmes and development actions to elaborate and successfully implement the development programmes. Under such micro-and macro-circumstances it is inevitable to create the systems of smart settlements (cities and villages; centre and periphery) through implementing new innovations. Considering all these factors, the development objectives of the Hungarian countryside (based on its current status) can be summarised as follows (Káposzta, 2016):

- It is necessary to increase the economic potential, population-keeping capacity as well as its competitiveness, to improve the quality of environment and life as well as to develop the infrastructure.
- It is necessary to diversify the activities of primary, secondary and tertiary sectors and to expand the income-generating and job opportunities.
- It is needed to protect the nature and environment, the exiting values and the cultural heritages, to strengthen the traditions and to develop tourism.
- The human resource development, the creation of training and adult-training programmes, the support of local initiatives and social, family-support and health protection programmes are key priorities.

Based on all that, the following general rural development strategies can be listed up in Hungary:

1. The promotion of economic structure adjusted to the production conditions, the improvement of competitiveness and the creation of conditions for economical but high level production.
2. Focusing on agro-environmental protection, sustainable agricultural economy, the protection of natural environment, the introduction of alternative land use methods.
3. The elaboration, development of alternative and sustainable energy supply systems and of their adaptation and monitoring system.
4. The promotion of innovation and the improvement of income conditions through human resource development.
5. The establishment and development of the infrastructure of tertiary sector based on local traditions with special focus on the use of endogenous resources.

Based on the above mentioned, it can be clearly seen that the most important aim of the Hungarian rural development strategy (National Rural Strategy) can only be the reverse of the unfavourable processes in the rural areas. Additional important tasks should promote sustainability, the viable agricultural and food production as well as establish the future with the rural values in focus. The most significant fields are the increase in rural employment, balanced and diversified agricultural production and forestry, production structure, the revival of local food production and food markets, the development of local energy production,

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the strengthening of local communities, the increase in reproduction statistics and the preservation of natural systems and biodiversity.

The key potentials in rural development: endogenous resources

The aim of the development of rural areas is primarily the use and activation of endogenous resources and territorial potentials, since the basic problem of development is how the territorial factors can be included in the system of activities by allocating the factors efficiently to achieve optimal operation under given economic and social circumstances. Its theoretical roots come from the generative growth concept, saying that the development of larger regions is rooted and generated in local development performance, thus the economic development based on comparative local advantages can serve as a basis for rural development (Swinburn-Goga-Murphy, 2004). Local potentials as endogenous resources vary on a wide range. As a start, the complex system of geographical, environmental, historical, cultural, social and economic conditions can be considered. Factors that influence the activation of these values (Rechnitzer, 1998) play vital role in the modernisation of a given area. Taking the influencing factors into account, the endogenous resources – as economic potentials – can be linked to the following groups of factors:

- capital potentials (production basis and assets available);
- absorption capacity necessary for the funds;
- existence and compound of operational capital;
- extra income available for spending;
- features, qualifications, age of labour force;
- quality of infrastructure;
- geographical location, distance from centres;
- condition and quality of environment, natural endowments;
- market relations (demand), logistics opportunities, tertiary sector;
- socio-cultural conditions, nationality and minority issues;
- existence of built heritage;
- system of decision-making, institutional system, power.

It is obvious that these endogenous resources can be considered one by one as well, but they are interrelated and depend on each other. Moreover, under certain economic and social conditions they may start activating processes and may generate the renewal of the given region (Porter, 2000). Territorial potentials can link to each other, they may build on each other, may create such networks and linkages that can open new activating ways and create additional endogenous resources. Based on all this it can be stated that the potential of a territory is the complex system of its endogenous resources. Their links, relations, overlapping and networks may bring new dimensions in economic development if the dynamic interactions are supported by exogenous factors, i.e. territorial renewal may create new development path through synergies (Fernandes et al. 2011).

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Based on such coherences, it is clear that local endogenous resources may have significant influence on the economic development in the rural areas. Thus, without its development, the increase in territorial discrepancies and the expansion of economic and social periphery can be forecasted.

The significance of local economy

The expression of localisation has special meanings in different fields e.g. in water and fire-protection, informatics, economy or in science. Localisation in the economy and in science is defined in its widest sense, i.e. the opposite of globalisation. According to the excellent definition by Lóránt Károly (2000): *"Localisation basically means the change in sharing the power, the shift of decision-making rights from the non-elected transnational companies, international organisations to the democratically elected local communities. Economics of localisation is based on that statistically proven fact that most of the human needs can be economically met locally."*

Local economy means the lowest economic level where production and consumption are directly linked to each other. This type of economy is, on one hand, traditional, on the other hand it is modern because it is discovered from time to time as an alternative for the consumer society and as a tool to develop the economy especially in underdeveloped areas. The local economy was basically determined by the local conditions over the history. Transporting the goods to remote areas was not common and the production, processing and consumption were not spatially isolated from each other (Lengyel, 2000). Encouraging business activity, cooperation between businesses, strengthening the consciousness of consumers, promoting the direct links between producers and consumers, population awareness actions (to teach people that they can do a lot for their economy) can all be applied while reorganising the local economy. It is the aim to use the outputs of economic activities locally in the form of products, services, jobs or income, therefore local economic development is not only geographically local but the development is based on local needs and interest. It intends to promote local market by encouraging local businesses and economic activities to serve the needs of local community.

Based on the strategic approaches detailed above, the aim of the development of a smart countryside is not only economic, but it is targeted to improve the quality of life of the community, primarily at local level. So – referring to its theoretical and methodological approach – it could be named as the development of local community economy. Ideally, it is local initiative, but in the beginning external expertise can be also necessary (Nagy, 2003). It depends on the fact whether the given region has the optimal distribution of endogenous resources listed above, and whether it has the motivated and suited human resource, which can be the "engine" of the process. If we look for the reasons for the decline of the rural economy, the gradual decrease in such a human resource can be named. The rural economic milieu that evolved in the past decades was due to the lack

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of qualified human resource, its migration, the ageing and the erosion of the rural population. These factors started such economic and social tendencies that transformed peripheries to multi-peripheral multi-handicapped regions, pushing the local population to deep-poverty. *The question raises: is there a way out from this disadvantaged situation? Can the smart village development as well as the innovative and smart methods be the solution to escape from peripheral status?* In my opinion, yes, but it is only the starting but inevitable step in sustainable development to achieve the development of the local economy, to create local markets and to develop the educational system.

Global challenges of the rural economy

Global environmental, social and economic processes and the warnings of the scientific world forecast a future with increasing resource-crisis in moral/ethic, physical, biological and ecological aspects. Are we able to preserve the biodiversity of natural habitats, the favourable biological basis of agricultural production? *Are we able to adapt to the expected impacts of climate change? Are we able to offer suitable living and job opportunities for the population?* Based on all this, a planning/development task can be seen: smart countryside and smart village concept must support us to find answers to global challenges. But what are these global challenges that seriously influence the rural economy (NVS, 2016)?

Climate change

The climate of the Earth has changed significantly over the past million years – partly due to its normal activity but nowadays we need to face a very fast warming up along with its effects. The Hungarian rural policy, the environment protection and the settlement planning policy must be prepared to handle the impacts of climate extremities on agricultural production, food supply and housing environment. Smart and innovative developments may provide solutions to adapt to such conditions by improving the adaptability.

Energy supply

Our changing lifestyle, the gradual economic growth and the increase in global population forecast the need for more energy (since there is significant correlation between the GDP growth and the amount of energy used), while the more and more intensive use of fossil fuels and the coal-based Asian economic growth cause climate change problems. In the Hungarian rural development strategies more and more emphasis is put on easing the dependence on energy imports by turning to local and regional energy production and energy supply, using renewable energy and having energy-saving lifestyle. The use of biomass for energetic purposes and bio-fuel production are also smart issues. All these clearly show the necessity of smart solutions in the development strategies that can be the basis

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of a sustainable rural economy growth. In such processes, smart developments based on local conditions will play increasingly important role in the future.

Environmental and economic sustainability

Currently, economic and social growth in the global economy is based on quantitative increase, thus the bio capacity of nature and the overuse of resources, as well as unfavourable environmental impacts have been well-known for decades. Based on experience of thousands of years, sustainable systems based on ecological links can only be transformed if the increase in production and economic performance is in line with environmental and social conditions. In order to change the well-known negative tendencies for decades, the introduction of modern smart and innovative systems will be inevitable and such systems will play determining role in the development of rural economy by promoting the spread of new creative economic activities.

Demographic crisis and population trends

The increase in the global population forecasts difficulties in food and water supply, housing, employment, the use of natural resources as well as in the operation of healthcare and social systems (Nemes-Nagy, 2003). It is critical from many aspects regarding rural areas: the population is ageing, there will be considerably less young people in the society and the high rate of inactive population will impose huge burdens on the active population. It is a key issue for the rural areas to have young people who choose to live and work in the countryside. It is the smart and innovative developments that could slow down the negative impacts of migration trends.

Globalisation and localisation

Spectacular unfavourable environmental, social and economic effects of the growth-centred, trade-liberalisation-based world economy (that is understood as globalisation) can be seen all over the world (Dicken-Lloyd, 1990). As an opposite, the expression of "localisation" is defined, i.e. the self-governed economy by the local community, thus the system of "localities" built on local communities and local economy (Enyedi, 2000). From rural development aspect, regarding the economic and social survival and renewal of rural settlements, this approach gets great attention. So, in my opinion, it represents one important pillar of the Hungarian smart rural development policy. Long-term strategies based on local resources may have strong link with the smart and innovative developments.

Social and territorial discrepancies

At present, huge and increasing social imbalance can be observed worldwide. Nearly 50% of the poor live in the countryside, while two-thirds of the population of multi-handicapped regions live in rural areas. The gap is even higher if

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we analyse the rurality index of young people. The problem is even worse if the territorial concentration is considered. Based on this, it is inevitable to provide job opportunities for the rural population – even if it is community employment – that can assist their catching up and can stop the expansion of poverty (Ritter, 2008). Regarding employment, it is not only the job opportunity that should be provided but the job should be about creating added value, therefore innovative business environment in smart settlements will get great importance.

Knowledge-based society

All the issues detailed above also clearly show that information society creates such a new structure in the society and economy that, on one hand, it organises the players (even those who are far from each other) into a global network and, on the other hand, creates new dimensions of inequality. From the rural communities' point of view, the balance of tradition and innovation should be highlighted, thus the Hungarian rural economy is interested in tradition-based knowledge society. This knowledge-based society must take the rural traditions into consideration, along with keeping the traditional lifestyle and use the advantages of the modern infrastructure and knowledge transfer that ease rural life and work. Thus the establishment of smart systems helps the development of knowledge-based society.

Conclusions

One of the most important challenges of Hungary during its catching up with the developed countries is how the quality of life and environment as well as the local areas in the countryside could reach the development level which is in harmony with economic growth. In order to face and address this challenge, it is important to learn the economic, social and human factors in details, since the combination of these factors may bring perspective for a given area. Many people think that rural areas are simply the scene of agricultural and food production but they have much broader responsibility. It is the scene of life and jobs of families by providing employment, basic services and public administration. It is important to introduce smart solutions in creating new business models that will result in economic/social welfare through the development of economy. Acknowledging the "geographical capital" in the system of enterprises may allow them to join the intelligent networks and allow the villages to offer their products and services on the urban and global markets more efficiently. Due to such developments, rural areas may become more attractive. The only thing to do is to make the local players interested in smart and innovative developments. Therefore, the fundamental question for the Hungarian countryside is whether there is a way of development that leads to catching up with the EU member states on which the economic underdeveloped situation can be halted while preserving the country's valuable environmental endowments, natural resources as well as cultural and

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social roots. I am convinced that such a way is that of smart and innovative development.

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Chapter 2

New methods of local economic and social development in rural areas

THE ROLE OF THE LOCAL FOOD SYSTEMS IN QUALITY FOOD PRODUCTION

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Abstract

In recent times, short food supply chains and local markets, where farmers sell their products directly to consumers or with a minimum number of intermediaries, have gained importance in all EU countries, mainly in rural areas but there are good examples also from urban areas. It would be a solution for the small scale farms with little bargaining power and this way a very important EU food law principle, the traceability principle can also be realized.

From producers' markets to basket delivery systems or community-supported agriculture, there is a great diversity of short food supply chains and local food systems in the EU.

Their advantages include among others access to fresh and seasonal quality products for consumers and reduced environmental impacts. For example the Good Hygienic Practice Manual for Catering contains as a food safety recommendation that the food should be stemming from local farmers and the menu should contain seasonal and fresh products. The caterers can have an influence on the quality of the raw materials and can provide a better quality in such way. Nevertheless the catering industry can mean a new marketing channel opportunity for local farmers.

We should also mention to underpin the importance of this topic that the current EU rural development policy 2014-2020 puts more emphasis on short food supply chains than before. In our article we will highlight the recent problems and the possible solutions through some Hungarian case studies.

Key words: environmental friendly, short food supply, local market, direct consumers' relations

JEL classification: R0

LCC code: S1

Introduction

Across the EU, a growing number of consumers choose to buy food products on local farmers' markets, directly at the farm, through basket/box delivery systems or other community-supported agriculture schemes. European customers tend to associate local products with higher quality standards (freshness, nutritional value), healthy eating, more environment-friendly production methods and a lower carbon footprint (Augère-Granier, 2016). They expect the products to be fresher, pure, healthy, natural, nutritious, better tasting and safer than their mainstream "industrial" counterparts. However it is questionable whether all of these expectations are realistic (Ter Kuile, 2012).

Local food production and localized food supply chains, often referred as food re-localisation, have recently become the focus of attention among consumers, various NGOs, producers, as well as policy makers (Balázs 2012, Benedek - Balázs 2014). These systems have a long tradition in the United States and in Western Europe, and they also have deep historic roots in Hungary (Balázs et al, 2015).

The term "short chain" often defines sale at the place of production, such as farms or small workshops, like bakers and butchers. The place of production indicates something different from the place of preparation. Restaurants or catering are not necessarily considered as short chain, only in the exceptional cases when they are linked to farms and use (Ter Kuile, 2012). So Short Food Supply Chain (SFSC) covers a wide range of distribution channels. In SFSCs small geographical, social and cultural distance between producers is typical; such as the demand for environmentally friendly/conscious production and consumption patterns (Balázs et al, 2015).

In Hungary, from 2006 to 2010, in a series of amendments, the decree on small producers finally regulated all issues relating to small scale production, manufacturing, hygiene, trade, control, and certification. In 2006 the first regulations focused on food hygiene conditions, and in 2010, further amendments increased the quantities authorised for selling by small-scale producers and allowed them, irrespective of their place of residence, to sell products in the capital, Budapest. In 2012, simplified procedures on hygiene were introduced for local farmers' markets in order to facilitate direct sales to consumers. However, for small family farm businesses, administrative and organisational burdens remain high (obligation to issue an invoice, registration of pesticides treatments, production and sales registers, manufacturing data sheet, cold chain). The Trade Law (2005/ CLXIV) gave a full definition to local farmers market where small scale producers can sell their products within the county, or in a 40 km radius area around the market, or in Budapest (2§. 5a.). Various government regulations define the compulsory legal procedures to start a market (regulation on markets and fairs - 55/2009, regulation on small scale producers - 52/2010, and the hygiene and food safety regulation on local farmers markets - 51/2012). According to the latest available data there are around 500 farmers' markets in operation, mostly in the neighbourhood of urban areas (Kneafsey et. al., 2013).

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According to the above mentioned points, in our survey we focused on the main characteristics and the reasons for direct selling and the connections with local food quality.

Material and Methods

We have done 8 case studies among farmers stemming from different regions of Hungary.

Two rounds of semi-structured interviews have also been conducted. In the first questionnaire we surveyed the general characteristics of the farms, we asked questions in connection with the legal status of the farm, the land property and land use, the type of production, the marketing channels and the socio-demographic status. On the basis of the first survey we compiled a more specialized questionnaire to the selected farmers and asked questions related to the production safety, marketing channels and the future development plans. The farmers had the opportunity to tell their opinion in both cases.

All of the analysed farmers are licensed traditional small-scale producers and are not planning to change this legal status. Three of them deal with fruits and vegetable production, three of them keep animals, one of them deals with honey bee keeping, and one with cereal planting on a land of 90 hectares. One of the animal keeping farms deals only with milk production.

We used a new approach, Pareto analysis in data processing. This method is basically used in quality assurance, but it can be successfully applied in this case also.

Results

The common characteristics of the surveyed farmers are that they have high transaction costs originating from the nature of the product, the size of the production and the frequency of selling and the specific investments. Basically they have perishable products and very specific products like honey and apiarian products, living milk lambs or sheep meat.

Those who produce fruits and vegetable products have only less than 2 ha orchards and arable land, so their sizes are extremely small.

As we mentioned before the farmers have different ranges of activity. According to relating publications the fruits and vegetable production and the animal keeping result in a higher chance of direct selling strategy (Martinez et al, 2010; Uematsu and Mishra, 2011). This is a very obvious result of many surveys because these farms provide such products where the added value can easily be increased inside the farm also in small scale and they can be sold directly to the consumers without processing. In case of mass production with low differentiated products there is less opportunity for direct selling (Mácsai et al, 2012).

None of the analysed farmers are members in a producers' organisation or a similar integrating organisation, they lack trust and think it makes no sense to

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join these kinds of organisations with such a small size. Only one of them, the honey producer has certification of organic food production. And one of the fruit producers, who has a grass land, is partially certified as organic producer.

The main marketing channels are the consumer markets, catering enterprises and direct farm sale (Figure 1).

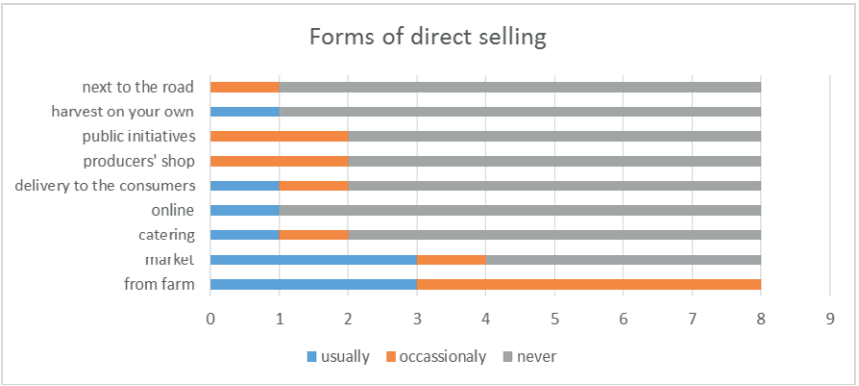

Figure 1. Forms of direct selling
Source: Own data collection, 2017

The respondents had to evaluate several factors related to direct selling in order to analyse what are the main reasons for direct selling and which can be the constraints in the way of the further evolution of this marketing channel (Figure 2).

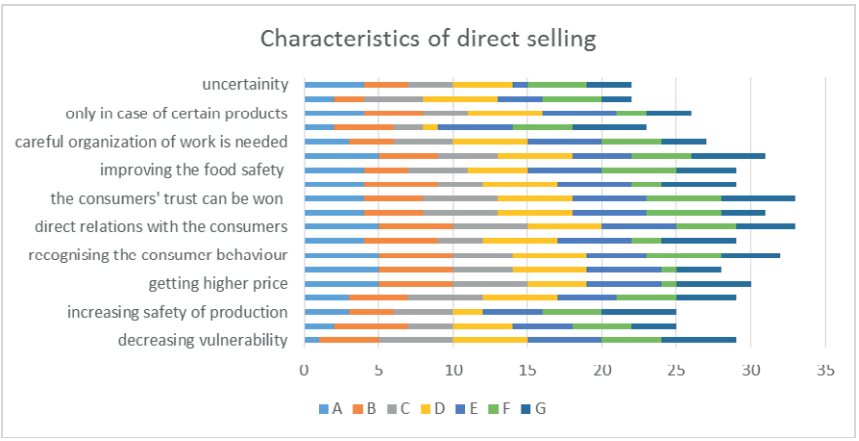

Figure 2. Characteristics of direct selling
Source: Own data collection, 2017

As we can see on Figure 3 the two most important and characteristic factors in direct selling are the "direct relations to the consumer" and the "consumer trust can be won". These together with "recognizing the consumer behaviour"

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explain 30% of the reasons for direct selling. According to the literature the most important motivation factors for direct selling are the increasing of profit and the decreasing of vulnerability and competition (Mácsai et al, 2012). Our survey also underpinned this result.

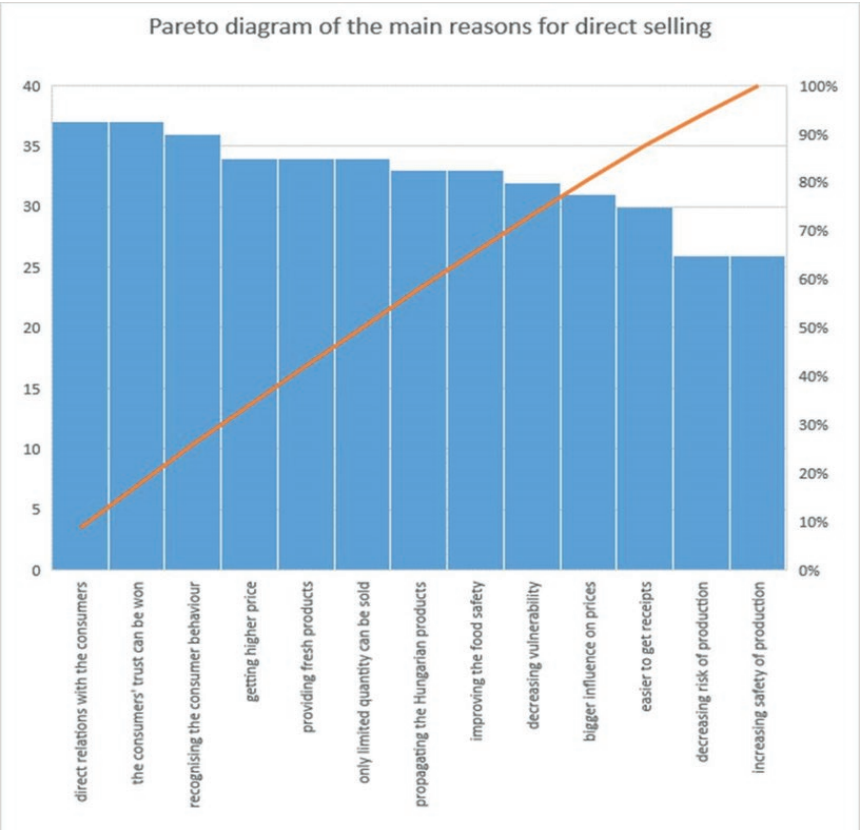

Figure 3. Pareto diagram of the main reasons for direct selling
Source: Own data collection, 2017

According to the Pareto diagram there are eight groups of factors.

The first two are related to the trust of the consumer ("Consumers' trust"), the third to the better knowing of the consumers' habits ("Consumers' habits"), while the next three is connected to transaction specialities ("Market relations").

There are also "Food safety aspects", and factors relating to "Bargaining power", "Production security", and "Vulnerability".

The role of the subsidies in the farm receipts are ranging from 0-70%. Two of those who are interested in fruit and vegetable sector do not get any public subsidies. So the analysed farmers have all the reasons for co-operation but they

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are too small to co-operate. However they can have another alternative, namely the local food labelling or the local food system.

The dairy farmers have the most negative opinion about the future prospects due to the abolishment of the quota and the market situation evolved as its consequence. However the future development plans show that most of the farmers are planning to invest and develop their activity.

Conclusions

European customers associate local products with freshness, nutritional value, healthy eating, more environment-friendly production methods and a lower carbon footprint, so according to the surveys the European consumers think the local food products are safer products.

However there are some problems with food safety in case of the directly sold food, this occurs most frequently at raw milk and dairy products. According to the surveys most food safety problems are due to lack of knowledge and can be avoided through training.

In our survey only the milk producing farmers had food safety problems in case of market selling because of inadequate wrapping and storing which also highlights the need for appropriate training for small scale farmers in this field.

Those farmers who are integrated in SFSC are usually too small to co-operate or to join in a Producer's Organization, for them the different forms of direct selling can provide a solution.

Most farmers think the most influencing factor in sufficient direct selling is the tight and direct contact with the consumers, so they thought these as key factors in profitable production.

Despite the fact that according to the literature the most popular form of the direct selling is the producers' market, the investigated farmers sell their products mainly from farm. The reasons for this can be the subject of further analysis.

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COMMUNITY DEVELOPMENT ASPECTS OF LOCAL FARMERS' MARKETS

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Abstract

In the last decade, several international and national development documents have tried to ensure adequate quality of life for people by putting great emphasis on the development of internal resources and their most efficient ways of use. Priority support has been given to projects that not only stimulate the local economy but also improve the well-being of those living in the settlement, a community area, as well as general co-operation between the different sectors and social groups. The study examines the community development role of local farmers' markets in rural and urban areas. The research is built on national and international literature focusing on the farmers' markets, interviews with stakeholders and statistical data. The paper describes the economic effects of farmers' markets and how different (urban and rural) communities view them as alternative and innovative forms of sales. Also, the connection between farmers' markets and local communities, as well as possible networking forms will be discussed. The paper makes suggestions to counter the shortcomings identified in the research, and also for the development areas and future directions.

Keywords: local economy, local community, co-operation, rural development

JEL code: Q130, R11

LCC: HD1491-1491.5, HD2951-3575, HM701

Introduction

In the past decade, the regional policies of Hungary are also based on the different characteristics and internal resources during the strategy-creation process (Káposzta, 2001). It has become of key importance to seek out or support those factors which can be essential for the development of a region (Ritter et al.,

2013). Local communities are treated as such resources by Edel because they are considered stable, but at the same time, flexible and basic resources, and they can be engines of transformation (Edel 1992, Wilson, 1995).

Rural development has become an ever more complex, multifunctional and multilateral segment within regional development. According to Nemes (2000), rural development should operate within a coherent European framework; however, it should be based on local characteristics and should be operated by local communities. Therefore, we cannot call the development model of the rural regions in the European Union simply 'rural development'; it is more than that because this model is community-based integrated rural development. Within the characteristics of the model the following factors receive special emphasis: *locality, giving responsibility and power to the lowest possible level*, in other words, subsidiarity; involving the local communities into the planning process as much as possible; *local identity*: activating local actors, identifying and mobilising social capital, local knowledge and practices during the planning and implementations processes; *proper knowledge about local resources*, and their proper analysis in order to integrate them into development activities; increasing the value of local resources *through value added*, which ensures the stability and sustainability of the local economy (Szörényiné 2005, Nagyné Molnár 2013).

The factors, internal resources are often related to the social activity, local economy, infrastructure, environmental endowments of a region, and also to the ability to integrate external material and immaterial goods (Goda-Tóth, 2013, Nemes 2005).

In the past decade, many local communities have identified their region's or settlement's unique and valuable characteristics, production traditions and special skills of the local people, and they realised that their cultural characteristics could become advantages when competing against other regions. Therefore, it has become increasingly important to identify those factors which can contribute to the autonomous economic and social development of regions (Káposzta et al., 2015). Némedi Kollár and her colleagues consider tourism attractions based on local agricultural products, drinks, food products and traditions connected by tourist paths as a great development opportunity for peripheral settlements (Némedi Kollár et al. 2014). The cultural features of a community can also be a potential resource, since it is shaping the personal and community decisions, and therefore it can form the land use patterns, the relationship with nature, participation in community life and local strategies; thus, it can be a very important factor in the local economy and social development (G. Fekete 2005, 2010).

The co-operation of local communities and regional actors, and their ability to think together can also contribute to the strengthening of regional identity (Hanzel-Kassai 2014, Káposzta 2010).

Today, one of the major challenges of domestic rural development and settlement policy is to create communities that are active in fostering their fate (Nemes-Varga, 2014, 2015). Producer market actors and actors of consumer

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communities can be regarded as such an active community-organising group. Their members use local resources, locally produced and/or processed foods to be delivered alternately to customers while contributing to building a local community. These days industrialised food supply chains are not sustainable in the long run, they do not contribute to the development of local economies and the unity, wealth, identity, as well as the maintenance of local values of local communities or to the environmental protection and maintenance of agricultural employment rate, consequently to the preservation of the classical characteristics of the countryside, either. The international literature dealing with agricultural and food business practices pay special attention to alternative solutions, such as the food production activities, consumer communities, community-supported agriculture, urban food councils, local food systems, school programmes hosted by farms, etc. (See Cooley-Las 1998, DeLind, 1999, Lamine, 2005, Mariola, 2008). These short food supply chains offer alternative opportunities for those who want to engage in conscious production and conscious consumer behaviour and support the local economy.

The current rural development policy of the European Union puts great emphasis on the support of primary producers and small producers, the promotion of local food and the strengthening of the short supply chain type of distribution channels. In Hungary, the demand for developing and improving a network of short supply chains, both from the supply and demand sides, has increased, therefore the 2014-2020 Hungarian Rural Development Programme has introduced the Short Supply Chain Thematic Programme (REL), in which 3.84 billion forints can be used for these initiatives. In order to create viable, small-scale food systems, it is essential to examine consumers' attitudes, preferences and general consumer behaviour concerning local food.

In our study, based on the results of a questionnaire-survey and interviews, we would like to present an overview about the development and current state of community supported agricultural systems in Hungary, and also make a comparison with the international level. We will indicate whether there is any demand for local food in Hungary and how much the population of the seven investigated settlements is familiar with it. Within this type of alternative local food systems, farmers and their buyers form a community based on social capital (co-operation, mutual trust, and mutual responsibility), a direct sales channel, where the cooperation is also beneficial to the producer and to the consumer. The producer is in an advantageous position since he can form a direct and long-term relationship with his consumers selling his high-quality products locally, consequently he can work in a cost-effective and optimal way. However, the advantage of the consumer is that he can obtain healthy foods from reliable sources contributing to the maintenance of his health, respectively to the development of local economy.

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Material and Methods

In our present study, we intend to review the history of development and the present situation of agricultural systems supported by communities at national and international scales based on secondary research and document analysis method[7]. Questionnaires and interviews were conducted by the framework of the doctoral research of the main author, who is investigating the alternative local food systems since 2016.

By conducting questionnaire surveys, we also examined the attitude towards local food, as well as the general food buying and consumer behaviour among the population of six Hungarian settlements. When selecting the sample areas, it was important to conduct the survey in settlements where there is already an alternative type of community-supported local food system, the bottom-up consumer-producer communities. Our goal was to analyse various settlement types and demographic groups. We conducted the survey in the following six settlements, with the aid of second-year Agribusiness and Rural Development Engineering students from the Szent István University: Esztergom, Kecskemét, Érd, Csömör (Spring 2016), Miskolc and Eger (Spring 2017). The number of respondents providing valid data is 817, of which 63.0% are women and 37.0% are men. 27.6% of the respondents were from Csömör, 21.2% from Kecskemét, 16.3% from Esztergom, 14.4% from Miskolc, 12.2% from Érd and 8.2% from Eger. The sample is very mixed, based on the fact that the group varied much according to their age, school education, occupation and income level. To process the questionnaire database, we used the statistical programme package IBM SPSS Statistics 20. When processing the results, besides the general description, we tried to discover the dependency relationships between the different criteria by using cross-table analysis.

Results

The history of the development of agriculture supported by the communities

The European situation

The first Community Supported Agriculture (CSA) was founded in 1978 in Switzerland, near Geneva (Les Jardins de Cocagne). In the 1970s and 1980s only a few similar initiatives were launched in Europe, however, after 2000 this type of movement became more and more popular. As defined in the regulation of 834/2007/EK of the European Council on the ecological farming: "the ecological farming is a system consisting of economic management and food-production that involves the best environmental protection practices, the high-quality bio-

7 Bakos, I. M. (2017). Local Food Systems Supported by Communities Nationally and Internationally

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diversity, the preservation of natural resources, the application of animal welfare standards at a high level, and certain producing methods that agree with the preferences of given consumers to products made of natural ingredients and produced in natural ways. The ecological production has a double social role: on one hand, it supplies a special market that satisfies the need of the consumers for ecological products; on the other hand, it produces common goods that can significantly contribute to the environmental protection and animal welfare as well as to the rural development."

As the map shows (*Fig. 1*), nowadays this environmentally and socially sustainable type of alternative farming is present in the majority of the European countries. Countries in which CSAs operate are shown in dark green colour based on surveys of 2015.

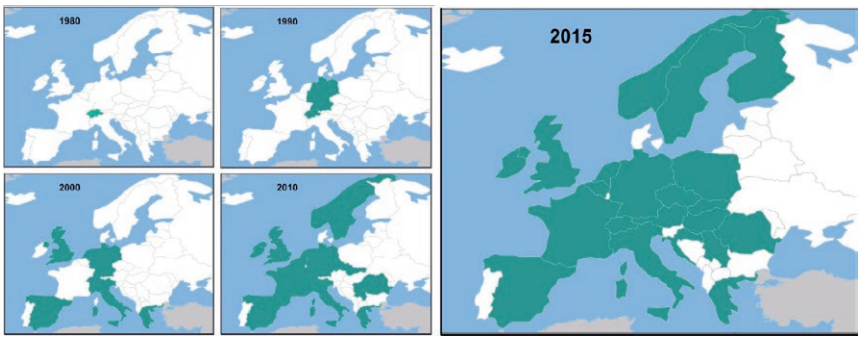

Figure 1. The spread of Agriculture Supported by Communities in Europe between 1978 and 2015

Source: Weckenbrock, P.- Volz, P.- Par ot, J.- Cressot, N. (2016, p. 9)

According to the estimation of the European CSA research group in 2015 approximately 2,785 CSAs were operating all over Europe producing foods for about half a million consumers (474,555 people). Recently this number has been supposed to grow, but unfortunately, no updated data is available. France can supply the majority of the farms (2,000 pcs) as well as consumers (320,000 heads). At the same time, there is a considerable number of CSAs in Belgium (138 pcs), Italy (104 pcs), Germany (92 pcs), United Kingdom (80 pcs), Spain (75 pcs), Switzerland (60 pcs) and the Netherlands (47 pcs). In other countries, the number of CSAs spreads between 2 and 35.

In August 2015, near the Black Forest, in Freiburg, the representatives of twelve European countries were holding a meeting about the opportunities of co-operating in CSA-related researches. At the meeting the definition of CSA was created, serving as a guide for the existing and future CSAs as well: *"The CSA means a direct partnership between a given group of consumers and producers where all the risks, responsibilities and rewards deriving from the agricultural activities are shared according to the long-term contracts. Usually, the*

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CSA operates at a low or local level with the aim of supplying high-quality food in an agro-ecological way" (European CSA Research Group, 2016, p. 8).

According to the survey carried out in 2015 by the European CSA research group 73% of the CSA consumers hand over the ordered foods or in case of a subscription system the share of food he is entitled to at the so-called *takeover points*. These takeover points usually function as public spaces near the consumers' homes or workplaces, however, in some countries, there are fix *takeover points* in the shops of the buying communities. In these shops not only the orders can be handed over but other hand-made, local foods are available all the time. 42% of the respondents *take over* the ordered foods at the farms, while 24% *take part in the harvest* and 20% of them take *the opportunity* of home delivery. In about half of the 22 countries, there is a national CSA network. This can be considered as a remarkable rate bearing in mind the fact that the common agriculture appeared in some countries only a few years ago. According to the survey of the international network of CSA (URGENCI=The International Network for Community Supported Agriculture), only 7% of the interviewed European CSAs are members of the above-mentioned network. Based on the study in the analysed countries the direct food distribution through *buying communities* is typical of the following courtiers: Austria, Belgium, Hungary, Greece and Spain. In my view, if not in the strict sense, but the direct selling forms respectively consumer-producer co-operations that do not work in a contractual way or according to a strict subscription system can be regarded as buying communities only figuratively as the consumers themselves organise their food supply systems and they have a relatively wide latitude regarding the quality and quantity dimensions of their purchasing. The frequency of their further orders is set according to their needs.

The realization and aspects of CSA in Hungary

After the millennium in Central and Eastern Europe the communities that produced high quality, nutritious foods also appeared to reach an ever-growing, conscious circle of consumers. Due to the fact that these communities formulated in a different way and structure from each other in time and space, there is not a standard term to define the CSA, only common guidelines qualifying as the cross-sections of national definitions. According to the European research group of CSA (2016) these principles ensure an alternative attitude to agriculture based on solidarity, direct human relationships, mutual respect, small-scale food-production and consumption as well as the respect of the environment.

In Hungary there is relatively little scientific literature on the topic of CSA, consequently the standard definition has not been formed yet. The term of CSA and the English definition first appeared in the 1990s and mostly its translation was used by the authors. As the above-mentioned term seemed too long and difficult, the Conscious Buyers' Association (Tudatos Vásárlók Egyesülete, TVE) introduced shorter expressions in its programmes as of 2008 and its professional materials such as *"communal agriculture"* or simply *"communal farming"*.

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Réthy and Dezsény (2013) have drawn the attention to the fact that this simplification results in the change of the meaning as well. As a result, it should always be precisely defined what kind of farming and selling types is meant by a given nomination. The authors have also mentioned the definitions of *"producer-consumer communities"* (Termelői-fogyasztói Közösség, TFK) as well as the *"vegetable community"* used by farmers and the so–called nominations of *"Associations pour le maintien d'une Agriculture paysanne, AMAP farmland"* on the basis of French antecedents.

The systems of CSA are in the early phase of development in Hungary. The TVE has a lion share in the popularization of CSAs and buying communities. On its web page and in its magazines it regularly publishes informative articles on the systems of communities, respectively it organises thematic programmes. For example, in co-operation with the Swiss partner Agridea, they held lectures and workshops with the aim of promotion in several Hungarian and Swiss cities in the spring of 2013 under the frame of a common project. They supplied information to the inquiring audience on the CSA giving practical advice to the farmers as well. In the frame of the programme, the French Institute in Budapest hosted the first lecture (Nagy, 2013). Similarly to the TVE, the Ecological Agricultural Research Center (Ökológiai Mezőgazdasági Kutatóintézet, ÖMKI) along with the involvement of Environmental Social Science Research Group, ESSRG researchers of Szent István University play an important role in the popularization of CSAs with its programmes and forums to the inquiring farmers (Réthy-Dezsény, 2013). These conferences mainly help the farmers interested in CSA or being experienced in communal farming respectively consumers can get to know each other's activities and they have the opportunity to share their ideas. The conference series of *Grundtvig realised in the frame of Lifelong Learning Programme of the EU* was a similar one also hosted by the French Institute in Hungary. The series of programmes were held in five countries (Hungary, England, Austria, France, and Germany), and the TVE represented Hungary as a cooperating partner (Szilva, 2012).

The promotion of local food networks is important to sustain the food supply and distribution as well as to enforce the local selling, therefore Hungary drafted the Short Supply Chain Thematic Basic Programme (REL) in its Rural Programme of 2014-2020 where 3.84 billion HUF can be spent on the formation and development of local food systems. This was a vital step in Hungary as the direct selling forced the existence and the possibility of advance planning for the Hungarian farms and the small-scale family businesses in an unfavourable macroeconomic condition. These farms mainly do ecological farming based on personal relationships and confidence contributing to the change of the consumers' attitude (Réthy-Dezsény, 2013). The system of CSA provides a most environmentally friendly solution as it reduces the emission of harmful things accompanying the packing and delivery to the minimum. Furthermore, it protects the fields as the majority of CSA farmers fail to use herbicides, fertilisers or

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other chemicals. It is important to mention that the prices of these foods are much lower than that of the bio products in the shops enforcing the local economy and identity respectively as a multiplicative effect of them they contribute to the survival and sustainability of rural spaces.

The beginning phase of the system of CSA was in 1998 in Hungary with the involvement of the Institute of Environmental and Rural Farming respectively the Bio gardening workshop of the University led by Matthew Hayes in Babatvölgy (Gödöllő). The farm was named as Open Garden continuing its producing and selling activity until 2002. 10 years had to go by and as a result of the visit of the French AMAP farmers organised by the TVE the communal agriculture appeared in Hungary again on the initiative of some enthusiastic and talented bio farmers. In the past four years the number of farms based on communities has grown slowly and due to the increasing producer and consumer inquiry this number may multiply in the future (Réthy-Dezsény, 2013).

Buying communities

The buying communities are committed to the popularization of local foods, to the support of local farmers as well as to the sustainable food consumption. At present, the buying communities are in their infancy in Hungary but they have a lot of latent potential to stimulate the local economy. According to the database of January 2016 of TVE there are 12 buying communities all over the country (*Tab.1*). This is supposed to be an estimated number and there may be a lot of similar initiatives in Hungary but from the aspect of the study we only consider those communities as relevant that organise their activities consciously and are available for a wider audience by demonstrating themselves online (own web site, Facebook). We have decided to focus on these buying communities because they are supposed to have a food-distributing and delivering system as well as experience in the elaboration of the *sample model of the Hungarian buying communities*.

Table 1. Buying communities in Hungary

Name	*Distributor points*	*What is on sale?*
Bajai Szatyor Közösség (Batyor)	Baja	vegetables, fruits, dairy products, smoked meat, corns, natural cosmetics, herbs, drinks, syrups, local hand-made products
Borsodi Kosár Kör	Miskolc	vegetables
Csömöri Éléskamra	Csömör	honey, dairy products, eggs, cheese, pasta, oils, vegetable, juices, jams, syrups
Félegyházi Szatyor Klub	Kiskunfélegyháza	vegetables

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Name	*Distributor points*	*What is on sale?*
Kecskeméti Szatyor	Kecskemét	vegetables, fruits, bread, honey, jams, syrups, cleaning products, cosmetics, curative products, sandwich creams, herbs, spices, drinks, meat products, seeds, corns, oily seeds
Kiskosár Bevásárló Közösség	Esztergom	vegetables, fruits, dairy products, bakery products, kinds of honey, jams, tinned fruits, spreads, drinks, meats, other products
Miskolci Zöld Kosár Közösség	Miskolc	bio vegetables and fruits, different kinds of local and hand-made products, eco cleaning products, reform cakes, gifts made by recycling processes, etc.
Natúrkosár	Érd	fruits, vegetables
Nyíregyházi Kosár Közösség	Nyíregyháza	vegetables, fruits, herbs, seeds, pickles, jams, honey, meats, drinks, dairy products, cleaning products, cosmetics
Szatyor Bolt	Budapest	vegetables, fruits, eggs, bakery products, dairy products, meat products, drinks, cosmetics
Szatyor-Debrecen	Debrecen	vegetables, fruits, bakery products, kinds of honey, oils, cheeses, long-lasting foods
Szigetközi Szatyor Közösség	Moson-magyaróvár	vegetables, fruits, syrups, jams, honey

Source: based on TVE (2016), author's own edition

According to the registration of TVE, buying communities are mainly specialised *in the distribution of vegetables and fruits*, however, there are groups (baskets) distributing a wider choice of products and not only raw ingredients but processed foods or local hand-made products.

In the case of buying communities, the members have the widest range of choice since they are not obliged to pay in advance or take over their share produced by the co-operating farms as in case of the system of regular customers (communal farms) or symmetrical farms (box systems). Actually, buying communities can be regarded as the combination of the above mentioned two types as the buyers, if in an informal way, commit themselves to the foods of the local farmers accepting the choice determined by the seasons but they decide how

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many and what kind of products they intend to buy on the basis of the list made by the basket organisers on a certain week.

This present, innovative form of the short supply chain has the opportunity to develop dynamically in the present programming phase and with some help, it may be an integral part of the industry of tourism as well. The buying communities provide high quality, nourishing local foods deriving from verifiable origin to the members and the customers. These communities distribute the products to farmers from a territory of 50, maximum 80 km at farm prices. Selling the products of the farmers of a given territory the local hand-made and mainly high quality, eco products become more available common properties. At the same time the *community-building function* of these communities is also significant since besides the organization of food supply and transportation these communities organise programmes in the frame of which there is an opportunity for common cooking while listening to living folk music or the participants have the chance to visit the supplying farmers enjoying the time spent with other members, etc.

Also, the symbolic *space forming role of the buying communities* is worth mentioning. The most common symbols, as well as indirect meaning content related to the buying communities, are the following: returning to the roots, consumption of healthy and sustainable foods, environmental consciousness, Hungarian identity, belonging to a community, cultural roots, taking social roles, support of local farms, etc.

The system of regular customers (communal farms)

In case of this type of farms, the consumers join the farmers for a whole year undertaking to take over the food produced at the farms each week. They pay a flat rate for the varied, seasonal foods. The circle and amount of the given food largely depend on the season. At the beginning of summer, the choice is much wider than in spring (TVE, 2016). There are 17 communal farms operating in Hungary. Similarly to the case of buying communities, we worked up the database of January 2016 of TVE. Typically, members can access to a wide range of fruits and vegetables but other basic foods, such as meat, dairy products, eggs, pieces of bread, etc.), processed and tinned foods as well as spices.

Symmetrical farming (box-system)

In fact, symmetrical farms operate on the basis of the communal farms, widely known as box systems. In this case, buyers can obtain products at a fixed price but they have the opportunity to order the box weekly or not (*TVE, 2016*). According to the registration of January 2016 of TVE there are four box systems in Hungary specialised mainly in vegetables.

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Results of the questionnaire survey

From the sample, for 43% of the respondents it was very important and for 34% it was important to have the opportunity to buy locally produced and processed foodstuffs. The demographic characteristics, the gender; the school qualification and the occupation indicated a significant but weak correlation with the importance of the availability of local food.

In spite of our prediction, the perception of local food is unrelated to the income situation of the respondents. Responses suggest that women are more committed to local food than men, as 83% consider it important for local foods to be accessible to consumers. By contrast, 32% of men do not consider this important at all. Respondents with higher qualifications indicated higher demand for local food (86%). 41% of young students do not consider local food important at all, which is alarming because in a few years they will present the largest part of the demand for food. For people staying at home with children, it was important to buy high-value, healthy, traceable food, similarly to housewives, of whom 92% stated the same.

Based on the results of the cross-table analysis (*Tab. 2*), we can see the most important aspects of local food preferring residents, when they are buying food. However, the most important characteristic of their food buying habits is probably the awareness.

Table 2. Food buying profile of people preferring local food (%)

Factors	*During buying food, how important are the following factors to you on a scale from 1 to 6, where 1=not important at all, and 6=very important*						*Correlation*
	1	*2*	*3*	*4*	*5*	*6*	
The fame of the grocery	7.8	5.8	13.0	21.6	25.1	26.8	Weak relationship
Everything should be available in one place	2.3	6.3	12.1	19.5	34.5	25.3	None
The Hungarian origin of the product	1.7	1.1	5.7	14.1	31.3	**46.0**	Strong relationship
Locally produced food	1.7	2.0	10.3	17.2	35.6	33.0	Strong relationship
If the product is from an organic farm	5.5	12.6	18.7	20.7	23.3	19.3	Moderate relationship
The fame of the brand of the food product	6.0	9.2	17.8	27.6	24.4	14.9	None
Price	3.7	2.9	6.0	20.1	27.3	39.9	None
Quality	0.3	0.6	0.9	4.6	24.7	**69.0**	Weak relationship

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Factors	*During buying food, how important are the following factors to you on a scale from 1 to 6, where 1=not important at all, and 6=very important*						*Correlation*
	1	*2*	*3*	*4*	*5*	*6*	
Environment-friendly packaging	2.3	8.6	14.1	22.1	21.6	31.3	Moderate relationship
Health-consciousness	1.1	1.4	5.7	14.9	37.4	39.4	Moderate relationship
The recommendation of family, friends	4.9	5.7	14.4	22.4	30.2	22.4	Weak relationship

Source: Own questionnaire survey and calculation (2016-2017, n = 817)

34% of the respondents consider it very important, while 52% of them consider it at least important to have a grocery store in their area, where only local and Hungarian food products would be available. There is a considerable demand for local food, however, only 11% of the people are members of shopping communities in the settlement, and only 30% of them have heard of this initiative but have never purchased food there. Almost 60% of respondents have never heard of shopping communities. The highest rate among the respondents who knew about these communities lives in Csömör and Esztergom. This is probably due to the fact that Csömör is a small town of 8,723 people where the fame of such a community is spreading more easily. Among the shopping communities in the settlements investigated, Esztergom performs intense online marketing activities, and its positive impact was supported by the results of the questionnaire.

There is usually an NGO behind shopping communities, and most of them face resource shortages and infrastructure problems, so their survival and development largely depend on cost-effective online communication. 34% of the respondents would be willing to pay more for local food, while 39% of them would pay more only for a few basic foods.

Table 3 illustrates the most common channels the respondents use to purchase food products. In the case of meat products and bakery products, retail shops are still popular sources, and the case is similar to the market for vegetables and fruits, eggs and pickles. Regardless of the type of settlement, the Hungarian households surveyed still make pickles, as well as jams and preserves. Based on the calculations of the Hungarian Central Statistical Office in 2014, the increase in income results in the decrease of the number of purchased and self-produced foods, while the proportion eating at the workplace, at school, and at restaurants increases that. In the case of the top income quintile, nearly three-quarters of food expenditure for its households is made up by purchased food, only 3% of their own production and about 23% of out-of-home meals.

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Table 3. The places of purchasing food products for the respondents (%)

Place of purchase	*Meat products*	*Fruit and vegetables*	*Bakery products*	*Dairy products*	*Pickles*	*Marmalades, honey, other jarred products*	*Egg*
Hypermarket	18.5	10.5	10.7	**23.4**	15.4	10.6	11.1
Supermarket	16.9	13.0	12.9	**29.8**	17.0	12.4	13.6
Local grocery	12.8	11.5	29.3	**28.5**	10.7	9.8	14.5
Market	10.3	**37.1**	2.3	6.8	**25.5**	13.2	**27.1**
Retail shop	**35.7**	16.9	**40.4**	7.2	8.4	3.7	5.3
Buying group	0.5	1.4	0.7	2.2	1.3	2.7	2.5
Homemade product	5.3	9.5	3.8	2.2	**21.8**	**47.7**	**25.9**

Source: Own questionnaire (2016-2017, n=817)

It is also remarkable that in 2014 the structure of the food consumption of the lower income categories has changed favourably; on comparative prices, the expenditure on purchased and out-of-dining meals increased more rapidly than for those who have better income levels and this resulted in more favourable expenditure rates for their food in the year 2013.

Conclusions

Due to the industrialization of agriculture as well as the globalization of food trade, the small-scale agricultural production and consumption supporting local products have been neglected all over the world. Global food chains are squeezing out and prevailing over local farmers resulting in unequal power relations that generate significant social tension in the world putting a strain on the environment. Recognising it in several countries of the world the governments and conscious consumers make efforts to form local food networks and to maintain them. The agricultural systems supported by the communities supply an indirect way of alternative selling channels with maximum one mediator for the food producing little farms that have been neglected by reason of the global competition. These innovative bottom-up selling channels can bring producers and end-consumers closer to each other contributing to the direct marketization of high quality, nourishing foods and to the development of the local economy as well as tourism.

The systems of CSA in their present form are not able to compete with and to substitute for the industrial food supply chains, nevertheless, they do not even aim to do that as they can operate only parallel to these systems. The aim is to demonstrate that it is possible and required to move to a socially, environmen-

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tally and culturally more sustainable direction. We are convinced that a certain level of self-sufficiency is coded in the local communities that can be revived and stimulated by a suitable supporting community and its function activating the "local heroes" who take an active role in the development of local economy. The good practices that have been applied in Hungary and abroad in the past few decades based on these efforts definitely prove the reason for the existence of CSA systems.

The local food products, as well as the traditional and alternative short supply chains promoting their selling (e.g. buying community-type shops) may contribute to the development of rural tourism respectively to the transmitting of local values directly or indirectly. It is expectable that the European Union's financial resources will promote the above-mentioned channels and their participants will be used efficiently and economically in the present programming period having a multiplicative effect on the local economies and tourism.

The results of the questionnaire survey could provide directions for decision-makers and local food system operators and organisers. Based on the results, women with small children and female mental workers could mean the highest demand for high-value-added and safe source food products. When compiling the marketing mix for local food systems, it is very important to create powerful online marketing and to shape their marketing mix to be attractive to a conscious, but modern consumer segment.

On the policy side, besides the European Union and domestic financial resources, the importance of small-scale food production and consumption should also be promoted by other means, which could bring the countryside and the city closer together, directly and indirectly as well, and contribute to the development of local communities and could support those not able to compete on the global market. This popularising and awareness-raising activity would be especially important among young people since the results of the questionnaire showed that young people do not consider local food as important. This generation has been born into the world of multinational companies, and most of them are not familiar with the flavour and feeling of rural, healthy foods. There are efforts by the government to feed local and organic food into canteens and buffets, but we believe that even more efforts are needed to raise the awareness of young people because they will determine food demand in a few years. The positive effects of local and organic food consumption, such as health, environmental, social and economic impacts should be promoted among young people.

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OPPORTUNITIES OF TOURISM PRODUCT DEVELOPMENT IN PRACTICE

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Abstract

The main aim of tourist areas is to operate competitive and sustainable tourism, to provide a travel experience for tourists and to create a better living environment for local residents. The destinations have to appear and stand in a global market, where the competition is extremely fierce. For these reasons, creative and age-specific product development has become increasingly important for individual tourism areas. Expanding supply is a key issue in which all partners active in tourism must be involved, so both service providers, local organisations, local governments and local people must work together for a competitive destination. Market conditions require that a diverse yet unique product structure is created in a region that can guarantee a quality and enjoyable stay and increase the living standards of locals. By a new product the market position can be strengthened, and the destination can be opened to new segments, so one of the main pillars of the long-term successful destination is tourism product development. First, the concept of tourism product development, its influencing factors and the process of development will be presented and following the theoretical background various practical examples and opportunities will be analysed, which underpin the key role of product development.

Keywords: Competitiveness, sustainability, tourism product, development, smart destination

JELclassification: L83

LCC: G154.9-155.8

Introduction

Tourism is one of the most important economic sectors in Hungary, the tourist demand has increased dynamically in Hungary in recent years. The sector will still have significant potential in the future, so the development of tourism has become a priority area at government level. Within this, developing of tourism products and product packages can be a key issue for destinations in the future.

Tourism can be divided into two sub-systems, demand and supply (Guth, 2015). On the demand side is the tourist, who has leisure time, motivation and freely disposable income, without these, tourist activities cannot be realised. On the supply side are the features, services, products, infrastructural backgrounds and the organisational system of tourist reception areas. The two subsystems are connected by the intermediary sector, by which the attraction meets with motivation, this is the basis of the tourist operation, the interconnection of demand and supply becomes reality by travelling to the tourist reception area (Kardos, 2011).

The specialty of the tourism product is that it is mostly unobtrusive service and the buyer cannot try it in advance like a television or clothes, so a high level of trust is needed by the consumer. The tourist buys a travel package that includes, for example, transportation, accommodation, meals and other services, but may include the beauty of the landscape, the hospitality of locals or the diversity of experiences. Tourism products can be extremely complex, they include psychological and physical experiences. The tourism product is highly heterogeneous, it contains various factors and services that the consumer pre-purchases, but unexpected events may occur, which may affect the quality of the product (for example, flight delay, extreme weather). The specialties of tourism are that we often cannot get the product to the consumer, much more the consumer needs to go to the product. There may be a high risk to the product that there is no storage facility in tourism, for example, if a hotel room or service is not sold on a given day, its revenue will be lost (Holloway et al., 2009). In micro-approach the tourism product may be for example one accommodation or in macro-approach the complete supply of a destination can be considered as a tourism product (Gonda, 2016). The tourism product is a variety of services linked to the attractiveness of a particular area, whose general characteristic is that it cannot be grasped and stored, production and consumption take place at the same time, and its consumption is seasonal (Kardos, 2011). Tourism products can be grouped according to several aspects and can be handled flexibly by current trends and opportunities (Gonda, 2011). The main types of tourism products are based on activities, for example (Guth, 2013):

- MICE[8] tourism;
- health tourism;
- sport tourism;
- horse tourism;
- religious tourism;
- active tourism;
- wine tourism;
- rural tourism;
- etc.

8 *meetings, incentives, conferences and exhibitions*

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Tourism products can be grouped according to the space (e.g. urban, rural, eco-tourism) or the market segments (e.g. youth, senior tourism) (Michalkó, 2011; Michalkó, 2012).

One of the basics of tourism product development is to clarify the life cycle of the product. The tourism product is significantly different from the physical product, because it is influenced by the economic and social situation; the behaviour and needs of tourists; the experience or the current travel trends. These features cannot be ignored during development. The typical lifecycle of a tourism product starts with the introduction stage, where the product is still less known, but the introduction cost is higher and it can be solved by intensive marketing activities. In the second stage, demand is typically increasing, so in addition reputation is established, more revenue comes from sales. At the same time the competitors appear, so special attention should be paid to product diversification and brand design. In the maturity stage the product reaches its peak based on traffic conditions, the sales opportunities come to the fore because of the strong market competition. The last stage is the decline, the market demand for the product falls, and then withdrawing, repositioning or introducing of new products can be the solution. Tourism products show different development paths, the lengths of sections may vary, they may shift or appear differently (Rusu and Sabău, 2008; Kotler and Amstrong, 2012; Gonda, 2016).

The tourists have free time, freely spendable income and travel motivation, so they are welcome to visit an attractive area.The supply side is based on the attractiveness and the tourist product, which includes services and other factors (public security, cleanliness, hospitality) (Lengyel, 2001).The destination is actually on the supply side within the tourism system and it includes the attractions, services and other factors of the reception area. Buhalis (2000) also describes the elements of the destination, which are:

- tourist attractions;
- accessibility;
- tourist services;
- product packages;
- activities;
- public services.

Although the supply side and the destination elements are almost the same, the destination cannot be considered as a product, we would rather agree with Tőzsér (2010) that the destination can be interpreted as a complex set with various services and products.

Each tourist area should be able to attract visitors and meet different needs. In a tourism area, the cooperation of the participants is necessary for the complex supply, one of the institutionalised forms or options is the Tourism Destination Management (TDM) organisation. A destination association can provide professional guidance and market sales as a good host, but it also has ability to create information and experience conditions (Lengyel, 2008).

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In the second half of the 20thcentury, due to changes in the habits of the travelling public and technological progress, new trends emerged in the tourism market. A destination – which can be a city, a country or a continent (Bieger, 2003; Buhalis, 2000) – can become successful in market if it can shape its existing attractions into products, then can sell them in a global size and fast-changing market. Today, it is not enough to develop a special service in the tourist areas, it is necessary to offer a complex service network and a combination of experiences based on the needs. Today it is not enough for the visitors if the landscape is beautiful, it must be turned into attractive products through various developments. Considering the competitors, it is necessary to highlight special, unique, positive features which are also evident to tourists, so the products and services of the given destination can be distinguished from competing products with similar attractions and products in the tourist market. A good example of this is Hévíz, where they built a diverse range of products offering medicinal products (spa, wellness, hotels, restaurants, other services) based on thermal water, they have become a unique brand in the tourist world (Lengyel, 2001).

In order to operate a sustainable and competitive tourism area or destination, it is now essential to establish an organisational co-operation that brings together various stakeholders involved in tourism, so it can create a diverse, marketable supply. The touristic organisations of destinations have to perform very complex activities, the most important tasks are (Lengyel, 2008)

- the creation and coordination of partnership;
- administrative and tendering tasks;
- provision of professional assistance and training to membership;
- human resource management;
- encouraging planning and development;
- conducting research activities;
- collection and dissemination of information;
- managing the projects;
- quality assurance and monitoring activities;
- advocacy;
- continuation of active marketing activity;
- attraction and visitor management; and
- the implementation of product development.

Tasks of tourism product development

The diversity of operation of a tourist organisation can be well illustrated by tasks. In this paper we only outline the product development.

One of the main tasks of tourist areas is product development, whether it is a priority area or a rural tourist area. Product development requires a high degree of professional skills and knowledge, new products can be created or existing opportunities can be improved.

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There is an idea that a tourism product is a particular service, some researchers say the whole destination can be considered as a product. In our opinion, it is much more accurate to define a tourism product than a uniform, complex set of services within a destination that guarantees all aspects of stay and travel, ensures the satisfaction of visitors' needs. The main characteristic of the tourism product is that we do not deliver the product to the consumer, but the tourist must come to the scene. From this point of view, the complex process of tourism product development is also understandable.

In the current competitive tourism environment, the continuous expansion of supply can be a key issue for destinations, product development is a highly complex, multi-player activity, it is expedient to focus on the creation of unique products based on the resources of the area. The introduction and sale of a new product can generate significant development both for already well-performing areas and the ones that are now connected. Macro-level interpretation of product development means that the entire travel experience (from approach to accommodation to hospitality, etc.) is treated in a complex way. At micro-level, when we are developing a specific attraction, we can also talk about product development. We agree with Sulyok (2011) that the ideal product development is between the two approaches, since the existence of essential infrastructure is indispensable for longer-term sustainability. During the product development in tourism the main aim is to harmonise existing conditions and consumer needs. The natural and man-made attractions, accommodation and catering venues, entertainment and other facilities and events can be interpreted as tourism products. Product development is fundamentally determined by the economic, social, technological and political environment, but other factors also influence it (Sulyok, 2011):

- mosaic supply with many actors;
- interdependent and complementary participants and services;
- long-term developments;
- price elasticity;
- seasonality;
- elusive elements;
- intermediary sector;
- participation of consumer.

In the tourist supply, there are many actors and services which are in dependence with each other, so cooperation is indispensable to achieve good performance. Revenue of improvements will take longer time, which is difficult because the services cannot be stored, they are seasonal, some of their parts are intangible, and are largely dependent on demand and price sensitivity. In addition to these, the relevant intermediary sector is an important factor, which is a key element in sales, but it is also important to keep in mind that the consumer is part of the tourism product (Sulyok, 2011). It is also clear from the diversity of influencing factors that we are talking about a very complex activity.

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This destination-oriented approach has created an opportunity to make complex developments which are more adaptable to the needs of tourists in the future instead of often isolated developments (e.g. hotel or spa developments). Today, it is not enough to create a good service or experience in tourist areas, it is needed to have a unified and diverse supply and combination of different elements. All destinations should develop their own supply profile, which can be competitive at both domestic and international levels. Certain general principles should be kept in mind for successful product development (Lengyel, 2008):

- mapping of current travel trends and needs;
- complex supply with the implementation of the principle of integrated planning and development;
- striving to achieve high quality standards;
- exploring of competitive advantages and delimiting of target groups based on local conditions;
- exploring of innovation opportunities;
- market positioning;
- the principle of sustainability.

In 2011 European Travel Commission (ETC) and the World Tourism Organization (UNWTO) identified nine product development principles in a Tourism Product Development Handbook (Sulyok, 2011):

- market research;
- reconciliation with decision-makers;
- adapting of the tourism product to the market;
- designation of development areas;
- demarcating of emblematic developments;
- development of clusters and events;
- creating of product portfolio, investment and finance;
- development of human resources;
- marketing.

The mapping of market needs; the co-operation of different actors; the follow up of the latest trends; the identification and development of tourist centres and innovative, unique attractions, events; the assurance of investments and the financial framework; the professionally prepared host community and the appropriate marketing activity all determine the success of product development (Sulyok, 2011).

We will outline what the main steps of a tourism product development are (Figure 1). In the first phase, the goal is to set up a product concept, which can combine a product list based on the opinions of the partners of the different tourist destinations that can be competitive on the market. Subsequently, the current situation will be surveyed informally by the involvement of actors. In the market research phase, primary and secondary sources are collected and analysed, and based on these there will be a formal survey, so it is possible to find out whether there is resource

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and demand for the product and whether it is sustainable. There will be a feasibility study by analysing collected data and financial frameworks that will be the basic of development plans. At the development stage, the products are created and constructed. Market launch of products is achieved through appropriate promotional and marketing activities, then the sales process can start (Sulyok, 2011).

Figure 1. Process of product development
Source: own editing by ETC-UNWTO (2011) és Sulyok (2011), 2017.

In the literature review we presented the topicality and importance of product development. Further, another objective was to find out about practical opportunities based on the views of different actors.

Material and Methods

After reviewing of the literature related to the tourist system, the destination and the product development, the practical diversity and possibilities of product development will be analysed. We examined the comments related to the operation of the Hungarian tourism organisations and the experience of product development by questionnaire survey. We also discussed the views of service providers and local governments about the practical importance and potential of product development in the Tokaj Wine Region by professional interviews. Our research aim was to map the importance of tourism product development

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and its practical implementation by the Hungarian tourist organisations, the local governments and providers of the Tokaj Wine Region.It is also assumed that in the examined wine region the complex supply development can be much more manageable instead of sporadic developments in the future. Further we will present the results of the research, emphasise the priority of the tourism product and its development in practice.

Results

First, we conducted a questionnaire survey among domestic destination organisations. We examined the role of product development by some questions. The questionnaire was sent out to 85 associations, but only 16 organisations participated in the research. The results cannot be considered representative, but many thought-provoking ideas have emerged. In this study we only analyse the results of product development.

In the first part of the questionnaire we discussed the tendering activity of tourism associations. Most of the replying destination organisations (15 of them) used the tender opportunities, there was only one that did not apply for a tender in the EU budgetary period between 2007 and 2013.

Most of the tendering associations have successfully applied. Most of respondents received support for organisational and tourist development by tender. Marketing has been developed for each of the organisations, but there was a high rate of organisational development and IT development too (Figure 2). Attractiveness and product development was also outstanding during the tender process. Other activities were less important in the use of tender funds. These results also show that domestic attraction and product development was still in its infancy, however, the destination associations devoted significant tendering activity for these activities. In our opinion it is worthwhile to continue this in the future.

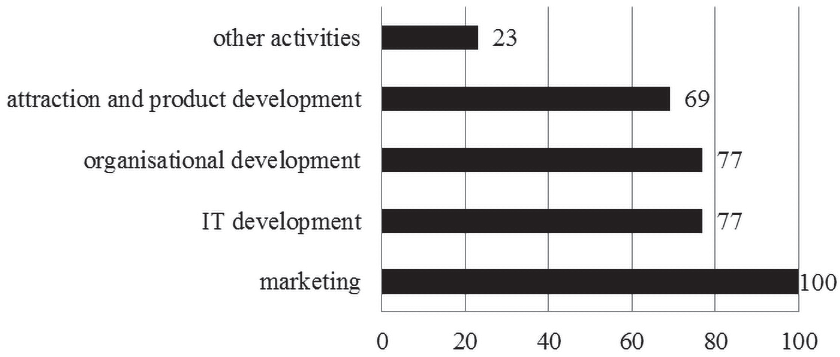

Figure 2. Use of tender funds (%)
Note: multiple responses could be provided.
Source: own research and editing, 2017.

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Tourism associations could form an opinion on what could help the future development of the domestic destination system (Figure 3). The largest proportion saw the birth of the Tourism Act as the most important task for future development. At the time of our research, in 2015, there was no tourist acting our country but in 2016 the act was passed which emphasises the tourist development based on destinations in the future too. The second most significant area of development was the needs of more favourable tender conditions (deduction, easier administration, and control activity). From the point of view of the study, it is important that local creative product development was marked as the third most important task by organisations. Destination management training also achieved a remarkable rate, but other tasks were far less frequently mentioned.

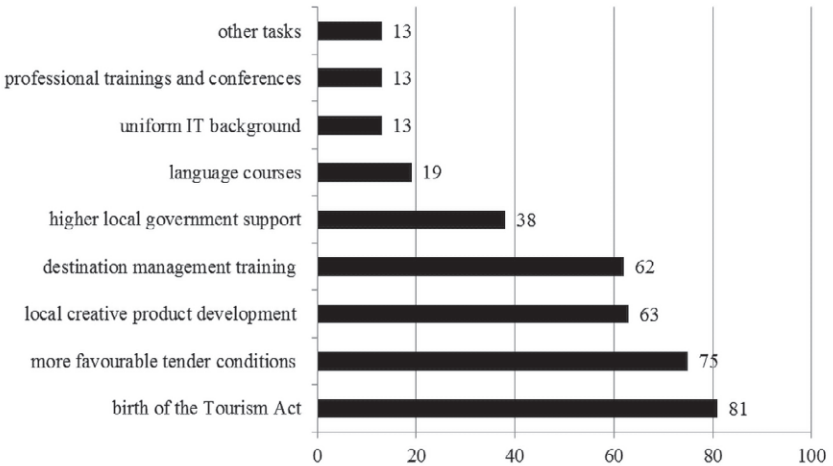

Figure 3. The most important tasks in development process of the domestic destination system (%)
Source: own research and editing, 2017.

Furthermore, first we analyse the providers'comments about products in the Tokaj Wine Region, then we present the needs of development. In the research the representatives of businesses, wineries and other services acknowledged the importance of the product in tourism. According to their opinion, if there is no adequate product or supply, tourists cannot be tempted to travel. Everyone agreed with the importance of the product and its development, but in many cases they focused on development of a specific product or service, so complexity was less pronounced in thinking. Service providers rated the wine region as a very good area, the natural conditions were considered the main attraction, the tourist potential of cultural and historical values was slightly rearranged based on their opinion. All in all, the Tokaj Wine Region has good conditions, on which tourism can be based in the future, so new or renewable products

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could be added to the tourist supply. The lack of complexity is perceived in the concept of tourism product but the importance of the product packages became more and more popular in tourism based on consumer needs. Service providers acknowledged the importance of the product, so we thought it is important to examine what major development areas they can mention, which are indispensable during product development. The infrastructure improvements were highlighted by service providers. Within this, the repairing and further building of bicycle paths and the improvement of the roads between settlements came to the fore, but the greater use of water facilities also emerged. In addition to infrastructure development the importance of expanding the supply became clear and more quality programmes and services are needed to attract tourists in the wine region. Besides the two major areas of development, the establishment of quality accommodation, uniform marketing activity, human infrastructure and hospitality development were mentioned, but they reached a much lower rate. Nearly 20% was the mention of other developments, in which several actors mentioned the promotion of wineries, the development of winemaking, and the resettlement of smaller factories. Development tasks also show that complex development is needed, where product development is a key issue.

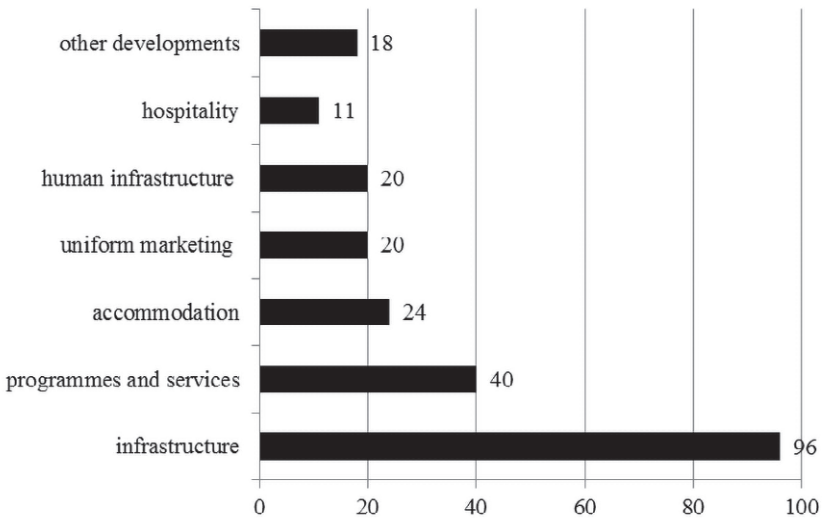

Figure 4. The importance of developments (%)
Note: open response.
Source: own research and editing, 2017.

In the Tokaj Wine Region we surveyed the opinion of the local governments about the tourism products and mapped the development needs. First we examined the importance of tourism products among the leaders and representatives of settlement sand the main tourism resources in the wine region. The importance

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of products is also clear for the local government, several local developments, products were mentioned, but these were not complex ones. All respondents mentioned the natural values as the main attraction within the wine region, but cultural and historical values were considered as significant potential as well. The local authorities also acknowledged that the wine region has a very good tourist potential, but they emphasised the needs for further development. We also examined what kind of developments would be needed for the future of tourism in the wine region. All respondents considered it important to develop infrastructure, as this is the one of the foundations of tourism. The reconstruction of the roads between the slopes and the settlements, the development of public transport and the expansion of cycling routes were most frequently mentioned within the infrastructure development. In their opinion many natural, cultural and historical values are still unexplored and are not yet utilised in tourism, by emphasising them new attractions and services could be created, with which the supply in wine region would be expanded. Respondents highlighted the importance of uniform marketing in the region. According to their opinion the programmes and services should focus on uniqueness and quality in the future. It should focus not on expansion but rather on quality improvement in hotels and catering, but there is a great need for development of human resources as well. The municipalities operate in much wider perspective, they think that job creation, the support of young people and smaller wineries, as well as the establishment of new factories and manufactures are also priority development areas. Overall, according to local authorities, the greatest need is to improve the transport infrastructure of the wine region, to maximise opportunities and increase supply, to emphasise the quality of services, programmes and wines.

Conclusions

Our research confirmed the practical importance of product development. Today, we also have some positive examples for tourism product development in Hungary. Within these we can mention the spa developments (e.g. Gyula, Hévíz), the organisation of gastronomy festivals, the construction of water sport facilities (Remenyik et al., 2017); or the creation of applications (e.g. Budapest, Miskolc, Gödöllő), but many other tourism products can help to stretch the product structure of a destination, with this more tourists can arrive at the area. Nowadays, it has also become clear that a product is not enough for market success, it is more important to develop complex product packages, in which different experiences are connected. In our opinion, emphasis is on experience and quality, so it is advisable to keep them in mind during the practical product development. The Smart City and Village Development (Némediné, 2017, Káposzta and Némediné, 2017) also appeared in the European Union and also in Hungary, which has an influence on tourism. The "smart" development of destinations may become more and more prominent, greater emphasis is placed on innovation, on the use of digital IT tools and competitiveness.

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The literature review has supported the fact that the product development is a very complex task, in the process several areas (e.g. infrastructure, accommodation, programmes etc.) need to be complexly handled. It is important to map consumer demand during the planning and development process. The product development will be successful in the longer term if it is adjusted to real tourist needs.

Our research revealed that the attraction and product development was priority among the tendering activities of tourist organisations, and the respondents indicated the creation of local, creative products as a future pillar of the destination system. This also shows that the appropriate product structure may be the key of competitive and sustainable destinations' development in the future, which is both unique, quality- and experience-oriented.

The importance of product development was also proven in the practical sphere, based on the research involving service providers and local governments in the Tokaj Wine Region. The wine region has significant natural, cultural and historical values, but many potentials have not yet been sufficiently exploited. According to respondents, the complex combination of values is indispensable, so the wine region can become one of the most important destinations in our country by creating and packaging the appropriate products. It is important to keep in mind the market conditions during the development. Appropriate market positioning, future-oriented, realistic planning and development, and targeted marketing activities are needed to operate a successful destination. In our opinion, the smart destination and the complex product development will be the most important tasks of tourist areas in the future, in the longer run.

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RENEWABLE ENERGY UTILISATION AS A NEW DEVELOPMENT METHOD IN RURAL AREAS: THE PERCEPTIONS OF LOCAL MUNICIPALITIES

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Abstract

Nowadays, more and more researches focus on the positive benefits that renewable energy utilisation can bring to rural areas. However, so far, we have limited understanding how rural local municipalities themselves perceive the issue. The results of the paper are based on an empirical research which examines the renewable energy investments carried out in Hungarian rural settlements. The study investigated the perceptions of local municipalities regarding different topics: the local positive effects of renewable energy utilisation, the local community involvement, as well as the role of external financial resources in the developments. The results show that municipalities do believe in the success of a development method based on renewable energy utilisation. In general, they are well aware of the positive local benefits, especially in terms of energy cost-savings and the reduction of greenhouse gases (as an environmental benefit). However, the involvement of the local community raises some questions, as well as the role of the external financial sources seem fundamental for the development.

Keywords: renewable energy, rural areas, local municipalities, Hungary

JEL classification: R58, Q20

LCC: GE170

Introduction

Numerous researches tend to agree that renewable energy sources can bring several positive local effects to rural areas (Del Rio – Burguillo 2008). Not only are they able to fight against climate change, but several other benefits can occur through the utilisation of these energy sources. These benefits can be generalised basically around six main topics: economic benefit (contribution to the GDP,

cost-savings), employment benefit (generation of new workplaces, created added value), innovation benefit (networking, knowledge transfer, clustering), enhancing energy security (decreasing import dependency, transition from fossil fuels), environmental benefit (reduction of greenhouse gases, better air quality) and social benefit (changing attitude, increased social capital). In this term, they are clearly able to serve as a new development method for rural areas.

However, so far we have little understanding how rural areas themselves perceive the issue of renewable energy. Do they perceive these local benefits? Do they think about renewable energy utilisation as a new development method? Is the whole community engaged to the topic? This study will give a better understanding about the perceptions of local municipalities regarding the renewable energy utilisations. Their understanding will be analysed according to four topics: the local positive effects renewable energy can bring, the possibility of community development, the need of community involvement in the process and the necessity of external sources for the implementation.

Material and Methods

The study is based on an empirical research, examining the renewable energy investments carried out in Hungarian rural settlements. It needs to be emphasised that I was particularly focusing on municipality-led developments, which means those renewable energy projects were examined where the implementer and the initiator was the local municipality. They were chosen for the analysis because they have a decisive role in rural development: they dispose of the local resources, they also decide on their utilisation, and the preparation and information of the local community is also their task. In this context, private and household renewable energy developments are left out from the examination, since these investments would demand different examination aspects.

Only those settlements could be added to the sample where at least one municipality-led renewable energy investment has already been made. Furthermore, bearing in mind that the examination is focusing on rural areas, the population of the settlement had to be under 10,000. Since municipalities are usually not able to implement such intense investments only by relying on their own financial resources, the support scheme of the Environmental and Energy Operative Programme (2007-2013) has been analysed[9]. This Programme also aimed to give resources for local municipalities for renewable energy utilisation, and the list of those municipalities that have successfully applied for these funds is available. Altogether 748 settlements have been found where the local municipality have implemented at least one renewable energy project, and the population was under 10,000. A questionnaire was sent to these municipalities, and 165 full answers were collected between December 2016 and January 2017, with the response

9 It should be mentioned that there are also renewable energy investments without external (EU or national) subsidies, but they are not in the scope of this article.

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rate of 22%. The territorial dispersion of the examined settlements is balanced throughout the country; answers were collected from all 19 counties. The smallest examined settlement has 214, while the biggest 9,121 inhabitants, according to the permanent population number of 2014. The average population number is 3,209, with the median of 2,707. Almost half (46%) of the questionnaires were filled in by an employee of the local municipality's office. However, in many cases (36%) the answers were given by the mayor. Fewer examples can be found to answers from notaries (12%), and board members of the local government (1.2%), as well as the vice mayor in one single case.

The questionnaire itself contained almost 50 questions, focusing on the already implemented renewable energy projects. In this study, the perceptions of the local municipalities will be analysed. The questionnaire contained a list of statements (altogether 12) where the municipalities could mark their extent of agreement on a Likert-scale from 1 to 4, where 1 meant the total disagreement, and 4 meant the total agreement. In the chapter below the overall responses will be evaluated, in order to find an answer to the following question: what do local municipalities themselves think about the renewable energy utilisation?

Results

It is important to emphasise that all of the municipalities have already implemented at least one renewable energy project. This means that their answers do not only show their attitude towards renewable energy utilisation but also their concrete experiences. The 12 statements can be thematised around 4 main topics (Table 1). The first topic addresses the local positive benefits that can occur through the utilisation of renewable energy sources. In this term, I wanted to analyse whether local municipalities perceived these changes, and whether they are aware of the positive benefits that renewable energy utilisation can bring to the settlement. The second topic goes one step further, and investigates the possibility of the total community development. In this case I wanted to know whether local municipalities see the utilisation of renewable energy sources as a new development method for the settlement, or they are only considering these investments in a purely economic sense. The third topic is investigating the perceptions of local municipalities about the local community involvement. Here I will examine whether local municipalities feel the need to involve the local population, the local civil organisations as well as the local businesses to the developments, or they rather tend to implement these developments on their own. And finally, the fourth topic is examining the importance and necessity of the external resources. I was curious to what extent the different grants and subsidies (especially from the national or EU level) determine the utilisation of renewable energy sources.

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Table 1. The list of statements evaluated by the local municipalities

	Topic 1: local positive benefits
Statement 1	With renewable energy investments, the total operational costs of the municipality can be cut significantly.
Statement 2	Through renewable energy investments, new workplaces can be generated locally.
Statement 3	It is important to invest in renewable energy, because the external dependency of the settlement can be decreased, and the well-balanced, sustainable energy security can be established.
Statement 4	Utilisation of renewable energy sources contributes to the establishment of a sustainable future, primarily by cutting the emission of greenhouse gases.
	Topic 2: possibilities of community development
Statement 5	Those settlements that start a development process based on renewable energy are more successful and more innovative than the others.
Statement 6	Investing in renewable energy is the only way-out for rural settlements.
	Topic 3: local community involvement
Statement 7	Informing and involving the local community is essential for the implementation of renewable energy developments.
Statement 8	The role of the civil organisations is highly important in the awareness raising, regarding the topic of renewable energy sources.
Statement 9	For the successful renewable energy projects, the collaboration of the municipality, civil organisations and local businesses is essential.
	Topic 4: the necessity of external sources
Statement 10	A settlement is not able to raise the necessary funds for the renewable energy investments on its own, therefore the national and Union level subsidies are highly necessary.
Statement 11	If there were not any available tender resources, the renewable energy utilisation of local municipalities would completely be stopped.
Statement 12	It is not worth investing in renewable energy, since the return rate is slow, and it imposes a heavy burden (financial and human) on local municipalities.

Source: own editing

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Perceptions about the local positive benefits

It is becoming clear that renewable energy sources are being widely recognised as an effective response to the topical and near danger of the global climate change (SREA 2009, Fouquet-Johansson 2008), due to their contribution on greenhouse gas reduction. However, besides the global contribution to the adaptation capacity, there is a wide acceptance in the literature that renewable energy utilisation is capable of generating positive local effects and creating added value (for example Penninger 2009, Lukács 2010, Magda 2011, Ortega et al. 2013, Göőz 2013). Nagy and Sinóros-Szabó for example (2012) emphasised that the locally produced energy and utilisation also mean the infrastructural and technological development of rural areas, the creation of new workplaces, the preservation of previous workplaces, the reinforcement of the environmental harmony, the reduction of environmental burden, as well as the intensified social cohesion in the local community. Del Rio and Burguillo (2009) have stated that a given renewable energy investment can positively influence the opportunities of rural development, it can diversify the energy sources, can stimulate the local industry development, can create export opportunities, and it can decrease unemployment.

However, as Busch and McCormick (2014) indicate, climate change and global issues only play a minor role as a driver in the renewable energy processes of rural settlements. They state that economic advantages are of high importance for the success of renewable energy projects. This means that even though other local benefits might also occur (like the environmental benefit), mayors and local municipalities will primarily focus on those which can bring direct and visible advantages – like the cost cuts on energy, or the generated new workplaces.

The question is how local municipalities themselves perceive these local benefits. In the questionnaire, altogether four statements referred to this topic, examining four possible local benefits: the cost-savings through energy-cost reduction, the generation of new workplaces, the energy security and the reduction of greenhouse gas emission (Figure 1). From the examination it is visible that the highest understanding occurred when stating the positive effects of renewable energy sources on energy-cost savings and the reduction of greenhouse gases. Almost 80% of the local municipalities totally agreed that renewable energy utilisation has positive effects on cost-reduction and on the reduction of greenhouse gases. The rate of those who tend to disagree with this statement is only marginal (2%).

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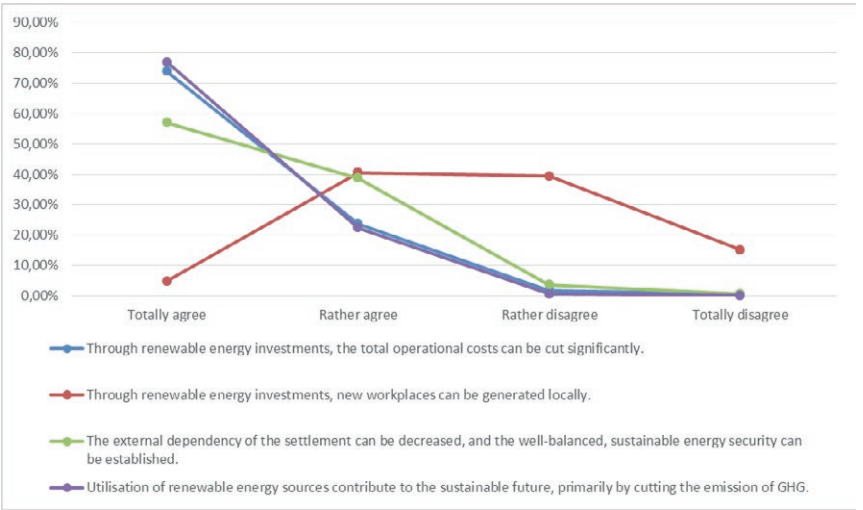

Figure 1. Perceptions of local municipalities on the local positive effects of renewable energy utilisation (N=165)
Source: own editing

The results are similar in the case of energy security, however, less municipalities agreed totally (57%) with the possibility of establishing well-balanced energy security through renewable energy utilisation. This might be explained with the high intensity of external financial sources during the development, as well as the insufficient or unequable, intermittent supply of resources. However, the positive effect on energy security is also confirmed by the expectations of the municipalities.

Probably the most intense debate in the literature occurs around the local employment effect of the renewable energy utilisation. Namely, according to some empirical researches, the local job creation potential of renewable energy investments is only marginal (Varjú 2014, Munday et al. 2011). However, the examinations presenting macro-scale employment impacts tend to present large numbers. A national analysis predicts that the green economy will create at least 150-200 thousand workplaces, the renewable energy sector itself 70 thousand (Olajos et al. 2011). The Hungarian Energy Biomass Strategy indicates that only the biomass based systems will create until 2030 more than 70 thousand workplaces, 80% of this in rural areas (Lukács 2010).

The examination of the perceptions of local municipalities also reflected this duality. Differently from all the other local benefits, the local municipalities' evaluation vary regarding this issue. More than half of the municipalities (54.5%) tend to disagree with the possibility of new workplace creation. The rate of those who have expressed total agreement is below 5%. This result can indicate two further remarks. On one hand, it might be possible that by estimating the created new workplaces through the renewable energy investment, the local municipalities in

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the sample only considered the direct employment effect, which is a narrow interpretation. The indirect employment effect (Cai et al. 2011, Kucera 2009) can also be mentioned. This means that the employment possibilities can be very extensive regarding the renewable energy investments. It can range from a single road construction through the production and maintenance of different machines and tools to the wide spectrum of agriculture. On the other hand, it is also possible that by implementing a renewable energy project only a few of the actual investment has been done by the local manpower. This also happened at the solar power park of Sellye, where only the concreting was done by local businesses (Varjú 2014). If the latter is the case, this is a clear danger, since municipalities will not be able to take advantage of the renewable energy utilisation in terms of one of the biggest problems of rural areas: the lack of local job opportunities.

Perceptions about community development based on renewable energy

There were two statements referring to the community development possibilities of renewable energy sources (Figure 2). This means that by taking into account the advantages and local positive benefits, renewable energy utilisation can be understood as a new development method for rural settlements. In this term, renewable energy utilisation is understood not only in a purely economic sense, but it can also serve as a community development process.

Regarding the evaluation of these statements, it is visible that 92% of the local municipalities agree totally or partially that those settlements that invest in renewable energy are more successful and innovative than the others. The second statement was a stronger one and claimed that the only way-out for rural settlements is to invest in renewable energy. Even in this case, most of the municipalities (62%) agreed with the statement, however, the rate of those who expressed total agreement is considerably less in this case (6.7%). According to these results, it can be stated that local municipalities believe in the success of community development based on renewable energy sources.

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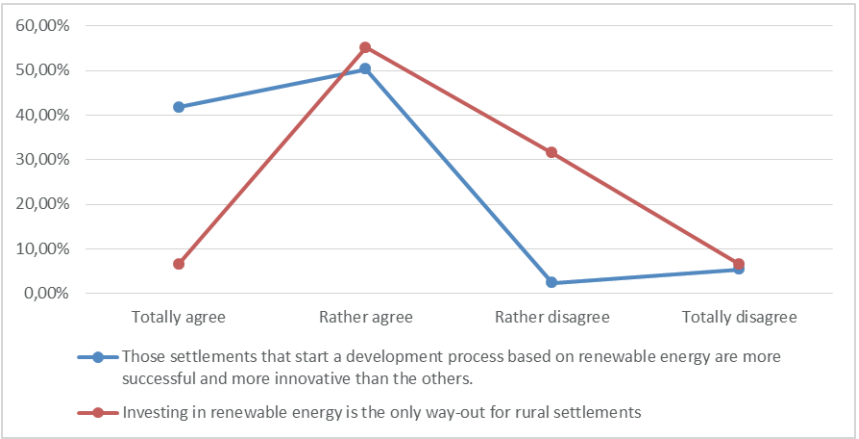

Figure 2. Perceptions of local municipalities about the community development possibilities based on renewable energy (N=165)
Source: own editing

However, there can be two approaches of applying this development method. The first approach considers renewable energy investments as a supplementary development path, and tends to apply these energy sources with a combination of other development methods. One good example can be the village of Alsómocsolád, where the local development is based on several (equal) pillars, and one of them is the renewable energy utilisation, aiming to take advantage of the local positive benefits. The second approach considers renewable energy utilisation as the main pillar of development. A good example for this development process is the village of Nagypáli, where the local development process is explicitly based on the green economy and the renewable energy sources. In this case, the renewable energy utilisation serves as a base of development, and it is also able to generate new developments and innovations (like the eco-tourism in the case of Nagypáli).

Perceptions about the need to involve the community

Not only the positive local development possibilities need to be underlined when examining renewable energy sources. It also needs to be emphasised that there are several barriers and obstacles that might hold back rural renewable energy investments. Probably one of the biggest barriers of success is the lack of knowledge and trust from the side of the potential users (Lukács 2010). No technological or legislative choice regarding the energy model can be effectively implemented without social consensus. However, the acceptance of renewable energy sources is not always apparent. Lack of information dissemination, awareness and community participation in energy choices and issues can rather lead to negative perceptions and social attitudes (Liarakou et al. 2008). However, the willingness to participate in the processes is going to increase if the individ-

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uals and the community get a better understanding and a clearer picture of the issue of renewable energy investments (Rogers et al. 2008).

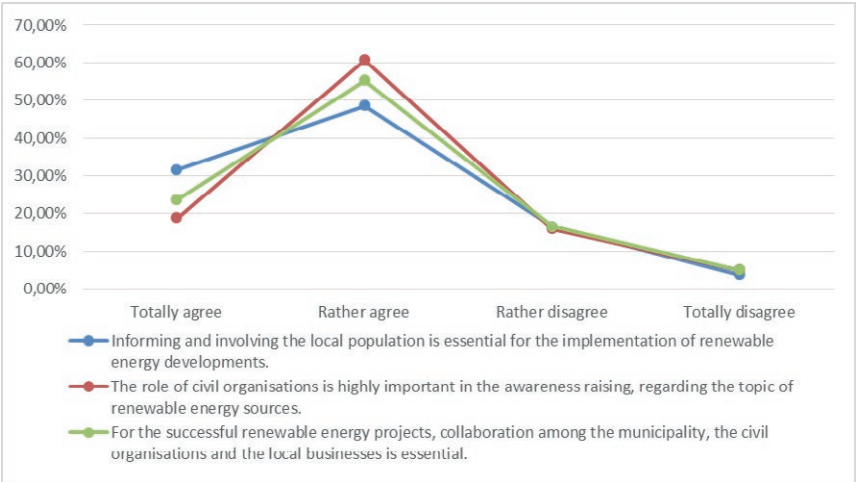

Figure 3. Perceptions of local municipalities about the need to involve the local community in the renewable energy issues (N=165)
Source: own editing

In the questionnaire three statements were referring to the necessity of involving the local community into renewable energy investments led by the local municipalities (Figure 3). Three main issues were addressed: the involvement of local population, the importance of local civil organisations in the awareness raising, and the collaboration of the local municipality, civil organisations and local businesses. It is visible from the results that the extent of understanding is basically the same regarding these three issues. Unlike in the case of the positive local benefits, there is no clear understanding in the need of involving the local community. As for the involvement of the local population, 31,5% of the local municipalities agreed totally that it is essential to inform them about the local renewable energy developments. In the case of civil organisations, only 20% agreed that they can play an important role in the awareness raising of the local population and 24% stated that the local collaboration among the members of the local community is essential for the success of the renewable energy developments.

Although around 80% of the respondents agreed totally or partially with the above statements, there was still around 20% who do not agree with the importance of these issues. The rate of those who did not agree with the importance of local community involvement might seem rather low. However, we should not forget that in all of the examined settlements at least one renewable energy project has already been implemented. Bearing in mind that these issues can endanger the success of these investments, furthermore they can also create negative

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attitudes towards the renewable energy developments, inadequate involvement of the local community is a clear danger.

Perceptions about the necessity of external sources

The last examination of the perceptions referred to the necessity of external resources for the implementation of renewable energy projects. Three statements were connected to this issue (Figure 4). It is a clear obstacle during the municipality-led renewable energy investments that they are usually driven by different tenders and grant opportunities, and the implementation often faces financial difficulties (Varjú 2013). In many cases, covering the own resources and the post-financing of the projects also mean complications. However, the acquisition of the financial resources is the task and responsibility of the local municipalities (Lukács 2010).

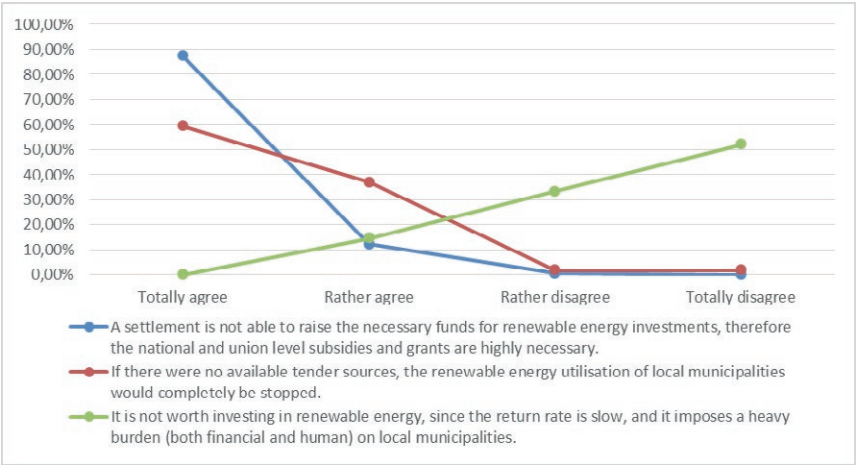

Figure 4. Perceptions of local municipalities about the necessity of external sources for the renewable energy developments (N=165)
Source: own editing

During the analysis I wanted to see what local municipalities think about the external sources, and to what extent it can be an obstacle of further developments. Regarding the need of external financial resources (primarily national and EU level subsidies) there seems to be a complete understanding among the respondents. 87 per cent of the municipalities totally agreed that a settlement is not able to cover such intense investments on its own. But what would happen if these (currently available) financial grants disappeared? According to the perceptions, the renewable energy utilisation of local municipalities would come to an end. At least, 96% of the municipalities agree totally or partially with this statement. Therefore, it seems that the provision of these grants and subsidies

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is more than necessary to keep up the renewable energy investments at rural areas – it is fundamental.

The third, slightly contradictory statement claimed that renewable energy investments impose such a heavy burden on municipalities that it is not worth investing in them. More than half (52.1%) of the municipalities totally disagreed with this statement, and there was not a single respondent who completely agreed. However, 14.5% expressed their partial agreement, which means that in their case it is extremely important to focus on the local positive benefits that can derive from renewable energy utilisation, otherwise there is a danger that these rural municipalities will stop further investments in renewable energy sources.

Conclusions

The study was based on an empirical research, and presented the evaluation of 12 statements that can be thematised around 4 main topics. I wanted to analyse what local municipalities think about the possibilities of renewable energy utilisation, and how they perceive different issues. It is evident that local municipalities believe that renewable energy utilisation can serve as a successful community development path. By examining four local positive benefits, it can be stated that municipalities are well aware of the energy-cost saving, the reduction of greenhouse gases, as well as the energy security, as possible local benefits of the renewable energy utilisation. However, they rather disagree with the local job creation potential as a consequence of the investments. This might question the national analyses and predictions about the huge local employment effect of renewable energy utilisation in rural areas.

Furthermore, some questions might arise around the local community involvement regarding the municipality-led renewable energy developments. Although most of the municipalities agreed with the need of involving the local community (i.e. the local population, civil organisations and local businesses), there is still a remarkable rate who do not believe in the importance of this issue. Insufficient involvement of local population can be a clear danger regarding the successfulness, since without local support, further developments might also stop.

And last but not least, by looking at the renewable energy investments implemented by local municipalities it is visible that the availability of national and EU funds plays a determinant role. However, in order to gain EU (or national) funds, local municipalities often have to adjust their needs to a more centralised project-system, and these project systems are not necessarily in accordance with the local resources and needs. On the other hand, high dependence of EU funds also raises concerns about the future renewable energy investments: what happens if local municipalities are not able to use these sources anymore?

As key lessons of the study, it can be mentioned that it is highly important to differentiate financial sources, and also to give space to actual bottom-up initiatives (nevertheless by keeping the national and EU funds available). National legal support could also speed up and support the process. Also in Hungary, there

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are several good examples for municipality-led rural renewable energy investments. It would be important to share the knowledge. And finally, an appropriate stress needs to be put on the local community involvement. If the local community accepts and understands the renewable energy investments, they can also become supporters and users of further developments.

Acknowledgement

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METHODS FOR MEASURING SOCIAL CAPITAL IN RURAL COMMUNITIES

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Abstract

The term 'social capital' was first used in the international literature in the beginning of the 20th century by Lyda Judson Hanifan, but it became widely known only in the 1990s and there is still no consensus on how to measure it. In the beginning of the paper a short review can be found concerning the different approaches, definitions and functions of social capital. Then an example for measuring method is presented through a Hungarian case study. In this part, some fundamental social characteristics of the population of Bátya village are examined.

Keywords: social capital, cooperation, general trust, strategic trust, sustainable development

JEL: Q01, R00, R11, Z1

LCC: HM481-554, HM756-781

Introduction

'Smart communities are defined by the Canadian Federal Government (CFG) (2002) as those communities in which local leaders and stakeholders, by use of electronic networks and the Internet, are forming alliances and partnerships in order to innovate and extract new economic and social value.' (Stratigea, 2012, p. 377.) In this definition, emphasis is on investments in human and social capital in support of sustainable community objectives and quality of life.

Gurstein (2014) also emphasizes that a smart community can significantly contribute to the increase in social capital in the region, since smart community can promote the use of information and communication technologies (ICTs) to engage with citizens to develop social capital and intellectual capital, and so they can make a better use of hard infrastructure (physical capital), reduce the usage of environmental capital and support the smart growth and sustainable economic development (Gurstein, 2014).

The popularity of social capital can be explained by the *'wider recognition that economic development models have failed to explain why some areas appear to have been able to develop while others have not'* (Lee et al., 2005, 270.p.). A wide range of literature (e.g. Füzér et al., 2005; Kis 2006a, b; Kulcsár, 2006; Tóth-Káposzta, 2013) proves that social capital has an essential role in sustainable rural development. Where social capital is weak, there are conflicting values and a lack of trust, which hinder any economic or social development activities. If there is a low level of trust between the local actors, the transactional and administrative costs of business activities are going to increase, which results in the loss of efficiency (Tóth-Jóna, 2012). Furthermore, social capital can make a significant contribution to poverty alleviation as well. Therefore, social capital has a great importance in smart communities.

The definition of social capital can be examined from different approaches. It can be analysed from anthropological approach, which mainly focuses on the biological and psychological components of social capital. According to the representatives of this approach, trust and cooperation are basic human needs. As opposed to this point of view, the sociological approach puts primarily norms and motivation in the centre of its research. The most important representatives of sociological approach are Pierre Bourdieu and James Samuel Coleman. The economic approach emphasises that cooperation and trust are very significant economic factors; they are among the most important sources of economic efficiency. Its most significant representative is Francis Fukuyama. The political approach brings into focus the examination of relations between social capital and democracy. This point of view stresses that the increase of social capital is essential in order to strengthen democracy, social solidarity and sustainable development (Skrabski-Kopp, 2008; Szakál, 2004).

Since the 1990s social capital has been given a number of different definitions (Fukuyama, 2001). On the basis of the concepts of the above mentioned Bourdieu (1986), Coleman (1988), Putnam (1993, 1995), Fukuyama (1995, 2002) the social capital is a mixture of relations, trust, civil social activity and norms regulating social behaviour. Because of the limitation of the length of this study, only the first three factors are examined.

In the literature three forms of trust are usually distinguished: the general, the strategic and the institutional trust. The general trust is felt towards people who we do not know. It is based on empathy. The strategic trust, as opposed to the previous form, stems from experiences. Such trust can be felt towards relatives, friends, colleagues etc. (Havasi, 2009). Institutional trust is analysed only indirectly in this paper.

An important factor of sustainable and smart rural development is the presence of an active 'social core' in the community (Gerencsér-Áldorfai, 2017; Oláh et al., 2012). If the settlement has a 'core' which unites and motivates the community, and to which people representing various interests and values can join, then this 'core' is a basic value of the settlement, which determines success

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as well. The 'core' of a community is a value which can turn into a strategically important resource by helping the mobilization of local economic and social resources. A fundamental indicator of an active community is the number of non-governmental organizations, since NGOs can contribute significantly to the development of local community, building of social capital and so to the strengthening cooperation among them (Kuti, 1996; Nárai, 2008, 2004; Putnam, 2000; Reisinger, 2012; Szakál, 2004). The role of NGOs in fostering social capital building is very important, since with low level of social capital, there is a lack of trust which can hinder any social or economic development activities in the settlement (Kis, 2006a, b; Ritter, 2014; Tóth and Jóna, 2012).

Local non-governmental organizations can activate the community members, and so can foster their integration into the local society (Kuti, 1996). According to Áldorfai et al. (2016), the characteristics of membership in NGOs may refer to the intensity of social participation and the strength of local communities. Besides, such organizations have a great importance from economic (e.g. contribution to GDP, employment, etc.) and development policy point of view and promote the appropriate operation of democracy (Reisinger, 2012). Thus, non-governmental organizations can provide a better quality of life for community members.

Material and methods

The Study Area

Bátya is a small village in Bács-Kiskun county in the Southern Great Plain Region (Fig. 1.).

The population is around 2,000. In Bátya village there is a serious demographic situation. Since the beginning of the 20th century the population has been continuously decreasing. The main reasons for that is the natural decrease in population and the negative net migration rate (HCSO, 2015). In addition, the ageing index was 129% in 2011, so Bátya is an ageing village. Moreover, the educational level of the villagers is lower than the average educational level in Bács-Kiskun county. Therefore, it is not surprising that the unemployment rate in Bátya village (8% in 2011) is higher than the county average value (5% in 2011) (HCSO, 2011). Scientific evidence shows that the enhancement of social capital can contribute to the solving of such demographic problems (Füzér et al., 2005).

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Figure 1. Location of Bátya village
Source: own editing based on questionnaire survey, 2017

This study is based on an extended primary data collection, since a questionnaire survey in 237 households of Bátya village (Fig. 1) was conducted and semi-structured interviews were made with the key actors of local rural development in the summer of 2016.

The characteristics the sample

In the questionnaire survey simple random sampling was used. In Bátya the sex ratio of the population was 48% male and 52% female in 2015. In the questionnaire survey men were a bit underrepresented, since their ratio was 44%. The main reason for that is the participation willingness in our survey of female inhabitants was higher.

In the survey the children (below 18 years) were excluded. This is one of the reasons why the youth were underrepresented in the sample, while the elder population was highly overrepresented (Table 1). In addition, the survey was done in the summer and many economically active persons employed in agriculture were too busy to take part in the research, while others were on holiday.

Table 1. Age distribution of the population and respondents

	population	*sample*
0-19 years	19%	5%
20-39 years	25%	18%
40-59 years	31%	31%
60+ years	25%	46%

Source: own edition based on HCSO, 2015 and questionnaire survey, 2016

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Because of the age structure of the population the marital status of the population and the sample also differed. The proportion of singles was lower by 14% and the proportions of widowed and married persons were higher by 6% and 9% in the sample compared to the population.

Since the children were excluded and the higher educated people showed a higher willingness to participate in the research, the proportion of non-educated was lower by 8%, while the proportion of tertiary education attainment was higher by 9%, compared to population.

Besides, semi-structured interviews were made with some local experts: the mayor; the deputy mayor; the notary; and a retired associate professor from Eötvös József College.

Methods

In the questionnaire, general trust is examined with the help of two statements, which were contradictory: *1) 'Most people can be trusted.' 2) 'Most people would exploit you, if they could.' Strategic trust was also studied by the agreement with the following two statements: 1) 'Most friends can be trusted.' 2) 'Most friends/ family members can be trusted.'* To reveal the level of institutional trust, I assess the answers for the question whether who should be asked about important issues concerning the village and its community. After that two components of social activity are studied. First, the willingness to do voluntary work and second, the membership in social organization are examined.

Frequencies are calculated from the gained primary data. The results are demonstrated with the help of graphs. The relations between trust of respondents and their demographic characteristics (sex, age, marital status and qualification) are studied by cross-tabulation analysis.

Results

First, the general trust level was examined. The research findings proved that general trust felt towards foreign people was quite unfavourable (see Figure 2.). It can be seen below that almost two-thirds of the respondents (64%) do not agree with the statement that *'Most people can be trusted'*. Only 35% stated that they could trust in foreign people who they did not know and who could view things differently than they do.

The national general trust values are more favourable than the values in Bátya village. In the research of TÁRKI, called Economic Culture, 44% of the Hungarian respondents stated that most people can be trusted. However, in Bátya village only 35% thought the same thing.

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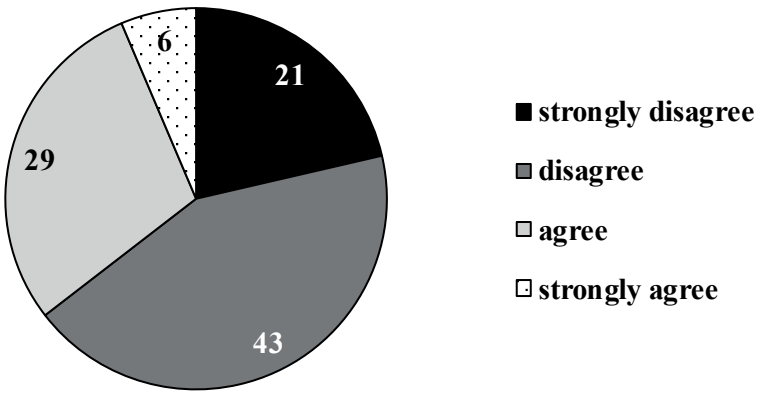

Figure 2. General trust in Bátya village I.
('*Most people can be trusted.*') (%, N=237)
Source: own editing based on questionnaire survey, 2017

The results concerning general trust were checked by a contrary statement in the survey (see Figure 3.). It was examined how much the respondents agreed with the statement that *'Most people would exploit you, if they could'*. Similar results were obtained to the previous findings, since 58% did not trust foreign people, because they felt foreign people would have exploited them. Only two-fifths of the respondents disagree with this statement.

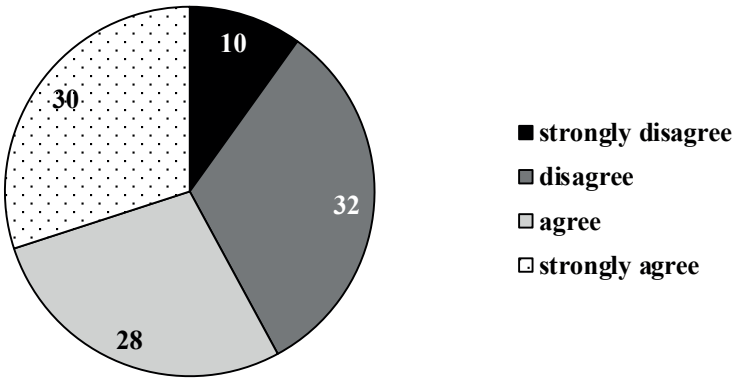

Figure 3. General trust in Bátya village II.
('Most people would exploit you, if they could.') (%, N=237)
Source: own editing based on questionnaire survey, 2017

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Based on the findings of cross-tabulation analysis, it can be established that the sex, the age, the marital status and the qualification of respondents do not significantly relate to the level of general trust based, since the Asymptotic Significance (2 Sided) for Pearson Chi-Square statistics were higher than 0.05[10].

Although there was no significant relationship, it was found that mostly those respondents did not trust foreign people who were retired or unemployed. Some of them had less empathic personality, while others gained some unpleasant experiences with foreign people concerning trust and so they could hardly trust anybody.

However, the strategic trust was much more favourable, much stronger than the general trust in the village. Especially, strategic trust felt towards family members was very high (see Fig. 4.). 94% agreed with the statement 'Most family members can be trusted'. Only a few people (6%) did not trust their relatives. According to the findings of cross-tabulation analysis, these people are mainly those who had got divorced or disappointed of their spouse or relatives. The Asymptotic Significance (2 Sided) for Pearson Chi-Square statistic was 0.019 for marital status. The relationship was quite weak, the Cramer's V statistic was only 0.253, which means the marital status of the respondents has a small effect on trust felt towards family members. The Adjusted Residual was only in case of the divorced (+3.4) greater than +2, which means there was a significant relationship between the divorced respondents and disagreement with the statement of 'Most family members can be trusted'.

However, this analysis also revealed that similarly to general trust the sex, the age and the qualification of respondents did not influence significantly the trust felt towards family members, since the Asymptotic Significance (2 Sided) for Pearson Chi-Square statistics were higher than 0.05 (0.872 for sex; 0.073 for age and 0.061 for qualification).

It was found that the other component of strategic trust, the trust felt towards friends was also very high in Bátya village (see Figure 4.). The survey highlighted that 85% of the inhabitants trusted their friends. Based on this fact it can be stated that the villagers are not isolated, in fact, they are open and friendly.

Based on cross-tabulation analysis the level of trust felt towards friends is not in significant relation with the demographic characteristics (the sex, the age or marital status and qualification) of respondents, so these factors did not influence meaningfully the strength of strategic trust. The Asymptotic Significance (2 Sided) for Pearson Chi-Square statistics were higher than 0.05[11].

An attempt was also made to map who can most significantly influence the public opinion in the village. To examine this issue, two questions were placed in the questionnaire survey: 1) In your opinion, who should be asked about the important issues concerning the village?; 2) Who do you talk to regularly?

10 They were: 0.338 for sex; 0.138 for marital status; 0.645 for age and 0.910 for qualification in case of the first statement, while 0.540 for sex; 0.450 for marital status; 0.670 for age and 0.620 for qualification in case of the second statement.

11 0.086 for sex; 0.373 for marital status; 0.456 for age and 0.138 for qualification

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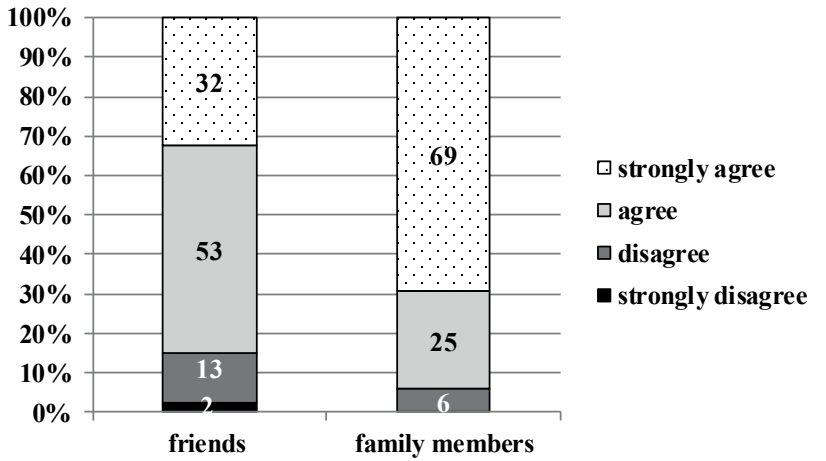

Figure 4. Strategic trust in Bátya village
('*Most friends/family members can be trusted.*') (%, N=237)
Source: own editing based on questionnaire survey, 2017

It is also not surprising that staff members of the local government are the most frequently mentioned persons, since they are the best-know actors in the village. Most respondents said that the opinion of the mayor, should be taken into account. The deputy mayor, was in the second place, the notary, was in the fourth place and a local representative, was in the fifth place. There was only one academic person among the most popular people. He was a retired associate professor from Eötvös József College, who has conducted local historic and ethnographic researches for decades (Fig. 5.).

On the other hand, it is a quite unfavourable result that the proportion of those who do not know who should be asked about the important issues related to the village was quite high (almost 25%).

We also asked the villagers to make a list of people who they talk to regularly. It was surprising that there were only rarely overlaps among answers. That means there were only a few people who were mentioned by two-three respondents. This indicates that there is not a person who would be in the centre of the community, who could be an informal local initiator or leader. Most of the villagers talk only with their direct neighbours and relatives regularly.

The last studied component of social capital was civil social activity, which can be considered quite low at the settlement. It was found that only one-fourth (24%) of the population was regularly engaged in some kind of voluntary services. Most of them supported some annually organised local community programmes, where some of them cooked or baked, while others packed or cleaned the site, etc. Less people did regularly voluntary work (e.g. participated in the

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maintenance and decoration of church, in renewing and building community buildings or in waste collecting initiatives, etc.). Some other people mentioned that they helped their old relatives, friends, or engaged in free distribution of meals or donated blood.

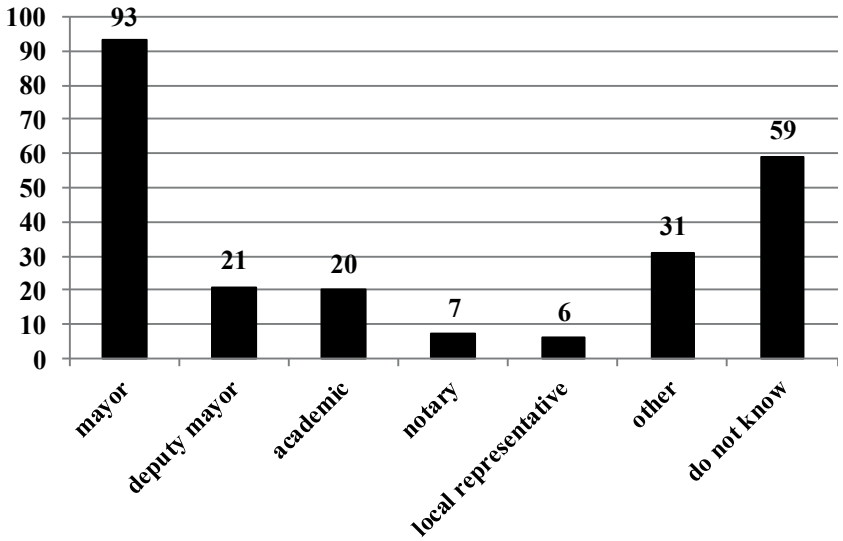

Figure 5. Who should be asked about the important issues related to village? (capita, N=237)

Source: own editing based on questionnaire survey, 2017

The other fundamental component of social activity is the membership in social organisations. Although the level of volunteering is quite low, almost a quarter of the respondents (22%) were a member at least in one social organisation. However, later it became clear that most of them were only passive members of these organisations.

During our research 12 social organisations were registered in Bátya village (Table 2). Most of the organisations provide cultural or sport activities.

Table 2. Social organisations in Bátya village

1	'Bátyai Gyermekekért Alapítvány' – Foundation for Children in Bátya
2	'Magyar Epilepsziával Élők Alapítvány' – Foundation for Hungarian Epileptics
3	'Bátyai Fokhagymások Hagyományőrző, Gasztronómiai és Kulturális Egyesület' Bátya Traditional, Gastronomic and Cultural Association for Garlic Growers
4	'Bátyai Hagyományőrző és Horvát Nemzetiségi Egyesület' – Bátya Traditional and Croatian National Association

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5	‘Bátyai Katolikus Olvasókör’ – Bátya Catholic Reading Group
6	‘Bátyai Sport Egyesület’ – Bátya Sport Association
7	‘Bátyai Sporthorgász Egyesület’ – Bátya Sport Fisher Association
8	‘Kaláka Nagycsaládosok Egyesülete’ – Association of Camaraderie Large Families
9	‘Polgárőr Egyesület Bátya’ – Bátya Neighbourhood Watching Association
10	‘VARAJTI Hagyományőrző Íjász Sport Egyesület’ – VARAJTI Traditional Archer Sport Association
11	‘Danúbia Ifjúsági Fúvószenekar’ – Danúbia Junior Brass Band
12	‘Vodencia Horvát Nemzetiségi Táncegyüttes’ – Vodencia Croatian National Dance Company

Source: own editing based on the data of Civil Szervezetek Névjegyzéke, 2017

Conclusions and Recommendations

The study was focused on the examination of the social capital which has a crucial role in smart community development. First, the relation between social capital and smart communities was expounded. After that the four approaches to examine social capital were presented and then its main benefits were summarised. It can be concluded that social capital has a vital role in sustainable development.

A complex definition was demonstrated in the Introduction chapter, according to which social capital is a mixture of relations, trust, civil social activity and norms regulating social behaviour. The first three components of social capital were examined in this paper, namely the trust level, the relations among local people and the social activity. A special method based on primary and secondary data collection was demonstrated to measure the social capital in a small rural village called Bátya.

A significant difference was found between the two forms of trust, general and strategic trust in Bátya village. The general trust felt towards foreign people based on empathy has quite unfavourable values. Although Hungary is among the countries having low level of general trust, these results are even worse than in other Hungarian settlements that took part in the research of TÁRKI in 2009. It was revealed that the local community was separated into two groups on the basis of supporting the current or the previous mayor and there were many social and political conflicts between these groups.

On the other hand, the situation in case of strategic trust felt towards family members and friends was much more favourable. Most of the inhabitants trusted both their relatives and their friends, and so they can more easily go through difficulties by social support. It is typical that if a low level of the general trust can be experienced in a community, the strategic trust is high, since people can trust only in people they know well and understand.

It can be concluded that the trust in institutions, similarly to general trust, is quite week. As expected, the mayor and deputy mayor were most often men-

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tioned. However, they were not so many times indicated as in my previous researches in other Hungarian rural settlements. Moreover, the proportion of those who could not mention anybody whose view should be taken into account was quite high (25%).

Concerning the third examined component of social capital, the civil social activity, I found that it was also quite low in Bátya village. Less than one-fourth of population did some voluntary work regularly and even less respondents were member at least in one civil social organization.

In the light of all the foregoing, it can be concluded that there is a medium strong social capital in Bátya villages. A special emphasis should be put on the enhancement of trust in the future. Building up trust takes a lot of time, but it could be accelerated by increasing the number of personal meetings. More attention should be given to the introduction of advantages and possibilities of membership in local social organizations and volunteer works. Moreover, the awareness of social organizations should be raised, too. So the social participation and activity might be also increased in long term.

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HOW TO USE THE SOCIAL MEDIA TO INFLUENCE SECONDARY SCHOOL AND UNIVERSITY STUDENTS OPINION TOWARD ENVIRONMENTAL PROTECTION

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Abstract

Young people have different levels of knowledge about environmental awareness and environmentally friendly behaviour. The online space can be one of the most valuable keys among others which can help to spread this kind of behaviour even more (Begley, 2008). In this study, secondary school and university students' environmental awareness and the level of their active participation in the online space are analysed, since students also gain experiences in the field of environment from mass media, social media (Kovács, 2010). The study was carried out in Gyöngyös by conducting a survey in a selected secondary school and a university. The results of the study showed a high level of environmental awareness among participating students.

Key words: Environmental awareness, environmentally friendly behaviour, online space, social media, secondary school and university students

JEL classification: O13, Q20, Q42

LCC: S589.75-589.76

Introduction

Accelerating urbanisation raises a number of questions about how the cities of the future can stay liveable. One possible solution is the introduction of smart city initiatives, the introduction of digital systems that offer city dwellers simple solutions to complex problems. Today, as a result of urbanisation, enormous masses move to the world's big cities, causing them to grow continuously, increasing the level of pollution and decreasing the extent of the natural habitats. At the same time, the role of renewable energy also increases, thus helping cities and their inhabitants to live in a more liveable, cleaner society.

Environmental awareness has an unquestionable importance and this will be an even more serious topic year by year (Sembery and Tóth, 2004). This study is part of a longer research; asking secondary school and university students was only the first step. The following step will be the residential and the local governmental questionnaire. Gyöngyös, as the chosen destination of research was selected because several projects have been available in the recent years in connection to green- and renewable energy solutions. Most of the projects were focusing on solar energy and biomass consumption, installing solar panels properly on buildings and innovative developments which can help in reducing the pollution.

As Figure 1 shows, Gyöngyös can be found in Heves County, in the region of Northern Hungary close to the capital city. Its area is 55 km2, the current population is 29,510 and it is continuously decreasing by about 300 people annually[12]. One of the main reasons is that the capital city has much more job opportunities, the wages are more competitive, therefore the actively working inhabitants of Gyöngyös rather choose to work in Budapest even if they need to use public transport every day and travel for hours (Kassai and Ritter, 2011).

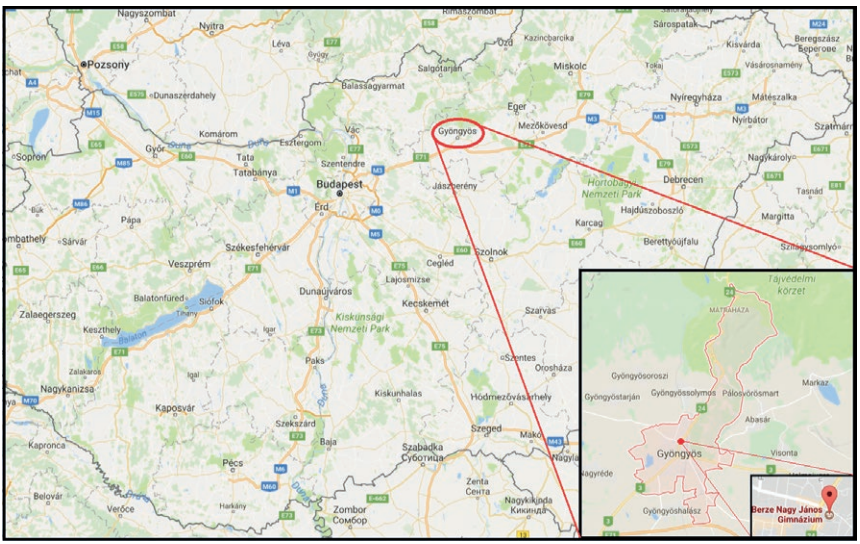

Figure 1. The location of Gyöngyös and the Berze Nagy János Secondary Grammar School in the map, 2017
Source: Google Maps, September 2017

12 For example, in 2005 the population was 32,789; in 2012 there was a huge job shortage, which indicates why the number has decreased to 31,018 people. Afterwards the city's situation did not improve much in the following years because by 2015 this number went down to 29,920 (TeIR, 2017).

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In the recent years the Municipality of Gyöngyös, the Eszterházy Károly University and the secondary schools in the city participated in several green- and renewable energy projects. In these projects many developments have been made such as solar panel installations on buildings (hospital, house of culture, schools, etc.) or biomass recycling and production improvements. The town began to perceive that further steps must be made in this direction. I saw the potential in researching the importance of teaching environmental awareness to young people.

Material and methods

As first step of the research a total number of 465 secondary school students were questioned. The selected school was the Berze Nagy János Secondary Grammar School where 16 classes participated in the research. The breakdown of classes can be seen in Table 1.

Furthermore, another questionnaire was made in the Eszterházy Károly University among 147 university students, at the Faculty of Economics and Management. This Faculty was chosen because here the university students have several subjects in relation to the environmental protection, environmental awareness and online communication methods – for example the subject of Globalisation, Environmental Economics, Innovation Methodology, Service Marketing or Online Communication in Marketing. In the study, I wanted to analyse the difference between the students' knowledge and how they have changed their minds about environmental awareness over the years. Standard questionnaires were used as a method because it guarantees that the same monitoring process applies to each respondent. It is a very effective but simple way to gather primary research. The same questionnaire was carried out in person both in the secondary school and in the university in order to make the evaluation easier and more comparable. The questionnaire contained a total of 33 questions about environmental awareness, environmentally conscious lifestyle, online communication knowledge, social media impact on green- and renewable energy sources and application development skills.

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Table 1. The breakdown of the secondary school classes participating in the research, 2017

Grades	*Classes*	*Class full number*	*Number of Participants*
Class 9	9.A	31	30
	9.B	30	28
	9.C	30	27
	9.D	31	30
Class 10	10.A	29	28
	10.B	33	31
	10.C	32	31
	10.D	32	31
Class 11	11.A	30	30
	11.B	31	27
	11.C	30	28
	11.D	32	30
Class 12	12.A	32	31
	12.B	31	27
	12.C	29	27
	12.D	30	29
Total:		*493*	*465*

Source: Own compilation based on own research, 2017

Results and discussion

In the first part of the survey, the questions were focusing on environmentally conscious lifestyle, asking the students when they first heard about this topic, how to reduce the environmental damage, and a comprehensive knowledge about shopping habits, human qualities that influence the opinions on the environment and environment conscious education. The following figures show the results and comparative analysis of the survey.

In Figure 2 it can be seen that 5 different renewable energy sources were investigated – solar, wind, hydro, bioenergy and geothermal energy. Applying a multiple choice method, students could choose from several options to the following question: "Which types of renewable energy sources do you know?". In case of the 465 secondary school students, 95.8% have knowledge about solar energy, and among the 147 university students, it is a100% knowledge, meaning that all of them know about solar energy as a renewable energy source.

In case of the wind and hydro energy the results are also evident, however it is different with bioenergy and geothermal energy. Bioenergy as renewable source is not well known among the secondary school students, only 50.6% – just over half – had knowledge about it. The years obviously help in gaining information

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and knowledge because the results are higher in case of the university students, 81.7% compared to the 50.6% indicates the increase.

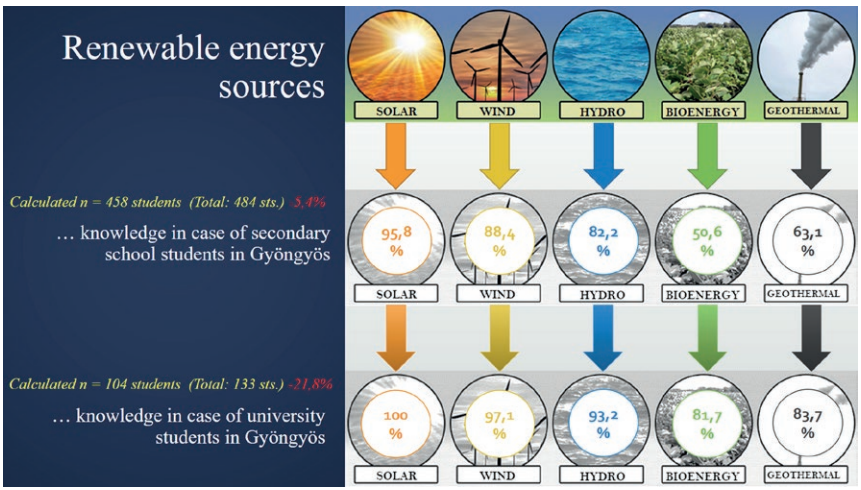

Figure 2. The general knowledge about renewable energy sources among secondary school and university students, 2017
Source: Own compilation based on own research, 2017

The next question was an open question in order to examine the students' own opinion about environmental protection: "What do you think about the environmentally conscious life as a concept?".

In Figure 3 the secondary school students' first thoughts can be seen about environment conscious lifestyle. The collected answers could be classified into 10 categories. The most common case was environmental protection with 68%, followed by selective waste collection with 62% and the protection of the planet with 56%. The proper use of energy resources can also be highlighted, because this expression was surprisingly less common among the students' thoughts.

Another interesting result is that only 11% of the respondents can connect environmentally conscious lifestyle to "healthy lifestyle". This could be an interesting topic why secondary school students think that these two areas are separate from each other. For instance, if you buy environment friendly products in grocery stores, those are not only good for your health (in this case: bio products) but they can also contribute to the protection of the environment. Recycling of waste contributes greatly to environmental protection, hence the use of less plastics, as 26% of responding students wrote.

In Figure 4 the university students' first thoughts can be seen about environmentally conscious lifestyle. The categories are the same. The most common thought was also environment protection with 74%, followed by selective waste collection with 42% and the protection of the planet with 33%. In case of the

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university students the protection of the fauna can be highlighted as the least common expression, compared to the proper use of energy resources in Figure 3.

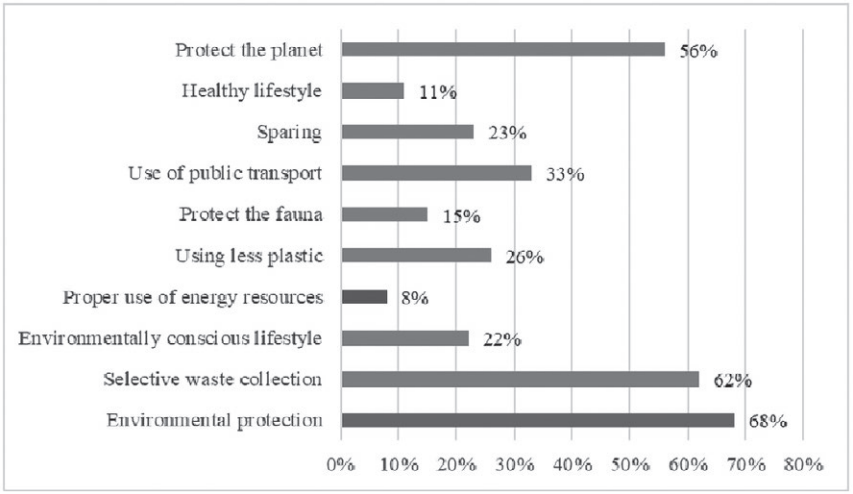

Figure 3. The secondary school students' opinion about environmentally conscious lifestyle as a concept in Gyöngyös, 2017 (N=465)
Source: Own compilation based on own research, 2017

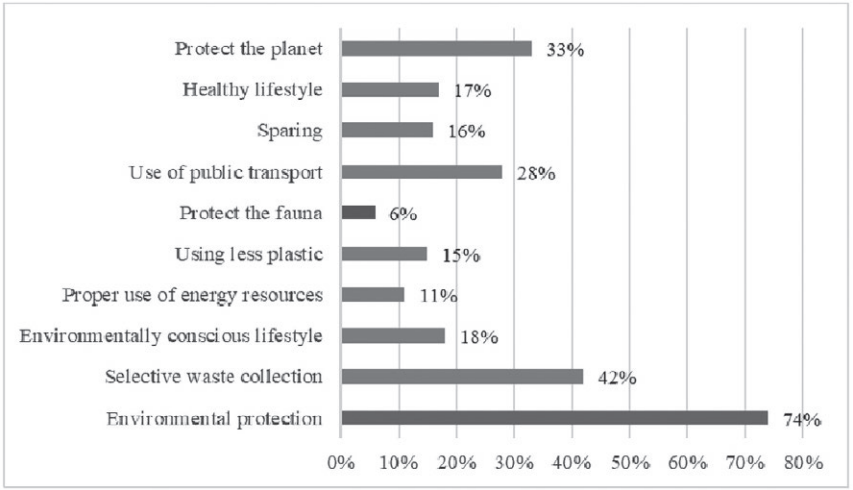

Figure 4. The university students' opinion about environmentally conscious lifestyle as a concept in Gyöngyös, 2017 (N=147)
Source: Own compilation based on own research, 2017

Figure 5 and 6 show when the students first learned about the environmental awareness from nursery to secondary school term.

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Based on Figure 5 it can be stated that most of the secondary school students – 51% of them – learned about environmental awareness in elementary school lower levels, class 1-4th. They had environmental knowledge lesson learning about environmental awareness and environmental protection. 31% of the respondents learned first about this topic in elementary school upper level – class 5-8th. This difference is possible due to the fact that they had been attending different elementary schools and the structures of the curricula were different, therefore they gained knowledge about it later. It was interesting to notice that 13% of the students learned about this topic in day care (nursery) which means a really early period of their life getting knowledge about the environment and why it is important to deal with it.

It was also mentioned in the answers of the questionnaire that they played quiz games, had drawing competitions or went out to the nearest forest to study the trees and plants. This research indicates that it has advantages if children begin to learn about the protection of the environment at an early stage, because they can help the following generations in maintaining this condition, and even in improving or supporting these roles. There was a negligible 4% of respondents who learned about environmental protection only later, 3% of them in secondary school – 1st class, and the remaining 1% in secondary school – 2nd class. This is a good outcome because in earlier stages of life the acquired knowledge gets deeper in children and has an overall better influence in the later stages of their lives. It can also be mentioned on the base of the results that 1% of the students learned about this topic at home, presumably from their parents.

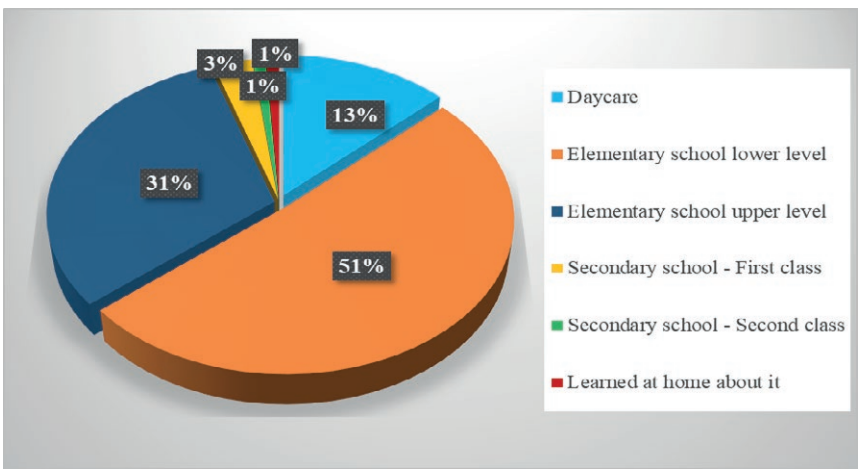

Figure 5. The distribution of secondary school students according to the first time they learned about environmental awareness, 2017 (%) (N=465)
Source: Own compilation based on own research, 2017

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Figure 6 shows that most of the university students, about 45%, learned about environmental protection in elementary school lower levels, class 1-4th. This rate is less than in the case of secondary school students (51%), meaning that university students are likely to have studied about environmental protection in later years. The second most frequent answer was the elementary school upper level – class 5-8th. Compared to the secondary school students' answers (31%) there is only a 2% difference between them (29%). The third biggest group is the "day care" with a significantly higher number of university students (20%) who learned about environmental awareness here. Several questions could be raised why there were more university students who learned about this topic in day care than in the case of secondary school students. Perhaps the attitude of the nurseries changed or they are focusing on something else? Another difference in Figure 6 is that there was no-one who learned about environmentally conscious lifestyle in later than secondary school – 1st class. But even in this case only 4% of the university students learned about it in this later stage of their life. The remaining 2% have learned about it at home, probably from their parents, relatives, siblings or from other people.

Overall we can conclude that the majority of secondary school and university students received early education about environmentally conscious lifestyle. This rate is 64% (13+51) in the case of secondary school students and very similar, 65% (20+45) in the case of university students.

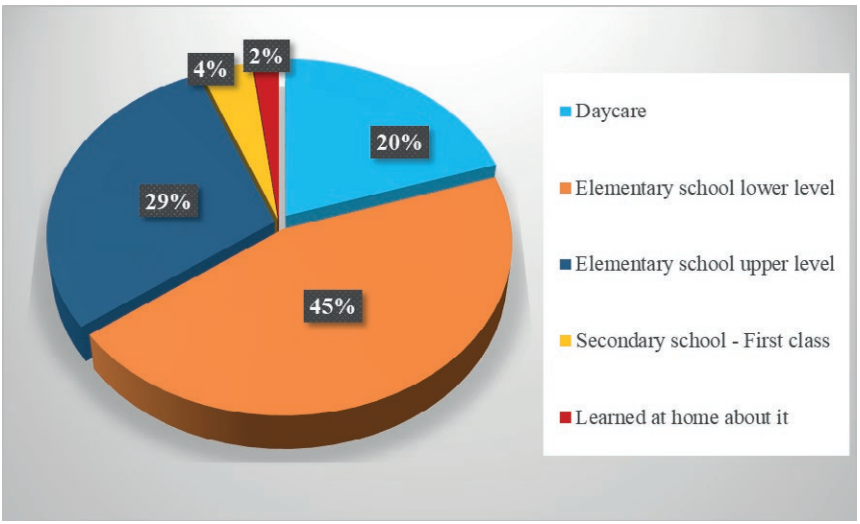

Figure 6. The distribution of university students according to the first time they learned about environmental awareness, 2017 (%) (N=147)
Source: Own compilation based on own research, 2017

The next question was: How important is education for an environmentally conscious lifestyle?

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The breakdown of the results can be considered as appropriate because 88.6% of the respondents think it is very important to learn about environmental awareness as soon as possible in younger age. 8.39% of the students think it is not really important, because the environment can be protected even if they do not learn about it or only in later stages of their lives. The rest of the secondary school students (3.01%) answered that they are not interested in this topic at all (Figure 7).

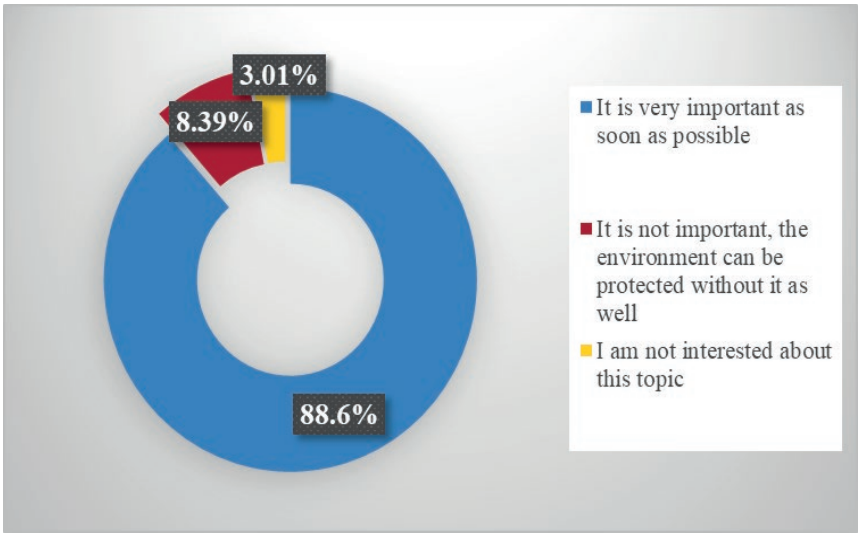

Figure 7. The breakdown of secondary school students' answers about how important environmental awareness is, 2017 (%) (N=465)
Source: Own compilation based on own research, 2017

In Figure 8 the answers of university students can be seen. The results in this case were slightly worse because only 83.23% of the respondents think it is very important to learn about environmental awareness as soon as possible in younger age. 11.4% of the university students think it is not really important because the environment can be protected even if they do not learn about it or only in later stages of their lives. Compared to the results of Figure 7, more students answered that they are not interested in the environment or its protection at all.

Figure 9 shows the most frequently used social media sites both by the secondary school and the university students. Social media sites can also be used for obtaining information about environmental protection or environmental awareness. Most of the students use these social media websites to gain daily information about everything, including the topics of environmental protection or new technologies of renewable energy usage. If the social media and its marketing communication is used well, it can further influence the students' positive opinion about the importance of environmental protection. The most frequently used social media is Facebook (45%) which is not a surprise because in the recent

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years this is the best known social site and still continues to grow. There can be found news also about renewable energy and environmental protection. YouTube is the other well-known site which is not only used for video viewing but also for live streaming, sharing tutorial videos or any kind of blog-videos.

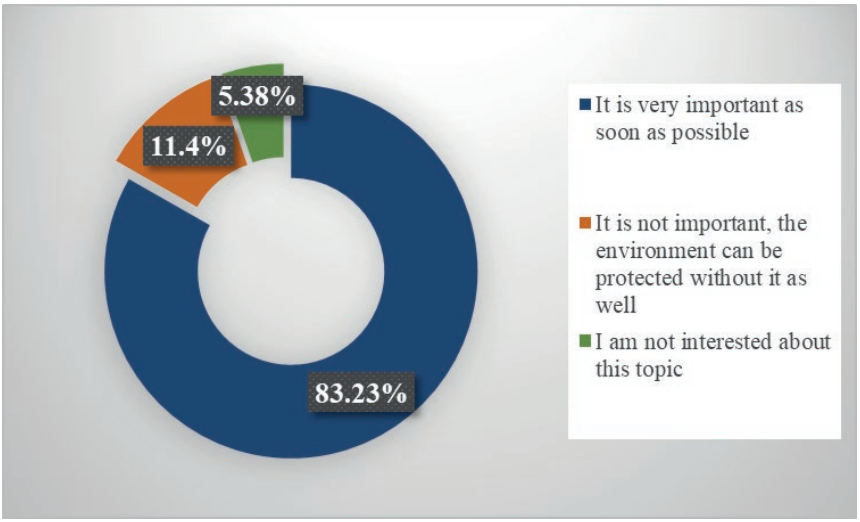

Figure 8. The distribution of university students' answers about how important environmental awareness is, 2017. (%) (N=147)
Source: Own compilation based on own research, 2017

At the university where the research was made, several projects have been implemented in the past few years which used YouTube for tutorial videos about green economy, renewable energy and environmental protection topics. Instagram (13%) and Twitter (7%) as social sites are different in some way because these are mostly used for daily shares or indicating the users' status, but also "tweeting" news can be found there. In this case there is a possibility to share innovations, news, and advertisements about environmental protection, environmental awareness or everything else connected to this topic.

Pinterest is the last one with 3%, but this social media site is a bit different from the others. The users there use "pins" to tag photos, videos or share those in other platforms. Many interesting topics can be found there, but the most useful one is the "Search" option because it is very easy to find information or news about green- or renewable energy sources.

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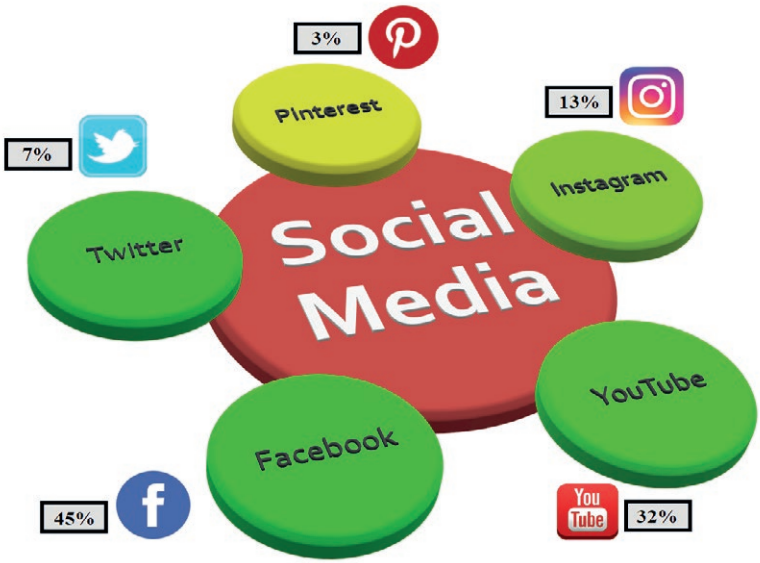

Figure 9. The most commonly used social media sites by secondary school students and university students, 2017. (N=612)
Source: Own compilation based on own research, 2017.

Conclusions

Based on the above presented studies and primary researches it can be concluded that there is a high potential in the topic of environmental awareness and renewable energy sources. This study is focusing on a smaller piece of a bigger research. The study showed that it really does matter what age groups are being asked and at which level (elementary school, secondary school, university etc.). The results were different because of their age and general level of knowledge but in this way they can give new ideas in improvements like application development, new ways of sharing methods of energy consumptions or social media behaviours. As for the future it is a must to get more knowledge about renewable energy and about how it can help to live environmentally responsible life or change our behaviour. We should take notice of how we can do more for the development of environmental awareness. Furthermore, internal resources are needed to help in development (Áldorfai and Czabadai, 2014). A good example can be that all of the examined students get the idea of environmental protection, however only 8% of the secondary school and 6% of the university students think about the protection of the fauna, which is a regrettable result. Although, according to another survey, mainly the younger generation is open to green and sustainable tourism (Varga-Nagy et al, 2017).

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Another interesting fact based on the results is that if environmental awareness comes to mind about environmental protection, why do not students think about the environmentally conscious or healthy lifestyle? There are still more possibilities to examine this field, for instance, involve the population of the city or the local government into the research, in order to make a comprehensive research. The study can be considered as the basis of a next research, which will help to dig deeper into this question.

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Chapter 3

Challenges of peripheries in central europe and an international outlook

FUNDAMENTALS OF SPATIAL INEQUALITIES REGARDING SPECIALISED HEALTHCARE IN NORTHERN HUNGARY

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Abstract

'Everyone has the right to physical and mental health' as it is declared by the Fundamental Law of Hungary, and this right is supported by the services of healthcare system, financed by public insurance funds or private payments. In the framework of the so-called progressive care, treatment takes place in a hierarchical system, based on compulsory division of functions. Specialised care means healthcare provided by a specialist of a certain organ system or groups of diseases, in the framework of which the medical specialist carries out diagnostic or therapeutic activity, based on the prescribed order of applications, for a transitional period (until the problem is solved). Along with the short review of the main socio-economic indicators, we describe the health status of the Northern Hungarian NUTS3 regions in comparison with the Hungarian average values, using life expectancy, mortality and morbidity data. As the main part of our research, we examine the structure and utilisation of outpatient and inpatient specialised care for the time period after Hungary's EU accession.

Keywords: specialised healthcare, inequalities, availability, Northern Hungary, counties

JEL: I14

LCC: RA771-771.7

Introduction

The importance of healthcare has increased in the past decades: nearly 50% of the increase of life expectancy is due to the extension and improvement of healthcare (Figueras et al. 2008). The way of life chosen plays also an important role, but at the same time access to care and the way of life are influenced by social factors (Chan, 2008). Consequently it is vital to understand the relation between society and the economy and health status coupled with the level of

healthcare. At micro-level, the improvement of health status affects positively economic productivity, workforce offer, propensity to save, as well as learning and creative abilities (Orosz, 2001). At macro-level, these positive changes result in the improvement of the economy in general, and if the incomes generated are used to consume healthy products and services, develop the public health system, enrich knowledge and maintain democratic principles and institutions, these factors contribute to a better general health status meaning that in this case we are facing a positive feedback (Kollányi, 2013).

Differences in territorial development exist due to the reorganisation of economic and social processes in space and time (Kollár-Káposzta, 2014). The outcome of inequalities in social and economic relations is the existence and intensification of health inequalities with strong territorial consequences (Uzzoli-Szilágyi, 2015). Based on the classification of Vitray (2011), among the dimensions of healthinequities (i.e. individual and environmental factors), the influence of healthcare system belongs to the environmental factors. According to Bakos (2015, in: Svéhlik, 2015. p. 130-142.), there is statistically significant correlation between the economic and health status of a particular region, and, in the light of numbers, there are significant regional disparities in Hungary. Therefore, the examination of the territorial inequalities of health status and healthcare is unquestionably important.

Materials and methods

For the better understanding of the discussion of the situation of Northern Hungary regarding specialised healthcare, in our paper we review the theoretical and legislative background of healthcare system, then – based on the data sources of the Hungarian Central Statistical Office (HCSO), the National Healthcare Service Centre (ÁEEK), the National Public Health and Medical Officer Service (ÁNTSZ) and National Institute of Health Insurance Fund Management (NEAK) – along with the short review of the main socio-economic indicators (demography, activity/employment, economic performance/GDP etc.), we describe the health status of the Northern Hungarian NUTS3 regions (counties) in comparison with the Hungarian average values, using life expectancy, mortality and morbidity data.

As the main part of our research, we examine the structure and utilisation of outpatient and inpatient specialised care for the time period after Hungary's EU accession (2004), with the help of indicators like number of institutions, number of cases and discharged patients, hospital beds or completed nursing days. In addition to the analysis of the time series, in order to compare the three counties in an easily interpretable way, we repeatedly used the average of time series from 2004 to the year of the latest data.

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Health as a right

Article XX of the Fundamental Law of Hungary declares that everyone shall have the right to physical and mental health. According to paragraph 2, the application of this right is supported by agriculture free of genetically modified organisms, by ensuring access to healthy food and drinking water, by organising safety at work and healthcare provision, by supporting sports and regular physical exercise, as well as by ensuring the protection of the environment (Fundamental Law of Hungary 2011).

In case of illness, every Hungarian citizen is entitled to care defined by law. Patients' rights and obligations are mainly regulated in the second chapter of Act on Health. According to the legal stipulations concerning patients' rights, patients and other persons in contact with the health system are entitled to receive care on an equal basis.

According to the Chapter 2 of the Act on Health patients are entitled to the following rights:

- the right to healthcare;
- the right to human dignity;
- the right to have contact;
- the right to leave the healthcare facility;
- the right to information;
- the right to self-determination;
- the right to refuse healthcare;
- the right to become acquainted with the medical records;
- the right to professional secrecy.

It is prescribed by law that only insured persons can become entitled to full range healthcare services provided by social insurance. The coverage of healthcare is partly ensured by contribution payments. The obligation to become insured is generally based on a legal relationship aimed at employment and remuneration, but in order to share public burdens as widely as possible, persons in legal relationship not aimed at performing work are also obliged to pay contributions, but in relation to healthcare services they become entitled to benefits in kind only (Dózsa 2007).

Structure of the healthcare system in Hungary

Healthcare is the totality of healthcare services delivered in connection with the patient's specific health status (Act on Health, § 3/c). The healthcare delivery system provides the treatment of the patients on an outpatient basis, within an inpatient facility, or in the patients' home Act on Health, § 87/c.

In the Hungarian healthcare delivery system the principle of the so-called progressive care prevails, which means that the services must be delivered in a hierarchical order based on a mandatory division of tasks. According to the Act, the healthcare system is built upon a system of institutions that is intended to

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provide differentiated care to persons with different health statuses, and is based on the principle of labour and progressive care, in which the combination of all specific features that make up the state of health of an individual shall determine the level of care necessary (Act on Health §75/3). The principle of progressive healthcare shall be valid for all levels of healthcare (Act on Health §76/1).

It is a basic principle that all patients must have access to appropriate care, at the required treatment level. Patients cannot be treated without the necessary competence, but healthcare providers specially equipped and highly skilled, with high concentration of resources are not allowed, either, to deal with cases that could be treated at lower levels. Since the frequency distribution of diseases is different, the more frequent (and usually easier) cases are treated at lower level healthcare units close to the patient's residence, while the rarer, more complex cases are treated in centralised, larger regional-level institutions. In Hungary the lowest level of care is primary care, while the highest level of care is delivered in institutions with nationwide competence and university clinics (Ráczné 2004).

Primary healthcare is the combination of long-term, continuous, personal contact-based curative cares with delimited required professional competence, regardless to the gender, age of the population and the nature of the disease, directly, equally accessible to residents, close to their residence (preferably at the place of residence), and of preventive, or nursing type of care, rehabilitation provided by healthcare staff (Gaál 2007).

The fields of primary healthcare are the following:

- family practitioner, family paediatric practitioner care;
- primary dental care;
- on-duty services related to primary healthcare;
- district nurse care (health visiting);
- school health services (Act on Health §152).

According to the Act on Primary Care, the visiting nurse provides personal and community care for pregnant women, individuals under 19 and persons in the family planning period for the preservation of health, prevention and early diagnosis of disease and health improvement. Home nursery, home hospice care and occupational primary healthcare are also included in primary healthcare.

Territorial healthcare is the obligation of the controlling authority or owner of healthcare services, or the healthcare providers to provide healthcare services to persons who are eligible for healthcare services financed by the compulsory health insurance, in determined fields of care of specialised healthcare, using the capacities reserved for specialised care (Act on Primary Care §1/1/n).

Regarding the mandatory healthcare tasks, the Act on Local Governments stipulates that municipal self-governments have to provide primary healthcare, while the provision of specialised healthcare exceeding primary care is the responsibility of the county and capital self-governments (Act on Local Governments §13/4).

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According to the levels of care and the tasks, we differentiate general practitioner, specialised care, and, within the latter, outpatient and inpatient care. The general (family) practitioner (GP) is the care level to be visited in cases which fall outside the competence of nursery and dental care, for the expense of compulsory health insurance. The GP has the legal authorisation to manage health data and performs other medical expert activities which are not financed by social insurance, i.e. releasing medical report, medical opinion to driving license, firearm ownership etc. Depending on the settlement structure, the GP care can be organised in child districts (for residents under the age of 14), adult districts (for the population over 14 years) and mixed districts (for the entire population). According to the law – in addition to the territorial limitations – the free choice of GP is the fundamental right of every citizen (MoH Decree 4/2000).

Fundamentals of specialised care

Specialised care means healthcare provided by a specialist of a certain organ system or groups of diseases, in the framework of which the medical specialist carries out diagnostic or therapeutic activity, based on the prescribed order of applications, for a transitional period (until the problem is solved) (ÁEEK, n.d.).

According to the Act on Health, outpatient specialised care is a one-off or occasional healthcare provided by a specialist, based on the patient's application or the referral of the physician regularly attending and caring for a patient, as well as continuous specialised care in case of chronic diseases which do not necessitate inpatient care.

Outpatient care is responsible for prevention; medical treatment; specialist care (the imposition of home nursing, rehabilitation as well); specialist consultations (including consultations in the patient's home); if necessary, the referral of the patient to other outpatient care or special clinic; carrying out curative interventions, after which a certain period of observation is required; the referral of the patient to inpatient medical institution if an institutional background is needed. In addition to the general outpatient specialised care, based on the incidence of diseases it is necessary to provide specialised outpatient care with advanced diagnostic and therapeutic background. Enhanced outpatient specialised care requires special financial, material and professional conditions and special knowledge and expertise.

According to Decree on technical minimum conditions required for the provision of health services, in the framework of outpatient care, the healthcare-provider (specialised care, nurture, specialised clinic, polyclinic, mobile health service, station or centre, laboratory, hospice service) is entitled to use the name of the particular medical profession or qualification. Pursuant to the decree, day surgery, daytime hospital care and home nursing are healthcare services which substitute hospital care and can be performed within the framework of outpatient specialised care.

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Healthcare provided in the framework of inpatient medical institutions is the so-called inpatient specialised care. It takes place on the basis of the referral of the physician who provides the continuous treatment of the patient or other authorised person, or based on the patient's self-referral. According to the financing arrangements (the aim and nature of care) we can talk about active and chronic inpatient care. In case of active inpatient care, short-term, plannable curative, preventive, rehabilitation services are provided with the aim to recover health status as rapidly as possible, regardless of whether it is an acute or chronic illness. The long-term (not plannable) care that aims at the recovery, stabilisation and maintenance of health status is called chronic inpatient care. Rehabilitation is the totality of the procedures and care aiming at the recovery of dysfunction occurring due to disease (e.g. disability, sterility etc), which includes physiotherapy, sports therapy, speech therapy, psychological care, occupational therapy, medical aids' supply and teaching of their use (ÁEEK, n.d.).

Other healthcare services include on-duty services, ambulance service, patient transportation, nursing, end-of-life care of terminal patients, rehabilitation, drug supply, psychotherapy and clinical psychology, medical devices supply, non-conventional procedures, tactical medicine, other therapeutic services and health expert services (Act on Health).

In one of our former researches we compiled a territorial comparison of some elements of the healthcare system through cluster analysis in the NUTS3 regions (counties) of the country. The counties of the Northern Hungarian region i.e. Borsod-Abaúj-Zemplén (hereinafter referred to as 'BAZ'), Heves and Nógrád (together with Somogy and Zala counties) ended up in the same cluster. These counties produced the last or penultimate rankings for all variables comparing their average values to the elements of the other clusters (Bálint-Tóth, 2016). Taking into account that, according to the Government Decree on the classification of favoured districts (LAU1), 10 of the 29 districts of Northern Hungary are to be developed with complex programmes, 4 are to be developed, and 10 are beneficiaries based on the value of the complex indicator, we can come to the conclusion that the disadvantaged socio-economic situation also has an impact on the access conditions of healthcare systems.

Socio-economic and health situation of the Northern Hungarian NUTS3 regions

Regarding the demographic characteristics (Table 1), the population of each Northern Hungarian county is decreasing. The biggest decline was produced by the less populated Nógrád, and, based on 2016 data, this county has the lowest share of population aged 0-14. BAZ has the most 'youthful' age structure. In every county the aging index (ratio of population 65 or older and 0-14 years of age) increased above the value of 1.00 between 2001 and 2016, by the greatest extent (to the highest value) in Nógrád, while in BAZ, the growth, as well as the

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2001 and the recent value of the indicator was the lowest in the comparison, and the only one performing better than the average of Hungary (0.91 to 1.26 in the examined time period).

Table 1. Demographic data of the Northern Hungarian counties, compared to Hungary

Counties (NUTS3 regions)	*Population (2016)*	*Population change (2004-2016)*	*Share of population aged 0-14 (2016)*	*Share of population aged 15-64 (2016)*	*Share of population aged 65+ (2016)*	*Aging index (2001)*	*Aging index (2016)*
	inhab-itants	*%*	*%*	*%*	*%*	*%*	*%*
Borsod-Abaúj-Zemplén	660,549	-10.51	15.65	66.90	17.45	0.76	1.11
Heves	299,219	-7.58	14.25	65.98	19.76	1.01	1.39
Nógrád	193,946	-11.09	13.91	66.46	19.62	0.95	1.41
Hungary TOTAL		-2.97	14.52	66.82	18.66	1.24	1.77

Source: own editing based on HCSO (2017)

According to the statistics concerning economic activity and employment, in the average of the time period 2006-2016, the activity, employment and unemployment rates of the Northern Hungarian counties showed worse values than the Hungarian national average, although, every indicator's absolute value improved, compared even to the pre- and post-crisis years (2006 and 2012). In terms of activity rate, with the value of 53.5%, Heves got the closest to Hungary's 56.5% average (while 51.8% was performed by BAZ and 51.6% by Nógrád). Heves was also the best performing Northern Hungarian county in case of employment rate, with 47.8%, in comparison with 45.0% made by the other two counties, and with the 51.6% value of Hungarian average of the years between 2006 and 2016. Similarly to Hungary, the unemployment rate had been decreasing from the year 2012 in BAZ, while in Heves and Nógrád the decline process began in 2010. In most of the years Heves produced the lowest unemployment, and in 2016 it even went under the national average. The average unemployment rate of the 2006-2016 time period was 13.4% in BAZ, 12.9% in Nógrád, 10.8% in Heves (and 8.7% in Hungary). The improvement of the activity numbers can be attributed to the public employment programme of the state and leaving the crisis – more or less – behind.

Economic growth clearly implies the legitimate development of territorial differences, which can lead to serious regional inequalities without constant analysis and monitoring (Káposzta, 2014). As long as Northern Hungary is among the poorest NUTS2 regions of the European Union based on this indicator (EC,

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2017), it can be considered as a disadvantaged region. As it can be seen in Figure 1, after 2008 there was a slight decline in GDP/capita value in each county and in Hungary as well, and an observable boost in growth after 2012 (especially in BAZ with an average annual growth rate of 11.06%, in contrast to the 6.14% value of Hungary). In the average of 2004-2015 period GDP/capita was the lowest (1,251,170 Ft/capita) in Nógrád, performing only on average 46.2% of the country level value, while BAZ produced 1,761,110 Ft/capita (64.5%) and 1,891,910 Ft/capita (69.4%) was made by Heves.

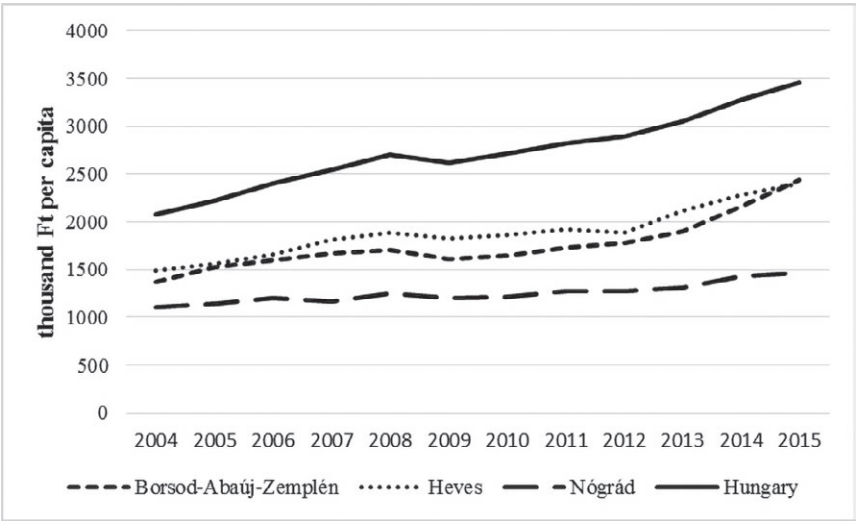

Figure 1. GDP/capita in the Northern Hungarian counties, compared to Hungary2004-2015 [1000 Ft/capita]

Source: own editing based on HCSO (2017)

One of the main indicators of wellbeing related to health is the average life expectancy. Neither in 2001 nor in 2015, none of the Northern Hungarian counties reached the national average, let it be the value of males or females. The disparity of genders was larger as well than at country level in both years. In 2015, life expectancy at birth was the lowest in BAZ (77.56 years for women, 70.00 years for men, which also meant the largest inequality between sexes in comparison with the other two counties and the country), and this county performed the least increase between the 2001 and 2015 in numbers for both genders. By 2016, in all the three counties and in Hungary the difference between male and female life expectancy declined too. In the analysed period Heves recorded bigger growth (4.85 years) in male life expectancy than Hungary (3.94), while in the case of females Nógrád reached higher increase (2.23 years) than the whole country (2.15 years). Average age is in obvious correlation with life expectancy, at is reflected in the numbers too: between 2001 and 2016 in Hungary and in the Northern Hungarian counties the average age grew both in case of males and females, and

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for women, the growth and the absolute value were higher in both years (2001 and 2016). The value of the indicator was lower than the country average only in BAZ, with 38.9 years of males and 43.6 years of females in 2016 (Table 2).

Table 2. Average life expectancy at birth and average age by sex in the Northern Hungarian counties compared to Hungary [year]

Counties (NUTS3 regions)	*Life expectancy at birth*				*Average age*			
	male		*female*		*male*		*female*	
	2001	*2015*	*2001*	*2015*	*2001*	*2016*	*2001*	*2016*
Borsod-Abaúj-Zemplén	66.6	70.0	76.1	77.6	35.9	38.9	40.0	43.6
Heves	66.8	71.6	76.8	78.5	37.7	40.5	42.1	45.4
Nógrád	67.1	71	76	78.2	37.6	40.9	41.8	45.6
Hungary TOTAL	68.2	72.1	76.5	78.6	37.1	40.0	41.1	44.2

Source: own editing based on HCSO (2017)

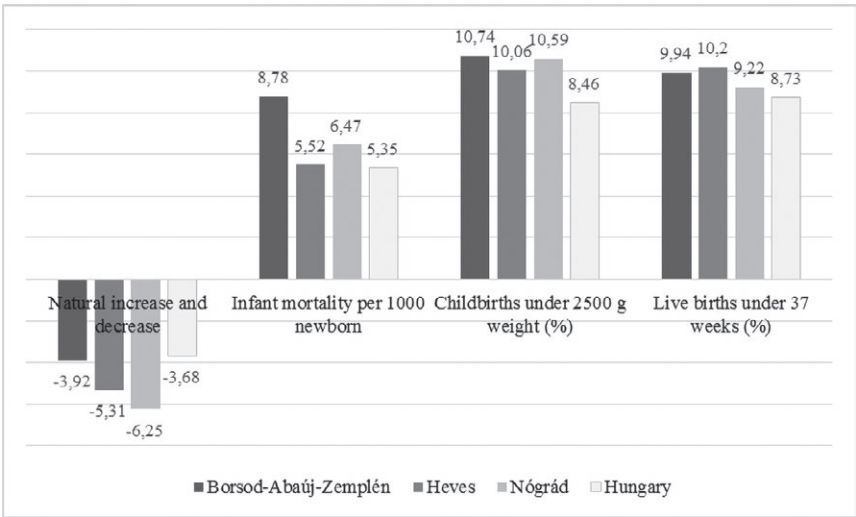

Figure 2. Demographic and vital statistics of Northern Hungarian counties compared to Hungary on average of the 2004-2015 time period [%]
Source: own editing based on HCSO (2017)

In every Northern Hungarian county, and also in Hungary, natural increase and decrease (live births–deaths/1000 inhabitants) slightly fluctuated and remained negative between 2004 and 2015. Throughout the examined time series, the lowest value was always performed by Nógrád, the highest by BAZ among the Northern Hungarian counties, and the latter even went over the Hungarian aver-

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age in 2006 and 2015. Infant mortality per 1000 live births was more variable in Northern Hungary than at the country level, and in the 2004-2015 period Heves and Nógrád moved below the national average four times. On the average of the 2004-2014 time period, the proportion of births under 2,500 g weight was between 10-11% and more fluctuating in the Northern Hungarian counties, while the Hungarian average was around 8.5% along the whole time series. The share of live births under 37 weeks was on average of the 2004-2014 period the highest in Heves, and the value of the indicator fluctuated more in the Northern Hungarian counties than at national level, where – except one year – it remained below the level of the three counties (Figure 2).

Considering the main causes of mortality (Table 3), between 2004 and 2014, circulatory diseases were the most significant reasons of death, the majority of which had been cardiovascular disease (and to a lesser extent cerebrovascular diseases and arteriosclerosis). Respiratory diseases like bronchitis, emphysema, asthma etc. represented a lower significance, as well as digestive disorders (e.g. liver disease). The least deaths are caused by external reasons, mainly accidents and suicide. On average of the 2004-2014 time period, per 100,000 inhabitants most of the deaths by malignant tumour occurred in Heves as well as deaths due to external causes, especially accidents. In all three Northern Hungarian counties the occurrence of circulatory diseases and digestive disorders were higher than the country average in the investigated time series. BAZ performed in a slightly more favourable way in terms of malignant tumours and cerebrovascular diseases than the other two Northern Hungarian counties and the Hungarian average. In case of all circulatory and respiratory diseases, Nógrád produced the most unfavourable statistics. Since the millennium, the significance of cancer, cardiovascular and respiratory diseases has increased in regard with mortality, while the incidence of digestive disorders, cerebrovascular diseases, arteriosclerosis and deaths caused by external factors has decreased.

Table 3. Groups of the main causes of mortality in Northern Hungarian counties, on the average of the 2004-2014 time period, compared to Hungary [number per 100,000 inhabitants]

Counties (NUTS3 regions)	*Malignant tumour*	*Circulatory disease*	*Respiratory disease*	*Digestive system disorder*	*External cause of mortality*
Borsod-Abaúj-Zemplén	313.6	711.8	92.4	93.3	80.4
Heves	357.4	745.3	59.3	79.5	85.1
Nógrád	337.3	778.0	106.1	81.2	68.8
Hungary TOTAL	323.1	654.8	64.5	78.4	71.5

Source: own editing based on ÁEEK (2017)

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Structure and utilisation of specialised care in the Northern Hungarian NUTS3 regions

Outpatient care

As part of the outpatient specialised care system, in the region of Northern Hungary there are 57 outpatient institutions operating in 33 settlements, of which 27 are cities/towns and 6 are villages (Figure 3). In BAZ 26 institutions in 17 settlements, in Heves 24 institutions in 11 settlements (of which 5 are villages!), in Nógrád 7 institutions in 5 settlements operate as outpatient service providers. 10 institutions are located in the county seat of Miskolc (BAZ) and Eger (Heves) each, while equally 3 in the second (Gyöngyös) and the third (Hatvan) largest cities of Heves, and 2-2 in the county seat and the second largest city of Nógrád, Salgótarján and Balassagyarmat.

Figure 3. Northern Hungarian settlements with outpatient institutions by the exact number of service providers (0, 1, 2, 3 or 10)
Source: own editing based on ÁNTSZ (2017)

In the 2004-2013 period, the per capita number of outpatient cases by the patient's residence was the lowest in Nógrád, and the highest in BAZ. The tendencies moved almost parallel among the Northern Hungarian counties during the examined time period: the 2007 introduction of the so-called visiting fee and daily hospital fee by the Act on Modification of Certain Health-related Acts caused a national level drop of 6-10% in the number of persons visiting outpatient services (and, according to surveys, the practice of informal payments also dropped by 20%) (EC, 2008). Due to visiting fee, in 2007, in the Northern Hungarian counties there was a more significant decrease in the value of the per capita number of outpatient cases by the patient's residence: the drop was 12.2% in BAZ, 14.7% in Heves and 18% in Nógrád. After the abolition of the visiting

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fee (due to a referendum on 9 March 2008) in all three counties the value of the indicator started to increase, but only reached the 2006 level in 2013 (Figure 4).

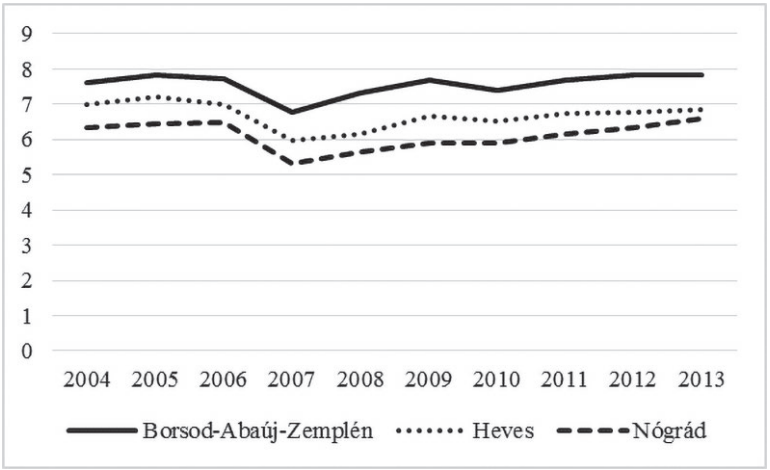

Figure 4. Number of outpatient cases by the patient's residence per capita in Northern Hungarian counties, 2004-2013
Source: own editing based on ÁEEK (2017)

The changing process was similar in terms of per capita number of outpatient cases by the place of treatment, but in case of Heves county, from 2007 to 2009 there was a 17.8% decline in the value of the indicator. Presumably, the reason was the so-called 'Hospinvest scandal'. Hospinvest Ltd. was a private healthcare service provider company which had been present in 5 hospitals, 4 polyclinic institutions and 22 pharmacies in 15 settlements countrywide at the peak of its activity. Despite the fierce protest of the institutions and the residents, the company took over the operation of 4 hospitals in Heves: Eger, Gyöngyös, Hatvan and Parádfürdő. Because of the vast amount of accumulated debt, several municipalities took back the operator's authority, and, in July 2009, the liquidation process of the company began. From 2010 the outpatient visits in the service provider institutions of Heves started to get more frequent, but – based on data available until 2013 – so far it has not reached the level before the visiting fee and the Hospinvest scandal.

In all three Northern Hungarian counties, based on the 2004-2013 average of the number of outpatient cases per 1000 inhabitants, the number of cases by the residence of patients is higher in every case than the number of cases by the place of treatment (especially concerning specialists' surgeries, ambulances, occupational clinics and laboratories). This leads to the conclusion that, on one hand, a lot of workers are employed outside their residence, and, on the other hand, some healthcare services are not available in the NUTS3 region, and there is no territorial mandatory care for some areas of medical professions. Based on both

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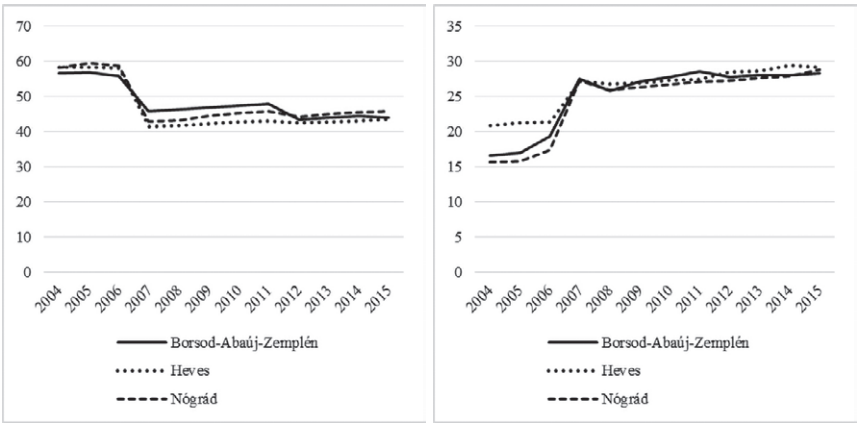
indicators for the number of cases, the majority of the outpatient visits occurred in specialists' surgeries in the first place, ambulance clinics in the second and dispensaries in the third.

Inpatient care

Regarding inpatient healthcare, there are 17 service provider institutions in 16 settlements of Northern Hungary, of which 9 belong to BAZ, 5 to Heves, 3 to Nógrád, all located in urban settlements.

In the framework of the 2006-2008 Hungarian healthcare reform, in accordance with the provisions of Act on Developing the Healthcare System, from 1 April 2007 the number of hospital beds was reduced by 11%: the number of active hospital beds decreased by 26%, accompanied by the 35% increase in the number chronic beds (Vas et al. 2009). The reform affected the inpatient capacities of the Northern Hungarian counties as well. From 2006 to 2007, the decrease in the number of operating active hospital beds per 10,000 inhabitants was 17.6% in BAZ, 28.5% in Heves and 26.8% in Nógrád (Figure 5/a), while the number of operating chronic hospital beds increased by 42.4% in BAZ, 27.3% in Heves and 56% (!) in Nógrád (Figure 5/b).



a) b)

Figure 5. Number of operating active (a) and chronic (b) beds per 10,000 inhabitants in the Northern Hungarian counties, 2004-2015
Source: own editing based on NEAK (2017)

As a result of restructuring in 2007, the number of discharged patients from active departments per 10,000 inhabitants declined by 9.9% in BAZ, 19.4% in Heves and 14.2% in Nógrád. At the same time, the same indicator for chronic departments grew by 28.4% in BAZ, 14.6% in Heves and 42.6% (!) in Nógrád. The number of completed active nursing days fell by 17% in BAZ, 26% in Heves and 20.9% in Nógrád (Figure 6/a), while the number of completed chronic nurs-

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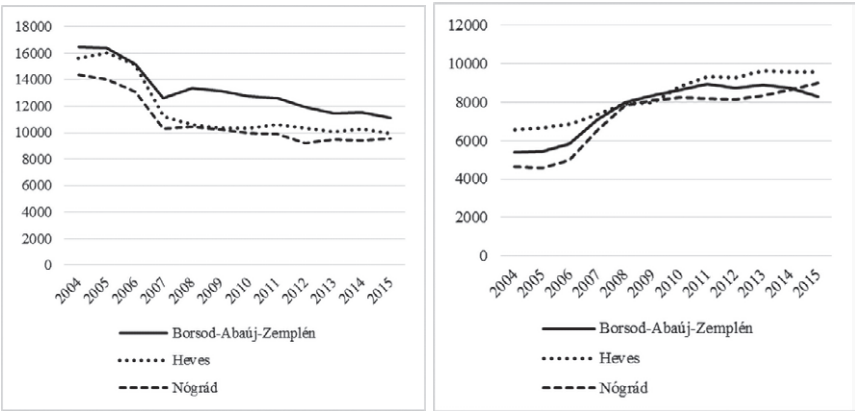
ing days rose by 21.7% in BAZ, 7.3% in Heves and 31.4% in Nógrád (Figure 6/b). It can be clearly seen that Heves was the most influenced by the decrease of active beds but the least by the increase of chronic beds too, while the chronic capacities of Nógrád 'rocketed' as a consequence of the reform.

After investigating the effects of the 2006-2008 healthcare reform on inpatient care, we summarise the most important data for active and chronic care for the time series of 2004-2015. On average of this time period, the number of operating active and chronic hospital beds was very similar. In Nógrád, the number of discharged patients from active departments per 10,000 inhabitants was significantly lower in the average of 2004-2015 period than in the other two Northern Hungarian counties, as well as the ratio of discharged patients per one operating active hospital bed. In terms of the same indicators, but for chronic care, Heves reached significantly higher values than the other two counties in comparison, while the average length of chronic nursing time was considerably shorter. Nógrád underperformed mainly in active, but also in chronic care regarding hospital bed utilisation. Heves produced the highest death rate in active care, but the lowest in chronic.



a) b)

Figure 6. Number of completed nursing days in active (a) and chronic (b) care in the Northern Hungarian counties, 2004-2015
Source: own editing based on NEAK (2017)

Regarding trends, the growing importance of chronic care was observable after the reform of the government, but, especially in BAZ and Nógrád, the process slowed down after 2008-2009, and can be characterised by little fluctuations (near the state of stagnation). Bed utilisation is slightly getting worse in active care for all Northern Hungarian counties. In case of Heves, growth in the number of patients discharged from chronic departments per 10,000 inhabitants is a trend worth highlighting, getting further and further from the subtly shrinking value of BAZ and Nógrád, and, logically, similar trend is characteristic for the same

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indicator reflected by the number of operating chronic beds. Clearly unfortunate tendency is the rising death rate in active care of Heves and chronic care of BAZ.

Fundamental attribute of the access to healthcare is the availability of services near the patients' residence. Among the non-Northern Hungarian counties, Budapest and Pest county play a very important role, which is not surprising regarding the fact that from the 11 national-level care institutions, 7 can be found in these two counties. Outside Northern Hungary, in the case of Nógrád and Heves, the vast majority of active inpatient cases by residence per 10,000 inhabitants occurred in Budapest in 2015. For BAZ, Budapest and Hajdú-Bihar county was equally important, and for Nógrád, Pest county provided active care in a little bit more significant amount of cases (Figure 7). By Northern Hungarian residence, Budapest was the main chronic care provider in 2015 outside the region, but Pest, Veszprém and Zala counties also played a role in chronic inpatient cases. Thinking conversely: for the residents of non-Northern Hungarian counties, Heves was the most frequented active care provider for Pest and Jász-Nagykun-Szolnok counties, and the most important Northern Hungarian county for almost all the counties outside in terms of chronic inpatient care.

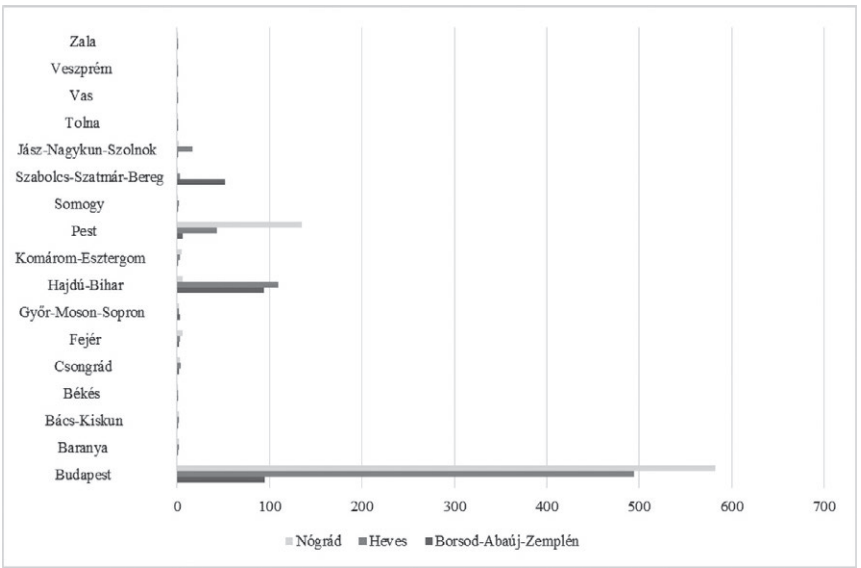

Figure 7. Number of active inpatient cases by the residence of Northern Hungarian patients per 10,000 inhabitants in the counties of non-Northern Hungarian counties (2015)
Source: own editing based on NEAK (2017)

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Conclusions

As long as health is considered to be one of the most important 'bottleneck' factors of life quality and the physical and intellectual productivity of the workforce, the protection and improvement of it is essential, as it is stated in the Hungarian legislation as well. In addition to prevention and the elements of primary care, inpatient and outpatient specialised care provide the treatment of complex, more serious health problems. Northern Hungary is one of the most disadvantaged NUTS2 regions of the European Union. The region can be characterised by poor socio-economic status, even compared to other Hungarian regions: aging society, intensifying emigration, slow economic growth, low level of real labour activity, increasing poverty, social segregation, not just in rural areas. Health status indicators are lagging behind the national average, life expectancy is shorter and mortality rates are higher. This situation requires a well-prepared, effective healthcare system, but the accessibility and quality of care is exactly one of the main roots of the unfavourable health conditions, which significantly contribute to the deepening socio-economic marginalisation of the region.

In terms of Northern Hungarian outpatient care, the concentration of care institutions can be observed. In 2007, the introduction of 'visiting fee' – as part of the healthcare reform – reduced the number of outpatient cases (in addition to the decline in primary care visits as well). This symbolic measure was aimed to strengthen the responsibility and autonomy of individuals by replacing the practice of paternalist state care, but it mainly held back more indigent patients from visiting doctors, and caused intensifying administrative burdens. Due to these reasons it ended up being voted down in a referendum. In Heves, the post-reform re-growth of the number of outpatient cases by the place of treatment was delayed because of the Hospinvest scandal which made many doctors and healthcare workers leave their institutions.

In the recent history of Northern Hungarian inpatient care, the most important event was the structural reform in 2007, which shifted the proportions between active and chronic hospital bed capacities. The reduction of active beds did not recognisably improve the efficiency of active care in the long run, moreover, it resulted a slight fall in active care performance indicators (e.g. discharged patients, completed nursing days etc.). Despite the striking leap in the number of chronic beds in Nógrád, after the progress of 2007 the utilisation of chronic capacities remained near stagnation, as opposed to Heves, which showed improvement in chronic capacity utilisation.

Both in active and chronic care, for the Northern Hungarian patients Budapest and Pest county play the most important role as the place of inpatient service provision, while Heves has the greatest significance as the Northern Hungarian place of treatment visited by patients from other NUTS3 regions.

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PERIPHERAL PARTIES: ETHNOREGIONALISM IN CENTRAL AND EASTERN EUROPE

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Abstract

Ethnoregional parties in some Western European states are significant elements of the national political scene and the party system. Despite the emergence of such parties after the regime changes in Central and Eastern Europe, they were not able to strengthen enough to play a similar role, and usually remained peripheral components[13] in party politics. Among the reasons behind this phenomenon the accumulation of peripheral disadvantages can be assumed. The paper examines five ethnoregional communities and their parties along the three (geographical, economic and social) dimensions of centre–periphery model in order to evaluate the situation of these political organisations. The paper is focusing on the following questions: In which dimension of centre–periphery model can the ethnoregional communities and parties be designated as peripheral? Are these disadvantageous positions cumulated in the case of either ethnoregional parties? Will these parties get stuck in peripheral positions in the long run?

Keywords: ethnoregional parties, centre–periphery dichotomy, Central and Eastern Europe

JEL classification: R1

LCC: JF2011-2112

Introduction

The most widely accepted definition for determining ethnoregional parties originates from Müller-Rommel, who defines this group of political organisations as parties "referring to the efforts of geographically concentrated peripheral minorities which challenge the working order and sometimes even the democratic order of a nation-state by demanding recognition of their cultural

13 Nevertheless, there are some counterexamples, when ethnoregional parties have permanent representation in parliaments, and they get into a governmental position as a coalition partner from time to time (such as the Democratic Alliance of Hungarians in Romania or the Movement for Rights and Freedoms in Bulgaria).

identity" (Müller-Rommel 1998:19). Ethnoregional parties are special mixtures of ethnic parties, which are organised in order to represent the interests of a given minority, and of regional parties, which are organised in order to represent interests of a given territory. The specific feature of ethnoregional parties is the representation of these two interrelated dimensions in the course of their operation and activity (Dandoy 2010). This definition can be supplemented by the determinative characteristic of ethnoregional parties, namely their demands "(…) *for the reorganisation of the power structure of the national political system, for a certain degree of self-governance for the region"* (De Winter 2001:4). According to De Winter, the degree of targeted self-government can vary from cultural protectionism to separatism.

The "ethnic renaissance", the development of democratisation processes, the decentralisation supported by ethnic groups, the conflicts affected by economic inequalities, the different development paths and opportunities of centre and periphery (as a determining cleavage in party formation according to Lipset and Rokkan 1967) can be mentioned among the reasons of the establishment and strengthening of ethnoregional political movements and parties in the 1960s and 1970s in Western Europe (Győri-Szabó 2006). Their party evolutions were accelerated by the rise of Europe of the Regions, the appearance of multi-level governance theory, and by the institutional reforms within the EU (direct elections to the EP, establishment of the Committee of the Regions) as well as the changes in common regional policy (Lynch 2007, Elias 2008). As a complex result of ethnic mobilisation and favourable changes concerning regions, the European Free Alliance was established in 1981 with the aim to integrate[14] extremely heterogeneous ethnoregional parties and movements and to represent them in the European Parliament (Lynch – De Winter 2008).

According to the classical theory of Lipset and Rokkan, the centre–periphery cleavage is one of the four determining factors in the process of party and party system formation. This socio-political cleavage is often interpreted as a conflict between subject and dominant cultures in a given country caused by the creation of modern nation-states. Consequently, ethnoregional parties can be considered as evidences proving the existence of the centre–periphery cleavage in a society.

The centre–periphery model as a basic paradigm for regional sciences is a dual theoretical model for expressing spatial inequality. The centre-periphery dichotomy can be interpreted in three dimensions (Nemes Nagy 2009):

1. positional (geographical) centre and periphery dichotomy – distribution of spatial elements based on geographical position, where the centre is most often a privileged place, while periphery means an outer, marginalised zone;
2. development (economic) centre and periphery – the distribution of spatial elements based on efficiency and profitability, where the centre is a developed, while the periphery is an underdeveloped area;

14 However, it must be noted that several ethnoregional parties on an ideological basis have joined other EP political groups.

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3. authority (social) centre and periphery – the distribution of individuals/social groups based on power and interest representation, where the masses (periphery) depend on the elites (centre).

The key issue for regional sciences is to reveal the coincidence(s) between the above-mentioned centre–periphery dimensions. According to this, the paper focuses on the three dimensions of centre–periphery dichotomy and examines whether peripheral positions are cumulated in the case of ethnoregional parties.

Ethnoregional communities in Central and Eastern Europe

During the 20th century, minorities in Central and Eastern Europe[15] had to face several actions hampering or even preventing their self-determination. Assimilation aspirations and processes of the imperial period, ethnic policies of nation states between world wars, and finally the internationalism of state socialist regimes did not or only rarely allowed to form self-governmental institutions for national and ethnic minorities (Szarka 2004). Consequently, the emergence of ethnic and ethnoregional movements in the region became possible only after the regime changes and the establishment of democratic institutional systems. However, at this time, "nationalising states" (Brubaker 1995) which barely attained or regained independence, aimed to consolidate their own integrity, emphasising ideas such as 'state constituent nation' and 'state language'. Contrary to majority political nationalism and integration processes, ethnic and ethnoregional movements were formed, which, according to Bugajski (1993), can be divided into five main ideal-typical groups. *Cultural revivalism* is a feature of movements representing small and disperse communities, which have the aim to rebuild their autonomy in the field of culture, language and education (~cultural autonomy). Political autonomism is a more pronounced form of self-organisation among ethnic population in an ethnically mixed region, while territorial self-determinism can be observed among large, well-organised and *territorially compact* ethnic communities or in ethnically mixed historical regions seeking for the reorganisation of the state structure and the establishment of regional self-governance (~territorial autonomy). *Separatism* and *irredentism* are threats for existing state structures; but while the separatist movements of an ethnically and territorially population wish to create an independent state, irredentist organisations aim to join their population and territories to a neighbouring state. Worthy of note is that the classification above cannot be considered as constant, emphasis may shift over time, thus aspirations may enter other stages of ethnic politics, or there may be simultaneously more than one competing organisation within a community struggling for different purposes.

The paper analyses five cases out of the several Central and Eastern European ethnoregional communities: Moravians in the Czech Republic, Russians in

15 Central and Eastern Europe is conceived in political terms. It includes all the former state socialist countries in the region, except the current members of the Commonwealth of Independent States.

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Estonia, Poles in Lithuania, and Germans and Silesians in Poland (*Table 1*). According to the latest national census (2011) Moravians constitute the largest ethnic community in the Czech Republic living throughout the historic regions of Moravia and Silesia in the eastern part of the country. Due to the relatively huge territory, the regional proportion of the community is low, even though Moravia and Silesia concentrate almost the whole Moravian population. The largest part of Moravian community lives in the South Moravian region (*Jihomoravský kraj*). Russians are the most populous ethnic community in Estonia; they constitute the quarter of the country's whole population. However, Russians cannot be characterised as a territorially compact minority, there are two regions (maakond) in the country which concentrate altogether over 86 percent of the ethnic community. Moreover, in Ida-Viru region Russians constitute the majority of the regional society. Poles and Russians are the two dominant minorities in Lithuania, but while Poles live in a relative compact area of the country, Russians are rather a dispersed community settled down mainly in urban areas. The very majority of Poles live in the capital and its surrounding region (*Vilniaus apskritis*), where they constitute almost a quarter of the population. Poland's largest, but on national level not overly significant minorities, Silesians and Germans share a common region, Upper Silesia. Remarkable numerical differences can be observed between the two groups, but both of them are highly concentrated in the area, Germans in the western (*województwo Opolskie*), while Silesians in the eastern part (*województwo Śląskie*) of the region.

Table 1. Selected ethnoregional communities and their main numerical characteristics (2011)

Country	*Ethnic community*	*Total population (capita)*	*Total proportion (%)*	*Most populous regions*	*Regional population (capita)*	*Regional proportion (%)*	*Regional concentration (%)*
Czech Republic	Moravian	521,801	5.0	South Moravian	254,380	21.9	48.8
				Zlín	95,292	16.4	18.3
				Olomouc	76,280	12,1	14.6
Estonia	Russian	326,235	25.2	Ida-Viru	108,208	72.5	33.2
				Harju	173,194	31.3	53.1
Lithuania	Polish	200,317	6.6	Vilnius	186,192	23.0	92.9
Poland	German	147,814	0.4	Opole	78,595	7.7	53.2
				Silesian	35,187	0.8	23.8
	Silesian	846,719	2.2	Silesian	722,143	15.6	85.3
				Opole	106,375	10,5	12.6

Source: Author's calculation based on national censuses 2011

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Ethnoregionalism and the dimensions of centre–periphery model

The positional (geographical) centre and periphery

Central and Eastern Europe had many border changes throughout the 20th century and even after the millennium. The first significant changes had taken place after World War I, when along with the collapse of empires new states were formed, which were re-established after World War II, but in some cases within different boundaries (such as Poland). The second wave of border changes occurred after the regime changes and the peaceful or violent split of socialist federations (Czechoslovakia, Yugoslavia and the USSR). Recently, the former Yugoslavia has further fragmented, whereas first Montenegro (2006), then Kosovo (2008) declared its independence from Serbia. As a result of these border changes several ethnic communities were forced to live in neighbouring countries, even though there were different ideas and policies to create pure nation-states, particularly after World War II (population exchanges, relocations and resettlements).

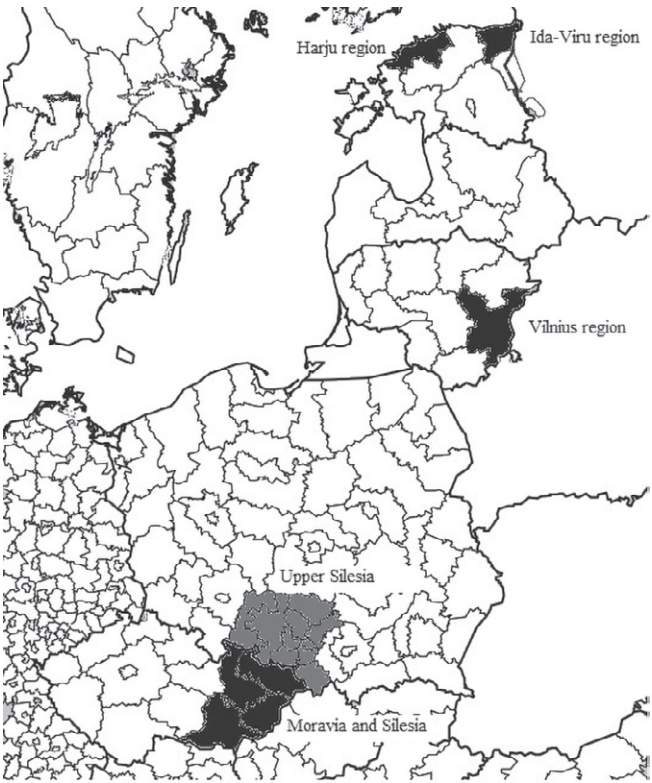

Figure 1. Territories inhabited by the selected ethnoregional communities (NUTS3 regions)
Source: Author's compilation

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Moravia has an intertwined history with Bohemia (or Czechia) from the 11th century, although it had varying degrees of autonomy within the Kingdom of Bohemia and later under the Habsburg rule as well. Following the break-up of the Austro-Hungarian Empire, Moravia became part of Czechoslovakia, and between 1928 and 1948 it existed as one of the four historical lands in the country (Moravian-Silesian Land). Due to the large extent of Moravia (its area is more than a quarter of the Czech Republic's territory) and to the significance of its capital city, Brno, it cannot be considered as a classical geographical periphery.

The independence of Estonia was restored in 1991 when it seceded from the Soviet Union. Although Russians have settled down for centuries in the territory of present Estonia, the majority of the residents with Russian origin arrived during the state socialist period. Basically, Russians live throughout the country, but they are concentrated especially in larger cities and in the northern part of Estonia. Harju county with the capital city, Tallinn has the most populous Russian community, but it cannot be defined as a periphery. On the other hand, Ida-Viru region with its Russian majority is a peripheral region neighbouring Russia.

Due to the Polish-Lithuanian Commonwealth (originated from the personal union in 1386) Poles have lived in the territory of Lithuania for many centuries. Although Lithuania gained independence after World War I, its present capital city, Vilnius belonged to the new Polish state until 1944. Therefore, the majority of the ethnic community is concentrated in the capital, Vilnius and its wider area, thus, the region populated by Poles cannot be classified as a periphery.

Upper Silesia is located in the southern part of Poland bordering the Czech Republic. After the final division of Poland (1795), its largest part belonged to Prussia, later to the German Empire. After World War I Upper Silesia was annexed to the new Polish state and had autonomy between 1920 and 1939. Since the shift of borders following World War II almost the whole territory of Silesia has belonged to Poland. Due to these historical reasons the peripheral region concentrates the majority of Germans and Silesians in the country.

The development (economic) centre and periphery

Western European experiences have shown that the level of economic development and ethnoregional endeavours are connected or, more precisely, economic issues can create or strengthen such intentions. On the one hand, wealthy and developed regions aspire for wider autonomy or independence in order to have disposal of economic and financial resources (see Scotland or Catalonia). On the other hand, poor and underdeveloped regions demand for additional state resources to consolidate regional systems based on own distribution (Győri Szabó 2006).

From the perspective of economic development, analysing the GDP-related data (2014) calculated from the Eurostat database, both types of the above-mentioned regions can be defined among the examined cases (*Table 2*). In general, we can state that the geographically central regions (Harju and Vilnius region) are in economically favourable, while the rather peripheral regions are in disadvantageous position within the given country. Nevertheless, two exceptions must be mentioned: the Southeast region in the Czech Republic and the Silesian region in Poland. In

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the Moravian case the role of the second largest and economically significant city, Brno must be emphasised. The Silesian region with the Katowice conurbation in the middle is one of the most important areas in the economy of Poland. The latter regions can be defined as 'dynamic borders' based on the coexistence of geographical and development centre–periphery relations (Nemes Nagy 2009). According to Nemes Nagy's typology, among the examined regions the economically developed centres are 'centre cores', while the underdeveloped regions are 'outer peripheries'.

Interestingly, the territories where ethnoregional parties are active can often be divided into a developed and an underdeveloped part. This phenomenon can be observed in the case of Moravia, Upper Silesia and also between the two regions with significant Russian community in Estonia, whereas the development level of the territories populated by the ethnic groups is unbalanced and controversial.

Table 2. Selected ethnoregional territories and their main economic characteristics (2014)

Country code	*Region (NUTS 2 or NUTS 3)*	*Ranking according to GDP production (regions in the country)*	*National GDP contribution rate (%)*	*Ranking according to GDP per capita (regions in the country)*	*Divergence from the national GDP per capita (euro)*	*GDP per capita in proportion to the EU average (euro)*	*Divergence from the national ratio of GDP per capita within the EU average (percentage points)*
Developed regions							
CZE	Southeast (~South Moravian and Vysočina region)	2 (8)	15.01	2 (8)	-900	51	-3
EST	Northern Estonia (~Harju region)	1 (5)	62.29	1 (5)	+6,400	78	+24
LIT	Vilnius (~Vilnius region)	1 (10)	39.88	2 (10)	+5,600	66	+21
POL	Silesian (~Silesian region)	2 (16)	12.42	4 (16)	+400	40	+1
Underdeveloped regions							
CZE	Central Moravia (~Olomouc and Zlín region)	7 (8)	9.66	6 (8)	-2,500	45	-9
EST	Northeastern Estonia (~Ida-Viru region)	3 (5)	7.84	3 (5)	-4,600	38	-16
POL	Opole (~Opole region)	16 (16)	2.12	11 (16)	-2,000	31	-8

Source: Author's calculation based on Eurostat 2014

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The authority (social) centre and periphery

Minority existence is basically always peripheral. The authority centre–periphery relation can be interpreted as a conflict between majority and minority cultures within a country (see Lipset – Rokkan 1967). In order to examine this aspect of dichotomy, the following basic questions must be answered: How are ethnic communities incorporated into the society? How deeply are ethnic communities involved into the political life of the state?

The first question can be answered by analysing the fundamental laws (constitution, laws dealing with minority rights) of states, focusing on the issues related to the source of constitutional authority, the declared nature of the state, the official language of the state, the existence of minority-related laws, the expressed minority rights (language rights, educational rights, cultural rights, political rights) and the recognised ethnic communities.

Concerning these issues, the main difference between the examined ethnic communities is in the official recognition. Poles in Lithuania, Russians in Estonia[16] and Germans in Poland, as they live historically within the borders of states, are recognised minorities, while Moravians in the Czech Republic and Silesians in Poland are treated as only a subgroup of the majority society. Therefore, in the latter two cases we cannot talk about any granted minority rights. The above-mentioned three recognised ethnic communities have cultural autonomy, i.e. rights to maintain and strengthen their identity through the use of own languages in education and offices, establishing cultural institutions etc. Of course, there are essential differences in the depth of granted rights by country, but basically these ethnic communities have the opportunity for self-determination to a certain level.

The second question is related to the political rights of ethnic communities, and can be answered by analysing regulation and practice concerning party foundation, electoral procedures and electoral systems.

According to Juberias (2000:33), along the electoral legislation related to parliamentary representation of ethnic communities in Central and Eastern Europe the following state behaviours can be distinguished:

1. opposition to participation by ethnic minority;
2. official neutrality towards ethnicity;
3. active support and facilitation of effective competition by ethnic minority parties;
4. formal guarantees of political representation; and
5. ethnic territorialisation, an institutional culmination of guaranteed representation in extreme form.

16 It must be noted that Estonia (and also Latvia) formerly distinguished between long-term Russian settlers and those who had arrived after 1940, and from the latter group citizenship was denied. Over the past decades the situation has been somewhat consolidated, but there is still a significant part in Estonia's society with undefined citizenship (i.e. stateless people).

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Table 3. The features of national parliaments and electoral systems in countries concerned

	Structure of parliament	*Number of deputies (lower chamber)*	*Mode of designation*	*Constituencies*	*Electoral system*	*General threshold**
Czech Republic	bicameral	200	directly elected	14 multi-member constituencies	proportional	5%
Estonia	unicameral	101	directly elected	12 multi-member constituencies	proportional	5%
Lithuania	unicameral	141	directly elected	71 single-member constituencies + 1 multi-member nationwide constituency	mixed: absolute majority and proportional	5%
Poland	bicameral	460	directly elected	41 multi-member constituencies	proportional	5%

Source: Author's compilation

*Note: *general threshold concerns one party, the threshold can be higher in the case of party coalitions*

The Czech Republic, Estonia and already Lithuania represent the neutral behaviour, as in these states ethnic communities do not have any facilitation during the elections to access parliaments. By contrast, national minorities[17] in Poland are dispensed from the stated thresholds. Another classification based on electoral laws and the possibility of ethnic representation (Bochsler 2010:9) referred the Czech Republic and Estonia to the group "countries in which (some) minorities are de facto excluded from their own representation because the legal national threshold is too large to pass". In the same classification, Lithuania is treated as a "country in which (some) minorities are de facto excluded from their own representation because the districts are too small for (some) non-concentrated minority groups"[18]. This classification leads to the issue of electoral system chosen in a state. As Table 3 shows, only Lithuania has a mixed electoral system, all

17 There are three officially recognised types of ethnic communities in Poland: national minorities, ethnic minorities and regional languages. Only national minorities have facilitations for political representation.

18 Poland is in the group „countries that do not apply any thresholds for parties representing minorities".

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the other states formed pure proportional (PR) systems. In the above-mentioned paper Bochsler emphasises not just the type of electoral systems and their typical elements, but also the territorial character of an ethnic community regarding its political representation (Table 4). For regionally concentrated ethnic communities – as are the examined cases – both majoritarian and PR systems can be appropriate in order to get representation, but high national thresholds may hinder ethnoregional parties to take part in parliaments.

Table 4. The joint impact of the electoral system and the degree of territorial concentration (theoretical model)

	Concentrated group	*Spread-out group*
PR with small districts or majoritarian systems	yes (in stronghold)	no
PR with large districts	yes	yes
PR with high national thresholds	no	no

Source: Bochsler 2010:12

Taking a look at the election results of ethnoregional parties (Table 5), their lack of success is general, only the Polish and the German minority are represented stable in national parliaments. Unequivocally those parties accessed the representative body which were beneficiaries of the election system (German Minority) and were able to mobilise the most of the ethnic community (Electoral Action of Poles in Lithuania). Other parties achieved numerically better results only if they entered the elections in coalition, but without materialised mandates. Comparing the number of votes to the size of the ethnic communities, the lack of successful mobilisation is conspicuous. Probably ethnic voters choose nationwide parties instead of ethnoregional ones[19] on the chance of steady and better representation of their personal economic, social interests or ideology. The weakness of ethnoregional parties in national politics and within the party system, the dissimilarity between significant issues of voters and parties, the lack of trust in ethnoregional parties or in politicians/parties in general, and the fear of possible failure can all withhold ethnic voters from supporting ethnoregional parties.

19 As Nakai (2014) points out, due to the favourable changes in ethnic policy, ethnic Russians began to support the Centre Party after 2000 instead of Russian parties.

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Table 5: Electoral results of selected ethnoregional parties

Ethnoregional party (country code)	*Former elections (2007, 2008)*			*Former elections (2011, 2012)*			*Last elections (2015, 2016)*		
	Valid votes (N)	*Votes (%)*	*Mandate*	*N*	*%*	*m*	*N*	*%*	*m*
Constitution Party (EST)	5,464	1.0	0						
Russian Party in Estonia (EST)	1,084	0.2	0	5,029	0.9	0			
Estonian United Left Party (EST)	607	0.1	0	12,184*	2.1	0	,764	0.1	0
Electoral Action of Poles in Lithuania (LIT)	59,237	4.8	0 (+3**)	79,840	5.8	5 (+3)	69,810*	5.5	5 (+3)
Moravians (CZE)				12,552	0.2	0	11,914	0.2	0
German Minority (POL)	32,462	0.2	1	28,014	0.2	1	27,530	0.2	1
Silesian Autonomy Movement (POL)							18,668*	0.1	0

Source: Author's compilation based on national election offices
*Notes: *in coalition*
***mandates in parentheses are gained in single-member constituencies*

Conclusions

By definition, ethnoregional endeavours have different forms and objectives that are rooted inter alia in the geographical, economic and social position of a given community or party. This variegation of aspirations can be observed also in Central and Eastern Europe. Some ethnoregional parties – such as Silesian Autonomy Movement or Moravians – have expressed territorial claims besides ethnic issues, while others just wish to broaden minority rights and represent the ethnic community (as Electoral Action of Poles in Lithuania, Estonian United Left Party or the German Minority).

As it has been seen above, not all of the examined ethnoregional regions are typical and unequivocal peripheral areas in terms of different centre–periphery relations. In respect of geographical position, the majority of regions are more or less peripheral, with the exception of capital city regions. On the basis of economic issues two equal groups could be formed, a developed and an under-

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developed one. The social aspect of centre–periphery relations were analysed primarily through the elements of political access; according to this, peripheral and even more peripheral ethnoregional parties were identified.

Table 6. Peripheral positions of selected ethnoregional territories by centre–periphery relations

Ethnoregional regions	*Geographical*	*Economic*	*Social*
Southeast (CZE)	+		+++
Central Moravia (CZE)	++	+++	+++
Harju (EST)			++
Ida-Viru (EST)	+++	++	++
Vilnius (LIT)			+
Silesian (POL)	+++		+++
Opole (POL)	+++	+++	+

Source: Author's compilation

The peripheral positions of selected ethnoregional territories according to all three centre–periphery relations are illustrated in Table 6. The number of plus signs indicates the level of the peripheral situation. Peripheral positons in geographical sense may vary based on positional significance and location, while from the economic point of view the position in national ranking was taken into account. In the evaluation of social periphery both the status of the ethnic community and the political possibilities and results of ethnoregional parties were counted.

Considering the three dimensions together, four regions can be found with cumulative peripheral positions: Central Moravia, the Ida-Viru region and the Opole region, however, they are obviously not in the same situation. Although Southeast Moravia and the Silesian region have good conditions in economic sense, overall they are not in a much better position. Nor Moravians neither Silesians are recognised as ethnic communities, so their representation in political institutions is not ensured. The more radical endeavours of Moravian and Silesian parties – basically both aim at territorial autonomy, but in different forms – are not surprising. Despite the Russian majority in the Ida-Viru region, the ethnoregional parties do not have territorial but cultural claims in Estonia. After the problematic citizenship issue and the recent fear from Russia in the Baltic States, probably only careful steps can be taken within cultural issues. The Polish community in Lithuania is in the most advantaged situation among the examined cases: as a recognised minority, they enjoy cultural autonomy, and as a concentrated and well-mobilised community, they have stable seats in the parliament, and occasionally they participate in governments. Similarly, Germans are also in a favourable position in social/political terms, as they have almost automatic representation in parliament, but based on other dimensions, the region can be considered as rather peripheral.

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Concerning the future, radical changes in positions of ethnoregional parties cannot be expected, particularly not in the social/authority dimension, although there is a real prospect to amend the situation of these communities. Currently nothing suggests that states reconsider minority politics (recognition, minority rights), or modify electoral system in favour of ethnoregional parties. On the whole, without the political will of the majority society at national level, the peripheral position of ethnoregional parties becomes steady-state.

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HUMAN RESOURCES AND LOCAL EMPLOYABILITY SUPPORT OF YOUTH PEOPLE AT RURAL AREAS

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Abstract

The article deals with the currently highly discussed issue of unemployment among young people in rural areas in selected countries of the European Union. The article describes and characterises rural areas in the European Union in general, describes the main and most serious problems faced by these areas. It further analyses the unemployment of young people in rural areas in 9 European countries and compares the youth unemployment rate with other groups of the population and the unemployment rate in the EU. Two practical solutions that would help in overcoming youth unemployement are discussed, in particular social entrepreneurship and the development of human resources through work-based learning and apprenticeship support.

Keywords: rural areas, youth unemployment, social entrepreneurship, workbased learning, apprenticeship

JEL classification: J21, J24

LCC: HD

Introduction

The European Union is facing several problems today. One of the most serious concerns is the problem of youth unemployment in several countries of the European Union. This age group faces a particular risk of unemployment. The long-term unemployment rates of young adults have increased in many European countries. Young people are the potential and future of every country. This is the main reason why the focus should be given to this issue (Görlich et al., 2013). Mainly rural areas of these countries are strongly affected by the unemployment of young people. These are predominantly areas located in least developed regions, with high level of unemployment, poor transport availability, lack of infrastructure, low level of education and limited access to opportunities. This article focuses on the unemployment of young people in rural areas. The rural areas are

defined in this article, and the problems that people living in these areas face are pointed out. At the same time, the opportunities how to address the unfavourable labour market situation for young people in these areas are discussed. We know some policies of the European Union which deal with this issue. The European Commission has created the Youth Opportunities Initiative which is intended to fight youth unemployment. There is also the European Employment Strategy to solve the unfavourable situation.

There are a lot of different kinds of tools to solve unemployment of young people. For example macroeconomic policies, tax incentives or other labour market policies. But we also know other ways how to support unemployed young people. Social entrepreneurship and work-based learning allow for creating new job opportunities and provide ways for improving people's skills to raise their employability. Both of these tools can also provide sustainable solutions for youth unemployment.

Rural Areas and Problems in Rural Areas

Rural areas account for up to 90% of Europe's territory, with 54% of its population living there. Rural regions in the European Union account for 52% of the territory and 23% of the EU population live there (Zheliazkov, 2015). The rural areas can be defined as those parts of the economy that are least affected by the urbanisation process and are characterised by a dispersed structure of population and economic activity (Harvey, 1989).

Rural areas can be divided into four groups. The first group consists of traditional rural areas that are characterised by their geographical isolation and dominated by agriculture. The second group consists of urban peripheral areas in which employment is influenced by the proximity of densely populated areas. Other type of rural areas are seasonal areas where jobs are mainly seasonal. These are mainly areas where sectors such as agriculture or tourism dominate. In the last type of rural areas industry and industrial production dominate, but by abolishing this industry and leaving the industry, these areas have gradually begun to fall. All of these areas are characterised by no or limited access to markets, services, and education. Increased poverty and disadvantages are also associated with them.

The underdeveloped rural areas (all types) are characterised by three types of deprivation. The first type is housing deprivation, the second is deprivation related to opportunities, and the last type of deprivation is reduced mobility (Cartmel, 2000). The shortcomings in the social, economic and healthcare system can be observed as well. However, the most serious problem in rural areas is the unemployment of young people. Young people aged 16-24 are the most vulnerable group in terms of unemployment. In most European countries, unemployment in this group is roughly double that of adults. One of the main reasons for this is young people's lack of access to education and training (Cartmel, 2000).

The most vulnerable are ex-industrial and seasonal rural areas. The unemployment rate of young people in ex-industrial rural areas is much higher than in

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the other three types. In seasonal areas it is not so high, but seasonal variations are strong. Other types of rural areas are not so vulnerable (Cartmel, 2000).

Unemployment of Young People in Rural Areas

Unemployment among young people is a problem not only in Europe but also globally (Liang, 2016). The youth unemployment rate (aged 15-24) within the European Union (EU28) in 2016 was 18.5%. This represents more than 9% of the total population. Currently, around 90 million young people (aged 15-29) live in the European Union (EU28), representing 17% of the EU's total population. Overall, the level of youth unemployment does not have an immediate impact on the economic situation in the European Union, because people under the age of 25 usually still attend a form of higher education, although at least a part of them are considered in statistics as eligible for work. However, some countries and regions within the EU, where the unemployment rate for young people is over 40%, cope with serious problems. In particular, there is an estimated 7.5 million young people in Europe who are unemployed, with no education or training (Munteanu, 2016).

High unemployment among young people is one of the major economic and social problems with long-term consequences for individuals, communities, the economy and society as a whole. From an economic point of view, unemployment is an untapped economic potential that can be used to accelerate economic growth and development. In the last decade, the transition of young people from school to work has become longer, more complex and turbulent. Young people face problems of high unemployment, increased inactivity and job insecurity – they are three times less likely to find work as adults. Research shows that since 2008 the unemployment rate of young people (up to 25 years) looking for work has increased in all EU countries (European Commission, 2014). Inability or limited opportunities for young people to find work can have a negative impact on the overall mental health of this population (Thern, et al., 2017). Unemployment among young people (especially over a long period of time) can lead to unfavourable social and political consequences. Without job security, young people are exposed to poverty and social exclusion and are likely to become dependent on family support or even marginalised from ordinary society (Liang, 2016). Unemployment among young people can also have a negative impact on quality of future life such as lower wages or low welfare levels (Caliedo et al., 2016).

There are several reasons why young people in the EU have trouble finding a job. The first and most important reason is that they have no work experience and usually achieve lower productivity than skilled workers (Dietrich, 2015). Rural areas are characterised by lower level of economic activities than urban areas. There are much fewer job opportunities and it is more difficult to find a job for young people (Copus et al., 2006). Other reasons are the negative impacts of financial crises, inappropriate human capital but mainly the disparity between skills acquired through education and those required by employers (Guglielmo et al. 2014).

A rather more serious problem with youth unemployment is in rural areas. In addition to the above-mentioned disadvantages of these areas compared to urban

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localities, some research has highlighted the differences in the working behaviour of young people from urban and rural areas. Several studies (for example "The necessity of solving the youth unemployment", Vukovic et al., 2015) show that young people from urban areas were willing to adopt more proactive work-seeking strategies than young people in rural areas. High unemployment among young people is becoming a factor for which these people intend to migrate for better job opportunities and conditions, which may cause "brain drain". For example, research of the Center for Free Elections and Democracy (CESID) in Serbia shows that 20% of young people from urban regions, and 19% of young people from rural regions are willing to relocate to another country (Vukovic et al., 2015).

Overall unemployment rate of young people in selected countries

The unemployment rate of young people in the countries of the European Union is different and depends on several factors and national specifics. Individual countries differ in a number of economic indicators that ultimately affect the level of youth unemployment. For analysis needed, 9 countries were selected to tackle projects to reduce youth unemployment, which are listed at the end of the article.

A reason for the selection of these countries was their participation in international projects (through some organisation or institution) that were focusing on solving youth unemployment. Based on this analysis it is possible to compare the current situation of youth unemployment with the situation after realising these projects.

Table 1. Unemployment rate of young people in selected EU countries in 2016

No.	*Country*	*15-25*		*25-74*
		%	*Thousand persons*	*%*
1	EU (28)	18.7	4,241	7.5
2	Hungary	12.9	45	4.5
3	Bulgaria	17.2	28	7.1
4	Poland	17.7	244	5.2
5	Slovakia	22.2	46	8.7
6	Portugal	28.2	103	9.9
7	Cyprus	29.1	10	11.5
8	Italy	37.8	593	10.0
9	Spain	44.4	656	17.9
10	Greece	47.3	124	22.2

Source: Eurostat, 2017/a

Table 1 shows the percentage of youth unemployment (aged 15-25) in selected European Union countries in 2016, together with the total number of unemployed young people in each country. For comparison, the unemployment rate of

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other age groups of the population is shown. All of these unemployment rates are calculated from the economically active population and people who can work, want to work and who are actively looking for work. The unemployment rate of young people across the European Union has reached 18,8%; for comparison, the unemployment rate of people aged 25-74 is only 7,5%. In absolute terms, more than 4.2 million young people are currently unemployed in the EU. This means that almost every fifth young person in the EU can not find a job.

Greece possesses the worst numbers, where the unemployment rate of young people is up to 47.3%, representing in absolute terms 124,000 young people without work. Therefore, almost every second young person in Greece is unemployed. Greece belongs to those countries with the highest level of people at risk of poverty or social exclusion in the Europen Union. Greece has the highest risk of poverty of young people among all countries in EU28. According to the Eurostat, about 61% of all young people in Greece have a problem to find a full-time job. Only 7,2% of all young people in Greece reached a higher education. All of the above-mentioned facts can contribute to the negative situation about unemployment of young people in Greece. Similar to Greece, also Spain has a very bad situation,where the unemployment rate of young people is 44,4%, representing a total of 656 thousand young people. Spain faces problems with high level of people at risk of poverty and many people who can not find a full-time job. Among all selected countries, Spain has the highest level (10.3%) of young people who leave education or training early. Very interesting is the fact that 15,5% of all young people in Spain reached the tertiary level of education. It means that Spain belongs to countries with the highest number of young people with higher education within the European Union (Eurostat, 2017/c).

Another country with high unemployment among young people is Italy. According to the Eurostat, almost 80% of all young people in Italy have a problem to find a full-time job. In this respect, Italy is in the worst situation in the European Union. A reason for bad unemployment situation in Italy could be the fact that only 5,3% of young people reached higher education. This is the lowest number among all selected countries. Cyprus is also a country where a large portion of youth is unemplyoed. Cyprus represents 10 thousand of unemployed young people (29,1%). Portugal is above the EU average. In Portugal, unemployment among young people is up to 28,2%, which represents 103 thousand people. This level is approximately three times higher than the unemployment rate of people over the age of 25. Slovakia is also above the European Union average, and youth unemployment is 22,2%. According to the Eurostat, Hungary, Bulgaria and Poland are countries where the youth unemployment rate and the risk of poverty are the lowest among all analysed countries. These countires have a very low rate of people who can not find a full-time job. These facts contribute to reduce the unemployment rate of young people. Poland has also a very low rate of people at risk of poverty or social exclusion and only 3% of young people who leave education or training early (Eurostat, 2017/d).

When comparing the unemployment rate among young people (aged 15-25) with the unemployment rate of other age groups (aged 25-74), it is obvious that the youth unemployment rate is several times higher than the unemployment rate of other population groups. In most countries, the difference is more than doub-

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le, while in some countries it is more than threefold. The gathered data shows that young people aged 15-25 are representing the group with the highest risk of unemployment.

Comparison of the unemployment rate of young people in rural and urban areas in selected countries

Unemployment among young people depends mainly on where these people live. In rural areas, there is generally less employment opportunities than in urban areas, therefore it is evident that there is a higher unemployment rate in rural areas.

Table 2. Comparison of the young people's unemployment rate in rural and urban areas in selected EU countries in 2015

No.	*Country*	*15-24*		*25-*	
		Rural (%)	*Urban (%)*	*Rural (%)*	*Urban (%)*
1	Greece	50.2	47.1	21.3	24.4
2	Spain	45.1	47.5	17.5	19.9
3	Italy	36.0	43.5	9.4	10.9
4	Slovakia	34.1	14.5	12.9	5.2
5	Portugal	33.0	34.7	9.2	12.6
6	Poland	24.6	14.7	7.1	5.1
7	Hungary	22.1	12.6	7.9	4.7
8	Bulgaria	20.5	9.1	12.0	4.1

Source: Eurostat, 2017/b

Table 2 shows a comparison of the unemployment rate of young people in rural and urban areas in selected EU countries. Also, there is a comparison of the unemployment rate of people over the age of 25 in rural and urban areas.

Greece, Spain, Italy and Portugal are countries where unemployment rate of young people is approximately at the same level in both rural and urban areas. In all of these countires, both types of areas, rural and urban, occupy approximately equal territory due to similar level of unemployment. Rural areas are more vulnerable than urban areas, but within these countries more people live in urban areas, so there is a greater possibility of a higher number of young people unemployed. Greece is in the worst situation, where the unemployment rate of young people in rural areas is higher than 50%, compared to urban areas where it is 47,1%. Nevertheless, in Spain, Italy and Portugal, the unemployment rate of young people in urban areas is slightly higher than in rural areas.

Another group consists of countries where the unemployment rate of young people in rural areas is significantly higher than in urban areas: Slovakia, Poland, Hungary and Bulgaria. The characteristics of these countries is that significant part of their territory is formed by rural areas. That could be a reason for the very different levels of unemployment in rural and urban areas. About 60% of the population in these countries lives in urban areas and about 40% in rural areas (Eurostat, 2017/e). The unemployment rate for young people in rural areas in

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Bulgaria is 20,5%, which is more than double the urban areas. In Hungary, the unemployment rate for young people in rural areas is 22,1%, which is almost twice as high as in urban areas (12,6%). In Poland, the unemployment rate of young people in rural areas is 24,6%, and in urban areas it is 14,7%. In Slovakia, the unemployment rate of young people in rural areas is 34,1%, which is more than twice as high as in urban areas where it is 14,5%.

The data show that young people are the group mostly at risk of unemployment. In all selected countries, the unemployment rate of young people is several times higher than in other population groups. In almost all of the analysed countries, the level of unemployment was higher in rural areas than in urban areas. It means that young people from rural areas are the most vulnerable population in terms of unemployment.

Selected projects to address youth unemployment through social entrepreneurship, work-based learning and apprenticeship education support

There are several ways how to solve youth unemployment in rural areas. We know some state measures that try to solve this problem nationwide. But we also know other ways how to improve the situation of young unemployed in rural areas. We could consider social entrepreneurship and work-based learning and apprenticeships as a tool for solving youth unemployment. It could be more effective than traditional tools used by the government; social entrepreneurship and work-based learning can help young unemployed people in areas where it is needed the most, because these tools focus on smaller specific areas and it is realised by people who know these areas and understand situations and problems there. Social entrepreneurship could provide new job opportunities for disadvantaged young people in rural areas and work-based learning and apprenticeships could prepare young people to get skills and experiences required in the labour market. Currently, the Erasmus + programme provides opportunities to get financial support for projects related to both of these topics.

Social economy entrepreneurship and local development

One of the options that could help to tackle the growing problem of youth unemployment within the European Union is social entrepreneurship, as this type of business is aimed at delivering social benefits. Social businesses can also focus on helping and employing young people who have trouble finding a job.

Social entrepreneurship can be defined as an entrepreneurial activity aimed at solving social problems. At present, we observe an unequal understanding of the concept of social entrepreneurship, which may also cause problems in scientific research in this area. The reason for the inconsistent concept of social entrepreneurship is that the social business can be seen from multiple angles and views, such as economic, social or political (Zahra et al., 2009). Despite the differences in the definition of social entrepreneurship, three important criteria

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in distinguishing social entrepreneurship from ordinary or traditional business were recognised. These criteria include the importance of a social role in entrepreneurship, the importance of innovation and the role of earned income. Social entrepreneurship can be seen as a process of value creation by finding new combinations of resources (Lepourte, 2013). Social entrepreneurship is aimed at addressing social issues that are not sufficiently addressed by the state, civil society or the market (Bosma et al., 2010). Social entrepreneurship can take many forms. Social entrepreneurship can be created within small local businesses as well as in large multinational companies, and the social benefits of this business can be targeted and limited to small local communities or communities scattered around the world (Brooks, 2008).

Social entrepreneurship applies if a person or group

- focuses on creating social value,
- focuses on showing the ability to recognise the benefit and opportunity to create social value,
- focuses on using innovation and innovative ways to create social value,
- is willing to accept the increased risk that arises from creating and spreading social value.

Social entrepreneurship can be seen as a process involving the innovative use and combination of resources to accelerate social change and address social needs. The main driver for social entrepreneurship is a social problem that needs to be addressed. Therefore, the company applies a particular organisational form that is most suitable for the effective and efficient mobilisation of all necessary resources to address the problem (Urbano, 2011).

The social economy through social enterprises employs more than 11 million people in the European Union, representing around 6% of total EU employment. Social enterprises focus on providing jobs mainly for disadvantaged groups of people. Unemployed young people are among such a group and therefore social enterprises are a tool to improve the unemployment situation of young people in the European Union.

In 2014, 8,410 social enterprises were registered in Spain, employing more than 35,000 employees. In Italy, 94,030 social enterprises were in 2011. These businesses in Italy employed over 550,000 people (European Commission, 2016/a). In Poland, 20,748 social enterprises were registered in 2014, employing over 82,000 employees. In Slovakia, there were 3,737 social enterprises registered in 2014 (European Commission, 2016/b).

ERASMUS+ Project Education for Local Development of Rural Areas – ELDORA[20]" is aimed to improve the employment of young people and the quality of life in rural areas through increased employment and economic development of rural areas. The target group consists of young people at their final year at schools, organisations (schools) dealing with trainings and dissemination of information

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in the field of local and regional development in the rural regions and groups active in municipalities and micro-regions – local leaders, mayors, other local government employees, small and medium-size entrepreneurs, non-governmental organisations. The most important indirect beneficiaries are unemployed from risk groups, especially young unemployed people. Within the project a Handbook "How to Establish and Manage Social Enterprises" and a learning course "Social entrepreneurship – Local development driven by utilisation of local sources" will be prepared by using gamification. By developing a game on social entrepreneurship and its utilisation at schools young people will be supported during acquisition of skills and attitudes to start and run a social enterprise. By implementation of the project a rise of awareness and motivation is expected among young people to start their own social entrepreneurship and simplify the process of educating young people in the field of social entrepreneurship.

Work-based learning and apprenticeships

Work-based learning (WBL) and apprenticeships provide an additional option to tackle the issue of youth unemployment. As mentioned above, one of the main causes of youth unemployment is a significant mismatch between the skills and competences currently required by employers in the labour market and those acquired by young people through the education system. The European Commission identified in its strategic document "Rethinking Education: Investing in skills for better socio-economic outcomes" work-based learning and apprenticeships as a key strategic priority for reconciling learning and skills with the aim of reconciling the demand and skills of young people on the labour market required or offered respectively. The focus is on small and medium-sized enterprises, as this group of companies accounts for up to 99% of all businesses in the European Union and employs 2/3 of all employees (European Commission, 2012).

Work-based learning is considered to be a powerful tool for developing work skills and promoting labour productivity. Implementation of this type of education and training requires an active approach of businesses to this issue. The model of work-based learning consists of activities such as apprenticeship, dual education programmes or internships defined by a specific set of skills to be acquired over a certain period and having a specific funding mechanism. All of these activities focus on young people and improve their skills (OECD, 2017). Work-based learning and apprenticeships help young people to gradually transit from school to work (CEDEFOP). Training in education is a successful form of workplace learning and greatly facilitates the transition from education and training to work. Research suggests that countries with a strong Vocational Education and Training system and apprenticeship have a lower unemployment rate of young people (EAfA, 2017).

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ERASMUS+ project "Return on Investment of Work Based Learning and Apprenticeships –ROI[21]", suggests the development of a return on investment (RoI) model and digital tool that will allow European SMEs to calculate and visualise how investment on WBL and apprenticeships can manifest to multiple benefits. The direct target groups are SME's, entrepreneurs, managers and staff as well as VET providers (vocational training centres, professional schools, employment centres) that cooperate with SMEs for the provision of WBL and apprenticeships. The main results of the project are the model for the calculation of RoI of WBL and apprenticeships by SMEs, a digital online tool that will demonstrate in visual way the RoI model, a Good Practices Guide addressed to SMEs, giving guidance on how to design, implement and monitor profitable apprenticeship practices which can benefit the enterprise, the apprentice and the entire society, and creation and promotion of an apprenticeship-friendly SMEs badge to increase the engagement of companies in the provision of WBL. By implementation of the project better approaches of SMEs to work-based learning, apprenticeships and dual education are expected. The well-functioning system of WBL and dual education can contribute to the better preparation of young people for labour market needs and rise ability of young people to find a job.

Conclusions

Unemployment among young people is an increasingly serious problem today, with rural areas being the most vulnerable in this respect. In the article, the rural areas, their characteristics and specifics, as well as the problems they face were described. Based on the analysis of youth unemployment in rural areas in selected European Union countries with the comparison of the unemployment rate with urban areas and the unemployment rate of other age groups, the conclusion has been drawn that young people living in rural areas are the most vulnerable population. Some options for dealing with this situation have been offered. Social enterprises and the development of human resources through work-based learning are the most important tools to address the worsening unemployment situation of young people in the EU.

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ECOTOURISM: A NEW ECONOMIC TREND IN ECUADOR AND AN ALTERNATIVE METHOD FOR CONSERVATION OF NATURAL RESOURCES

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Abstract

The article is a short review of ecotourism as a new economic trend in Ecuador, presenting how private forest reserves belonging to the National System of Protected Areas (Sistema Nacional de Áreas Protegidas, SNAP) have contributed to the development of this new economic activity. This review is based on the experience of two private organisations working on biodiversity and natural resources conservation in Ecuador. The former is located on the western coast, in the province of Manabi. Its primary resources are dry forest and marine ecosystem. The latter is located in the Andean region, in the province of Tungurahua, which is rich in water resources and biodiversity. The objective of this paper is to present ecotourism as an important tool to generate sustainable income and preserve natural resources for future generations, and include as part of the framework of the smart communities.

Keywords: Ecotourism, Smart communities, Ecuador, Hungary

JEL classification:Z3, Q26

LCC:GV

Introduction

One of the most important aspects of the last century has been globalisation. It has created new opportunities for interaction between different cultures and beliefs. Taking this as a starting point, and considering the perspective of nature conservation, ecotourism is a tool that allows diverse cultures to maintain and preserve their traditions, folklore and natural landscapes. It also applies a differentapproach to the traditional one that characterises globalisation, which

is focused on the economic trade and based mostly on the extraction of natural resources (Rodríguez, 2017).

However, in recent years the incorporation of the practice and concept of the smart communities also become part of the guidelines to encompass sustainable development in rural areas and cities linking the new technologies and social process as part of whole. By definition according to Smart Community International Network (SCIN): "A Smart Community is a community with a vision of the future that involves the application of information and communication technologies in a new and innovative way to empower its residents, institutions and regions as a whole. As such, they make the most of the opportunities that new applications afford and broadband-based services can deliver – such as better health care delivery, better education and training, and new business opportunities" (Lindskog, 2004).

In the last twenty years, ecotourism has become more and more popular in countries with diverse natural resources such as biodiversity, landscape, water, soil or specific cultural values like identity, local traditions, art, and history. In fact, all these elements, which are part of the daily life all around the world, are exploited by ecotourism (Rodríguez, 2017).

This alternative approach combines natural, social and community values that allow hosts and guests to enjoy a positive and worthwhile interaction and create common experiences (Newsome et al, 2005). It is characterised by five key features: nature-based, ecologically sustainable, environmentally educative, locally beneficial and satisfactory for tourists (Dowling, 2001 in Newsome et al., 2005). These characteristics ensure the protection and conservation of wildlife, nature, cultural richness and maintenance of ecosystems services. Ecotourism also features an educative component which is created by the involvement of visitors in conservation actions. Their interaction with the local communities results in a continuous feedback and creation of awareness between them and the hosts and constitutes a multicultural process. Under the umbrella of environmental education, the local communities learn how to empower and take care of their natural resources and use them in a sustainable way. But the benefit does not go only to the local communitiessince tourists also gain knowledge and experience, and a network can be built. Understanding the role that education plays in preserving multiculturalism and conserving the natural heritage is one of the biggest challenges for our societies. Cultures, at a global scale, differ from nation to nation and even from region to region (Varga et al., 2017). Ecotourism has the ability to incorporate different cultures around the world and build a bridge among them, creating the possibility to develop a global cultural intelligence (Varga &Szira, 2016).

The development of management plans is essential for building a stronger and longer-term sustainability within ecotourism.Furthermore, ecotourism also generates important incomes that support local development, programmes of conservation and national tax revenues.

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Ecotourism involves visits to areas that are under some form of environmental protection by governments, private owners or entrepreneurs (Honey, 2008). It also involves practices and policies to achieve specific conservation goals in different scales of time, for instance, the idea of ecological corridors addresses the problems derived from isolated ecosystems. Protecting biodiversity could be a prime objective on private lands and the buffer areas. Ecological corridors connect same types of habitats and habitat complexes and guarantee the flow of genes between isolated populations of plants and animals and enhance their survival (Németh, 1995).

Ecotourism has been growing for several years until becoming the new trend for entrepreneurial and business managers, leading to a new industry in the economic market. It was in the 1980's when this activity arose (Honey, 2008), and is on constant expansion till date. Furthermore, a set of different domestic and international policies have been established, providing a legal body. In this sense, The United Nations Environmental Programme (UNEP) and The World Tourism Organization (UNWTO) have held conventions and agreements that have prioritised the sustainable management of this activity.

Tourism increased by 25% from 1995 to 2005. Similarly, the World Tourism Organizationhas predicted an increase greater than 100% in the international arrivals for 2020 in comparison with 2004 (UNEP–UNWTO, 2005). Furthermore, in 2016, the global earnings from tourism reached 1,260 billion USD and is one of the major diversified activities of the world economy (Irizarry, 2017). The UNWTO reports that 14 countries have generated an estimated amount of 142 million USD in entrance fees from protected areas, and wildlife tourism, which includes ecotourism and is growing at a rate of 10% per year (UNWTO, 2015). Regarding nature-based tourism, it accounts for 20% of the total international travel rate and continues to grow, according to the UNWTO (CREST, 2016). In fact, its annual growth is about 20-34%, which is faster than the growth rate of general tourism. It is estimated that 12 million trips for wildlife tourism take place each year (Anonymous, 2017). Finally, this document provides a short view of ecotourism development and practice in Ecuador by describing two private initiatives and their management of natural areas considering principles of nature conservation and sustainable development. Such initiatives encompass working communities, international organisations of cooperation, and governmental agencies.

Additionally, we illustrate the growing tendency of ecotourism activity in the last years in Ecuador, and discuss why the National System of Protected Areas (SNAP) is important to maintain this trend. Policies applied for ecotourism are reviewed as well. This article also presents this idea to the related Hungarian community, such as educators, managers of natural resources and stakeholders to encourage them to consider the advantageous inputs of this activity.

This review was prepared by collecting and analysing documental information obtained from different websites of specialised institutions. These materials refer to the Natural History of Ecuador, tourism evolution in Ecuador, and the

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role and experience of The Bálsamo Biocorridor and The Ecominga Reservations network. Both are private organisations focused on the sustainable use of natural resources.

Ecotourism as a conservation tool in Ecuador

Ecuador's area is 284,000 km2and is divided into 4 natural regions. The first is the Andean highlands with altitudes between 1800– 6263 m AMSL, i.e. above main sea level. The second is the Coast, located in the western lowlands and surrounded by the Pacific Ocean. The third is the Amazon in the eastern part of the country, known as the always green land and crossed by several rivers that are major tributaries of the Amazon River basin. The fourth region is the Archipelago of Galapagos which is a complex of volcanic islands located at 972 km to the west of Ecuador mainland.

Ecuador is included among the 17 megadiverse countries and owns the highest biodiversity in the world when considering species number per unit area (0.017 species/km²) (Lessmannet al., 2014, MAE, 2016a). This richness is due to the joint effect of the following factors: the geographical situation of the country located in the tropical zone; the Andes mountain range crossing longitudinally the country and providing a broad range of altitudinal zones; and the Amazon basin and the PacificOcean, which are sources of humidity. All these factors have determined the development of many ecosystems and habitats that harbour 7.2% of amphibian species, 4.2% of reptile species, 16.6% of bird species, 8.1% of fish species, 7.0% of mammals species and 6.8% of vascular plants species of the world (MAE, 2010b; MAE, 2016a).

The major threats to biodiversity are the degradation of ecosystems, change in land use mainly due to the expansion of the agricultural frontier, increasing human population, industrial growth and climate change. This last is perhaps the most significant variable to take into consideration as the main driver for ecosystem deterioration. It jeopardises the capacity of ecosystems to perform their functions and provide the necessary conditions not just for the wildlife survival but also for human development (Bendix et al., 2013). To address these threats, measurements and policies have been taken to preserve biodiversity and ecosystems function through the creation of protected areas. This process started in 1934 when Ecuador set the basis and guidelines to conserve the Galapagos Islands. Later, in 1968, the Pululahua Geobotanical Reserve was the first protected area established in the mainland (Elbers, 2001). Finally, in 1976, The National System of Protected Areas was officially created (Santander et al., 2009). This system encompasses The Public Network of Protected Forests (Áreas de Bosque y Vegetación Protectora, ABVP), The State Reserves Network (Patrimonio de Áreas Naturales del Estado, PANE), The Counting Conservation Areas, The System of Private Reserves, and communitarian and indigenous reserves. In total, 19% of the mainland and 13% of the marine area are under protection (López et

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al., 2017). Protected areas are also a tool for conservation and a strategic instrument for mitigation and adaptation to the climate change (UICN, 2011).

Nowadays, the paths that humans should take to develop their societies are being considered on a global scale. One of them is ecotourism, which appears as an important alternative for a sustainable use of natural resources in the long term. It provides a secured niche market with many branches such as environmental education and scientific tourism. These are popular areas where volunteers and students around the world spend time learning, teaching, and getting to know new cultures and bringing back experiences to their communities.

Based on the current situation of the world, it can be said that the common practices of the economy are devastating all the exotic and paradisiac places around the globe. The main alternative is to re-evaluate the current practices for utilising the natural resources, by the incorporation of clean technologies, renewable energies, international education and respect to ancient traditions of different cultures (Rodríguez, 2017).

Results

Tourism in Ecuador ranks third among the non-oil exports, and contributed to the GDP with USD 1.075,5 million in 2016 (MINTUR, 2017a). The contribution of tourism have registered an increment since 2007, reaching its highest peak in 2014, when the tourism worth was USD 1.376 million (Figure 1), followed by a reduction, which concurs with the decrease of the Ecuadorian GDP in 2015 (Figure 2) (MINTUR, 2017a; MINTUR, 2017b; World Bank, 2017).

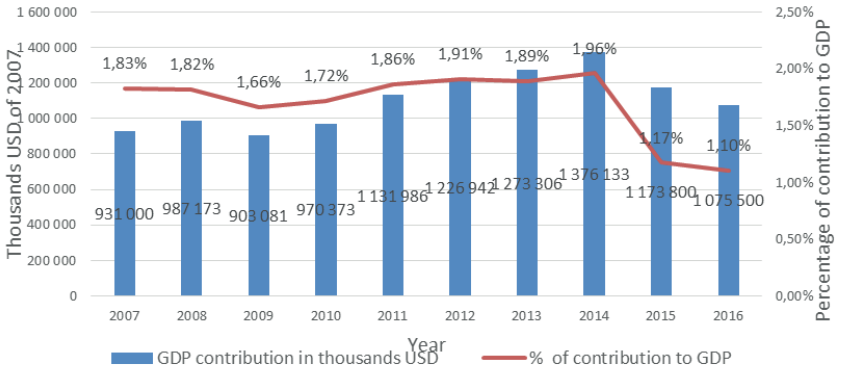

Figure 1. Tourism contribution to GDP in thousands USD of 2007 and percentage.
Source: Ministerio de Turismo, 2017; World Bank, 2017

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In Ecuador, the Ministry of Environment is responsible for the administration and management of the natural resources. It also regulates and gives the guidelines for the maintenance of natural heritage in the country. Another function of this institution is the administration of the SNAP which includes four subsystems presented in Table 1.

Table 1. Structure of the National System of Protected Areas in Ecuador 2017

SNAP	Public network of protected forests and Protected state reserve network (ABVP and PANE)
	Counting conservation areas
	Communitarian and indigenous reservations
	System of private reserves

The SNAP is the main touristic destiny of Ecuador. In 2014, 68% of foreign tourists stated that the main motivation to visit Ecuador was to go to any of the protected areas and 20% of them visited at least one located on the mainland. During that year, the SNAP registered an income of USD 527 million which represented 35% of the income generated by tourism. From this amount, 15% corresponded to the areas located on the mainland and 20% to the Galapagos Islands (MAE, 2015c).

The most visited protected area is the Galapagos National Park, where a growth trend is observed. In 2006, 161.850 tourists arrived at the islands whereas, in 2016, the number of visitors increased up to 218.365 (Dirección, 2016). Similarly, the number of tourists visiting the SNAP in the mainland has increased since 2010, from 350.000 to 1.6 million in 2014. This tendency could be explained in part by the reduction of the entrance fee in 2011 followed by its elimination on 2012, but also by the investment that the Ecuadorian Ministry of the Environment has made on infrastructure and improvement of the tourist offer between 2011 and 2014. Additionally, the number of domestic tourists increased by 50% from 2006 to 2014, and, in the last year, Ecuadorians represented 71% of the visitors (MITUR, 2015b).

It is important to point out that the SNAP provides legal status and specific policies to each subsystem as well as technical support and directions. It also financially supports all the members belonging to each subsystem.

During the last 27 years, private reserves have become important and necessary for the conservation of natural resources and sustainable use of biodiversity. The first private forest in Ecuador gained recognition in 1968, since then until now 168 private forests have been recognised by the Ecuadorian Ministry of the Environment. In total 2,476,093.03 of hectares are being preserved and managed by private owners. Figure 3 displays the fluctuation in the number of private forests recognised each year by the national authority of the environment in Ecuador during the last 48 years. It is possible to note that the highest rate occurred in 1994

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when a total of 20 forests were recognised. From this year the tendency shows a decrease till 2016. The SNAP is currently working on the guidelines and legal procedures for the total incorporation of the private reserves into the correspondent subsystem (Subsistema de Áreas Protegidas Privadas, APPRI) (MAE, 2013d).

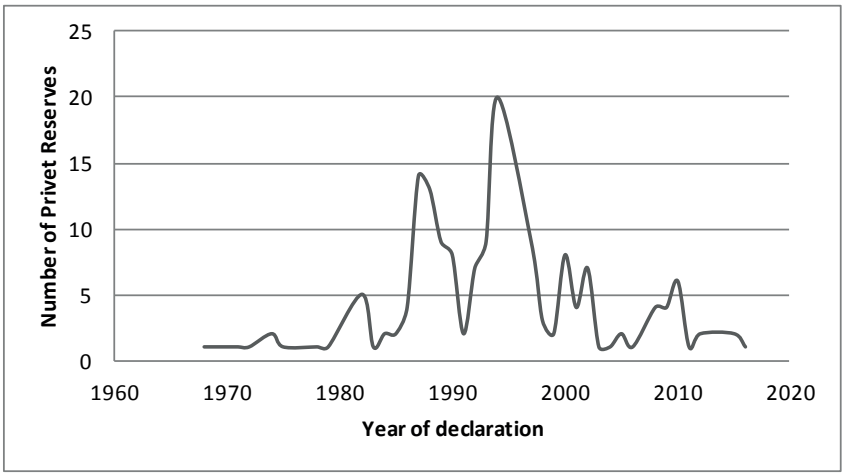

Figure 3. Fluctuation in the number of private forests recognised by the national authority of the environment in Ecuador from 1968 to 2016
Source: Ecuadorian Ministry of Environment, 2017

The biocorridor of the Bálsamo– Manabí – Ecuador

The Bálsamo is a small extension of a mountain range in the Coast, belonging to the province of Manabi. It is surrounded by the Pacific Ocean and the main ecosystem is the dry forest. It is also divided into two bioregions known as the Chocó and the Tumbesina, both classified as priority habitats for the conservation of species. The area of the Bálsamo is approximately 20,000 hectares, characterised by two well-marked seasons with precipitation from late December to early April and temperature between 20 and 24 °C. The climate regime is directly influenced by the presence of the sea currents of Humboldt and El Niño or Southern Oscillation (BirdLife, 2017a). The range of elevation is from 0 to 234 m AMSL. This area presents a mosaic of endemic flora and fauna and in 2008 was categorised as an Important Bird and Biodiversity Area (IBA) with the criteria: A1 and A2 (BirdLife, 2017a). More than 400 bird species have been registered,of which 19 are endemic, together with 150 mammal species and 9 reptile species (RBCS, 2017).

A small group of owners of small farms and touristic facilities agreed in 2008 to establish a project with the purposes of connecting their lands and generating a new alternative of economic income based on an environmental friendly activity, since the intensive use of primary resources as wood and the expansion

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of agricultural frontier began to affect the quality of this ecosystem drastically. With this background, they started the process, firstly, by creating a legal organisation and then including their areas within the SNAP under the category of private reserves. The next steps were the creation of different activities to offer visitors the opportunity to collaborate in the mitigation of the most important issues of the area. These activities included reforestation with native species and an agricultural organic farm. Furthermore, ecological trails that connect all the reserves have been incorporated for tourism, also, programmes for national and international students in the fields of ecology, biology and rural development have been implemented. Policies and management regulations for the use of natural resources are also part of the framework of this organisation. Nevertheless, work with the local authorities, communities in programmes of sustainable development run by volunteers and the members of the organisation have been set. All these activities are also linked to other brotherhood organisations around Ecuador giving the chance to the visitors to know more about conservation in others areas (Rodriguez, 2017).

It is important to stress that ecotourism also involves the rescue of cultural values of the people living in this area. As a result, it was decided to build the ancestral trial of the Caras. This was inspired by the old routes and pathways used by the ancient people of the Caras (Tamariz& Rinaldi, 2012).

The principal achievements of this group of private reserves are the legalisation of the individual members and fulfilment of the paperwork needed to be part of the SNAP. The biocorridor is formed by 8 reserves with a total amount of 964 hectares. Furthermore, the legal entity Association Cerro Seco for the conservation and development of the natural resources was created in 2010 when all the members of the Bálsamo mountain range were making ecotourism in this area. And finally the consolidation of the Biocorridor of the Bálsamo occurred in 2012 as a part of the project Biocorridors for the Good Living, which is managed and supported by the Ministry of Environment of Ecuador, and whose goal is the connection of the different ecosystems in the area and promote the sustainable development in the region (Rodriguez, 2017).

These actions have generated important learning experiences; in fact, they have led to the establishment of one important goal which is the creation of a suitable model for the use of the natural resources of the Bálsamo mountain range with a focus on the trees species that are mainly traded by illegal deforestation. Another goal is the restoration of wildlife populations in long-term by reforestation. Given that agriculture is essential for the survival of the human population, the designation of areas for food production have been taken into account. In addition, the interaction between the local community, the volunteers, and students have generated positive impacts in the way of thinking of the people that live in this area, creating awareness about nature and its services. Finally, multicultural learning experience among all the actors has played an important role and its importance has to be considered as the core.

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Looking into the future, there are still more than 54 additional private landowners in the Bálsamo mountain range and approximately 80% of its area is not under the SNAP. It is expected that the promotion of the activities mentioned above could encourage more local private landowners to join this initiative (Rodriguez, 2017).

The system of private reserves of Ecominga–Baños– Ecuador

Bañosis located in one of the most iconic placesof Ecuador, the upper basin of the river Pastaza and surrounded by tropical forest from the foothills of the eastern Andes slopes. The annual precipitations are between 2001–4501 millimetres annually and the elevations are between 1000 to 5300 m AMSL. This specific climate, geology and geographic conditions turn this area into a hotspot with a variety of ecosystem types such as cloud forest, tropical rain forest, and alpine grasslands on the western edge of the Amazon basin in the provinces of Tungurahua and Pastaza (Jostet al., 2009). These microhabitats harbour uncountable restricted species of flora and fauna (MECN et al., 2013). In this area, 242 bird species have been registered, five of which have a restricted range and can be also found in Colombia and Peru, also 101 mammal species, 100 amphibians species and 80 reptile species (Birdlife, 2017b). 40% of the amphibian and reptile species are endemics (MECN et al., 2013). Regarding plants, 180 are local endemic species and 100 endemic orchid species have been found (Ecominga, 2017). It is important to mention that this area is located in between of two national parks, the Llangates and Sangay and in 2002 the biocorridor Llanganates-Sangay was created to improve the connectivity between them. More than 95% of the reserves of Ecominga Foundation are located strategically within this biocorridor (Rodriguez, 2017).

Unfortunately, large areas of primary forest were destroyed in the 1950's, when the exploitation of oil started and during the agrarian reform in 1960's. This trend continued with less intensity during the next years causing alarm among the scientific community. In 2006 a group of concerned Ecuadorian and international botanists and conservationists established the Foundation Ecominga under the regulation and supervision of the Ecuadorian Ministry of Environment. Their main purpose was the conservation of biodiversity and the habitats in the edge of the Amazon basin in east-central Ecuador (Ecominga, 2017).

Moreover, it is worth to mention that the Upper Pastaza Watershed was declared in 2002 "Gift to the Earth" by World Wildlife Fund, which served as a basis to consolidate emblematic projects such as monitoring programmes and conservation programmes of Mountain Tapir (TSG, 2010), and Spectacled Bear (Gorki et al., 2013) that are being executed together with Ecominga Foundation. Another strong component is the environmental education programme for the local communities focused on protecting the cloud forest. In addition, scientific programmes take place in private reserves as an in situ natural laboratory with national and international students from the United States, England, and other countries. These programmes consist of special courses for BA, MA and PhD

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programmes focused on Biology and Conservation Science. In total, 7 private reserves with 8,000 hectares are managed (Rodriguez, 2017).

A strong cooperation has been established as well with other actors in the conservation sector in Ecuador like the Foundation Oscar Efren Reyes, CEIBA, and Centro Shanca. International organisations also support this initiative, such as World Land Trust, Wild Waters Foundation, Orchid Conservation Coalition, Canterbury School, Naturetrek Jardin Botanique de Montreal.

The perspective of the potential of the ecotourism activity in Hungary

Hungary is another perfect example of this trend in ecotourism. Located in the eastern part of Central Europe, Hungary is famous for its ancient cultural traditions that are reflected in the activities and practices of their people. Natural resources are protected by 10 national parks that represent 10.36% of the country's territory (CBD, 2008). There are also areas protected under other categories, but the data are currently in an updateprocess. Hungary also has 8 UNESCO World Heritage Sites listed by the Hungarian Tourist Agency. There are 287 bird species and 54 important IBA's (Birdlife, 2017c).

One important challenge to be addressed about nature conservation in Hungary is the incorporation of ecotourism as a useful tool. For this, it is necessary to redesign the targets of conservation in the country. It is also important to encourage the local authorities to design local facilities to promote ecotourism as an economic alternative. Another important issue is to create an adequate structure for the management of natural resources in the country that emphasises the integration of the major productivity actives that are the agriculture production, forestry, and tourism. However other important stakeholders from the private sectors need to be included.

The incorporation of the Hungarian Academy of Sciences in the decision-making process is fundamental and essential, as well. In fact, the academy can provide a security and scientific basis in order to determine the priorities and necessities of the country to guarantee the normal functioning and restoration of ecosystems.

Conclusions

Tourism and one of its branches: ecotourism, show a growth trend worldwide. People are becoming more aware of the importance of nature conservation. And also more people can afford traveling. An increasing number of these travellers are looking for a different travel experience with a closer connection with nature. These factors are creating opportunities for eco-tourist enterprises to arise, contributing to the economy at a local and global level and protecting the environment at the same time. In the case of Ecuador, the natural conditions of the country permit the flourishing of this activity. The authorities have realised

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the potential arising from this situation and have prioritised the development of the tourist sector. Nevertheless, there is a lot of work that still needs to be done in several fields, for instance, environmental education, infrastructure and advertising enhancement and adequate staff training.

Working in nature conservation demands strategic thinking and multidisciplinary approach, perhaps the greatest challenge in nature conservation is the consolidation of common agendas among actors. The main goals are building a multilateral relationship, sharing experience, andfinancial assistance. National and international alliances have been started in both biocorridors through the years of work. The use of ecotourism as a tool for conservation allows combining multidisciplinary fields such as education and economic development. This meets the principles of sustainability that seeks the satisfaction of the requirements of the actual generation without compromising the resources for the next generations. Ecotourism uses the landscape and all their components, ecosystem, biodiversity, natural resources, and cultural heritage in a smart way. The main point is to make this activity in a synergy between the environment and tourism. The result is to present the tourist the richness and unique features of the landscape and the methods that are used by the host to achieve sustainability.

From 2007 to 2014 the contribution of the tourism sector to the Ecuadorian GDP increased up to 1.96%, however, in the next two years the contribution reduced due probably to the decrease on the Ecuadorian economy during that period. Moreover, the visits to the SNAP increased from 350.000 in 2010 to 1.6 million in 2014, explained by the elimination of entrance fees and enhancement of the tourist infrastructure inside of the protected areas.

In addition, the role that private reserves playin the conservation of the natural resources and promoting the development of economic activities with a sustainable approach in Ecuador is gaining more advocates, and entrepreneurs, individuals and communities are taking this new trend as a secured green business platform.

Education and conservation are elements that should be integrated, therefore, it is necessary that educational institutions incorporate in their programmes the possibility for their students to visit local natural areas and, if it is possible, other countries where they can learn by first hand the functioning of ecosystems. Furthermore, avoiding extinction of species is the major target in conservation, then, it is fundamental to change the vision of development and the paradigms about energy sources.

It is necessary to work with all the actors and components related to environmental conservation to determine which improvements can be done. This implies viewing all activities as part of the ecosystem web. The application of this concept and its regular improvement based on day to day challenges lead to innovating solutions to fulfil this target. The holy grail of development is to generate wealth and prosperity for all the members of a given society. The way to meet these necessities in our globalised world is by re-education and assimilation of the local knowledge and development of new technologies for a clear and clean future.

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The climate and environmental conditions between Hungary and Ecuador are different but both nations are facing the same problems. Lack of education and environmental awareness, and weak conservation efforts are results of a conflict in the interest of the different actors. This situation produces lack of coordination between organisations and governmental agencies that are not able to reach common goals.

One of the approaches that we promoted to take in consideration is the link of ecotourism as part of the framework of the smart communities that may lead to help to bring new business opportunities for people that live in rural areas as well in cities.

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REGIONAL DEVELOPMENT IN HUNGARY AND A VIEW FOR THE POLICY-MAKING IN VIETNAM

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Abstract

Regarding the achievements and challenges of the regional policy in EU countries (EU), the 2007–2013 period is the base for this research, by focusing on the regional development process in Hungary. The study will also debate the question whether there is a smart view for the policy-making in Vietnam, where the disparity between regions is increasing during the present socio-economic development.

Illustration derives, firstly, from the study of John Bachtler et al., (2014) who confirm that regional policy should focus on longer term challenges (development and restructuring). Therefore, in their view, the "structural issues are seen not only to involve socio-economic dimensions but also problems relating to sustainability. These national and international challenges continue to be the key driving forces affecting regional development and regional policy processes in many European countries" (John Bachtler et al., 2014, p. 17).

Regarding the lessons of regional development in Hungary, Aron Buzogany et al. (2013) stated that "access to funds from the EU's structural and Cohesion policy was the main attraction of the pre-accession period. They (CEE countries) were credited with offering much needed help to poor regions, increasing employment and making large infrastructural investment possible. Between 2004 and 2006, Hungary was one of the leading countries in terms of the absorption of cohesion funds" (Heil 2009).

Taking into account this circumstance, the research question of my topic is the following: What lessons can be learned from the regional development of Hungary for the regional policy in Vietnam? Alex van Trotsenburg (2014) analysed that Vietnam will find useful lessons in the experiences of the successful countries.

Therefore, the objective of this research is to find the strengths and the weaknesses of regional development in Hungary which can be flexibly recommended for policy-making in Vietnam.

Keywords: Regional development, Hungary, EU, Vietnam, policy-making

JEL classification: O1, O2, R1

LCC code: H1-99

Introduction

The key achievements in the 2007-2013 period showed how the EU regional policy helped to handle the crisis and produce growth in EU countries under two main investment funds: the European Regional Development Fund (ERDF) and Cohesion Fund. The impressive results of the programming period 2007-2013 involved: an estimated 1 million new jobs and income increased in the poorest EU regions with GDP per capita growing in these areas, 121,400 start-ups were supported, 8.3 million more EU citizens were covered by broadband connectivity, water supply systems were modernised (ec.europa.eu).

Starting from Aron Buzogany et al. (2013), the author had a detailed approach for regional development in Hungary: "access to funds from the EU's structural and Cohesion policy was the main attraction of the pre-accession period for Central and Eastern European (CEE) countries. They were credited with offering much needed help to poor regions, increasing employment and making large infrastructural investment possible. Hungary's substantive cohesion indicators continued to show growing levels of disparity among its regions (NFU 2007, p. 3). The indicators confirm that while Hungary managed rather well in attracting EU funds, it failed to convert this into effective development. This problem seems typical for most of the new member states" (Polyanszky 2011). (Aron Buzogany et al., 2013, p. 1555, 1556)

Continually, John Bachtler et al. (2014) stated that "regional policy largely focuses on longer term challenges such as development and restructuring. Increasingly, these structural issues are seen not only to involve socio-economic dimensions (e.g. growth, employment, public services and demographic issues) but also problems relating to sustainability (e.g. resource constraints and climate change). These national and international challenges continue to be the key driving forces affecting regional development and regional policy processes in many European countries" (John Bachtler et al., 2014, p. 17).

Alex van Trotsenburg (2014) stated that "Vietnam has achieved remarkably high and inclusive GDP growth since the late 1980s. GDP growth per capita increased three-and-a-half-fold during 1991-2012. The distribution of growth has been as remarkable as its pace: the bottom 40% of the population's share in national income has remained virtually unchanged since the early 1990s, ensuring that the rapid income gains got translated into shared prosperity and significant poverty reduction". However, he also expressed that "in navigating future policy challenges, Vietnam will find useful lessons in the experiences of the successful countries. What kinds of policy choices is Vietnam faced with? Vietnam's main resource is its people. Investing in promoting a universally strong human capital base, therefore, is a prerequisite for Vietnam's long-term growth." So, how to get lessons for Vietnam in regional policy?

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Point of views of regional development policies in EU and OECD countries

In the literature about regional development, Andy Pike et al. (2007) expressed that "local and regional development has historically been dominated by economic concerns such as growth, income and employment" (Amstrong and Taylor, 2000). Development can even be wholly equated with this relatively narrow focus upon local and regional economic development (Beer et al., 2003, p. 5). For Storper (1997), local and regional prosperity and wellbeing depend upon the sustained increases in employment, income and productivity integral to economic development (Andy Pike et al., 2007, p. 1254).

Terry Ward et al. (2014) had analysed that "the ultimate objective of Cohesion policy, as regards the ERDF and Cohesion Fund, is to reduce regional disparities across the EU. In the 2007-2013 period, the policy had the added task of contributing to the pursuit of the common EU priorities defined in the Lisbon strategy. This, in practice, meant earmarking a minimum proportion of the funds received – 60% in Convergence regions, 75% in Competitiveness and Employment ones – to investments for directly strengthening competitiveness and job creation – in research and innovation, human capital, business services, major European infrastructures and improvement of energy efficiency" (Terry Ward et al., European Commission – WP1: Synthesis report, 2014, p. 9). Regarding this, Table 1 shows the core indicators of the Cohesion policy programmes.

Table 1. Values of core indicators reported for programmes co-financed by the ERDF and Cohesion Fund up to end-2014

Value at end-2014	
Aggregated jobs (no.)	940,000
RTD projects (no.)	95,000
Cooperation projects between enterprises and research institutions (no.)	33,600
Research jobs created (no.)	41,600
SMEs directly supported (no.)*	400,000
Start-ups supported (no.)	121,400
Jobs created in SMEs (gross, full-time equivalent, no.)	322,100
Additional population covered by broadband (thousand)	8,400
Km of new roads (no.)	4,900
Km of reconstructed roads (no.)	28,600
Km of new railway (no.)	1,100
Km of reconstructed railway (no.)	3,900
Jobs created in tourism (no.)	16,200

** Estimated number of SMEs directly supported by the ERDF across the EU, and source: DG Regional and Urban Policy, derived from 2014 AIRs.*
Source: Terry Ward et al., European Commission - WP1: Synthesis report, 2014, p. 197

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Table 1 also shows why Terry Ward et al. (2014) had the conclusion that "the impact of Cohesion policy over the 2007-2013 period was positive and significant in all regions, even in those Member States which were net contributors to the EU Budget. This implies that the policy may have been successful over the period in achieving its main objective of reducing regional disparities – at least in Hungary – in reducing them to less than they otherwise would have been, since it is possible that disparities would have widened much further in the absence of Cohesion policy support. In regions in more developed Member States, the impact on GDP is of course estimated to have been much smaller, but it was still positive" (Terry Ward et al., European Commission - WP1: Synthesis report, 2014, p. 207).

According to the European Commission, the European Regional Development Fund aims to strengthen economic and social cohesion in the EU by correcting imbalances between its regions. During the past, regional policy in EU countries was defined as making Europe's regions and cities more competitive, fostering growth and creating jobs.

The EU regional policy funding has financed tens of thousands of projects over the years, benefiting all EU countries individually and the EU as a whole in terms of economic growth and jobs. Between 1989 and 2013, over €800 billion was allocated from the EU budget to co-fund projects targeting regional growth. So the result is that "regional policy, accounting for just over one third of the Union budget, is the EU's main investment policy for regional and urban development and growth. It has co-financed a multitude of projects over the years in every EU country, benefiting citizens and businesses alike" (European Commission, Regional policy, 2014, p. 1, 3, 15).

John Bachtler et al. (2014) had a statement about effective characteristics of regional development in EU countries. They categorised the regional policies in Europe, based on several characteristics of countries and policies: territorial challenges, such as nature and scale of regional disparities, and specific problems; the political commitment to territorial development; and national approaches to regional policy, with respect to the objectives, instruments and scale of spending. The five categories are presented in Table 2, and provide a comprehensive overview of how regional policies vary across Europe (John Bachtler et al., 2014, p. 20).

Since EU countries are also the members of OECD, therefore OECD regional development is another legislation source to answer the question: what is regional development? OECD defines it as a general effort to reduce regional disparities by supporting (employment and wealth-generating) economic activities in regions. In the past, regional development policy tended to try to achieve these objectives by means of large-scale infrastructure developments and by attracting inward investment. However, a new approach to regional development is emerging; one that promises more effective use of public resources and significantly better policy outcomes. This involves a shift away from redistribution and subsidies for lagging regions in favour of measures to increase the competitiveness of all regions (www.oecd.org).

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Table 2. Typology of national regional policies in Europe

Prominent regional disparities – regional development policy	Finland, Germany, Italy, Norway, Spain, Sweden
Diverse territorial challenges – regional competitiveness policy	Belgium, France, United Kingdom
Limited regional disparities – national competitiveness policy	Austria, Denmark, Luxembourg, Netherlands, Switzerland
Diverse geographical issues – national development policy	Cyprus, Greece, Ireland, Malta, Portugal, Slovenia
Widening regional disparities – national growth/development policy	Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia

Source: John Bachtler et al., 2014, p. 21

The issues of regional development in Hungary

The accession of regional development in Hungary can be expressed in a summary of the Ex Post Evaluation of Cohesion Policy Programmes 2000-2006: "The legislation of regional development and regional policy is promoted since the accession and entitlement of Hungary to the EU were supported by the Structural Funds. It was accompanied by a new regional division of the country, along with fiscal decentralisation. But the formulation of regional policy was problematic. The regional authorities remained weak without any financial resources of their own. The traditional territorial units of the Hungarian administration, the counties (NUTS3 level) were left intact and remained important participants in the regional development policy-making process." (Applica-Ismeri Europa-wiiw, Work package 1-Task 4, Cohesion Policy Programmes 2000-2006, p. 7, 8)

At present, promoting more for the first accession of regional development policy in Hungary, there are several regulations and strategies, like the Act on Territorial Development and Spatial Planning (XXI/1996, amended in 2016); National Development 2030; National Development and Territorial Development Concept (2014) with strategic objectives and means to focus on spatial planning, reducing disparities, competitiveness, balanced growth, accessibility and sustainability under a lead of Ministry for National Economy (Country Notes: Hungary – OECD regional outlook 2016).

The Country Notes of the OECD regional outlook 2011 showed the results of regional development process in Hungary: Central Hungary had been Hungary's engine of growth, contributing to 56.4% of Hungary's overall GDP growth during the past decade. Over the past 27 years, the only Hungarian region with a visible pattern of convergence is Central Transdanubia, which increased its GDP per capita from 20% below the national average in 1990 up to the national average in 2007. Hungary's increase in inequality is driven by its leading region gaining

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relative to other TL2 regions and by its lagging regions falling further behind (e.g. Southern Transdanubia, Southern Great Plain, Northern Great Plain and Northern Hungary). So the key challenges of regional development in Hungary are: regional disparities between east and west, development gap with the EU average, and urban rural disparities, severe peripheries (OECD Regional outlook 2011, p. 252).

So the economy of Hungarian regions is described by a study of Tamás Dusek et al. (2014) such as "the development of a region cannot be described by a single indicator, since development is a multidimensional notion and therefore the state of development can be characterised by several different indicators. The principal indicator of the regional development and its state is the GDP, which has gained an important role as the primary value indicator in the EU's regional development and grant criteria" (Dusek et al., 2014, p. 272).

Dusek et al. (2014) confirmed that population is always a merged characteristic of region. The population allocation between 1990 and 2010 decreased in each region of Hungary except Central Hungary (due to the internal migration to Central Hungary, Hungarian Central Statistical Office, 2011) and turned over between 2002 and 2004 when the population began to rise again.

Table 3. Population, 1990-2010 (number of inhabitants)

Hungary	*1990*	*1994*	*1998*	*2002*	*2006*	*2010*
Central Hungary	2,966,523	2,960,635	2,867,560	2,829,047	2,855,670	2,951,436
Central Transdanubia	1,117,989	1,112,274	1,113,371	1,120,610	1,108,124	1,098,654
Western Transdanubia	1,006,781	1,000,640	991,789	1,002,959	1,000,142	996,390
Southern Transdanubia	1,017,025	1,004,588	985,562	993,466	970,700	947,986
Northern Hungary	1,323,508	1,293,621	1,284,129	1,296,504	1,261,489	1,209,142
Northern Great Plain	1,547,520	1,528,688	1,535,061	1,559,073	1,533,162	1,492,502
Southern Great Plain	1,395,477	1,376,522	1,357,886	1,373,194	1,347,294	1,318,214
Total	10,374,823	10,276,968	10,135,358	10,174,853	10,076,581	10,014,324

Source: Tamás Dusek et al., 2014, p. 267

It is a fact that population is always an embraced factor for any economic activities in any country and it is a driving force of any decision-making in economic development from local to central government and in regional development.

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Overview of regional development in Vietnam

Hoang Ngoc Phong (2014) in the article "Discussion on regional economic institutions in Vietnam" is discussing about regional notion in general and socio-economic region in particularly, and this concept about regions is popular. However, in some scientific disciplines there are different notions about region. In detail, geography implies "region" is a geographic unit on the ground of earth. On the other hand, economics implies "region" is an economic unit. Politics implies "region" is an administrative unit. Sociology implies "region" is a settlement which has social characteristics of a community (with language, religion, ethnicity and culture).

It is a fact that region is a common notion in Vietnam nowadays but there are different conceptions and disciplines in which the baseline of dividing depends on the scale of research and orientation of development. However, spatial factor and geo-economic factor are the important indicators for partition of the regions. Therefore, economic region is a real unit, its position derives from the needs of socio-economic development of the nation in each stage or bases on the well-being. Region is a territorial part of economy, it has complex structure and it can operate individually (even if almost every region has solidarity and organic linkage with another regions of economy).

Table 4. The history of classification of regional socio-economic system in Vietnam

Stages	*Number of regions and identification*
1975 - 1977	7 agricultural, forestry regions
1978 - 1980	8 regions
1981 - 1985	4 large regions and 7 small regions
By 1986 and later	8 regions and 3 key economic zones
At present (from 2009)	6 socio-economic regions: • Northern midlands and mountain areas • Red River Delta • North Central area and Central coast area • Central Highlands • South East area • Mekong River Delta
At present (from 2009)	4 key economic zones: • Northern key economic zone • Central areas key economic zone • Southern key economic zone • Mekong delta key economic zone

Source: Hoang Ngoc Phong, http://tapchitaichinh.vn, 26/12/2014

Challenges of decision-making for regional policy in Vietnam

Vietnam still possesses 63 economic regions. Regional policy is a composition of whole national socio-economic policy, is an actor of sustainable development of the country. In this base, the conductions of classification of regional policy are the following:

- For investment: Investment policy must be made in line with regional planning, and has to be set up as an element of economic policy, a system of methods for establishing a scale, structure and orientation of one region.
- For regional structure: It is a system of methods to guarantee balanced development and complex economic efficiency to see the goal of completing regional production structures.
- For social security: The methods and official activities of Government must coordinate the relationship among society's groups to raise up well-being, improve living standard, and to use labour force in rationality.
- For human development: The unfavourable situation of population among regions was not followed by the strengthening of human resources. This policy is two-sided, in some cases it needs to promote the increase of population, in other cases it needs to prevent this increase.
- For regional space: It is an effective use upon the territory (about natural resources) of regions through the distribution of employment resources, of transport systems, of communication networks and residence areas based on the analysis of all factors and natural conditions, economics, architecture, construction and geology.

However, socio-economic region in Vietnam at present is not an administrative unit. Therefore, the distribution of state budget and investment resources for regions absolutely depends on the Central Government. According to the Law on State budget and other decisions of the annual fiscal plan, the region is not an actor of government expenditure; the investment for regions depends on the investment plan of central government and local government to develop local areas. Therefore, the region cannot operate programmes, plans and projects of regional development.

At present, regional policy is a convergence of new ideologies (with a concentration towards efficiency, economic competitiveness and equality, socio-political stability). "In Vietnam, because of the 63 economic regions, spatial economics is divided and limited, a lot of economic clusters and particular products in common advantages of provinces are not in linkage, the comparative advantages of each province cannot improve and compete, so the value chain is cut off, added value is small, investment rate is high by lack of use of common advantage on the base of dividend in domestic region and inter-region." (Hoang Ngoc Phong, 2014) The General Statistics Office of Vietnam has provided the population data of the regions, as Table 5 shows, while in Table 6 several indicators can be seen for the whole country.

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Table 5. Regions in Vietnam

Population (total, people)/Year	*2011*	*2012*	*2013*	*2014*	*2015*
Whole country	87,860,400	88,809,300	89,759,500	90,728,900	91,713,300
Region 1. Northern midlands and mountain areas includes 14 provinces	20,066,100	20,274,900	20,481,900	20,705,200	20,925,500
Region 2. Red River Delta includes 11 provinces	11,300,800	11,417,500	11,536,400	11,667,500	11,803,700
Region 3. North Central area and Central coast area includes 14 provinces	19,104,900	19,243,300	19,387,500	19,522,500	19,658,000
Region 4. Central Highlands includes 5 provinces	5,282,200	5,363,300	5,445,800	5,525,800	5,607,900
Region 5. South East area includes 6 provinces	14,799,600	15,130,600	15,459,300	15,790,400	16,127,800
Region 6. Mekong River Delta includes 13 provinces	17,306,800	17,379,600	17,448,700	17,517,600	17,590,400

Source: General Statistics Office Vietnam (GSO 2016)

Table 6. Statistics - Vietnam profile

Population: 91.7 million (UNDESA, 2014)
Area (in sq. km, 2014): 330,957.6
Poverty rate: 13.5 % (GSO/ WB line 2014)
Multi-dimensional poverty headcount: 3.9% (International measure 2013/2014, UNDP)
Per capita income: $2,111 (GDP per capita, 2015, WB)
Human Development Index: 0.683 (2015)

Sources: GSO, WB, UNDP Human Development Report
http://www.vn.undp.org/content/vietnam/en/home/countryinfo.html

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Vietnam is overpopulated, and this is an opportunity in labour force as well as a challenge in decision-making of socio-economic development planning. Therefore, an emerging issue of regional development is not only the economic growth but also sustainable development: green growth with stable social inclusion.

Practice of regional planning in Vietnam is one aspect in discipline of regional development. In Vietnam the preparation of the regional plan is a responsibility of all sectorial Ministries and agencies, and their "regions" are defined to suit the specific areas of responsibility of each Ministry. MPI (Ministry of Planning and Investment) has formally divided the whole of the country into 6 regions: (1) The Red River Delta key economic region; (2) The Southeastern and Southern key economic region; (3) The North Central area and Central Coast area key economic region; (4) Northern Midlands and mountainous area (Northwest and Northeast); (5) Central Highlands; and (6) Mekong River Delta.

MOC (Ministry of Construction) does not have nationwide system of regional boundaries but rather is assigned with the responsibility (normally by the Prime Minister) for the preparation of a regional construction plan for a specific area. Decree 08/2005 ND-CP states that a Regional Plan can be prepared for the "comprehensive function" of a region and specifies the following areas that can be subjected to the preparation of a regional plan:

- Focal economic zone,
- Industrial zone,
- Inter-provincial region,
- Town region,
- Mega-city region,
- Tourism region,
- Provincial region,
- Inter-town region,
- Resort region,
- Natural protection zone.

This list indicates that a regional plan can be prepared for almost any special purpose function and is not related to provincial boundaries nor limited to inter-provincial coordination (Lawrie Wilson et al., 2005, p. 14).

The economic reform (namely Doimoi) was launched in Vietnam from 1986, and since then Vietnam has a development success story in the global economy's map, however its challenges in overall socio-economic development are still difficulties for the whole country. Therefore, regional development is one of opportunities of Vietnam to reach the goals of sustainable development and growth.

Table 7 of monthly income among regions in Vietnam illustrates the big gap of income among regions and urban/rural areas, it causes an inequality in living standard and regional disparities are still the problem for socio-economic development. The two big river deltas (Red and Mekong – with large-scale irrigation rice cultivation) and the Southeast region (with dynamic industrial zones) are the engines of the economy. This inequality cannot be solved at once and it needs

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effective regional planning for the whole country in order to reduce the higher GINI index (0.4, GSO 2014) recently.

Table 7. Monthly income per capita by urban/ rural and specific regions in Vietnam (USD)

Year	*2008*	*2010*	*2012*	*2014*
Whole country	47.78	66.6	96.01	124.13
Urban	77.07	102.24	143.51	186.60
Rural	36.59	51.39	75.83	95.94
6 regions				
Red River Delta	51.12	75.88	112.86	153.67
Northern midland and mountain areas	31.53	43.43	60.42	75.94
North Central area and Central coastal areas	34.96	48.88	72.27	93.31
Central Highlands	38.15	52.23	78.9	94.54
South East	85.14	110.63	152.33	194.15
Mekong River Delta	45.13	59.88	86.26	109.52

Source: Own calculation based on VHLSS GSO 2014

Furthermore, the regional development planning in the north and south-central coasts in Vietnam indicates the limitations in the construction investment and the business organisation lacking connections, mutual support especially at the high level of cluster. It is proposed to establish the master regional development planning for the central region until 2020. In this document the region should build on its special characteristics, tourism advantage and international shipping as well as mitigate the regional constraints.

Table 8. SWOT analysis of central coasts region in Vietnam

Strengths – Advantage	*Weaknesses – Limitations*
• Advantageous position for numerous development potential (sea port, tourism) • Rich potential in natural resources (oil, aquaculture, cultural heritage, land) • Airport near city, industrial zone, economic zone already in operation • Abundant human resources, stable society and relatively good environment	• The system of socio-economic infrastructure is not harmonised, insufficient and scattered • Economic growth mainly relies on foreign investment but with low rate of return • Lack of professionalism in general production, particularly for the key products • Human resource has low skill; unemployment; poor corporate governance

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Opportunities – Potential	*Challenges – Obstacles*
• Better awareness of the new role of central coasts and Vietnam in the era of industrialisation and modernisation • Vigorous economic integration by Vietnam led to higher FDI and opening markets • Technology and science develop while companies have opportunities for growth	• Temporal socio-economic organisation; creation of growth peaks for central coasts, construction of leading international sea port, airport and high-way etc. • Attract high-skilled human resource, especially on design and high-quality technology • Macro-economic instability, shortage of fund and markets, narrowing export markets • Poverty reduction, natural disasters, frequent pandemics and environmental pollution

Source: Hoang Sy Dong et al., 2009, p. 58

Recommendations for decision-making on regional development in Vietnam

Regional development in Vietnam also faces with the scene of climate change. "Vietnam's long coastline, geographic location, and diverse topography and climates contribute to its being one of the most hazard-prone countries of the Asia-Pacific region, with storms and flooding, in particular, responsible for economic and human losses. Given that a high proportion of the country's population and economic assets (including irrigated agriculture) are located in coastal lowlands and deltas, Vietnam has been ranked among the five countries likely to be most affected by climate change." (World Bank group - GFDRR - Climate change team ENV, 2011, p. 1)

Therefore, several recommendations about the regional development policy can be accepted in Vietnam by the worth conclusion of Hoang Ngoc Phong (2014). Furthermore, it can cover the socio-economic conditions of Vietnamese economy and it can appreciate with the lessons from the regional development process of Hungary.

Firstly, Vietnam needs to have legal framework and legislation, a policy system as a national policy – it is a regional policy and it depends on the State. Regional development has to be based on the foundation of strong, stable institutions and policies.

Secondly, Vietnam needs to solve the relation between central and local authority in synergy of policy in order to embrace the policies of central government with the local circumstances and need to monitor strictly.

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Thirdly, regional development is long term and complex so it is necessary to realise the overall role of this task and afterwards create a theoretical framework under the improvement, training for researchers, officers, and staff of state authority departments to adopt with the issue and implement effectively strategies, programmes, and regional development policies.

Fourthly, the government needs to have a consultancy of regional development. Region is not an administrative area or plus of administrative units. To strengthen coordinated power in regions, local areas can establish a local consultancy of regional development.

Fifthly, to have financial aid resources for regional development, there is one capita resource from the state budget to construct basic infrastructures but all society also needs be mobilised to solve this matter, even to attract external capita.

Sixthly, in condition of open and integrated economy, international cooperation is an important factor of development so this content is considered for issue and implies regional strategies. The international development programmes have large influences to programmes and projects of regions, especially on linkage infrastructures of inter-region and international scale as well as on environment and sustainable development.

Seventhly, regional planning should be overall. All sectoral planning (for transport, for urbanisation, for land use etc.) needs to obey the overall regional planning to avoid a waste of money and overlap of planning. Especially, it is necessary to have renewal notion in regional planning, by creating broken administrative boundaries for enlarging each region.

Summarising, the needs of promulgation of a legal framework for regional development and regional linkage is urgent in Vietnam to replace for the encouragement in one degree or one decision of Government"(Hoang Ngoc Phong, 2014).

Conclusions

The decision-making of regional development policy is always a multi-dimensional and significant task. This is why John Bachtler et al. (2014) stated: "The objectives of regional policy are commonly discussed in terms of whether their primary orientation is to promote 'efficiency' or 'equity' although the definition of these terms varies greatly. An efficiency goal in regional policy is commonly interpreted as maximising the contribution of regions to national growth, whereas an equity goal frequently means reducing socio-economic differences between regions. In practice, the differences are not so clear cut: a strategy to reduce disparities by exploiting underutilised potential in lagging regions, or improving productivity, is likely to improve overall national efficiency. Thus, the regional policies of many countries involve a mix of efficiency and equity objectives, with different policy elements or interventions serving different objectives." (John Bachtler et al., 2014, p. 18, 19). This view is an absolute good deduction for decision-making process in regional development at government scale in Vietnam.

As for the European Union, it is also important to summarise as a conclusion,

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that "Cohesion policy, therefore, represented good value for money as well as helping to reduce regional disparities in economic development, which by creating a more balanced EU economy enables higher rates of growth to be sustained not only in the lagging regions but throughout" (Terry Ward et al., European Commission - WP1: Synthesis report, 2014, p. 212). Those lessons are really meaningful for Vietnam in general, since "to achieve ambitions for further development and growth and respond to persistent and emerging development challenges will require structural change. Vietnam aspires to become a modern, dynamic middle-income economy. Major risks are a rapidly aging population, a less hospitable global economy, climate change, and a need to keep up with technological and business innovations" (World Bank Group, Report No. 111771-VN, 2017, p. 7).

Finally, Vietnam should focus on sustainable advantages for regional development such as agriculture and a big labour force in which agriculture is playing important role for all regions (at least in national food security and livelihood for rural areas) where rural population accounts for 65.5% (GSO data, 2016) in total population and spreads in the whole country.

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