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TERRITORIAL DEVELOPMENT AND COHESION
IN A MULTI-SCALAR PERSPECTIVE

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EDITORIAL - COHESION AND DEVELOPMENT IN THE EU: A MULTI-LEVEL ISSUE

GIANCARLO COTELLA

INTRODUCTION

With the turning into force of the Treaty on the Functioning of the European Union (EU) on December the 1st 2009, *Territorial Cohesion* (Art. 3) has become a shared competence of the EU. In spite of the opportunities created by this new, albeit long anticipated situation in the field of EU cohesion policy, in line with the argumentation of the European Commission's Green Paper on Territorial Cohesion: 'Turning territorial diversity into strength' (CEC, 2008) DG Regio interim Commissioner Pawel Samecki announced that future territorial cohesion policy will be based on the principle of the three 'No's': no new legislation, no new funding, no new organizations. Be that as it may, even the most fervorous detractor of the principle cannot deny that, since the edge of the new millennium, the territorial cohesion has increasingly consolidated as one of the prime objectives of European integration. However, when one looks at the European Commission – and especially at DG Regio that is the real political owner of territorial cohesion within the latter – neither a clear definition of the meaning of territorial cohesion, nor meaningful indications on how to make this principle operational in policy terms have received relevant priority up to date. The 2008 Green Paper and the consultation process launched by the latter had virtually no follows up, and the only ongoing discussions are nowadays taking place within the so-called Working Group on Territorial Cohesion and Urban Matters, an expert committee established by the Committee of the Coordination of Funds and shared by the Commission (Cf. Cotella et al. 2012).

While seeking to identify the possible implications of the Lisbon Treaty in relation to territorial cohesion together with the member state representatives involved in the abovementioned committee, the Commission keeps on running into various unsolved questions, most often related to the issue of coordination between territorial levels (vertical coordination) and policy sectors (horizontal coordination). A crucial concern is here to provide a clear definition of the scope of the cohesion policy, in other words to understand how territorial cohesion could provide an added value in the completion of the "classical" regional approach by addressing territorial disparities and making value of potentials at upper levels, at lower levels, at the level of functional territories and on territories with geographic specificities. All this locates within the broader debate concerning the multi-level governance of EU cohesion policy (Cf. Hooghe and Marks, 2001, 2003, 2010; Faludi, 2012), and concerns the respective roles of the European Commission and the Member States (not to mention the various administrative levels within them) in the framework of subsidiarity. Furthermore at each scale of intervention, an additional issue at stake concerns the overall coordination for better coherence between policies, in other words, the exact implications of the Lisbon Treaty for the horizontal coordination of territorial and sectoral policies at the different levels.

Whereas a lot of discussion is still taking place on the content and added value of territorial cohesion, despite the various analyses produced on the different strands in past and present discussions about territorial cohesion (See e.g.: Waterhout, 2007; Zonneveld and Waterhout, 2010) and the

growing literature on what the principle could mean within individual member states (e.g.: Vati, 2009; Evers et al., 2009), no definitive answer has been provided to the abovementioned issues: indeed, ‘when it comes to *potential policy implications of territorial cohesion* there is a lot of uncharted territory’ (Zonneveldt and Waterhout, 2010: 4). Building on various institutional (CEC, 1999; DE Presidency, 2007; CEC 2008; Barca, 2009, HU Presidency 2011) and academic sources (Evers et al 2009; Waterhout, 2008; Zonneveld and Waterhout, 2010; Faludi, 2007, 2011; Adams et al, 2011; Cotella et al, 2012) this editorial elaborates aims at setting the stage for the present volume by shedding some light on the policy implications that characterize the multi-level environment of territorial cohesion. It does so by first focusing on the concept of territorial capital as potentially the one pivotal concept around which territorial cohesion and descending place-based policies should be organized. It then moves to explore more in details the abovementioned multi-level governance of cohesion policy, taking into account the relative relevant role of the European Commission and the Member States, as well as the importance of European territorial cooperation initiatives. Finally, a last section serves as an introduction to the volume and the various sections and contributions that compose it.

THE SCOPE OF COHESION POLICY: ENHANCING TERRITORIAL CAPITAL

European cohesion policy focuses on stimulating social and economic convergence between regions within the EU (objective 1), on supporting the competitiveness of regions (objective 2) and on fostering the cooperation of European territories (objective 3). Although these objectives seem to be very different and focus on different areas, it can be argued that in terms of implementation they pursue a similar aim, that is to favour the maximal exploitation and enhancement of each region’s territorial capital. Being introduced by the OECD Territorial Outlook (2001) and subsequently adopted by the Territorial Agenda process, territorial capital could be understood as follows:

‘each region has its own specific ‘territorial capital’ – path-dependent capital, be it social, human or physical (OECD 2001). Factors that play a part are, for example, geographical location, the size of the region, climate, natural resources, quality of life and economies of scale – all factors that can reduce ‘transaction costs’ (access to knowledge, etc.). Other factors relate to local and regional traditions and customs, the quality of governance, including issues like mutual trust and informal rules that enable economic actors to work together under conditions of uncertainty. Finally, there are more intangible factors, resulting from a combination of institutions, rules, practices, producers, researchers and policy makers, which facilitate creativity and innovation – a condition often referred to as ‘quality of the milieu’

(Zonneveld and Waterhout, 2005).

This simple statement includes a set of unsolved challenges for the pursuance of EU cohesion policy, as territorial capital is composed by various dimensions and each region should find its own specific recipe to extract it. In this light, cohesion policy has been subject to frequent criticism both from a political and a research perspective, as it does not properly focus on territorial capital, this in turn having serious consequences on its effectiveness (Sapir 2003; Barca 2009). Territorial cohesion through stimulating territorial capital should aim at delivering solutions to solve this problem of effectiveness. As clearly argued by the rationale of the Warsaw Regional Forum 2011 – that served as the main inspiration source from this volume – the added value of territorial cohesion as compared to existing social and economic cohesion policy lays in the central focus on the territorial capital of

functional areas. In this sense, territorial cohesion does not aim at a reshuffling of funds over the regions, but at a more sophisticated allocation of funds within these regions.

THE MULTI-LEVEL GOVERNANCE OF COHESION POLICY

Among the crucial implications of the inclusion of territorial cohesion in the Lisbon Treaty for the future of cohesion and development policy in Europe, a relevant role is played by the fact that Member States and EU institutions now share competence in contributing to territorial cohesion, as clearly stated in the Territorial Agenda of the European Union 2020 (HU Presidency, 2011). Implementation instruments and competences are in the hands of EU institutions, Member States, regional and local authorities. Because of the various scales at which strategies may be applied, multilevel governance and subsidiarity require attention, in order to solve existing tensions between policies at various scales, for example between EU and national level, but likewise between national and regional level.

This tensions are an intrinsic element of cohesion policy (in whatever form) as a consequence of the multi-scalar nature of territorial issues and themes: solutions for specific territorial issues seldom can be found at just one scale and mostly require joint or coordinated action at several scales and by several stakeholders. Multi-level governance formats are therefore required to manage different functional territories and to ensure balanced and coordinated contribution of local, regional, national and European actors in compliance with the principle of subsidiarity. As a consequence in order to let the system function, it is important that place-based strategies at various levels are complementary to each other.

An open question, however, is to what extent and strictness the subsidiarity principle should be applied. It is almost inconceivable that place-based strategies at higher levels do not address issues at lower levels, nor could this be expected. Whether place-based strategies legitimise direct involvement at lower levels, such as is made conditionally possible by some national spatial planning acts, is something that could be considered in territorial cohesion policy. In today's complex governance landscapes past perspectives of vertically and horizontally fully integrated territorial strategies are increasingly dismissed as utopian. Also, this is not what place-based strategies, which focus on selectivity and on 'getting things done', are about (Zonneveldt and Waterhout, 2010). Whatever it will be, territorial cohesion policy through place-based strategies needs to explain very carefully the rules of the multi-scalar and multi-level governance games that undoubtedly will emerge. In this light, actors at each territorial scale are required to perform a role, to be played in close coordination with the other.

In first place, as argued by the Territorial Agenda 2020 (HU Presidency, 2011), the EU institutions should constantly monitor and evaluation European territorial development and the performance of territorial cohesion efforts. Integrated impact assessments for all significant EU policies and programmes should continue to be developed on the basis of stakeholder inputs and needs. In order to strengthen the territorial dimension of impact assessment carried out by the European Commission prior to any legislative initiative, a strong methodological support and a comprehensive territorial knowledge base are required to inform EU level policy-making process. A range of bodies can deliver valuable contributions in this respect, as for instance the ESPON Programme (European Observation Network for Territorial Development and Cohesion, formerly European Spatial Planning Observation Network) whose status, role and outputs should be adapted in agreement with the European Commission to better serve European policy-making related to territorial development and cohesion.

On their hand, in each Member States' domestic contexts the main task of national, regional and local authorities is 'to define the tailored concepts, goals and tools for enhancing territorial development based on the subsidiarity principle and the place-based approach in line with the EU level approach and actions' (HU Presidency, 2011: 11). It is up to the authorities in Member States to determine their own strategies and the relevant measures they intend to apply, on the basis of their own geographical specificities, political culture, legal and administrative system. While doing so, Member States actors should produce efforts to integrate the principles of territorial cohesion into their own national sectoral and integrated development policies and spatial planning mechanisms. Consideration of territorial impacts and the territorial coordination of policies are particularly important at national and regional levels. This coordination should be supported by territorially sensitive evaluation and monitoring practices, further strengthening the contribution of territorial analysis to impact assessments. Similarly, regions and cities should strive for the development and adoption of integrated strategies and spatial plans as appropriate to increase the efficiency of all interventions in the given territory.

Finally, actions at the cross-border, transnational and inter-regional level have a pivotal role to play in the implementation of the territorial of the EU cohesion policy. European territorial cooperation has revealed a considerable mobilisation of potential of those cities and regions involved. Nevertheless, there remains room for improvement, especially to ensure that operations contribute to genuine territorial integration by promoting the sustainable enlargement of markets for workers, consumers and SMEs, and more efficient access to private and public services. In this regard, of crucial importance is flexible territorial programming, allowing for co-operation activities with different territorial scope to be flexible enough to address regional specificities. To this end, territorial cooperation initiatives should be geared towards the long term objectives of territorial cohesion building on the experience of former B strand of INTERREG Community Initiative and current transnational programmes. Integrated macro-regional strategies – as currently pioneered in the Baltic Sea and the Danube regions – could also contribute in this respect.

OUTLINE OF THE VOLUME

At the very heart of the rationale behind the present volume lays the idea that, in making policies more territorially sensitive to the implication of territorial cohesion, the simultaneous adoption of different perspectives deriving from the various territorial levels constitutes an important asset. As highlighted in the Barca Report (Barca, 2009), place-specific characteristics and circumstances play indeed a key role in territorial development, and it's exactly here that the main selling point of territorial cohesion, as compared to existing EU policy, emerges, this being the added value promoted in terms of strategy and policy coherence.

Following this logic, the contributions that follows are divided into four sections. The first Section focuses on the cohesion of the European Union as a whole, and on the impact that the recent eastwards enlargement had on the later. In the first contribution, Roman Szul presents a general view on the economic, political and cultural challenges for cohesion in the enlarged EU, reflecting on the positions of various Member States and speculating on its possible future development. Then, an analysis from the author of the present editorial aims at delivering an evidence-based view on the progressive integration of Central and Eastern European actors in the ongoing debate that is constantly re-defining the borders of European spatial planning. A third article, by Gilles Lepasant adopt a similar geographical focus on Central and Eastern Europe, elaborating on the potentials for

EU cohesion policy as an engine for promoting innovation. Finally, Tomas Hanell tries to unravel the implications of the dichotomy between concentration and cohesion in the context of the strategic spatial planning initiatives currently targeting the Baltic Sea Region.

The second part of the Volume scale down its focus to regional development issues in the way they manifests in various EU Member States. Firstly, a contribution authored by Ron Boschma deals with the process of regional branching in which new industries branch out of existing industries at the regional level, arguing in favour of policies that takes the industrial history of the regions as a point of departure. Then Margarita Ilieva moves the geographical focus to the Bulgarian context, presenting a detailed analysis of the importance of large and medium-sized town in national regional development, as well as of the way they constitute the fulcrum of Bulgarian national regional policy. The fourth contribution, by Svitlana Pysarenko and Marta Malska, focus on one of the most important EU neighbouring states, Ukraine. Here the authors present a practical proposal on how to improve the territorial and administrative division of the country on the basis of its economic spatial structure and relevant functional regions. In the fifth article, Borislav Stojkov and Milica Dobričić adopt a peculiar perspective to functional regions in Serbia, addressing them from the starting point of eco-services as an engine for the promotion of both development and environmental sustainability. Finally, Balasz Duray explores the territorial potentials of a green economy in details, referring to the Global Green New Deal and to its implications for the Hungarian context.

The third and fourth part of the volume, relatively shorter and composed by two and three contributions respectively, focus on two additional scale of development and related policy. Part three deals with the emerging challenges and perspectives for territorial cooperation in the enlarged EU. Here the contribution authored by Imre Nagy aims at raising awareness on transboundary risks from a regional perspective, exploring this issue through an analysis of the environmental problems that characterize the Western Balkan region. On his hand, Andras Donat Kovacs focuses on the environmental dimension of the Serbian-Hungarian cross-border region, exploring the regional characteristics and the development possibilities of the latter. Finally, part four deals with development from a mainly local perspective. The potential role of ecosystem-services in enhancing the quality of life of rural-urban region is the subject of a first contribution by Marek Degórski. Then, an article by Ján Hanušin et al explores the characteristics of the urban and rural landscapes in the functional region hosting the Bratislava conurbation. Lastly, Akos Bodor focuses its paper on peculiar governance issues of local development and, more in details, the influence exerted by Hungarian social values on the development of partnership and cooperation initiatives.

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PART I
EUROPEAN UNION'S COHESION
AND THE EASTWARD ENLARGEMENT CHALLENGE

THE COHESION OF THE EUROPEAN UNION: ECONOMIC, POLITICAL, CULTURAL CHALLENGES

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Abstract. European Union (EU) cohesion policy in particular and the idea of European integration in general are currently facing some challenges of ability and willingness, both determined by economic, political and cultural factors. Some factors, however, continue to hold EU countries together.

The economic crisis of 2008-10 and its aftermaths further reduced ability and readiness of net contributors to the EU budget to finance EU cohesion policy, even more because these countries have to “save” indebted eurozone periphery. The economic crisis and problems of the euro further weakened ability and willingness of some countries, like Poland, to join the eurozone, thus strengthening the internal division of the EU. Growing unemployment and sense of insecurity in richer EU member states and the increased immigration to these countries from poorer new member states have produced negative attitudes towards immigrants and “Eastern Europe” in general.

The absence of a clear-cut “enemy of Europe” and the variety of external political challenges differently interpreted by governments and societies of individual states hinder the development of a common external policy and sense of internal solidarity. Europe is becoming playground for world powers: USA, Russia and China. Different responses to external challenges, e.g. increased migration from Northern Africa, put at risk some European achievements like the Schengen treaty.

The “Eastern enlargement” together with economic problems revealed weakness of the sense of European identity, and especially unwillingness of Western societies to accept “Eastern Europeans” as Europeans. Even within the “old” Europe the divide between “hard working” North and “leisure” South is becoming more evident.

In such circumstances the ability and willingness to continue generous cohesion policy is declining. However, deep changes in the European cohesion policy or disintegration of the EU are unlikely as European leaders fear of taking dramatic decisions given economic interdependence of EU countries.

Key words: European Union, cohesion, economic crisis, European and national identities, disintegration

1. INTRODUCTORY REMARKS

There are two ways of understanding cohesion in the European Union (EU): socio-economic and territorial one. According to the first one, which prevails until now, the aim of the EU cohesion policy is to reduce – or at least to stop the growth of – internal disparities: between member states, between regions and between social groups. According to the other one, cohesion means integrating territory of the EU by building and improving transport and communication connecting regions and states. This paper deals with the first kind of cohesion.

The basic logic behind the idea of cohesion is that reducing disparities is advantageous for EU's integration, for better functioning of its economy and for reducing tensions between richer and poorer member states, regions and social groups. In sum, it is beneficial both for the richer and for the poorer. Gains for the poorer are outside doubt; the richer, in turn, benefits from larger market for their products in poorer countries and regions, from social peace and political stability. The mechanism of fulfilling the idea of cohesion is transfer of resources from the richer to the poorer via the EU and its institutions, especially via the cohesion and structural funds. The direct recipients of these resources must add their own resources (according to the principle of additionally) and use them in a "proper way", or in a way considered as such by EU institutions and, in last instance, by the "donor" states" (i.e. the net contributors to the EU budget). The crucial precondition for the smooth functioning of this mechanism is **ability** and **willingness** of the rich, especially rich countries, to transfer resources to the poor.

Until a few years ago this precondition was met. Recent developments have, however, considerably changed the situation. These are, first of all, the "eastern enlargement" of 2004 and 2007, and the economic crisis which started in 2008, especially the euro currency and debt crisis. The new situation undermines the ability and willingness of the richer countries (and, more in details, of both their governments and societies) to transfer resources to the poorer ones. Therefore, it is time to examine determinants of ability and willingness of the richer to continue the cohesion policy, as well as the ability and willingness of the poorer to meet possible conditions put forward by the former.

2. DECLINING ABILITY TO CONTINUE COHESION POLICY

The rich countries, which are net contributors to the EU budget enabling EU to carry out its cohesion policy, are mostly those located in the west-northern part of Europe, exclusively those belonging to the "old Europe" (if one ignores the former DDR), with Germany playing the central role. Their ability to continue transferring resources to cohesion policy depends on their budgetary situation and on other needs these countries (governments) must spend money for. Direct net beneficiary of this policy is (or was until some years ago) the rest of the EU, or the whole "new" ("ex-communist", "eastern" Europe) and the southern (Greece, Spain, Portugal, southern Italy) and western (Ireland) peripheries of the "old" Europe.

Until the "eastern enlargement" the rich, prosperous members of the EU were able and willing to finance cohesion policy, as they considered it as a price for peace, stability, functioning open markets and prosperity. Although there were some budget constraints resulting from fiscal austerity rules related to the introduction of the common currency in 2001 and, in the case of Germany, from the costs of German unification and restructuring of the ex-DDR economy, generally the net contributors were able to dedicate necessary means for the EU to continue cohesion policy, and the improving living conditions all over integrating Europe were sufficient justification to do so.

The “eastern enlargement” considerably changed the situation by adding new poor countries, even poorer than the poor of the “old” Europe. Perspectives of accession of new countries, mostly poor Western Balkan countries, let alone Turkey, further deteriorate proportion between rich net contributors and poor net beneficiaries of the cohesion policy.

The economic crisis of 2008-10 and its aftermaths in 2011 (policy of cutting budget deficits) further reduced ability of net contributors to the EU budget to finance EU cohesion policy, even more so because these countries have to “bail out” indebted eurozone periphery and their own banks. At present (December 2011) the eurozone countries, and the whole EU, face the Greek financial crisis. The successive bail-out packages of the EU and the International Monetary Fund have turned out to be insufficient to make this country able to finance its expenditures and service its debt and to reverse the downward tendency of its economy. It is becoming clear that further funds for Greece are indispensable, if Greece is to remain in the eurozone and perhaps even in the EU. Beside Greece, other peripheries of the “old” Europe (Spain, Portugal and Italy), as well as banks in the core countries, are in need. Germany who bears the bulk of the burden of bail outs seems to be less and less able (let alone willing) to continue paying for this policy.

Apart from the eurozone debt crisis, the EU must face several external challenges, like the rising power of China and other emerging countries, instability in North Africa and Middle East, etc. The Chinese challenge (which is also an opportunity) pushes Europe to increase its competitiveness: to strengthen its position in high-tech sectors (to run away from Chinese competition in low-tech sectors and to take opportunity of the Chinese market for products of high-tech sectors) and to deal with the victims of the Chinese competition in low-tech sectors. All this needs money to be spent for new technologies, for dealing with unemployment and the restructuring of the economy, for foreign policy etc. One should not forget “ordinary” problems of European governments such as needs for public money resulting from ageing population and soaring expenditures for retirement funds, from environmental protection and, in the case of Germany, from switching off nuclear energy (announced by the German government in response to public demands after Fukushima nuclear power plant crisis in 2011).

In such a situation it is more and more difficult for the richer countries to find money for cohesion policy¹, and there is growing pressure from these countries to reduce (in real if not nominal terms) funds dedicated to this policy, and to connect this policy with other policies, especially with competitiveness policy (shifting money towards R&D), environmental policy (preference for projects which reduce emission of pollutants) and with fiscal policy (reducing funds for countries with excessive budget deficits). It can be difficult to find ways of combining such policies without diminishing the role of the original policy, in this case the cohesion policy.

It should be remembered, too, that fiscal constrains and economic slowdown (if not recession) also affect beneficiaries of the cohesion policy by reducing their ability to absorb resources (for instance by making it harder for them to collect money for their own contribution in projects). In this context it is worth mentioning that banking sector in poorer countries, especially in central-eastern Europe,

¹ As the EU commissioner for the budget Janusz Lewandowski states, in 2011 there was 1.6 billion euro deficit in the EU budget, which forced the EU to cut or postpone its payments, including those for cohesion and agricultural policy. He also says that the EU budget for the financial perspective 2007-2013 was approved in an atmosphere of prosperity while now the perspective ends in time of “powerful” crisis. This crisis situation also affects negotiations for the next financial perspective 2014-2020, now under way. According to the initial proposal of the European Commission, EU budget would grow, in nominal terms, less than inflation, which mean that in real terms it will diminish. This proposal is criticised by net contributors, so one can expect its further reduction, together with a further reductions in the cohesion policy. See: *Po raz pierwszy mamy manko w unijnym budżecie* [For the first time we have deficit in the union budget, in Polish], “Gazeta Wyborcza” November 30, 2011

is mostly in foreign (West European) hands so that one may expect that the banks may be tempted to transfer resources to their home countries instead of providing credits to their local clients. Linking cohesion policy with other policies – competitiveness, environment policy – would make it harder for poorer countries and regions to prepare projects that would at the same time satisfy requirements of economic growth, environmental protection and improving R&D level. Linking cohesion policy with fiscal policy by reducing funds for countries that exceed limits of public deficit, given the present situation of widespread deficits in the EU, may deprive them and their regions from funds for cohesion policy.

3. DECLINING WILLINGNESS TO CONTINUE COHESION POLICY

Generally speaking, willingness of the rich (in this case: rich EU member countries) to transfer resources (money) to poorer ones depends on three factors:

- the feeling of **economic purposefulness** to help the poorer (whether transferred resources are used efficiently and whether they serve economic interests of the rich)
- the feeling of **political purposefulness** to help the poorer (whether transferred resources strengthen political integration of the donors and recipients)
- the feeling of **cultural affinity** (“our-ness”) of the donors with the recipients

As regards the first factor, in richer EU countries one can observe declining believe that helping the poorer is rational and purposeful. First, people living in rich countries seem to believe that open markets in the EU enabling their firms to penetrate poorer countries, to sell there their products, to purchase assets there and run other business is something granted, something that results from the very principle of free trade in the EU, and consequently, that transfers from the richer to the poorer countries are not necessary. Second, there is growing suspicion, or conviction, that money transferred to the poorer countries are wasted or even simply stolen. This suspicion has grown after the recent enlargement, when east European countries joined the Union². The Greek crisis has even strengthened this suspicion as Greece was commonly accused of cheating the EU (by providing false data to EU institution) to get benefits.

Political purposefulness of transferring resources from one area to another consists in the believe that such transfer strengthens political unity of the two areas, and that the unity is worth paying for. In a democratic society such a believe must be shared by the “ruling majority” of the society. In a non-democratic (authoritarian or bureaucratic) society it is enough that such a view is expressed by the ruling elite. The EU, although composed by democratic states, is a bureaucratic institution. This character has enabled it to carry out activities largely regardless of opinions of its citizens³. The “democratic (or populist) turn” of recent years, best expressed in the French and Dutch referenda of 2005 rejecting the European constitution, means that politicians in the EU, both at country (national) and EU level must take into account the opinions of their citizens-voters to a higher extent. In such

² Especially criticised for corruption are Romania and Bulgaria, whose accession to the EU was considered as premature by many in the Western Europe. According to the Economist, among “Eurocrats” in Brussels the “no more Cyprus” (for not solved political relation in the island) and “no more Romania and Bulgaria” (for corruption) mottos are growing in popularity. This opinion is expression of a wider “enlargement fatigue”, or doubts in the purposefulness of past and future enlargements. See *Arrest and revival. The capture of Ratko Mladic may revive European enlargement*. “The Economist”, June 4th, 2011, p. 42

³ As Mark Leonard, director of the European Council on Foreign Relations, a Europe-wide think tank, points out *The EU was built at a time when citizens were deferential and relations between states were seen as being above politics. Thus shielded from the cut and thrust of political debate, national leaders had the space to pursue visionary foreign policies*. (Leonard 2011)

a situation the question of the value of political unity of the EU (at least in its present borders) emerges.

Political unity of autonomous (independent) units usually enjoys high value if these units are endangered a by common external threat and if further unifying these units can contribute to avoid the threat. In the early stages of European integration such a threat was repetition of wars (which were in fresh memory) that had to be avoided, and communism and the Soviet block that had to be stopped. Nowadays peace in Europe is treated as granted and common external adversaries are lacking (maybe with the exception of immigration). The attitudes towards the main external powers – USA, China⁴ and Russia⁵, are highly ambivalent and disunite rather than unite Europe. The present economic problems in the EU, while demonstrating interdependence of economies of EU members, have also strengthened economic nationalism in member countries. Political unity of the EU is losing its value, especially in rich countries, and so is the sense of purposefulness of paying for it in the form of cohesion policy.

For the richer it is easier to pay for the poorer if both belong to one “family”, in other words, if they feel affinity and express mutual sympathy (“spiritual union”). In the case of countries (nations), cultural affinity and common symbols and memories are among the crucial factors binding them emotionally. Cultural affinity (cultural distance), in turn, depends on similarity in ways of thinking and behaving and on knowledge of each side on the other side. The lack of knowledge of the other makes the other (the alien) distant regardless of possible similarity of ways of thinking and behaving.

Until the “eastern enlargement” EU countries were culturally quite homogeneous, belonging to the Western civilisation (highly secularised societies of Western Christian – protestant or Catholic - origin, the only exception being Greece – an Eastern Christian – orthodox country⁶). Inhabitants of the EU had a basic knowledge of other countries. Even tough the feeling of affinity and mutual sympathy was not very strong and was not a driving mechanism of European integration, it was not an obstacle for functioning of the Union. The European Union (called “Europe”) had well defined borders making it a “peninsula” (if not “island”) isolated from the mainland by the “iron curtain”. The situation changed with the “eastern enlargement”. The club of “European” (i.e. Western) nations was joined by nations from the other side of the curtain, from “non-Europe” (in the best case – from “Eastern Europe”). Although societies of the new member countries share principal cultural characteristics with the “old Europe” (resulting from belonging to Christianity, mostly Western Christianity, and sharing European history), generally have a basic knowledge on Europe and consider themselves as Europeans, they are hardly accepted as such by the “old Europe”. The main barrier is the lack of knowledge in Western Europe on the “post communist countries”, the lack of interest to get such a knowledge (which are otherwise characteristic for attitudes of the centre towards peripheries) and prejudices, simplifications and long outdated information which fulfil the knowledge gap in the “West” on the “East”⁷. The mixture of ignorance, prejudices, simplifications and exaggerations

⁴ On divergent European attitudes towards China – between hopes that China would help Europe to save euro and indebted countries and fears that China would buy up Europe – see e.g. Godement 2011

⁵ On recent EU- Russia relations and divergence between EU member states towards Russia see e.g. Judah, Kobzova, Popescu 2011.

⁶ Samuel Huntington his in famous „Clash of civilizations” long before the present “Greek crisis” retained that Greece, for his Orthodox civilisation didn’t fit to the then European Union. (Huntington 2006)

⁷ More on the lack of knowledge in Western Europe on the eastern part of the continent and on the related prejudices see: Norman Davies: *Uprawnione porównania, fałszywe kontrasty: Wschód i Zachód w najnowszej historii Europy* [Legitimate comparisons, false contrasts: West and East in the newest history of Europe] in: Davis 2007, p 33-60

makes Western European societies feel cultural distance (and often fear) towards “Easterners”. Of special importance is the widespread opinion in the West on corruption, incompetence and neglect for “European values” in the East and the belief that the enlargement of the EU to the East was a mistake.

The current economic problems in the EU have (re)discovered cultural division even within the West – between the (presumably hard working) North and (“lazy” and leisure-oriented) South, or in other words, between core and periphery⁸. This division largely overlaps with an old and, as many thought, forgotten and irrelevant, division between Protestant and Catholic (including Orthodox) Europe.

The mentioned “populist turn” in the EU made “soft” factors, such as cultural affinity and mutual sympathy of peoples, “European identity” an important element in the functioning of the EU. This turn revealed lack or weakness of emotional ties between European nations, lack of positive symbols of all Europe, and thus weakness or lacking of European identity⁹.

In such a situation it is getting harder for societies of rich North-Western Europe to find justification for paying for “Europe”, especially for the “corrupt” East and the “lazy” South. This atmosphere influences politicians responsible for cohesion policy and other transfers within the EU, forcing them to reduce transferred funds and to tighten conditions of transfers.

Declining ability and willingness of the EU to continue its cohesion policy is only a part of what some politicians and analyst call the overall crisis of the “European project”¹⁰ threatening the very existence of the EU.

4. INERTIA AND INTERRELATIONS IN THE EU: A HOPE FOR COHESION POLICY?

The above discussion doesn’t suggest that an end of the EU or an abrupt cancellation of cohesion policy and related transfers can be expected in the near future, for instance in the next financial perspective 2014-2020. There are two factors that allow continuation of the EU and of its cohesion policy: inertia of the decision-making mechanism in the UE and interrelation of EU countries.

The first factor means that EU institutions are not able to take bold, dramatic decisions. Cancellation of cohesion policy would be such a bold, dramatic decision. More suitable to the EU decision-making mechanism are small steps gradually changing amounts, directions and conditions of flows of money, and competences of institutions managing the funds.

Another element in favour for maintaining the EU and its cohesion policy is awareness of interconnections between EU countries and the fear of governments of adverse effects of a possible cancellation of these policy (let alone the disintegration of the EU) not only for recipient countries but also for their partners (for instance in form of uncontrolled immigration).

⁸ Some observers speak even of “the European clash of civilisations” See e.g. Leonard 2011, p. 2, Kundnami 2011

⁹ German historian and researcher of “memories of nations” Stefan Troebst points out to the lack of positive symbols of Europe. He underlines that no event in the history of European integration (such as victory over fascism in 1945, inauguration of the European Economic Community, democratic transformations in Central-Eastern Europe after 1989, eastern enlargement in 2004/07, etc) is regarded in the same way by all European nations. As he states, instead of one “European memory” there are various national memories. These diverging memories, in his opinion, influence functioning of the EU also in the “real” sphere. As an example he quotes the case of Nord Stream gas pipeline and different attitudes of Germany and Poland towards it. See *Eine schmerzhaft* 2009

¹⁰ This is, for instance, the opinion of the Polish president Bronisław Komorowski: see Komorowski 2011. In his opinion, this crisis must be overcome, and the only way is to strengthen integration of the EU.

It should be stressed, however, that the EU in general and its cohesion policy in particular, face serious challenges.

5. CONCLUSIONS

It seems that the golden era for cohesion policy, understood as support for less developed regions and countries in the European Union, has come to an end. The main reason is the declining ability and willingness of the richer countries to transfer funds to the poorer ones. The first (declining ability) is a result of the financial crisis forcing governments of member states to cut budget expenditures and to find funds for other purposes, first of all for bail-outs for indebted eurozone countries and banks. The second (declining willingness) stems from the (re)discovered cultural split of Europe, the (re)discovered “otherness” of recipients of EU funds (in fact rich countries’ money) - “corrupt” Easterners and “lazy” Southerners, and from the lack of sense of European unity. This declining willingness is expressed the most by societies in rich north-western countries, that their politicians can no more ignore, especially after the “populist turn” of 2005.

The sluggish mechanism of decision making in the EU and the awareness of interconnectedness of EU economies and the fear of adverse results of an abrupt cancellation of cohesion policy for both recipients and net contributors make the EU refrain from such a decision. Instead, an evolution, or erosion, of cohesion policy can be expected, consisting in diminishing funds and combining cohesion with other purposes (disciplining debtor countries, environment protection, competitiveness, R&D etc.).

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CENTRAL AND EASTERN EUROPEAN ACTORS IN THE EUROPEAN SPATIAL PLANNING DEBATE. TIME TO MAKE A DIFFERENCE?

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Abstract. The EU eastward enlargement formally opened EU spatial policy arenas to new member states' actors. However, European spatial planning developed as the product of an epistemic community admittedly rooted in north-west Europe and it is unclear whether such perspective will be altered anytime soon. The paper elaborates on this issue arguing that the differential engagement of domestic actors with the European spatial planning debate has a direct influence on the prevalence of specific policy agendas and approaches over others. In this light, it explores the extent of engagement of Central and Eastern European actors with the European spatial planning knowledge arenas: the intergovernmental debate, the territorial cohesion debate and the Cooperation Platform for Territorial Cohesion in Europe. It concludes that, despite the limited overall level of engagement, the increasing commitment of some CEE member states suggests that this situation is changing albeit differentially.

Keywords: European spatial planning, EU enlargement, Europeanization, knowledge, discursive integration, intergovernmental debate, territorial cohesion, Central and Eastern Europe.

INTRODUCTION – A NEW EASTERN PERSPECTIVE IN EUROPEAN SPATIAL PLANNING?

Over the last two decades, numerous authors have discussed the apparent increasing importance of the spatial dimension of European Union (EU) policies (among others: Williams 1996; Faludi 2001, 2010; Waterhout 2008; Duhr *et al* 2010; Adams *et al* 2011). Despite spatial planning competences

remaining firmly in the hands of the member states, a number of somewhat ambiguous European guidance documents, policies and interventions characterized by a specific 'spatial' or 'territorial' focus have emerged under the umbrella of *European spatial planning* (Williams 1996; Faludi 2001; Waterhout 2008; Duhr *et al* 2010). The introduction of the Objective of economic and social cohesion in the Single European Act in 1986 and the subsequent re-organization of the Structural Funds in 1988 can be identified as the symbolic starting point of this process, whereby the EU obtained the power to define the criteria underpinning the distribution of the structural support for its regions. This allowed the European Commission to undertake the necessary analysis for the publication of the studies *Europe 2000* and *Europe 2000+* (CEC 1991, 1994) and to support the ten-years-long inter-governmental process that eventually gave birth to the *European Spatial Development Perspective* in 1999 (ESDP - CEC 1999). As the other side of the same coin, the European Commission started to launch and run an increasing number of actions and interventions directly targeting member states in the field of urban development, territorial cooperation (respectively under the Community Initiatives URBAN and INTERREG) and transport (through the promotion of the Trans-European Networks). More recently, the publication of the *Territorial Agenda of the European Union* (DE Presidency 2007a) and of its renewed version with time-horizon 2020 (HU Presidency 2011), the institution of the *Cooperation Platform for Territorial Cohesion in Europe* (COPTA - www.eu-territorial-agenda.eu/) and the affirmation of the 'territorial cohesion' objective in the EU Treaties constitute further step of this process and potentially open the door to a further institutionalization of territorial actions at the European level (cf. Waterhout 2008 for a thorough overview of the institutionalization of European spatial planning).

While the mentioned elements – and the ever-increasing share of the EU budget dedicate to its cohesion policy – constitute as many evidences of the rapid consolidation of EU spatial policy, the logics and mechanisms standing behind the evolution of the latter are less clear. In this regard, Faludi describes European spatial planning as an 'anarchic field', characterised by high 'uncertainty regarding content as well as on the positions of the various actors', that owe its genesis and evolution to the emergence of "an 'epistemic community', admittedly with its roots in North-west Europe" (Faludi, 2000: 249). This is particularly relevant in the context of the recent revival of the debate over evidence-based planning, suggesting that evolution of EU spatial policy depends more and more on the extent and nature of the engagement of academics, practitioners and policy makers with a 'politics of expertise' (Faludi and Waterhout 2006; Davoudi 2006; Faludi 2008, Adams *et al* 2011): the fact that the actors that contribute to the evolution and consolidation of the European spatial planning debate belong to a specific geographical area, implies that also the policy arenas in which this debate has fuelled might be dominated by a North-western perspective (cf. Janin Rivolin and Faludi, 2005 on the different perspectives of European spatial planning).

The recent eastwards enlargements of the EU provide a particularly useful context for the exploration of the logics and mechanisms that underlie the evolution of European spatial planning. Previously characterized by a strong western flavour, the EU has now to confront with a dramatically different reality in terms of economic, social and territorial development (Davoudi 2006). The macroeconomic situation affecting many Central and Eastern European (CEE) nations has presented significant social, economic and spatial challenges for diverse strategic policy sectors such as the economy, education, environment, transport and social welfare (CEC 2007). The eastward shift of the frontier of European integration has opened up European spatial planning to new questions, new challenges and issues, new actors, and new forms of engagement and 'arenas of action' (Steinmo *et al* 1992; Hall and Taylor 1996; Lowndes 1996, Adams *et al* 2011). However, whereas the opening of European spatial

planning arenas to actors from both old and new member states could theoretically lead to new ideas and approaches being generated, until recently only limited efforts have been made at the EU level to capitalize on this diversity (Finka 2011), which can potentially present itself more as an obstacle in terms of coordination capacity and mutual understanding than an asset.

A preliminary understanding of the extent and nature of the engagement of CEE actors within the knowledge arenas of European spatial planning lies at the heart of this contribution, that aims at shedding some light on the logics underpinning the ‘framing’ of spatial planning and policy for an enlarged EU. First, the author builds on earlier works that offer a ‘knowledge’ perspective on the exploration of spatial policy development in the EU (Nunes *et al* 2009; Cotella and Janin Rivolin, 2010; Adams *et al* 2011, 2012; Cotella *et al* 2012; Stead and Cotella 2011) to introduce the main elements and features that characterise the evolution of the European spatial planning discourse, providing the interpretative lens through which the presented evidence may be read. He then discusses the engagement of CEE actors with the main arenas that characterised, and influenced the evolution of European spatial planning over the last twenty years: the intergovernmental debate, the territorial cohesion debate and the more recent Cooperation Platform for Territorial Cohesion in Europe (Waterhout, 2008; Adams *et al* 2011; Cotella *et al* 2012). A conclusive section rounds off the contribution, with some reflections on the relevance of the performed analysis and its results. The paper argues that the overall level of engagement of CEE actors in the European spatial planning debate has been limited when compared to that of their North-West European counterparts. However, recent trends – and in particular the activities undertaken by the Hungarian and Polish EU Presidencies in 2011 – show that the situation is changing albeit differentially. Despite being by no means self-evident of the achieved institutional capacity of CEE member states’ actors to alter the North-western perspective that dominates the European spatial planning discourse, these trends suggest that the time for CEE actors to make a difference in the evolution of the latter may eventually have come.

EUROPEANIZATION OF SPATIAL PLANNING. HOW THE DIFFERENTIAL ENGAGEMENT OF DOMESTIC ACTORS CAN MAKE A DIFFERENCE

The EU is a very peculiar institutional subject (Hix 2005), characterised by an open-ended integration process featuring the coexistence of a multitude of national, subnational and supranational authorities (Nugent 2006). Against the backdrop of great complexity and instability of the EU institutional framework, the concept of ‘Europeanization’ has been introduced, to overcome the ‘grand theories of European integration’ (cf. Duhr *et al* 2010: 86-100 for a detailed explanation) and, explaining complex adaptation paths and logics of co-evolution, focuses rather on the impact of such a process on national contexts and on the supranational sphere (amongst others: Olsen 2002; Wishlade *et al* 2003; Radaelli 2004; Lenschow 2006). Europeanization studies prove to be of particular interest for those policy fields in which the share of competences between the EU institutions and Member States are mostly undefined, and this is certainly the case of spatial planning (the so-called ‘competence issue’ has been extensively commented in: Faludi and Waterhout 2002: 89-92; Waterhout 2008: 37-38). In this light, studies focussing on the Europeanisation of spatial planning originally aimed at the exploration of the impacts of European spatial planning activities on the EU Member States’ spatial planning systems (Giannakourou 1998, 2005; Dabinett and Richardson 2005; Dühr *et al* 2007; ESPON, 2007a, 2007b, Böhme and Waterhout 2008, Stead and Cotella 2011). However, the concept soon lost the meaning of unidirectional process of ‘reaction to Europe’ (Salgado and Wool 2004: 4), rather starting to address the complex dynamics – either top-down and bottom-up (Wishlade

et al 2003) or vertical, horizontal and circular (Lenschow 2006) – that entwine the supranational and domestic spheres, therefore influencing the evolution of European spatial planning itself.

In particular, bottom-up Europeanization – or in other words the ‘upload’ of domestic logics at the supranational level – appears to be a particularly complex process to analyse, as it requires to simultaneously take into account as many as twenty-seven national contexts (and a multitude of subnational contexts) and related, more or less explicit attempts to exert an influence on the EU spatial planning agenda [1]. To understand this process, of particular importance is the notion of European spatial planning discourse. As argued by Richardson (2001) in situation where high-level of uncertainty exists a particularly relevant role is played by increasing need for knowledge and information. This induced several authors to suggest that evolution of EU spatial policy depends more and more on the extent and nature of the engagement of academics, practitioners and policy makers with a ‘politics of expertise’, and therefore calling for a revival of the debate over evidence-based planning (Faludi and Waterhout 2006; Davoudi 2006; Faludi 2008, Adams et al 2011, Cotella et al 2012). In this light, the evolution of European spatial planning could be described as a rather heterogeneous discursive process characterized by a multitude of actors and arenas of debate where ideas and concepts are debated, validated and then consolidated into spatial approaches and policies. As the ESDP elaboration process masterfully highlights (Faludi and Waterhout 2002), the lack of legal or binding provisions for European spatial planning makes discourse in this field largely open to competitive dynamics, overall developed in a joint cooperative process aimed at catalysing consensus on a ‘common path’. This produces a non-coercive delivering process framed by the will of various participants to agree, by way of collective deliberation, on procedural forms, modes of regulation and common policy objectives, preserving at the same time the diversity of respective beliefs as well as the right to pursue their own selected interests (Bruno *et al* 2006).

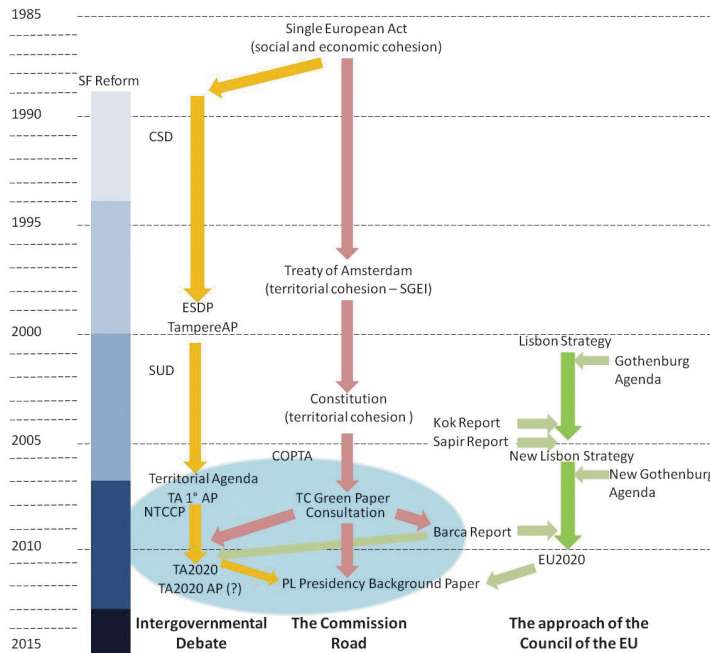


Figure 1: European spatial planning as the product of three discursive macro-arenas

Beside the mainstream discourse advanced by the European Council official documents and resolutions, at least two other interlaced macro-arenas contribute to influence the evolution of European spatial planning, namely the 'intergovernmental debate' and the 'Community debate', (see Figure 1. Cf. also Waterhout 2008). The former is driven by the so-called 'Informal Council' of EU Ministers responsible for spatial planning policies, known especially for the elaboration of the ESDP (CEC 1999) and of the more recent EU Territorial Agendas (DE Presidency 2007a; HU Presidency 2011). The latter constitutes what Waterhout (2011) referred to as 'the Commission's road': driven by the views recurrently expressed through official reports and communications by the European Commission's Directorate General of Regional Policy (DG Regio), it is mainly pivoted around the evolution of the territorial cohesion debate. Far from being mutually impermeable, the two macro-arenas are continuously overlapping and influencing each other, also thanks to the activities of specific transnational initiatives focusing on the promotion of discursive integration, as the European Observation Network on Territorial Development and Cohesion (ESPON, formerly European Spatial Planning Observation Network) and the recently established Cooperation Platform for Territorial Cohesion in Europe (COPTA).

The overall outcome of these arenas of debate is a result of the interplay of knowledge and policy development in relation to both the norms and values underpinning spatial policies as well as to the set of powers that permeate the arenas where discussion and negotiation take place. That is to say, how knowledge resources are channelled into specific arenas where they are tested/validated or subject to debate/institutionalised rules of policy evaluation, or employed selectively in the representation of policy problems/opportunities or in the advancement of vested interests (Nunes et al 2009; Adams et al 2011; 2012; Cotella et al 2012). Importantly, it is the agent interactivity across these arenas that gives impetus to the suggested interpretation. The influence that actors belonging to different domestic contexts can exert over the evolution of European spatial planning is all in all framed by their more or less active participation to the various arenas characterising the European spatial planning discourse, as well as by their capacity to compete in a 'contested field' (Faludi 2001: 250) [2]. Whereas the recent enlargements of the EU in 2004 and 2007 and the concomitant eastward shift of the frontier of European integration have provided the potentials for a substantial reloading of the concepts and logics underpinning European spatial planning (Cf. Pallagst 2006 for a full discussion), the extent to which this is actually occurring is open to debate. To shed some light on this issue, the following sections explore the extent of engagement of CEE actors within the European spatial planning knowledge arenas, and its potential meaning.

THE ENGAGEMENT OF CEE ACTORS WITH THE EUROPEAN SPATIAL PLANNING DEBATE

While the progressive integration in the EU offered support and set out demands for CEE countries (Cf. Cotella 2009), informal policy areas such as European spatial planning struggled to effectively metabolise the enlargement. CEE countries have indeed raised some interest in European spatial planning prior to their accession and the opening of the Iron Curtain in 1989 can be interpreted as a major development impulse for European spatial planning (Pallagst 2000). However, while exercises in European spatial planning have increasingly sought to integrate CEE countries, the actual engagement of CEE actors within the discursive macro-arenas where European spatial planning is debated and brought forward has been very limited until recent years. Since the on-going reforms could be perceived as one of the decisive factors for development in European spatial planning, at

least according to the contents of the document Europe 2000+ (CEC 1994), the European Commission initiated several studies that were specifically related to CEE. Among them was the 1990 report on the *Socio Economic Situation and Development in the Regions of Central and Eastern Europe*, which was the first to investigate regional development conditions in CEE countries (Bachtler 1992), as well as the *Scenarios of Spatial Development of Central and Eastern European Countries*, analysing the territorial impacts of the development of CEE countries on spatial development in the EU (CEC - Directorate General Regional Policy and Cohesion 1996). However, only a limited number of studies focused solely on CEE spatial planning issues, and almost none of them involved CEE actors in its preparation to any relevant extent. A notable exception is constituted by the *Central and Eastern European 'Boomerang'* (Gorzela 1996), that presents a conceptualized idea of the Central and Eastern European territory development potentials and was for some subject of debate among academics (cf. Pallagst 2006). However neither the boomerang nor other attempts managed to find their way into the core of the European spatial planning debate, whose arenas remained dominated by a strong north-western perspective at least until the end of the 1990s (Faludi 2000).

THE INTERGOVERNMENTAL DEBATE

Beside the mentioned studies commissioned by DG Regio, the 1990s constitute indeed a “boom era” for European spatial planning (cf. Faludi 2010), dominated by the inter-governmental activities of the Committee for Spatial Development that eventually resulted in the publication of the ESDP (CEC 1999). The long-term deliberation process that shaped the document and the roles of different actors is vividly portrayed by Faludi and Waterhout in *The Making of the European Spatial Development Perspective - No Masterplan* (2002). According to the authors, at a certain moment of the process it turned out that the EU was confronted with new spatial challenges under accession conditions and, due to this specific reason, integration aspects and enlargement were added in a separate (the last) chapter of the ESDP. Here, the need for a full integration of CEE countries into European spatial planning is stressed as a necessary condition for a successful development of European spatial planning for an enlarged Europe. However, whereas in principle the ESDP suggests the application of its political options in the candidate countries and it calls for cooperative and conceptual development on the European level together with CEE actors, at this stage CEE actors were mainly observing the process and only had a marginal role in shaping its outcomes (cf. Faludi and Waterhout 2002; Pallagst, 2006; Cotella et al 2012).

As a result of the ESDP process, and following the recommendations included in the latter, the European Spatial Planning Observation Network (ESPON – now relabelled European Observation Network for Territorial Development and Cohesion) was established in 2001, and soon became the most influential arena for the production of European spatial planning and development empirical evidence. ESPON developed as an arena within which research institutions and networks throughout the EU could generate knowledge resources “to support policy development and to build a European scientific community in the field of territorial development” and to “increase the general body of knowledge about territorial structures, trends and policy impacts in an enlarged European Union” (ESPON no date). In the beginning CEE countries were not involved in the programme, as they signed the agreement only at the dawn of their accession. Since 2003 all new projects have had to consider the then candidate countries in their analysis, providing useful information on the territorial impact of EU enlargement as well as potentially extending the ESPON organizational network to involve the new member states. However, whereas over time, an increasing number of CEE actors have become active within ESPON’s organizational structure (e.g. Monitoring Committee, Coordination Unit, Knowl-

edge Support System, etc.), an examination of the composition of the Transnational Project Groups (TPGs) responsible for ESPON 2006 projects reveals a bold dominance of Western actors: of the 138 partners involved in the Core Teams of the 34 completed projects, only 23 belonged to CEE (mostly institutions located in Warsaw and Budapest). Furthermore, only one project features a Lead Partner from CEE (ESPO 2006) [3]. Recently, with the operationalization of the ESPON 2013 Programme, this trend has begun to shift as some projects explicitly insist on the new eastern dimension of EU territorial development (Cf. ESPON 2009, 2010) and, more importantly in the context of this paper, a slightly increased participation of actors from specific CEE countries can be observed. Whereas the participation of CEE actors in ESPON 2013 Priority 1 and Priority 2 projects [4] still lags behind that of their western counterparts in absolute figures (of the 237 partners constituting the 43 TPGs only 41 are located in CEE), CEE actors have found their way into 16 out of the 21 TPGs responsible for the development of Priority 1 projects, and into 12 out of the 22 TPGs established under Priority 2. More interestingly, actors from Poland and Hungary are involved in 12 (10 P1 and 2 P2) and 8 (6 P1 and 2 P2) TPGs respectively (ESPO 2011). These figures exceed the average for CEE member states, as well as those for many western member states.

With the ESDP process finalized for some time and the ESPON projects database at hand, the time had come to launch a new policy document for an enlarged EU: *The Territorial Agenda of the European Union* (DE Presidency 2007a; c.f. also Waterhout 2011). The Territorial Agenda is an offspring of the informal European ministerial meetings on spatial planning, and the process behind its publication had already started in 2003 with an expert document on *Managing the Territorial Dimension of EU policies after Enlargement* followed by several more ministerial meetings (Faludi 2009). The Agenda highlights 'territorial cohesion' as the major goal for European spatial development (c.f. Faludi 2009). The disparity issue is of high importance for the CEE Member States, although they are explicitly mentioned only once in the Territorial Agenda when it comes to overcoming disparities. Unlike the broad discursive process that had delivered the ESDP, the timeline for launching the Territorial Agenda was short and its validation was seen to be the evidence-base produced by ESPON (DE Presidency 2007b). Yet the document's imminent claim for networking suggests that there is still a tremendous need for knowledge exchange with a broad stakeholder involvement that is evidence-based and links evidence to policy-making. As regards the involvement of Central and Eastern European actors in the agenda process, ministers from the new member states were engaged in the Territorial Agenda process from the beginning. A pivotal role was played here by Polish DG Regio Commissioner Danuta Hubner and by her successor Pawel Samecki because the European Commission's Directorate General for Regional Policy (DG Regio) was a key player in the Territorial Agenda process, this suggesting some degree of potential CEE influence at a crucial point in territorial development policy.

THE COMMISSION'S ROAD

In parallel to the mentioned activities, the evolution of European spatial planning has been strongly influenced by the debate pivoted around theoretical boundaries and operational implications of the territorial dimension of the cohesion objective, raised by the European Commission – and by DG Regio in particular – as a potential picklock to break the standstills often characterising the intergovernmental debate and therefore to contribute to a further institutionalization of European spatial planning. The concept of territorial cohesion was introduced in the Treaty of Amsterdam (1997), though at that time the ESDP planners paid it little attention (Waterhout 2011). As time went by, the debate on territorial cohesion started to gain momentum in the context of initiatives such as the

Treaty of Nice (2001) and the Laeken European Council (2001) (see Faludi 2009). The fears that the accession of a large number of significantly less prosperous regions would result in increasing internal disparities and eventually in the disintegration of the European project played an important role in the inclusion of territorial cohesion in the draft of the Treaty establishing a Constitution for Europe (Cotella 2009). Despite the ultimate demise of the Constitution, the territorial cohesion objective has been explicitly linked to the Growth and Jobs Agenda through the Community Strategic Guidelines 2007-2013, and then ratified under the Lisbon Treaty in 2009.

In order to enhance the visibility of the concept, the Commission published a Green Paper on Territorial Cohesion in early October 2008 (CEC 2008). The Green Paper preparation process was less transparent than that of the ESDP or the Territorial Agenda, and it occurred primarily at the Commission level (c.f. Evers 2007; Evers et al 2009). Rather than providing a clear view of for what 'territorial cohesion' may involve, the Green Paper sought to stimulate a debate among a wide diversity of actors with regard to the value and possible interpretations of the principle. In this sense, it represents a clear attempt by the European Commission to widen the discourse beyond the narrow expert community that has traditionally been engaged in European spatial planning. The mobilizing power of the Green Paper turned out to be extensive [5], with the launch conference in Paris attracting over 1.000 participants and the consultation round, open until February 2009, seeing almost 400 reactions being submitted from both Member and non-Member states. A comprehensive analysis of the respondents has been performed elsewhere (Cotella et al 2012). However, to support the argument took forward by the present paper it is interesting to point out that in contrast with the homogeneous distribution of national responses [6], the majority of regional and local bodies participating to the process are located in North-west European countries (43 per cent) of which 19 per cent were from the United Kingdom. Only ten responses came from CEE regional and local bodies, all of them located in the Visegrad countries (Czech Republic, Hungary, Poland, Slovak Republic). No responses were received from regional and local bodies in Bulgaria, Romania or the Baltic States (Estonia, Latvia, Lithuania). Of the responses from the Visegrad countries, one out of eight NUTS II regions and two out of fourteen NUTS III regions responded in the Czech Republic, two out of sixteen NUTS II regions in Poland, two out of seven NUTS II regions in Hungary and three out of eight NUTS II regions in Slovakia. Among the universities, research institutes and consultancies that responded, only three out of seventeen are located in CEE – namely two in Poland and one in Slovenia. Here again the geographical spread of the consultation is far from homogeneous, with the vast majority of respondents coming from Southern and North-western Europe and with no responses produced by actors in the Baltic States.

A more in-depth analysis of the interest groups responding to the Green Paper provides additional insights [7]. Out of a total of 152 contributions, 38 per cent include at least one member from Germany, while 47 per cent have members from France. Among actors located in CEE new member states, Polish actors appear to be the most active, being involved in 24 per cent of the interest groups that have responded to the consultation, followed by Hungarian and Romanian actors. Again, actors from the Baltic States appear to be less active and Latvian actors were involved in the least number of interest groups of all EU member states. The responses of the interest groups may be also examined to determine whether they could be allocated to a specific EU macro-region, in order to monitor the extent to which different macro-regional perspectives could theoretically fuel into the debate (c.f. also Janin Rivolin and Faludi 2005 on European spatial planning macro-regional perspectives). Once again North-west European groups appear the most prominent with forty-nine groups, six being located in the Visegrad countries and only two in South Eastern Europe. Overall, the dominance

of French and German actors is clear and they were involved, either autonomously or in the context of transnational organizations/interest groups, in the preparation of 174 and 85 responses respectively. The engagement of CEE actors on the other hand appears to have been more limited. Of the CEE countries, actors from Poland appear to have been most active contributing to forty-six of the responses. Generally speaking actors from the Visegrad countries appear to have been more active than actors in the Baltic States and South-eastern Europe.

THE COOPERATION PLATFORM FOR TERRITORIAL COHESION IN EUROPE

Within the framework of the First Action Programme of the Territorial Agenda, approved in the Azores in 2007 (PT Presidency 2007), the Cooperation Platform for Territorial Cohesion (COPTA – <http://www.eu-territorial-agenda.eu>) was designed to support information and communication among all concerned with the Territorial Agenda of the EU and its implementation process. The COPTA is made up of representatives of the member states, the candidate and guest countries, the EU institutions and other relevant territorial stakeholders, and acts in parallel to the Network of Territorial Cohesion Contact Points (NTCCP). It aims at providing technical support for the cooperation of the Ministers responsible for spatial development in the implementation of the Territorial Agenda. Beside resulting in the further institutionalization of European spatial planning (cf. Waterhout 2008), the institution of the COPTA and the NTCCP favoured an increasing overlapping of the two macro-arenas of debate presented above, i.e. the intergovernmental debate and the Commission's road. The intergovernmental activities that had led to the publication of the ESDP and the Territorial Agenda and the territorial cohesion debate were joined together under a single discursive framework, and constantly brought forward by the subsequent EU Presidencies, although differentially.

This allowed for the possibility for new member states to exert an unprecedented influence on the evolution of European spatial planning, as they were to host the EU presidency in the years to come. More specifically, four CEE countries hosted the presidency in the period 2008-2011, Slovenia, Czech Republic, Hungary and Poland respectively. In the first half of 2008, the Slovenian Presidency established a number of working groups where Member States and Commission representatives also met with representatives from institutions and organizations such as Eurocities and the European Council of Spatial Planners. These working groups continued under the French Presidency in the following semester. Their activities were enriched by the participation of institutions such as the Organization for Economic Co-operation and Development (OECD), the Committee of the Regions, the European Parliament, the Association of European Border Regions, the Council of Maritime and Peripheral Regions, ESPON, and DG REGIO and DG EMP (Employment). These working groups operated as temporary knowledge arenas, providing actors with valuable opportunities to meet and to discuss the recent trends in European spatial development, as well as the relative roles and competences of the European Commission and the Member States in future EU cohesion policy. In the following year (1st semester 2009), it was the turn of the Czech to hold the baton of command. The highlight of the Czech Republic's presidency activities was the international conference on the 'Future Development of the Cohesion Policy and Integrated Local Development', that took place in Prague on March 2009. The aim of the event was to discuss the past performance of the policy and to consider its future development in the light of pressures and ideas for reform.

However, it is with the Hungarian and the Polish presidencies that covered the whole year 2011 that the the growth of CEE engagement in the COPTA and NTCCP activities and, more in general, CEE actors' will to make a difference in the European spatial planning debate, became evident (cf. Cotella et al 2012; Adams et al 2012 for full discussion). This is particularly evident in the pivotal role

that the Hungarian Ministry of Regional Development and especially VATI (Hungarian non-profit company for regional and urban development) have played in the process that led to the publication of the Territorial Agenda of the EU 2020 (HU Presidency 2011) in the first half of 2011. The process, that had started in the second semester of 2009 under the Swedish presidency and had continued with lose momentum under the following Spanish presidency, suddenly increased its pace under the Belgians, with the Hungarian taking the reins together with the Polish in a sort of strategic alliance between experts. When the presidency moved to Budapest, the VATI acted in close coordination with a set of experts nominated by the Polish Ministry of Regional Development, and took the drafting of the document to its conclusion, and to the publication of the final version in Gödöllő, on May the 19th, 2011. Once the EU Presidency moved to Poland in the second semester of the year, the same experts that had played an active role in the Territorial Agenda drafting process were entrusted by the Polish Ministry of Regional Development – together with two other renowned experts [8] – with the preparation of a ‘Background Report on How to Strengthen the Territorial Dimension of Europe 2020 and EU Cohesion Policy’ (Böhme et al 2011). The Polish Presidency later published an official Issue Paper, on the basis of this report, titled ‘Territorial dimension of EU policies. Strategic programming, coordination and institutions territorially-sensitive for an efficient delivery of the new growth agenda – Who does what and where?’ (PL Presidency 2011). In the view of the Polish Ministry for Regional Development, this report should constitute a key reference or ‘knowledge resource’ for influencing on-going COPTA debates and, in turn, the operational detail of post-2013 cohesion policy.

CONCLUSIVE REMARKS

As argued by Faludi (2010), spatial planning in Europe seems to have reached a turning point. On the one hand, the ratification of the Lisbon Treaty, and the consequent inclusion of territorial cohesion among the shared competences between the EU and the Member States, has provided the European Commission with the possibility of making legislative proposals on territorial matters. At the same time, the debate about the future of cohesion policy is ongoing with many net contributors appearing to favour the redirection of these funds from the Commission to national administrations. Within this broader scenario, European spatial planning continues to evolve, though the shape and direction of this evolution remains unclear. In this context, the adopted knowledge perspective offers an interesting entry point to further reflect upon the impact of EU eastwards enlargement on European spatial planning debates and upon the nature and extent to which actors belonging to different areas of the EU exert their power to influence policy development.

The evidence discussed in the text suggests that the role of CEE experts in the process has until now been rather limited, implying that CEE planning agendas at the different domestic levels are likely to continue to be influenced by elements matured within north-west European dominated knowledge arenas. This supports the view of Maier (2011), that territorial knowledge communities in many CEE countries do not yet appear to be consolidated sufficiently to play a pivotal role at the supranational level, due to their ‘weak and fragmented’ nature. However, during the 2000s the ESPON programme activities, the Territorial Agenda process, the Territorial Cohesion debate and more recently the COPTA activities display a growing engagement of CEE actors with European spatial planning knowledge arenas and, in turn, may eventually lead to the potential re-conceptualization of European spatial planning for an enlarged EU territory.

In particular, the case of the Hungarian and Policy EU Presidencies begins to demonstrate how the knowledge arenas through which epistemic communities may have an influence on policy-making

activities, are sensitive to particular events and 'policy windows' (Kingdon 1995). However, despite the relevance of the Presidencies' activities, CEE actors' 'differential merger' (Cf. Pallagst 2006; Cotella and Pallagst 2012) with European spatial planning suggests that it is by no means certain that actors from all CEE member states will progressively move towards the centre of the European spatial planning debate at the same pace, or at all (cf. Lave and Wenger 1991 on the concept of 'situated learning').

There is indeed a variety of potential reasons behind the differential engagement across CEE countries, as well as for the apparently limited levels of engagement among CEE actors when compared to actors in North-west Europe. These reasons may be attributed to a range of factors from lower levels of institutional capacity at the regional and local level (cf. Adams et al 2011; Dabrowski 2011, Kule et al 2011; Cotella et al 2012) to different cultures of engagement, or to the limited genuine political interest in EU discourses when compared to 'talking the talk' for the sole purpose of increasing EU funding support. This paper has begun to address only the tip of the iceberg when it comes to examining CEE actors' desire, or institutional capacity to exert influence over the arenas of ESP discourse, and additional research on the matter is surely required.

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NOTES

[1] Whereas the impact of the EU on domestic spatial planning systems can be explored separately in each Member State (cf. Stead and Cotella 2011), the evolution of European spatial planning derives from the complex and very fluid engagement of a heterogeneous multitude of actors active within several domestic contexts with the supranational sphere.

[2] Intensity and quality of the exerted influence may depend on different variables. Arguably, 'the likelihood of integration between domestic and EU discourse increases the more that public policymakers have institutionalised relationships with epistemic communities that promote EU rules and the more that domestic structure are conducive to the influence of new ideas' (Schimmelfenning and Sedelmeier 2005: 23). In other words, discursive integration operates especially 'when there are strong policy communities active at European and national levels and direct links between them' (Böhme 2002: III).

[3] Such an unbalance in relation to the actors actually involved in the research activity suggests that the latter may potentially bear a more or less explicit western perspective in terms of adopted methodologies and approaches, as well as policy options and recommendations delivered.

[4] Projects developed under the ESPON 2013 Programme are divided according to five priorities: Applied Research on Territorial Development, Competitiveness and Cohesion (Priority 1), Targeted Analysis on User Demand (Priority 2); Scientific Platform and Tools (Priority 3); Capitalization, Ownership and Participation (Priority 4); Technical Assistance, Analytical Support and Communica-

tion (Priority 5). Priority 1 and 2 are devoted the highest share resources, and constitutes the scientific core of the programme.

[5] In comparison with the intergovernmental process that gave birth to the ESDP and the Territorial Agenda, the territorial cohesion debate has had much more exposure to the ‘outside world’. As Waterhout (2011: 93) pointed out, this may be partly due to the fact that territorial cohesion has become an official EU competence and therefore ‘all stakeholders concerned eagerly watch the Commission’s moves’.

[6] National institutions from all 27 EU Member States except Ireland responded to the consultation, in some cases (Czech Republic, Denmark, Greece and Sweden) submitting two responses, either from two separate government departments or one from the administration and one from the parliament.

[7] The interest groups represent a wide diversity of interests with either a geographical or thematic focus. There is also great diversity in the size and nature of the groups, some consisting of only few partners whereas others have almost a hundred members.

[8] They were Kai Böhme, former Head of the ESPON Coordination Unit, and Philippe Doucet, one of the ‘fathers’ of the ESDP.

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THE EU COHESION POLICY IN CENTRAL AND EASTERN EUROPE, A TOOL FOR INNOVATION?

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1. INTRODUCTION

Globalisation has paradoxical territorial effects. On the one hand, it erodes local and regional particularisms and convinces a large number of elected local officials and citizens that it deprives them of the levers of action they thought they possessed. On the other hand, the change of paradigm in the reflection on territorial development has led to depreciating the simple logic of redistribution in the national framework and increasing the status of endogenous development, local initiative and multiscale strategies. The process of decentralisation, the erosion of national frameworks through the effect of European construction and the new organisation of the value chain in the firm have in other respects given a new meaning to territorial development policies.

The implementation of the European regional development policy, supposed to work in favour of local and regional authorities, coincides with a renewal of reflection on the role of local actors in the development process. The European Union has the distinctive characteristic of being the area having the most successfully deepened regional integration and, at the same time, granting the highest importance to the reduction of regional disparities. A third of the Union's budget is indeed devoted to regions lagging in development; which is to say a 213 billion euro envelope for the 2000-2006 programming period. With the adhesion in 2004 and 2007 of twelve economies whose GDP was inferior by half to that of the existing Union, the challenges of solidarity and convergence present themselves henceforth in different terms. While the disparities have considerably worsened from the statistical point of view, the Union has not given up reducing them. A 308 billion euro budget has been allocated to regional policy for the 2007-2013 programming period and certain new Member States will have at their disposal an allocation equivalent to 3.5 per cent of their GDP.

The principal challenge for regional policy is to compensate for the lagging behind of the ex-communist countries in physical facilities, notably those concerning protection of the environment and transport infrastructure. Modernisation cannot, however, rest solely on catching up in this domain. It supposes as well an improvement in quality that a policy of innovation and education could make

possible. In light of the Greek and Irish precedents, it is not yet certain that regional policy can suffice to obtain this objective.

2. REBUILDING COMPETITIVE INFRASTRUCTURES

In Central and Eastern Europe, the first years of implementation of the 2007-2013 EU Cohesion Policy were based on the logic of physical infrastructure adequateness than on a more integrated concept of development.

The amount of Pre-Accession Assistance and the amount allocated during the first programming period (limited to 2004-2006) in this area were too feeble for a significant impact to be observed. On the contrary, the amounts planned for the 2007-2013 programming period are substantially larger: nearly 170 billion euros, of which 67 billion for Poland alone. However, nearly 50 billion (which is to say 28 per cent) have been pre-committed to environmental protection, and notably to the sanitation of water supply networks, to meet Community requirements. The other important allocation concerns transport (more than 52 billion) whose impact on economic development depends on numerous variables. While certain countries have devoted important outlays to the healthcare sector (Slovakia) and to e-administration, the amounts directly impacting upon economic development turn out to be modest in many cases.

Indeed, there are observable differences between new Member States. In Slovenia, transports absorb 25 per cent of the Community's envelope, environment 18 per cent (notably for the management and treatment of water), but 28.5 per cent of the funds has been allocated to research and innovation. Efforts in favour of small and medium-sized enterprises (SMEs) are some of the most significant in Central and Eastern Europe (17.6 per cent of the funds). Nevertheless, nearly everywhere the reconstruction of basic infrastructure resulted to be a priority. This redevelopment has not always taken place without difficulty, particularly in transports. The environmental requirements imposed by various Community directives (mainly through the Natura 2000 legislation), persistent differences between national and Community procedures, have in several cases impeded infrastructure projects to be implemented. Above all, innovative practices have not always prevailed.

The European Commission can argue here that the European regulation compels Member States to undertake substantial investments in innovative solutions with lower carbon emissions than road transport. Yet, pending a more detailed inventory than will be possible uniquely at the close of the 2007-2013 programming period, it appears that the Central and Eastern European countries mostly opted for classic solutions such as road construction. Innovative solutions have indeed been implemented by the Czech Republic (in road transport) and by Slovenia (in air transport), more recently by Poland (the 2010 installation of electric-car charging stations in Warsaw), but they remain sparse while spreading rapidly in the West of the continent. The lack of basic infrastructure in several regions may justify the priority granted to the road sector; however, the orientations of mobility policies adopted henceforth by the early Member States (soft mobility, auto train, intermodal transport, etc.) can rarely be found in the planning documents of Central and Eastern European countries and in the projects adopted.

In other domains, this concern for equipping the country by recourse to scarcely innovative techniques, has also taken precedence over the will to innovate. The struggle against the risk of flooding has in this way chosen renovation and construction of dikes that present the disadvantage of accelerating the speed of the current in case of rising water and only transfer the impact of the flood to communes situated downstream. Similarly, in waste management, the construction of incinerators

(notably in large cities) has often prevailed over the implementation of recycling policies (about 10 per cent of waste is recycled in Central and Eastern Europe as opposed to 50 per cent in the most developed States in the European Union).

The above evidence contributes to highlight a crucial challenge for EU cohesion Policy, i.e. to encourage the Member States to go beyond basic logics of “catching up and to bringing up to level” and to start thinking in terms of more innovative solutions. In the domain of transport as well as in the area of the environment, the time has indeed come in Western Europe of placing greater value on integrated policies that require, in addition to material investments, institutional modernisation and strategic planning capacities. Used intelligently, the European funds allow such options but do not impose them. The Commission does have the legal instruments to encourage the adoption of innovative solutions (notably several directives in the environmental domain), but it has limited power at its disposal, even though the most costly projects require case-by-case examination (the majority of projects are embedded in strategic documents that have been approved upstream).

The global economic crisis that started in 2008 does not seem to have changed things. In the matter of sustainable development, the housing sector is particularly important since it has been one of those most affected by the crisis. It is in addition responsible for 40 per cent of EU energy consumption. The eco-innovative sector is composed mainly of small and middle-sized enterprises (SMEs), a category vulnerable to credit crunch. Moreover, the structural funds in principle furnish new Member States with the means necessary to modernise their housing stock. Regardless, it has been the most advanced States in the area (e.g. the Federal Republic of Germany, Spain and Sweden) that after 2008 have taken the most meaningful measures in favour of energy efficiency, while France was engaging in a significant process of closing the gap.

In Central and Eastern Europe, legislative adjustments have been adopted (Poland, Bulgaria). The Czech Republic has taken accompanying measures within the framework of structural funds (targeting the most modest households as well) and has adopted an action plan in the sphere of energy efficiency. Lithuania and Latvia have brought theirs up to date. Nevertheless, classic technical solutions have been adopted most often. In Poland, energy efficiency has been the objective of only five projects between 2007 and 2009 for a total amount of 7 million euros (European Commission, 2009). The complete plans of action that associate fiscal incentives, training policies and legal framework modernisation, which are probably the most efficacious in the long run, remain the prerogative of some “enlightened” early Member States. Yet, in Central and Eastern Europe the issue of energy efficiency assumes strategic importance for States’ security and independence. Coal still plays an important role in the assessment of energy use (it is employed for 95 per cent of electricity production in Poland), and the sole alternative in the short run is an increase in natural gas imports from Russia. Increased recourse to nuclear energy is contemplated in some countries, but over the short and medium term, the role of coal will probably decline only progressively.

In the domains of transport and housing, the constraints imposed by the European Commission (through regulations governing the use of structural funds or certain directives, notably in the energy sector) only marginally facilitate the diffusion of the most innovative solutions in Central and Eastern Europe. It is true that the Commission and the new Member States have a common interest: to ensure a satisfactory absorption rate of the Structural funds within the specified delays (according to the N+2 rule). When all is said and done, sustainable development still remains without much consideration in Central and Eastern Europe even though the structural funds in principle enable the implementation of integrated policies that are responsive at the same time to the necessary technical investments and to the qualifications needs. The recommendations of the Barca Report,

suggesting the imposition of more binding conditionality and greater collaboration on strategic documents, appear to be pertinent here – contingent on an adequate allocation of human resources by the Commission (Barca, 2009).

In the states of Central and Eastern Europe where development often continues to be perceived more as the product of infrastructures than of institutions, of interplay by actors and of investment in human resources, more direct incentives to promote social capital may not be superfluous. Nevertheless, a greater interventionism by the Commission on these subjects would probably encounter the reticence of certain Member States and be undermined by the Commission's lack of human resources. What remains is that, if we represent regional development as a triangle resting on financial resources, quality of governance and the concept of development, the latter is not the object of specific action. By dint of simplifying the framework of regional policy, it runs the risk of being reduced to a simple tool of redistribution. Likewise, the main indicator retained by the Commission in its reflections – namely GDP per capita – would benefit by being more specific and cross-correlated with other indicators, since it presents such a partial vision of territorial dynamics. In this sense, the strictly economic evaluations of the impact of structural funds usually neglect the key role they can play in terms of governance and diffusion of good practice.

3. ECONOMIC INNOVATION: ANOTHER CHALLENGE FOR REGIONAL POLICY

Beyond the policies of regional development, the role of innovation in the activity of the firm continues to be crucial for Central and Eastern Europe, confined since the Middle Ages in a peripheral role within the economic geography of the continent. To be sure, during certain periods, notably between the two wars, several Central European regions had a standard of living neighbouring on, even superior to, the living standards in Western European territories. Nonetheless, the diffusion of innovations has always operated from the West to the East, and Central and Eastern Europe has very rarely benefited from a context enabling it to escape from its peripheral status.

While the twenty years of transition since 1989 have made it possible for this area to initiate a process of catching up with the rest of the continent, innovation appears to be indispensable for Central and Eastern Europe to compensate for the erosion of the advantages it had at its disposal since the beginning of the transition, namely: a low labour cost (which is rapidly rising) and a favourable demography. The paradigm that has won recognition since the end of the 1980s according to which “the entrepreneurial economy of knowledge” (Saint-Étienne, 2009) has replaced competition by cost and natural advantages, is henceforth valid for Central and Eastern Europe.

Since the World War II, however, the sense given to the word “innovation” has evolved. During the 1950s, the term referred to a linear process extending from the scientific discovery to the arrival on the market of the newly conceived product. During the 1960s, this approach did not change radically but emphasis was placed on the demand that had supposedly inspired the innovation and that was important to detect or to elicit. An approach combining these two aspects then resulted in a consensus, and the interactions between the needs of the client and efforts of research were put forward. In the 1980s, the idea was wide-spread that the actors involved in the virtuous innovation process were still more numerous. Next, the technological progress added to the value chain analysis led to attributing greater value to the logics of partnership and interaction within “eco-systems” that are favourable to innovation.

Christian Saint-Étienne (2009) defines the economy of knowledge as “a socio-economic eco-system that promotes – notably through the action of specialised intermediaries – the interactions

between entrepreneurs, risk capitalists and investors, researchers, developers production engineers and production operators in order to develop a permanent stream of new products and services capable of satisfying creditworthy demand in a competitive universe". In itself, the word "innovation" consists of a complex reality extending from fundamental research to incremental innovation in the firm, by way of applied research that associates firms and academic institutions, the utilisation of technological progress in the most diverse domains, including the most traditional, or also non-technological innovation in marketing, production organisation and personnel management.

The territory is not at the heart of every innovation process, but adapted territorial strategies foster innovation. Production systems being less hierarchical than they previously were, the local and regional environment of innovation may play a key role in the strategies for implanting production units. Moreover, the diversity of economic fabrics and challenges abolish any pertinence of a unique, centralised innovation policy. The territorial dimension has been emphasised in several pieces of research (notably devoted to "learning regions" or to innovative milieus) that have shown how essential to the development process are immaterial resources (competencies, know-how, qualifications and ways of acting and getting things done). For Björn Johnson and Bengt-Ake Lundvall (1994), "knowledge is the fundamental resource in the contemporary economy, and learning is the most important process". The concept of "learning economy" highlights here the "capacity to learn and to innovate. This capacity has not only a scientific and technological dimension. It implies fertile bonds with universities, research institutions as well as organisational modes and institutional roles" (Johnson and Lundvall, 1994). What emerges here is an approach to the economy founded on learning processes rather than on allocation mechanisms leading to equilibrium.

In this context, far from signifying the end of territories, globalisation makes possible the invention of new forms of territorialisation. Bjørn Asheim (1995) sees the "learning region" as an extension of the industrial district, of which some could say that it suffered from insufficient receptiveness to exterior actors and ideas. According to him, this concept makes it possible to emphasise the risk of path dependence and to transcend the contradiction between functional integration and territorial integration. In an innovation process, the proximity between actors may reduce transactions costs and accelerate informational exchanges through self-reinforcing virtuous dynamics as innovation elicits more innovation. It is nonetheless essential for the "learning regions" to be structured so as to allow a flow of information and contacts between different partners (firms, research centres, financing organisms, etc.).

In this matter, the shoe pinches in Central and Eastern Europe due to the centralising logic of former regimes. Furthermore, certain countries lack regional identities (e.g. Hungary) and/or hesitate to decentralise competencies. The recent drawing of the borders or the presence of minorities (Romania) incite certain governments to avoid regionalisation of their territory (the exception here being Poland). It is not possible to exclude over the medium and long term that the structural funds may reinforce the autonomy of local and regional elites. In the meantime, under what conditions they will be able to promote the emergence of knowledge economies in Central and Eastern Europe it remains to be seen.

4. LESSONS FROM PREVIOUS COHESION COUNTRIES

What do the precedents teach us, in Ireland, in Greece or on the Iberian Peninsula? For the 2007-2013 programming period and by virtue of the priority henceforth accorded to innovation, the link between the cohesion policy and the Lisbon strategy has been reinforced. The States of the EU-15

are notably under the obligation to invest the major part of their financial allocation in the projects pertaining to this strategy: namely 60 per cent in their regions characterised by the “convergence” objective and 75 per cent in those classified under the “regional competitiveness and employment” objective. No binding objective has been set for the new Member States, but several have established one that is in the vicinity. Bulgaria, Poland and Romania have decided to devote an important share of their resources to the Lisbon strategy. R&D expenditures in the new Member States will be four times higher between 2007 and 2013 than in the preceding programme period (European Commission, 2009). In the negotiations for the 2007-2013 period, the European Commission insisted vis-à-vis the new Member States that a substantial allocation should target applied research. In Slovakia, an effort without equivalence in the Union was granted to promote information and communications technology (ICT).

Beyond this show of infatuation for the Lisbon strategy, the issue of the most appropriate innovation for Central and Eastern European economies remains an open question. Discourse and practice adopted in this matter by the most advanced countries of the Union are not necessarily adaptable to the peripheral countries (Liagouras, 2010). In the case of Greece, the demand for technology is feeble, the economic fabric is dominated by the construction sector and by the service sector (tourism), and SMEs are more penalised by organisational and financing problems than by the rarity of cutting-edge innovations. The country has a renowned scientific base at its disposal, and its indicators, notably in the domain of publication, are flattering, but innovation technology is nevertheless hardly widespread. Indeed, the institutional eco-system in place does not contribute to a proper articulation between academic research and innovation. Yet for George Liagouras, multiplying the technological parks and other such incubators would not be a panacea. The specificities themselves of the economic fabric explain that firms fundamentally have only weak appetite for technological innovation. Reducing innovation to such demand would therefore be pernicious.

Before George Liagouras, Alfred D. Chandler (1990) and William Lazonick (1991) had stressed in their study of economic development in the United States, the Federal Republic of Germany and England that development ensued above all from progress in the organisation of production methods. In our day, in certain domains innovation *sensu stricto* plays an essential role (biotechnologies, information and communications technology); but as a general rule, the firm is most often subject to the difficulty of articulating market expectations with its competencies. Technological innovation is a component of a vast eco-system. In this sense, the backwardness evaluated by the yardstick of the share of R&D expenditure in GDP might just as well be the consequence as the cause of the lack of competitiveness. It is therefore essential to understand “innovation” in the broad meaning of the term (Lundvall, 2002) and to include the organisation of production, quality control, distribution methods, marketing and industrial design, all presenting vulnerabilities for firms in countries recently converted to capitalism. It is also necessary for the economies of Central and Eastern Europe to disseminate the know-how of foreign firms throughout the entire economic fabric, even if few among these have implanted R&D units in the region. To sum up, innovation is required in Central and Eastern Europe on the condition that it won't be limited to technological innovation. In the contrary case, the scientific base of the country could indeed profit from the grants paid to the academic world, but without the economic fabric gaining in competitiveness. Greece is here again illuminating.

In the 1980s, the country decided to reduce its dependence with respect to imports of technology-intensive goods and created the General Secretary for Research and Technology, the GSRT (Liagouras, 2010). Co-financed by the European funds, numerous projects emerged (technological parks, incubators) without generating perceptible impact on firms' innovative capacity. Yet, the idea

that emphasis should be placed at least as much on the link between the academic world and firms as on fundamental science could be found in all official documents. "If in Greece we had a well-developed private sector with sufficient research capacities, this policy would have generated results. Since this is not the case, the policy benefited corruption more than innovation" concluded Vassiliki Siouti (2004). All in all, it would have been preferable to have invested less in technological innovation and more in the modernisation of firms in the different functions for which they still have a competitive lag. George Liagouras regrets that the rhetoric and advice relating to technological innovation elaborated in the European framework were integrated without taking into account the specificity of the Greek economic fabric.

The Irish case is also worthy of examination to the extent that the Central and Eastern European development model calls to mind the one adopted by Dublin during the years 1980-1990, associating low salaries, attractive taxation and important foreign investment. Patrick Collins and Dimitrios Pontikakis (2006) emphasise the dual character of the Irish innovation system. On the one hand, industrial policy principally occupies itself with disseminating the know-how of locally implanted multinationals to all firms. On the other hand, innovation policy implements the precepts developed in the European framework. For the two authors, one conclusion is obvious: it is the industrial policy applied on the national level that explains how the Irish economy moved up market, much more than the implementation of the Lisbon strategy. While Ireland did receive an appreciable number of foreign investors, a minority of them developed R&D activities on the spot (one third in 2001, of which roughly twenty accounted for two thirds of the amount invested by foreign firms). Since the 1980s, calls to revise the development model have multiplied however. As early as 1980, the Telesis Report criticised the excessive dependence on foreign investment and the absence of links between foreign investors and local firms. A national programme initiated in 1985 for the purpose of reinforcing these ties had little result. In 1996, out of the 22,667 Irish SMEs, only 174 were subcontractors of multinationals implanted in the country, and very few belonged to the high technology sector (Breathnach, Kelly, 1999). The successive stages were the creation of a ministry dedicated to science and technology, the publication of a report devoted to innovation policy (the Culliton Report, 1992), then the creation of the Advisory Council for Science, Technology and Innovation (ACSTI) in 1995. The following year, an official report on science, technology and innovation insisted on the necessity of a more endogenous development of the country.

At the beginning of the years 2000, the outcome of these efforts was modest. To be sure, the country is ahead of all the other Member States with respect to the share of high technology products in its exports. The statistics, however, invite prudence since they refer for the most part to exports of computer products but conceal that the technological content of the work done on Irish soil is in general limited. In spite of the effort undertaken, Ireland remains below the EU-27 average public expenditure as well as private expenditure in favour of innovation. As for the number of per capita patent applications, the country is at the end of the queue in the classification of old Member States, and is ahead of only the three other great former beneficiaries of the cohesion policy (Greece, Portugal and Spain).

In the end, the two countries that the literature on the impact of European funds often opposes, the one the model to follow (Ireland), the other the perfect counter-example (Greece), have more points in common than the dominant representation would lead us to believe. Until the 1980s, their innovative capacities were comparable. During the years 2010, the two countries are still among the least innovative in Europe. The divergent economic evolution of these countries from the beginning of the 1980s onward has little to do with innovation. Ireland emphasised training and attractiveness,

Greece infrastructures. Ireland mobilised numerous institutions such as the Industrial Development Agency (IDA) or the Science Foundation Ireland (SFI) to attract foreign investment in high technology. Whence this perception of a country that has become a pole of competencies in certain high value-added industries, notably in the software industry. In reality, the R&D effort was borne by the multinationals more than by a national strategy articulated with the economic fabric.

Moreover, while many firms established in Ireland belong to the high-technology sector, the activities they developed there have rarely been high value-added. The country's success results principally from a skilful strategy drawing on an opportunity (access to the extended European market resulting from the adhesion) to attract the FDI (mostly American) due to a well-trained labour force and to renovated infrastructures by means of the European funds. Be it Ireland, Portugal, Spain or Greece, none of these countries has succeeded in elevating itself to the level of the most innovating European economies. Despite dissimilar courses over the 1980s and 1990s, none seems to have constituted the basis of a pertinent development model over the long run. At the beginning of 2010, Ireland and Greece had the most deteriorated public finances of the euro zone and were thus condemned to endure a long period of austerity and anaemic growth.

5. CENTRAL AND EASTERN EUROPE: A MODEST PLACE IN THE EUROPEAN GEOGRAPHY OF INNOVATION

The Central and Eastern European context is characterised by industrial economies (for the most part), specialised in low value-added sectors. Yet such sectors have not been the object of specific reflection in the agenda of European innovation policy (Hirsch-Kreinsen *et al.*, 2006, p. 15) even though modernisation through the introduction of external know-how is proving indispensable. To incriminate here European policy would be to forget however that national and regional actors dispose of an appreciable margin of manoeuvre in the implementation of the European funds. The temptation for national and regional actors is nevertheless great to target the numerical objectives of the Lisbon strategy and to draw inspiration from regularly set forth "good practice" recommendations. Yet, these guidelines cannot be considered as such for all regions (Tödtling and Trippl, 2005).

The European instrument panel for innovation set up by the European Commission stresses the backwardness of new Member countries. A topology founded on different indicators leads to four groups (leaders, followers, moderate innovators and catching-up countries). While three new Member States – the Czech Republic, Estonia and Lithuania – are in the next-to-the-last category, all the others are in the last group in the company of a single old Member State, Greece. Evaluated according to the standard of public and private expenditure, Central and Eastern Europe does not appear in a better light. In volume, the public expenditure has never ceased to rise; but when expressed as a percentage of GDP, a widening gap in comparison to the old Member States appears. The financial effort of business entities also lags behind in comparison to other EU countries.

Certainly, other indicators are more flattering. Employment in the R&D sector is close to the EU-27 average in several Member States. It is even higher in the Czech, Polish, Hungarian and Slovak capitals. However, in 2006 the new Member States still applied for only 166 patents per year, which is 4 times less than Belgium alone and as much as 4,300 times less than the Federal Republic of Germany!

On the scale of the EU, R&D expenditure by business firms are concentrated in a few territories, ten regions (situated in Germany, Sweden, Finland and in the United Kingdom) alone account for 32 per cent of this spending. As a general rule, the regions of the EU-15 spend 1 per cent of their GNP

on R&D investment (GERD - Gross domestic expenditure on R&D), as opposed to 0.3 per cent in Central and Eastern Europe. No tangible sign of convergence has emerged yet. In the RCE (“regional competitiveness and employment”) regions, private firms’ R&D expenditure reaches 1.3 per cent of GDP, which is 4 times higher than in the “convergence” regions. If the tendency at work continues, the gap between the EU-15 and the new Member States should deepen in the course of coming years (with the exception of two regions situated in the Czech Republic – Prague and Moravskoslezsko). Moreover, the RCE regions register 13 times more patent applications than the convergence regions. The public structures supporting innovation are often weak, when not completely absent. In Poland, 50 per cent of *powiats* (counties) and 75 per cent of communes dispose of no such structure. To sum up, the influx of FDI in Central and Eastern Europe testifies for the attractiveness of the region, contributes to the amelioration of productivity, but is slow in generating visible effects on innovation. Public policies could pick up the baton here by embedding the foreign firms more firmly in the local economic fabric, but only when the firms agree and especially when local, regional and national actors have been able to organise milieus that encourage innovation.

It is in fact important for regional innovation strategies to be based on a precise diagnostic of the economic fabric so that the priorities are not formulated in vague terms. If not, innovation appears detached from other aspects of development even though it should be associated with them. In Poland, the articulation and coordination of regional strategies with the national strategy is often lacking and the links between the other actors of a given region do not always seem solidly established.

Central and Eastern European countries counts several clusters, some of which date back a number of decades. In south-west Poland, the “Aviation Valley” has been the result of an initiative approach pursued by the Polish State between the two wars. Other poles emerged over the course of the communist period. In their study devoted to the ten countries adhering to the EU in 2004, Christian Ketels and Örjan Sölvell (2006) speak of clusters for regions that demonstrate a specialisation in a given sector. Along these lines, they observe that clusters concentrate 58 per cent of total employment in the ten countries under consideration. However, the clusters that satisfy the “triple helix” schema (public actors, academic institutions and private actors engaging in intertwined collaboration) remain rare in Central and Eastern Europe. More often than not, they have little structure and a weak connection to academic institutions. Now, the percentage of firms conducting innovation activities (which is 72.8 per cent in Germany, 41.5 per cent in the whole of the EU-27) does not exceed 27 per cent in Poland and is inferior to that figure in five other new Member States (Eurostat, 2007). On the other hand, numerous Central and Eastern European firms have formed cooperation projects with European partners, notably as a result of the massive presence of foreign investors. On average in the EU-27, 10 per cent of innovating firms have entered into cooperation with European partners. Eleven of the twelve new Member States exceed this percentage, and some of them (in particular, the Baltic countries and Slovakia) appear at the top of the ranking. This good integration is explained in part by the substantial presence of foreign firms.

In Poland, cooperation was initiated between firms and research institutes in certain large cities (electronics in Warsaw and Kraków, pharmaceuticals and cosmetics in Kraków and Łódź), but few structured clusters can be counted that give rise, for example, to new vocational training tracks. The special economic zones illustrate here a more general challenge for new Member States. Since the SEZs are destined to disappear progressively in the name of the European policy of free competition, they must structure the conglomeration of activities they made possible. Otherwise, it will be hard to ensure any future embeddedness of the implanted firms within their respective territories. Hungary is a country that put in place a specific cluster policy at the end of the 1990s. The Széchenyi Plan of

2001 provided notably for specific subsidies while adopting a vague definition of a string of firms that lacked reference to links with research institutes. This initiative also suffered from a lack of budgetary means. It was prolonged in another form after the Plan terminated in 2002, and the support for clusters, since 2004, is integrated into the strategic documents within the framework of the implementation of the structural funds. In 2010, a (long) list of clusters has been drawn up.

The cluster tool has been slowly disseminating in Central and Eastern Europe since the beginning of the transition. The firms driving this process are most often foreign enterprises whose industrial project in the area does not include the intention of developing R&D activities. Similarly, also the clusters gathering together local firms – frequently belonging to traditional sectors – only rarely have the need and the capacity of developing R&D activities. The experiments that have been crowned with success are usually a privilege of wealthy regions and/or the extensions of former initiatives, such as the aviation valley in the Rzeszów region. What is more, in this case the cluster is rather a project making it possible to mutualise resources (vocational training notably), to render visible the competencies of the pole and to deepen the collaboration with other European aeronautical clusters rather than to develop R&D activities.

In the end, while the declared prescriptions at the European level are very often present in the strategic documents, the methodology adopted does not allow to affirm that the new Member States will be able to avoid, in the matter of innovation, the fate of Greece or Ireland. In 2010, a provisional evaluation makes clear that the rate of absorption of sectors devoted to innovation is not very high in several new Member States. In Slovakia, the operational programme dedicated to ICT is currently the least successful one. Finally, the European priorities for innovation are difficult to translate into operational terms and in Central and Eastern Europe the accent keeps being placed on infrastructures (incubators, technological parks, etc.), while organisational and incremental support for innovation in business enterprises is often neglected. The funds are more usefully spent when the following conditions are brought together: strong local partnerships, support for cooperative agreements, for innovative processes rather than for infrastructures alone, and pertinent evaluations of the measures adopted. The examination of precedents leads to believe that a learning process may take place (Musyck and Reid, 2007), certain States having implemented, from one programming period to the next, more ambitious measures than the simple construction of infrastructures, as testifies the example of clusters in Spanish Basque country or also the progressive priority the Czech Republic is giving to the areas of training and education (Blažek and Uhlir, 2007). Besides, needs differ according to the region. Bernard Musyck and Alasdair Reid (2007) put forward the hypothesis that the most disadvantaged regions are not necessarily unreceptive to measures supporting innovation but that in their case, the accent must be placed on the integration of advanced technologies within their traditional activities. One of the difficulties arises from the fact that, in the field of innovation, the enterprise remains the principal actor. The risk is that the least virtuous regions in the sphere of innovation observe their gap with the most innovative regions widen inexorably. This is the scenario highlighted by Clarysse and Ugur Mudur (2001) who class the European regions according to six categories and who note that the methodology adopted to implement the European funds naturally works in favour of the most innovative regions.

6. SHOULD HUMAN CAPITAL AND SOCIAL CAPITAL BE PRIVILEGED?

In Central and Eastern Europe, the general consensus is that social capital is weak. The authoritarian nature of the preceding regime and the transformation of social relations as a result of the

1989 revolutions have led to a dissolution of solidarities, networks and, as a consequence, to an underdeveloped social capital. Everyday practices under the old regime may have sustained distrust in social relations, distrust that is not however to be found in private relations (especially in the family). The absence of confidence among economic actors, the centralised nature of communist regimes and the weakness in the fabric of SMEs may account for the rarity and the need for clusters in Central and Eastern Europe. Certain empirical studies have highlighted along these lines the lack of confidence in economic milieus during the years following the transition (Raiser *et al.*, 2001).

Thus, the question of innovation definitely cannot be summarised by investments in infrastructures and material equipment. In several Member States, the principal gap is less the deficient infrastructures than the shortage of competencies and the lack of confidence among partners, as Jiří Blažek and David Uhlir (2007) point out in the case of the Czech Republic. The influx of private investment may serve as an incentive. The establishment in the Czech Republic of research centres by certain multinational corporations and the links woven between these firms and universities has led to a reorganisation of the Research and Development Council and to the integration in this structure of business representatives.

The success of Ireland probably rested more on the improvements made to the education system than on innovation support. On the demographic level, Central and Eastern Europe is clearly distinguishable from old Member States by the abundance of its young population. This particularity has benefited them in the course of transition just as it has benefited the development of other countries, notably Ireland and certain Asian countries. It is, however, a window of opportunity that is destined to close due to the collapse in birth rates since the 1980s. For the 2008-2060 period, the new Member States are indeed the subject of the most pessimistic forecasts in the EU-27. Over this period, they will record an important decrease in their population. This observation applies especially to Bulgaria (-18 per cent), Latvia (-26 per cent), Lithuania (-24 per cent), Rumania (-21 per cent) and Poland (-18 per cent). The latter may count 31 million inhabitants in 2060 as opposed to 38 million in 2008. The corollary of this evolution is that the dependency rate in the new Member States should increase noticeably and exceed 60 per cent in eight Central and Eastern European countries (Bulgaria, the Czech Republic, Latvia, Lithuania, Poland, Rumania, Slovenia and Slovakia).

While the governments of the EU-27 spend on the average nearly 5 per cent of their GNP on education, several new Member States are situated above this average, whereas only two of them (Slovakia and Rumania) devote less than 4 per cent to education. Nevertheless, in PISA (Programme for International Student Assessment) classification, the new Member States are found clearly behind the old Member States. Certainly, the former communist countries can claim to have good-quality general education and an appreciable technical level in numerous educational tracks. Nonetheless, the articulation between the educational system and the needs of the labour market is still perfectible, and the role of one of the structural funds, the ESF (European Social Fund) for the amelioration of labour qualifications remains uncertain.

7. CONCLUSION

After two decades of catching up founded on recognised technical competencies, cheap manpower and attractive taxation, Central and Eastern Europe cannot allow itself to play the role of simple assembly platform for western European or Asian manufacturers as it still is, principally in the electronic and automobile sectors. It is essential to develop eco-systems favourable to the economy

of knowledge so that the region no longer remains a periphery useful to international enterprises for low value-added activities.

The Greek precedent however demonstrates that efficient innovation is not necessarily synonymous with high technology and that it should be articulated with the specific economic fabric in each territory. Examination of the principal former beneficiaries of the cohesion policy also confirms that the structural funds can only play a role if they are integrated into adapted national and local strategies. Favourable eco-systems should be developed on the basis of pertinent strategic choices, financial resources and confidence between the actors. There is the risk however that the commitment of firms remains missing from this eco-system. How can innovation thrive if foreign enterprises do not wish to develop it and if the surviving local enterprises do not have the required capacities? The choice made by Central and Eastern European countries, as previously by Ireland, to buttress the catching-up process to the influx of massive foreign investment raises here questions.

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TRAPPED BETWEEN CONCENTRATION AND COHESION? – OVERCOMING THE DICHOTOMOUS NATURE OF STRATEGIC SPATIAL DEVELOPMENT WITHIN THE BALTIC SEA REGION

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Abstract. Rapid economic growth in the BSR has been followed by increasing internal regional polarisation. Due to the small size and marginal position of many BSR countries, consistent policies aiming at creation of agglomeration effects are on a normative basis more than justifiable. This need for concentrational efforts should be weighted against the trade-off on escalating territorial polarisation, especially between metropolitan or other urban areas on the one hand, and rural or peripheral areas on the other. The concept of territorial specificities provides possibilities for a common BSR arena for developing shared policies that could navigate between the demands of the dichotomous development processes of the region. Particularly strategies aiming at larger secondary cities with their extended hinterlands appear viable and may provide one first step on this path.

Key words: Baltic Sea Region, cohesion, metropolitan areas, polarisation, specific types of regions, secondary cities

INTRODUCTION

Territorial development policies in the Baltic Sea Region (BSR) are faced with two dichotomous development options. On the one hand the smallness and marginal position in the European territory of most BSR countries implies that concentration of activities is in economic terms a justified option. On the other hand many of these same countries are in the frontline of EU when it comes to increasing regional polarisation.

Combating such opposite development tendencies via targeted policies is challenging. Territorial specificities are gaining increasing attention in European policies, as is evident e.g. in the Green Paper on Territorial Cohesion, 5th Report on Economic, Social and Territorial Cohesion, or Article 174 in the Treaty on the Functioning of the European Union. In these, the specific endowments of different territories are viewed as constituting a (currently underutilised) development potential.

This paper addresses the dichotomous development challenge of the need for both agglomerative as well as cohesive policies in the BSR. It does so by applying a focus on the territorial specificities

of the region, where particular attention is given to that of secondary city development. Currently none of the BSR countries have unambiguous policy instruments directed specifically towards secondary cities, and the paper seeks to highlight the possibilities for better harvesting underutilised potential in secondary cities while at the same time increasing overall territorial cohesion in their respective countries. At the onset of the article, an account of current spatial tendencies in the BSR is provided.

INCREASING MACROREGIONAL COHESION

The Baltic Sea Region hosts a long standing historic legacy of economic integration. This process began with the hanseatic trade league and was partially disrupted by the Cold War division of the region into eastern and western parts. However, remnants of this division still today partly sustain. Apart from Russia and Belarus, all economies bordering the Baltic are now economically integrated into the EU/EEA Single Market, albeit in praxis at differing intensities. Despite this, the historic legacy of the 50 year divide is still clearly visible.

This gap is however diminishing rapidly. Throughout the 1990s and much of this millennium economic growth rates of the eastern BSR countries have with very few exceptions been superior to those in the west and the same pattern has continued right up till the economic crisis of 2008 (Figure 1). During the current decade right up till 2007, economic growth in the eastern BSR has been twice or even thrice as fast as in the West and thus closing rapidly in on the substantial welfare gap.

The key driver in the economic development of the BSR varies from country to country, but some common patterns are discernible. The relative prosperity of the BSR stems primarily from a high level of labour utilisation, i.e. substantial proportions of the working age population are actually employed and work comparatively long hours. The eastern parts of the region have correspondingly high rates in comparison with other CEE countries, especially when considering the hours worked per employee (Baltic Development Forum, 2006 and 2007). Contrary to popular belief, labour productivity in the BSR is not, with the exception of Norway, particularly high. In 2006, GDP per person employed in Finland (which has the highest in the BSR after Norway's 60%) was only 11.5% above the EU27 average and surpassed by seven other Member States. At the other end of the scale Latvia and Lithuania in particular had a labour productivity less than 60% of the European Union average.

Despite the exceptionally rapid growth in the east, the welfare gap across the Baltic Sea persists and GDP per capita in the eastern BSR countries is still some 4-5 times lower than for their Western counterparts. In 1995 the ratio between the W-BSR and E-BSR was roughly 3 to 1 whereas this ratio decreased in ten years to approximately 2½ to 1. If the relative production value of the two groups of countries would change linearly at a similar rate as after 1995, this gap would be closed in some thirty years. Such linearity of growth, however, is highly unlikely. On the other hand, the prime example of e.g. Ireland shows, that change can at times occur very rapidly through consistent targeted policy combined with favourable underlying conditions for growth.

As is also visible from Figure 1, the economies of particularly the Baltic States have not proven to be very resilient to the current economic downturn, but also larger BSR economies such as Russia have taken a severe beating. Economic growth in Poland on the other hand has continued on a par with the rates prior to the crisis. This implies that in the past two years the economic welfare gap in the BSR has for the first time in two decades actually widened.

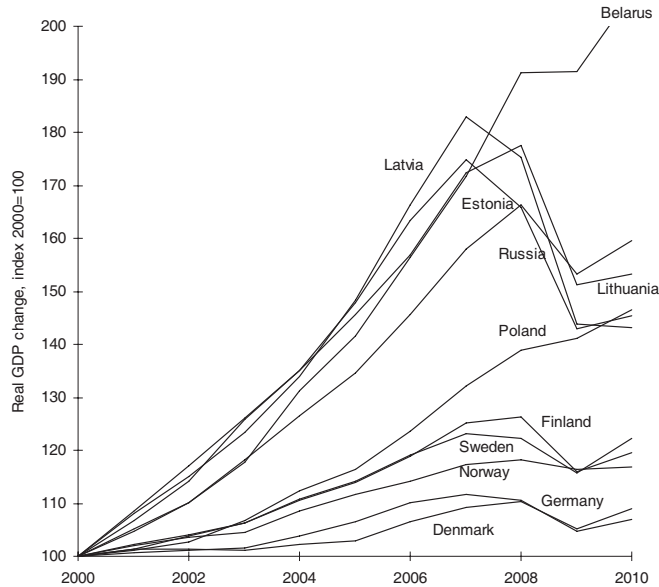


Figure 1: Real GDP change in BSR countries 2000-2010, index 2000=100

Data source: World Bank

Regardless of the overall more modest growth rates, also the western BSR countries – or specifically the Nordic ones – have been among the top European economic performers in the 2000s. In spite of this rapid overall growth in the entire BSR¹, as an economic entity the Baltic Sea Region is still only a moderate European player. The size of the entire BSR economy (of which the four Nordic countries account for more than a half) is smaller than that of France despite a population nearly double the size. Unlike France however, the BSR is subdivided into at least 11 different economic entities which in European comparison entails extremely small market sizes, which, to make matters even worse, are located in the European periphery. Taking all this into account, the BSR is only a marginal economic region when viewed from the European core, or indeed globally.

Nonetheless, the region, or at least the western parts of it, is thoroughly integrated into the global economy. The regions' total share of world exports are some 50 percent higher than its share of world GDP. According to the Baltic Development Forum's State of the Region Report 2006, these high exports are slowly undergoing a gradual shift from exports of goods to exports of services.

The level of trade integration *within* the BSR is also fairly high, but again, disharmonic. Trade flows within the region are dominated by west-west trade (accounting for about half of all BSR trade), whereas the integrative east-west/west-east trade remains rather more modest. Partly this discrepancy results from the fact, that much of the "standard" trade flows are disrupted by especially Nordic-Baltic and German-Polish mergers, buyouts and other forms of direct investment. This in turn leads to a less statistically recorded trade. However, the relative share of the east-west/west-east trade is rapidly changing, much as the result of increased petrochemical exports from Russia (Table 1).

¹ Considering only the BSR parts of Germany and Russia.

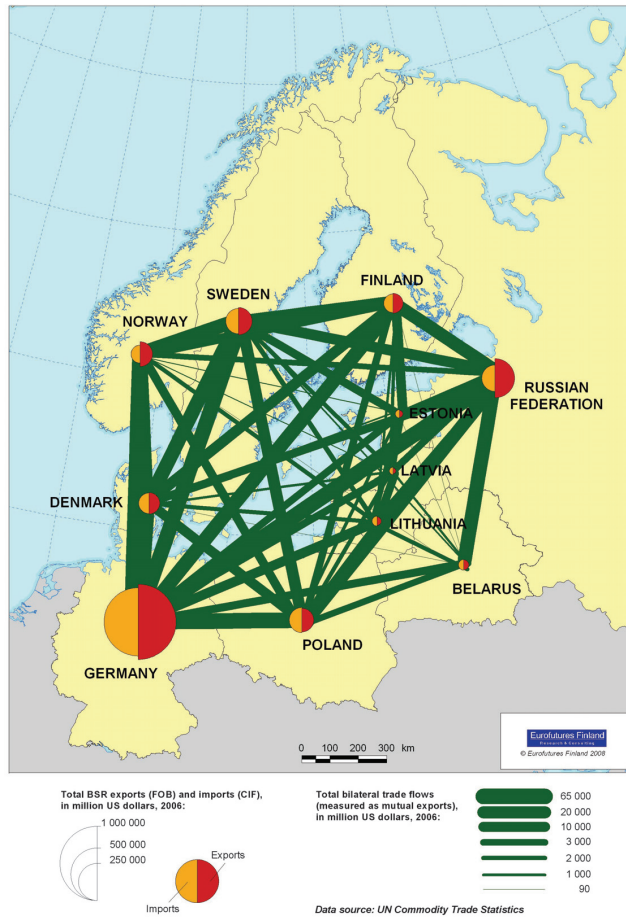


Figure 2: Trade flows in the Baltic Sea Region
 Source: Hanell, 2009, p. 524

Table 1: Macro regional trade flows in the BSR in 2002 and 2006

	Total bilateral trade¹			
	<i>In million \$ U.S.²</i>		<i>Share (%) of BSR total</i>	
	2002	2006	2002	2006
East-East Trade	24 900	60 800	12.1	13.9
West-West Trade	105 600	190 900	51.4	43.6
East-West Trade	75 000	185 800	36.5	42.5
Total intra-BSR trade	205 500	437 500	100.0	100.0

¹ Measured as mutual exports

² In current prices

Data source: UN Commodity Trade Statistics

Source: Hanell, 2009, p. 524

All in all, trade flows in the region are dominated by Nordic-German and intra-Nordic trade on the one hand and German-Russian trade on the other (Figure 2). The Baltic States, although more dependent on the BSR as an export market than the other countries, are small players in the overall context. For especially Russia but also Norway, exports to the BSR are considerably larger than imports from it, and furthermore largely dependent on petrochemical products.

Similar discrepancy is also evident in other forms of economic flows. Foreign Direct Investment (FDI) for example displays an even larger relative west-to-west integration whereas integrative east-west / west-east remains minuscule in comparison (BDF, 2006). Groth & al (2008) indicate that also the intra-industry trade, which is a measure of how well different industries are integrated with one another, shows a large discrepancy between the east and the west BSR.

In terms of structural differences the BSR displays also in European terms a rather unique palette of discrepancies across the Baltic. In economic terms this is highly visible e.g. in the dualistic economic structures in relation to the knowledge economy. Whereas most western BSR countries are European top performers in virtually all measurable fields of the knowledge and innovation economy, this has yet to be materialised at the other shore of the sea (Hanell & al., 2006)

INCREASED NATIONAL POLARISATION

If the persisting east-west dichotomy of the BSR acts as a dividing barrier, then the internal core-periphery dichotomy creates a common sphere for action for all countries in the region. Spatial polarisation in the Baltic Sea Region increasingly predominates across virtually all fields of the society, evident among others in demography, economic development, economic vulnerability, innovation, entrepreneurship, the knowledge economy, lack of polycentric urban structures, social development, and so on, virtually *ad infinitum*. This process, of which similar developments can be found across Europe, has despite small temporal breathers steadily been on the march for at least a decade or so and acts as a countering force to decreasing differences between the countries (Hanell, 2005; Schmitt & al, 2008).

This result of this process is partly evident when examining disparities² in e.g. GDP per inhabitant over the last decade (Figure 3). During the period up till about 2005 an increase in regional polarisation has occurred in all EU Member States in the BSR except for Finland, Sweden and Germany. Similar tendencies are most likely evident also for Russia and Belarus although no comparable data exist to depict this. The most alarming development can be found in Latvia and Estonia, where disparities have increased drastically from a situation where they already at the onset were the largest

² For a given BSR country, the dispersion of regional GDP is defined as the sum of the absolute differences between regional and national GDP per inhabitant (measured at current market prices), at NUTS level 3, weighted with the regional share of population. The value of the dispersion of GDP per inhabitant is zero, if the values of regional GDP are identical in all regions of the country, and it will show, *ceteris paribus*, an increase, if the differences between the values of regional GDP per inhabitant among regions are rising.

The indicator however is sensitive to the regional delimitations used. Therefore, it tends to reflect the number and bounding of regions in a given member state rather than actual disparities within it. More concretely, countries (such as Latvia) where some urban areas are delimited narrowly generally tend to display larger GDP dispersion, and vice versa. Furthermore, this indicator is very sensitive to outliers (e.g. capitals), which, albeit problematic, do not depict the true state of cohesion in a country on the whole. Also, this indicator does not take into account cross-border differences within countries. The lack of territorial cohesion would be much more acute in e.g. Italy if rich and poor regions would directly border each other, rather than in the current case, where wealth decreases only gradually in small steps when moving south along the Italian peninsula.

The indicator can however be used a crude measure of changes over time in territorial cohesion (i.e. increasing, decreasing), provided that the regional classification remains unchanged.

in the BSR. The statistically discernible decrease in the Latvian case starting in 2005 is however by and large explained only by increased value-added in the region surrounding Riga.

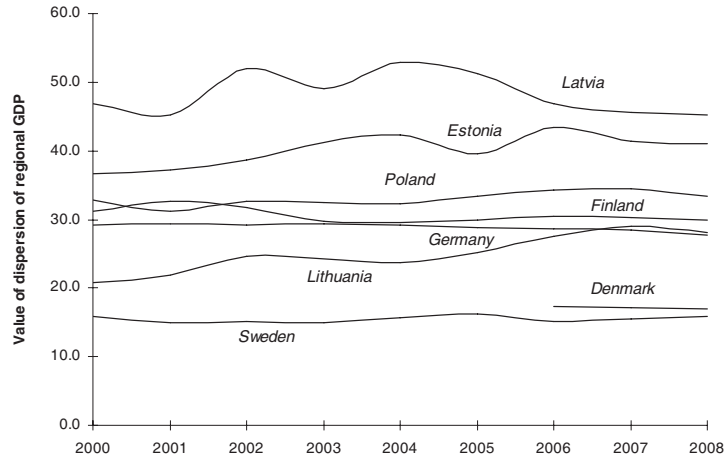


Figure 3: Dispersion of regional GDP at NUTS level 3 in the BSR 2000-08
Data source: Eurostat

A more refined pattern emerges when studying the actual spread of regional GDP at the same territorial level (Figure 4). Whereas most western BSR countries have not seen an increase in regional disparities throughout the last decade, all eastern BSR countries have. From the illustration it also becomes evident that not only the capital regions are pulling apart, but there has also been a gradual relative downshifting of the poorest regions in some of these countries (particularly Lithuania and Estonia).

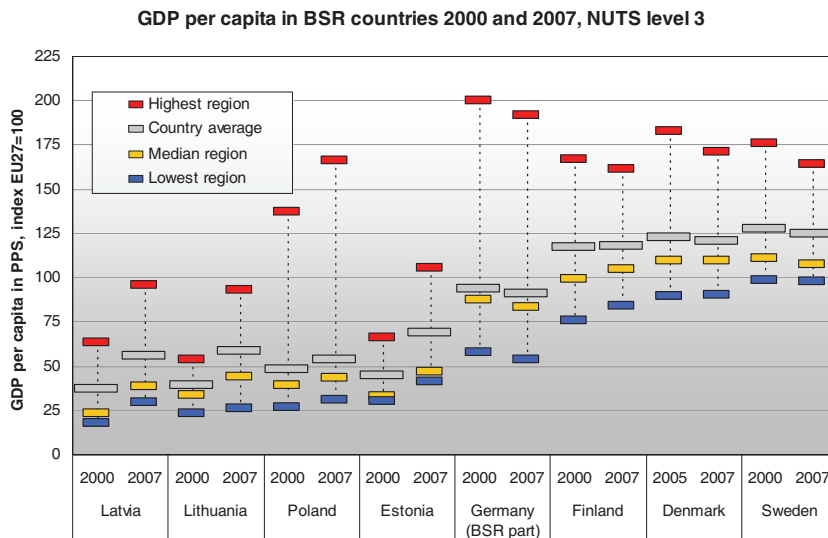


Figure 4: Distribution of GDP per capita in BSR countries 2000 and 2007
Data source: Eurostat

Similar concentrational tendencies are also discernible with regard to e.g. employment. Disregarding the obvious national differences that stem from differing economic cycles on the one hand, and the Polish case on the other, city size remains an important factor in explaining new job creation. In general, the larger the city, the more favourable has been the development of its employment. To make matters worse, there is an ongoing process of labour reorganisation in the BSR where agricultural jobs lost in peripheral regions and manufacturing ones in industrial regions are being replaced by service sector jobs in metropolitan areas and other large cities. This transition process cannot but help to reinforce the ongoing shifts in the settlement structure of the region and to forward the increasing territorial polarisation.

THE DICHOTOMY OF DUALISTIC GOAL SETTING

Cities and urban regions are today the main engines for economic growth and competitiveness in Europe. This holds especially true for regions with a comparatively small population and a sparse settlement structure where a concentration of efforts is often the primary means to address the lack in volume. In many respects the BSR fits this pattern, albeit internal variations with regard to the settlement pattern do exist, roughly embodied in a distinct north-south dichotomy.

The uniqueness of the BSR in comparison with Europe's other meso-regions stems from a combination of its specific location and spatial structure. The region is positioned between the densely populated continental Europe on the one hand and sparsely populated sub arctic areas on the other, divided by apparently one of the largest European east-west welfare gaps, and with some exceptions (such as Poland) some of the most monocentric settlement structures in entire Europe.

Many of the BSR countries are small in economic terms and are thus often simply unable to compete on a par with the major European economies, let alone globally. Due to their small size and marginal position in the European space, consistent policies aiming at creation of agglomeration effects are more than justifiable. In some cases the lack of agglomeration economies can be reduced by increasing cooperation, in other cases it can not. It is evident that such agglomerational policies have been beneficial in partly reducing disparities between the countries of the BSR.

This need for concentrational efforts must then be weighted against the trade-off on increasing internal territorial polarisation, especially between metropolitan or other larger urban areas on the one hand, and rural or peripheral areas on the other. Examples from other parts of the world, such as Iceland, show that the concentrational forces will, what it seems, act unconstrained everlastingly if left alone. The question thus remains whether this type of concentration is sustainable or even economical in the long run.

Strategies that are able to address the dichotomous nature of the BSR are thus in dire need. The section hereunder addresses some tentative development options.

TERRITORIAL DIFFERENTIATION AS A COMMON POLICY AGENDA?

In the BSR as elsewhere, the distinctive role of each region in its national socioeconomic context differs substantially depending on from which part of the region it is being observed. Some common traits are nonetheless discernible.

The largest cities and metropolitan areas are without doubt the main engines of BSR development. The concentration of economic activity, population, political and corporate decision-making, labour, foreign direct investment, knowledge, R&D and innovation to the metropolitan areas of the BSR is

substantially, higher than in many other countries of Europe. For example, more than 90% of the headquarters (HQ's) of the largest BSR enterprises are located in metropolitan areas, primarily in the western BSR. In the eastern BSR the concentration to these areas is not as marked, as 60% of the 40 largest eastern BSR HQ's are located in metropolitan areas, most of the remaining ones are however also in large Polish cities such as Krakow or Wroclaw (Hanell & Neubauer, 2005). The social development of the cities is also of great interest, as these are the areas that most likely - at least in the foreseeable future - will steer the economic and societal development of the region. The key challenge for the metropolitan areas is how to remain competitive or to gain competitiveness on the European arena.

The BSR, east and west alike, hosts a large range of medium-sized towns and urban regions that due to historical reasons are hampered by mono-industrial economic structures, which render them especially vulnerable to external shocks and the slow grinding forces of globalisation. For these cities and regions the diversification of the economy and/or a gradual increase of the knowledge component in their manufacturing industries will, if successful, most likely prove to be the most feasible solution in the long term. At the same time, this would imply that such areas are becoming increasingly interconnected with the global economy which also poses considerable challenges. The small size and the long distances as well as the current "specialisation" render it difficult to counterbalance their small size with increased networking and cooperation. However, as few other options are at hand, this will most likely remain a strategy for many of such areas at least in medium term.

The core rural areas, primarily in the southern BSR, are handicapped by lack of opportunities for economic development outside the sphere of primary production, often low levels of education, and substandard infrastructure which results in bad accessibility and connectivity to larger centres, despite not being amongst the most peripheral regions. Two distinct trajectories for these areas in general seem likely. Either their relative position will continue to decline further or then some form of urbanisation will occur. The latter could happen via two separate paths. On the one hand an in situ urbanisation e.g. via increased accessibility to urban labour markets could be possible for some of these areas. On the other hand an endogenous structural change of the local economy could take place, which would transform their economic base without tying them too rigorously to larger metropolitan areas.

The most sparsely populated areas again, primarily in the north of the BSR, are handicapped by a lack of possibilities for agglomeration economies, rather few and as a result of the large distances scattered centres of knowledge which hinder networking and cooperation. Furthermore, especially in the Nordic countries, much of the employment in these areas is overly dependent on the public sector. In the most peripheral areas in particular, the structural problems are exacerbated by rapid out-migration towards the south or selected university centres in between.

On the European policy arena, increasing interest is being paid to such distinctive regional features. In the 2008 Green Paper on Territorial Cohesion (European Commission, 2008) regional distinctiveness was addressed through "Regions with specific geographical features", where mountain regions, island regions, and sparsely populated regions as well as coastal and outermost ones were singled out as facing "particular development challenges". Likewise, the 5th Report on Economic, Social and Territorial Cohesion (European Commission, 2010) specifically addressed six different main categories of regions: urban-rural, metro regions, order regions, mountain regions, island regions, and sparsely-populated regions. In addition also e.g. the Treaty on the Functioning of the European Union's Article 174 acknowledged the further specific geographical endowments of "plains, river valleys and lake basins and other types of territories" that suffer from severe and permanent

natural or demographic handicaps. The rationale to single out such types of regions has clearly shifted from a formerly narrow lobbying perspective to a wider appreciation of the need to better exploit local territorial assets and hence to contribute to common EU welfare.

From a BSR perspective one question is whether such acknowledgements of territorial specificities could be utilised to counteract regional polarisation without losing momentum in overall economic development of these countries. Many of such types of regions listed above are indeed shared between most BSR countries and count tentatively be developed in the framework of a common policy arena. Table 2 summarises³ the economic contribution between 2000 and 2008 of the six⁴ specific types of regions put forth for the EU MS of the BSR⁵. The actual distribution of these regions is depicted in Figure 5.

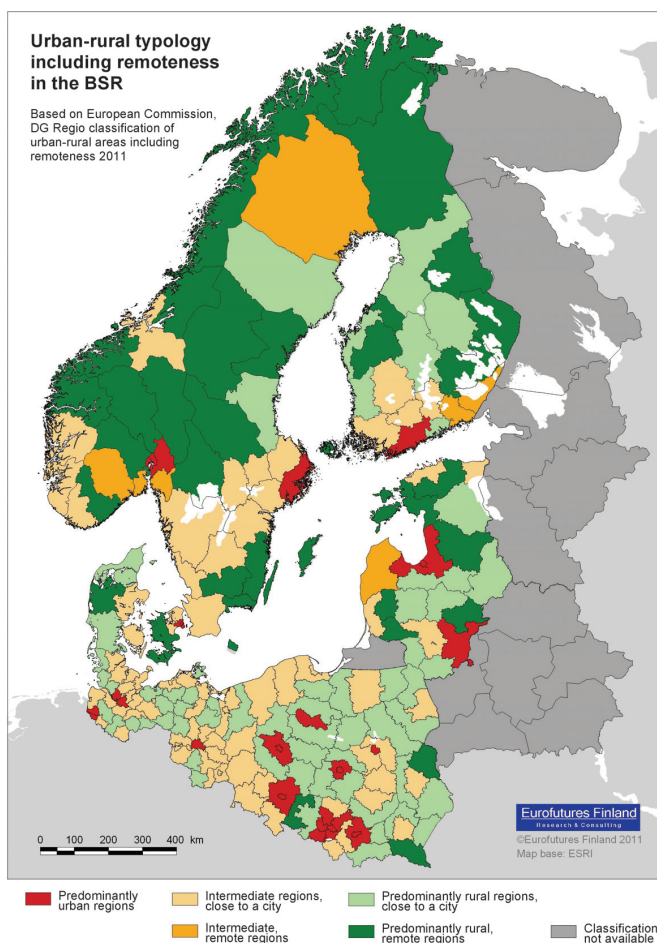


Figure 5: The EU Commission urban-rural typology applied on the BSR

³ The utilised regional typologies stem from the European Commission, DG Regio, 2011. See e.g. http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Regional_typologies_overview

⁴ In fact seven, as border regions are further divided into two sub categories.

⁵ Data for Belarus and the Russian regions of the BSR are excluded.

Table 2: Economic contribution of different types of BSR regions 2000-2008

Typology Class	Share (%) of total BSR* Gross Domestic Product									Share (%) of total BSR* Employment								
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2001	2002	2003	2004	2005	2006	2007	2008
Urban/rural including remoteness																		
Predominantly urban regions	38.8	38.6	38.9	38.7	38.6	39.0	38.8	39.0	39.0	32.1	32.4	32.6	32.7	32.9	32.9	33.1	33.2	33.2
Intermediate regions, close to a city	33.8	33.9	33.8	34.0	33.8	33.7	33.9	33.9	33.7	34.5	34.5	34.4	34.4	34.5	34.4	34.5	34.5	34.5
Intermediate, remote regions	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Predominantly rural regions, close to a city	15.5	15.6	15.7	15.7	15.8	15.6	15.4	15.5	15.6	22.9	22.4	22.2	22.2	21.9	21.9	21.7	21.7	21.9
Predominantly rural, remote regions	9.6	9.5	9.4	9.4	9.4	9.4	9.5	9.3	9.4	8.8	8.8	8.9	8.9	8.8	8.9	8.8	8.7	8.6
Metro regions																		
Capital city region	28.8	28.7	28.8	28.6	28.6	29.2	29.3	29.4	29.2	22.8	22.9	23.0	23.0	23.1	23.1	23.3	23.4	23.5
Second tier metro region	25.3	25.3	25.6	25.5	25.5	25.3	25.1	25.1	25.1	22.8	23.1	23.4	23.4	23.6	23.7	23.7	23.7	23.7
Smaller metro region	12.3	12.3	12.1	12.2	12.1	12.1	12.0	12.0	12.1	15.3	15.1	14.8	14.7	14.7	14.6	14.5	14.5	14.5
Other regions	33.7	33.7	33.6	33.6	33.6	33.5	33.7	33.6	33.6	39.2	38.9	38.9	38.8	38.6	38.6	38.5	38.4	38.3
Mountain regions																		
> 50 % of population and 50 % of surface	3.7	3.8	3.7	3.7	3.8	4.0	4.1	4.0	4.2	3.8	3.6	3.5	3.5	3.6	3.6	3.7	3.6	3.6
> 50 % of surface	6.3	6.3	5.9	6.0	6.2	6.7	7.0	6.9	7.2	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.2	4.2
Other regions	90.0	89.9	90.4	90.3	89.9	89.3	88.9	89.1	88.6	92.1	92.4	92.4	92.4	92.4	92.3	92.2	92.2	92.1
Island regions																		
Major island between 50,000 and 100,000 inh.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Major island < 50,000 inhabitants	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other regions	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
Sparsely populated regions																		
Less than 12.5 inh/km ²	5.5	5.5	5.4	5.4	5.5	5.5	5.6	5.4	5.5	4.1	4.1	4.2	4.2	4.2	4.2	4.1	4.1	4.1
Other regions	94.5	94.5	94.6	94.6	94.5	94.5	94.4	94.6	94.5	95.9	95.9	95.8	95.8	95.8	95.8	95.9	95.9	95.9
Border regions																		
Programme area	52.5	52.4	52.4	52.3	52.6	52.5	52.6	52.6	52.5	50.7	51.3	51.3	51.3	51.1	51.2	50.9	50.8	50.6
Programme area (partly)	4.9	4.9	5.0	4.8	4.8	4.7	4.7	4.7	4.7	5.8	5.6	5.6	5.6	5.6	5.7	5.6	5.6	5.6
No programme area	42.6	42.8	42.7	42.9	42.6	42.9	42.7	42.7	42.7	43.5	43.1	43.0	43.1	43.4	43.2	43.4	43.7	43.7
Internal/external border regions																		
Internal and external border programmes	6.1	6.1	6.2	6.3	6.3	6.4	6.4	6.5	6.5	9.0	8.8	8.9	8.8	8.7	8.8	8.8	8.9	9.0
External border programmes	2.9	3.0	3.0	3.1	3.1	3.1	3.2	3.3	3.3	4.8	4.8	4.7	4.7	4.7	4.8	4.7	4.8	4.8
Internal border programmes (EU + EFTA)	48.4	48.1	48.1	47.7	48.0	47.6	47.7	47.6	47.5	42.7	43.3	43.4	43.3	43.2	43.2	43.1	42.7	42.5
Other regions	42.6	42.8	42.7	42.9	42.6	42.9	42.7	42.7	42.7	43.5	43.1	43.0	43.1	43.4	43.2	43.4	43.7	43.7

Typology based on the European Commission regional typologisation

* Excluding data for Belarus and Russia

Data source: Eurostat

In this respect two specific types of impediments can be identified. One the one hand many of such specific types of regions are so encompassing that the specific geographical features of these regions are dwarfed by the heterogeneity of the total number of regions that they cover. Thus for instance border areas account for close to 60% of the total BSR value-added or employment and encompass a large multitude of differing regions ranging from the largest metropolitan areas to the most remote rural ones. Clearly a common BSR policy arena for such a heterogeneous group would be difficult to construct.

On the other hand several of the specific types of regions are relatively infrequent (such as island regions) and their overall economic impact remains modest when viewed from a consolidated BSR perspective. In addition, areas such as mountain regions or sparsely populated ones are concentrated to a few countries only, thus further diminishing their overall BSR significance.

The typology of urban and rural areas that address the settlement hierarchy in one form appears to confirm the overall cemented concentrative pattern of the BSR. The most urbanised regions appear to be biting an ever larger chunk of the overall economic cake. This notion is partly misleading, since an examination of the typology on metro regions, that also partly addresses issues pertaining to urban functionality, reveals that this urban concentration is particularly in employment terms concentrated not to the largest (capital) cities of the BSR, but rather to the second tier of metro regions. A more thorough country wise examination of this typology would therefore seem feasible (Table 3). The location and delimitation of these areas are also depicted in Figure 6.

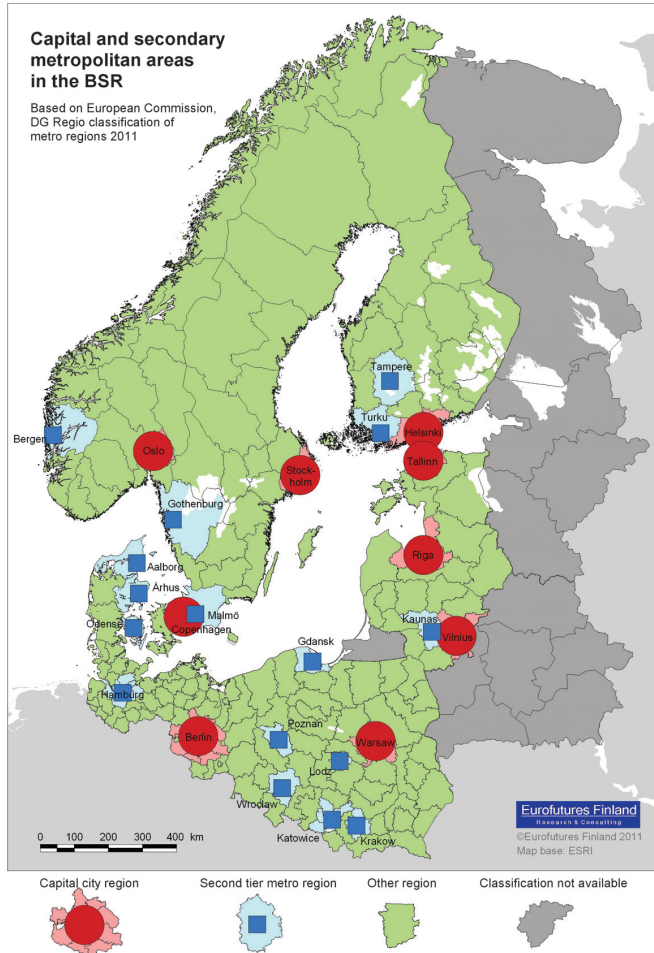


Figure 6: The EU Commission metro region typology applied on the BSR

In (the BSR parts of) Germany, Denmark and Finland second tier metropolitan areas have increased their relative share of both the national GDP as well as employment much faster than have their respective capital areas. In Poland and Sweden this applies to employment but not GDP. In such countries where “smaller metro regions” have been acknowledged, these are generally performing slightly better than the non-urban regions but worse than the second tier of metropolitan areas.

Bearing in mind (from Table 2) that the secondary cities account for nearly a quarter of all BSR value added as well as jobs, and that such areas exist in all BSR countries⁶, a common arena for development of such secondary cities could be deemed feasible. While much emphasis in policy development has been placed on the very largest urban concentrations in Europe, secondary cities have not gained equal attention. Many of these cities are path dependent and are curbed by historical

⁶ The “lack” of secondary cities in the current DG Regio classification in some countries is addressed in the still ongoing ESPON project SGPTDE - Secondary Growth Poles in Territorial Development in Europe: Performance, Policies and Prospects, where Daugavpils in Latvia, Klaipeda in Lithuania, and Tartu in Estonia are being analysed as secondary cities.

aspects that may be e.g. structural, political or institutional, and are in need of new development opportunities, national strategies for development, and governance tools that are aligned with the requirements of the current millennium (ESPON SGPTDE, 2011).

Table 3: Economic contribution of different types of metro regions in the BSR 2000-2008

Country	Typology class	Share (% of total BSR* Gross Domestic Product)									Share (% of total BSR* Employment)								
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2001	2002	2003	2004	2005	2006	2007	2008
Germany (BSR part)	Capital city regions	30.4	30.0	30.0	29.8	29.6	29.8	30.0	30.2	30.1	32.8	32.6	32.4	32.4	32.6	32.7	32.9	33.0	33.1
	Second tier metro regions	29.5	30.2	30.3	30.3	30.4	30.8	30.3	30.0	30.3	23.4	23.7	23.9	24.0	24.1	24.2	24.2	24.3	24.3
	Smaller metro regions	22.1	22.0	21.9	22.1	22.0	21.9	22.0	22.1	22.0	23.0	23.0	23.1	23.0	22.9	22.8	22.8	22.6	22.6
	Other regions	18.0	17.8	17.8	17.8	18.0	17.6	17.7	17.6	17.6	20.8	20.6	20.6	20.5	20.3	20.2	20.1	20.1	20.0
Denmark	Capital city regions	40.1	39.8	39.2	39.7	40.1	41.0	39.9	39.8	39.9	36.6	37.0	36.5	36.7	36.5	36.7	36.4	36.3	36.8
	Second tier metro regions	30.5	30.7	31.1	30.9	30.5	30.1	30.7	30.8	30.9	32.4	32.2	32.8	32.8	32.9	33.0	32.9	33.2	33.1
	Smaller metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Other regions	29.4	29.5	29.7	29.5	29.4	28.9	29.4	29.4	29.3	30.9	30.8	30.7	30.5	30.6	30.3	30.7	30.4	30.1
Estonia	Capital city regions	56.7	57.1	57.8	59.3	59.8	58.5	60.5	59.7	59.6	45.0	45.0	45.5	45.2	45.0	46.1	45.5	45.9	46.5
	Second tier metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Smaller metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Other regions	43.3	42.9	42.2	40.7	40.2	41.5	39.5	40.3	40.4	55.0	55.0	54.5	54.8	55.0	53.9	54.5	54.1	53.5
Finland	Capital city regions	36.9	37.3	37.0	36.3	36.5	36.7	37.3	37.4	37.5	32.5	32.8	32.9	32.4	32.4	32.4	32.5	32.7	32.8
	Second tier metro regions	16.5	16.6	17.3	17.1	17.2	17.1	17.0	17.3	17.1	16.9	17.0	17.0	17.2	17.2	17.3	17.3	17.4	17.3
	Smaller metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Other regions	46.6	46.1	45.7	46.6	46.3	46.2	45.7	45.3	45.4	50.5	50.2	50.1	50.4	50.4	50.2	50.2	50.0	49.9
Lithuania	Capital city regions	33.4	34.3	36.0	36.1	36.2	36.9	38.4	39.4	39.2	25.9	26.1	25.6	26.4	26.6	27.1	27.5	27.4	27.8
	Second tier metro regions	19.1	19.4	18.8	19.2	19.0	19.3	19.2	19.3	19.4	19.5	20.2	20.4	20.3	20.9	19.6	20.2	20.4	19.9
	Smaller metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Other regions	47.5	46.3	45.2	44.8	44.8	43.9	42.4	41.4	41.5	54.6	53.6	54.0	53.3	52.5	53.4	52.3	52.2	52.3
Latvia	Capital city regions	65.7	64.9	67.8	66.3	67.9	68.5	68.3	66.8	66.9	51.3	51.0	51.3	51.9	52.9	52.4	51.3	51.7	51.3
	Second tier metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Smaller metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Other regions	34.3	35.1	32.2	33.7	32.1	31.5	31.7	33.2	33.1	48.7	49.0	48.7	48.1	47.1	47.6	48.7	48.3	48.7
Norway	Capital city regions	32.7	32.0	32.0	31.1	31.8	32.2	32.0	32.3	32.3	27.6	29.1	29.3	28.7	28.7	27.9	28.0	28.4	28.4
	Second tier metro regions	9.3	9.7	9.3	9.9	10.0	10.1	9.9	10.2	10.2	9.6	9.4	9.5	9.7	9.8	9.8	9.8	9.8	9.8
	Smaller metro regions	8.6	8.7	8.6	9.4	9.2	9.2	9.8	9.6	9.6	8.4	8.3	8.3	8.7	8.8	8.7	8.9	9.1	9.1
	Other regions	49.4	49.7	50.1	49.7	49.1	48.5	48.3	47.9	47.9	54.4	53.2	52.9	53.0	52.7	53.5	53.2	52.7	52.7
Poland	Capital city regions	16.0	16.4	16.5	16.7	16.1	17.0	17.2	17.4	17.1	10.2	9.5	9.4	9.4	9.8	9.7	10.4	10.7	11.0
	Second tier metro regions	29.7	28.9	29.6	29.5	29.9	29.5	29.5	29.6	29.8	24.5	25.2	25.8	25.9	26.2	26.4	26.5	26.4	26.3
	Smaller metro regions	23.1	23.1	22.8	22.6	22.5	22.2	21.9	21.8	22.1	25.5	25.6	25.3	25.2	25.0	24.8	24.5	24.3	24.2
	Other regions	31.3	31.5	31.1	31.2	31.5	31.4	31.3	31.2	31.0	39.9	39.8	39.6	39.5	39.0	39.2	38.7	38.6	38.5
Sweden	Capital city regions	28.4	28.0	28.3	28.2	28.6	29.0	28.5	28.9	29.1	24.2	24.3	24.0	24.0	23.7	24.0	23.9	24.0	24.1
	Second tier metro regions	28.2	28.3	28.1	28.3	28.0	28.0	28.2	28.4	27.8	28.7	29.1	29.2	29.2	29.4	29.6	29.7	29.7	29.6
	Smaller metro regions	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Other regions	43.5	43.6	43.6	43.5	43.4	43.0	43.3	42.7	43.1	47.1	46.6	46.8	46.8	46.9	46.5	46.4	46.3	46.3

Typology based on the European Commission regional typologisation * Excluding data for Belarus and Russia n/a = No region in corresponding class in country

Data source: Eurostat

In a situation where increased concentration to merely one capital region can create an imminent risk of backfire in terms of bottlenecks, lack of labour, high inflation, urban sprawl and other such negative aspects that inevitably effect entire countries and not merely the concerned urban areas, a consolidated effort on spreading the risks could be viable. In a BSR context, increased emphasis on secondary metropolitan areas may be a first step on the path of aligning the needs for increased cohesion with the growth oriented demands of e.g. the EU 2020 Strategy.

CONCLUSION

Despite radically differing development conditions, most parts of the BSR share a common agenda in that they are faced with increasing polarisation tendencies where particularly capital cities are consuming an ever growing chunk of their respective countries' development potential. At the same time such concentration is to a certain level justified from an economic point of view, as decreasing financial means combined with small size often imply that resources need to be concentrated in order to sustain global competitiveness. In such a policy setting, development policies that aim for increasing cohesion could be, and often are, viewed as counter effective.

This paper sought to address these dichotomous development challenges in the BSR by applying a focus on territorial specificities with a particular attention to secondary city development. Currently none of the BSR countries have clear-cut policy instruments directed particularly towards secondary cities.

The paper illustrated that in terms of cost-benefit, there exists a clear development rationale in supporting secondary cities as they in many BSR countries already today – regardless of the lack of apparent targeted policies – outperform their national capital regions in economic development. Even though such development policies could essentially be viewed as agglomerational ones, secondary city development actions may at the same time depending on the spatial context help to increase overall territorial cohesion in their respective countries. A better harvesting of the underutilised potential in secondary cities may thus be one step on the road in acknowledging the possibilities of turning geographic handicaps into future strengths.

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ELECTRONIC DATA SOURCES

Eurostat: <http://epp.eurostat.ec.europa.eu>

OECD: <http://www.oecd.org>

United Nations Commodity Trade Statistics: <http://www.un.org/>

World Bank: <http://www.worldbank.org/>

PART II
REGIONAL DEVELOPMENT ISSUES

REGIONAL DIVERSIFICATION AND POLICY INTERVENTION

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Abstract. This paper focuses attention on the process of regional branching in which new industries branch out of existing industries at the regional level. There is increasing evidence that the entry and growth of a new industry in a region depends on the local presence of industries to which it is technologically related. We explore how technological relatedness across industries may serve as underpinning for policy to stimulate regional branching. We claim that policy should take the industrial history of the region as a point of departure, and focus on spinoff activity, labour mobility and collaborative networks to connect technologically related industries at the regional level.

Key words: regional branching, regional diversification, related variety, regional innovation policy

1. INTRODUCTION

Every region, no matter which type of region, will be confronted with processes of decline and stagnation in their economic structure. In fact, there is increasing awareness that failure is at the heart of any regional economy. Sooner or later, organizations will fail and cease to exist. It is a well-known fact that the majority of new firms goes out of business not long after they entered the economic system. According to Ormerod (2005), 99 per cent of the firms once active in the American car industry did not survive, and more than 10 per cent of all businesses in the US cease to exist every year.

This is not just because economic crises happen now and then. As Schumpeter (1939) once said, economic growth is not so much about quantitative change as it is about qualitative change. In order to secure long-term economic growth, it is crucial that regional economies develop new economic activities, in order to compensate for processes of failure that are inevitable in every region in the end. How this process of structural change really works, and how it might be activated by public policy intervention is a fundamental question for economists and geographers alike. In economic geography, many cases of old industrial regions have been documented that experienced problems to restructure their economies, and no such region has been capable of restoring their regional economies to previous levels. This implies we need more understanding of how regions diversify successfully. Again

and again, geographers have raised the question of how regions develop new growth paths (see e.g. Scott, 1988; Storper and Walker, 1989; Feldman et al., 2005; Hassink, 2005; Martin and Sunley, 2006; Simmie and Carpenter, 2007; Cooke, 2010; Fornahl et al., 2010), but it is fair to say that not much progress has been made in that literature so far.

This paper focuses attention on the notion of technological relatedness to explain regional diversification. Recently, a number of studies (Klepper and Simons, 2000; Boschma and Wenting 2007; Hausmann and Klinger 2007; Klepper, 2007; Bishop and Gripaos 2010; Buenstorf et al. 2010; Hausmann and Hidalgo 2010; Boschma et al., 2011; Buerger and Cantner 2011; Meyer et al., 2011; Neffke et al. 2011; Tanner 2011) have highlighted the process of regional branching in which new industries branch out of existing industries at the regional level (Boschma and Frenken 2011). Some scholars have claimed that the entry and growth of a new industry in a region depends on the local presence of (a variety of) industries to which it is technologically related. This paper aims to discuss a set of policy implications.

Section 2 briefly presents recent insights concerning the importance of technological relatedness for regional development (Boschma and Frenken, 2010). Section 3 discusses some implications for regional policy, and explains how technological relatedness across industries may be used as an input for effective policy making. In Section 4, we discuss a number of options for policy makers to move regions into new but related directions, in order to secure long-term economic development. In this respect, we direct attention to various mechanisms through which new industries may be stimulated when connecting technologically related industries at the regional level. Section 5 concludes.

2. TECHNOLOGICAL RELATEDNESS AND REGIONAL BRANCHING

In every textbook in economics, knowledge is presented as a non-rival good. This means that the use of knowledge by one firm does not preclude its use by other firms. This implies that other firms may benefit from the creation and accumulation of knowledge elsewhere. Of course, this is true to some extent, but we also know there are strong limits to the diffusion of knowledge in an economy. One fundamental reason is that knowledge is not reduced when used (as is true with other production factors), but knowledge accumulates through learning-by-doing, as Arrow (1962) once described it. Knowledge is also often tacit and complex of nature, and therefore difficult to articulate and codify (Polyani 1966). For these very reasons, knowledge is actor-specific and embodied in individuals and organizations. As a consequence, imitation and diffusion of knowledge across agents are problematic processes that are prone to failure (Nelson and Winter, 1982; Antonelli, 1995; Saviotti, 1996).

For the purpose of this paper, we limit our attention to two constraining factors that have drawn much attention in the literature lately, that is geographical and cognitive distance. For decades, geographers claim that knowledge does not spill over easily between agents that are at a great geographical distance. There are a lot of studies that have demonstrated empirically that knowledge spillovers are indeed often geographically localized (Audretsch and Feldman, 1996; Paci and Usai, 1999). This might suggest that geographical proximity is a prerequisite for the diffusion of knowledge across firms. However, there are strong reasons to believe that geographical proximity is neither a necessary nor a sufficient condition for this to happen (Boschma, 2005). There is increasing awareness that other barriers of knowledge diffusion need to be overcome first, such as cognitive and social distance, in order to connect agents and to enable transfer of knowledge (Breschi and Lissoni, 2003; Lagendijk and Oinas, 2005; Torre and Rallet, 2005; Balland, 2009). In the last decade, the notion of cognitive proximity has attracted a lot of attention in this respect. Cohen and Levinthal (1990) made the point

that agents require absorptive capacity to understand, absorb and implement new external knowledge into their organizations. In addition to that, scholars have argued that actors need to share similar knowledge and expertise to enable effective communication and knowledge diffusion, that is, they need to be proximate in the cognitive dimension.

Having said that, there is increasing awareness that cognitive proximity between agents is not necessarily a good thing (Grabher, 1993; Nooteboom, 2000; Boschma, 2005; Broekel and Boschma, 2011). When two actors know exactly the same, they can perfectly communicate with each other, but one agent would not add much to what the other agent already knows. Even worse, they would run the risk of not being exposed anymore to external knowledge that is new to the both of them. This might lead to a situation of cognitive lock-in, when agents become inward looking and unaware of what is going on around them. In this respect, Nooteboom (2000) claimed that some degree of cognitive distance between agents is more likely to lead to real learning. In that sense, there is a trade-off between cognitive proximity enabling communication on the one hand, and cognitive distance sparking off real learning on the other hand. As a consequence, effective knowledge transfer is likely to be facilitated when an optimal degree of cognitive proximity exists. This means that actors require some cognitive proximity to enable effective communication, but not too much of that, to avoid cognitive lock-in (Nooteboom, 2000). In other words, when two agents share different but related competences, there is potential for real interactive learning, new re-combinations of existing pieces of knowledge, and true innovations.

The literature on technological systems developed in the 1990s applied this idea to underline technological complementarities across industries that boost economic development for a considerable period of time (e.g. Carlsson and Stankiewicz, 1991; Robertson and Langlois 1995). In fact, they argued that diversity in complementary sets of competences is advantageous when interdependent pieces of knowledge have to be integrated and recombined to sustain processes of innovation (Arora and Gambardella 1994; Feldman 1999).

These insights have been applied quite recently in economic geography. In this respect, the notion of related variety has drawn a lot of attention. Instead of emphasizing the economic blessings of a high degree of variety in a region, as covered by the notion of Jacobs' externalities, scholars have started to emphasize regional variety in technologically related industries, because it may provide many learning opportunities for local firms. This is not necessarily true for regional variety *per se*, because too much cognitive distance between sectors may be involved. Accordingly, a high number of technologically related industries in a region is likely to enhance knowledge spillovers, with positive effects on regional development. Empirical studies have been conducted in countries like the Netherlands (Frenken et al., 2007), Italy (Boschma and Iammarino, 2009), Germany (Brachart et al., 2011) and Spain (Boschma et al., 2011) using different types of methodologies, and they all tend to confirm that related variety has a positive impact on regional growth.

These studies investigated related variety from a static perspective, looking at the composition of the industrial structure in a region, and identifying the degree of relatedness between the local industries. Saviotti and Frenken (2008) took a more dynamic perspective on related variety when examining the evolution of export variety in countries over time. Neffke et al. (2011) analyzed the evolution of the degree of technological coherence of the industrial structure in Swedish regions over 30 years, and came to the conclusion that this degree of coherence is persistent even though industries come and go. One reason for this persistency is that regions are more likely to diversify into related industries and to lose industries that are unrelated to their existing activities. Consequently, new industries do not start from scratch but branch out of existing industries from which they exploit

relevant knowledge and skills. In other words, relatedness becomes a crucial ingredient for the process of regional diversification. Boschma and Frenken (2011) have termed this process by which new industries arise from new recombinations of technologically related industries at the regional level as regional branching.

There is increasing evidence that this branching process is indeed a key feature of regional diversification. Case studies have shown that new industries are deeply rooted in related economic activities in their region (see e.g. Bathelt and Boggs 2003; Glaeser, 2005; Best, 2006; Boschma and Wenting, 2007; Klepper, 2007). Studies focusing on the evolution of export portfolios of countries show that countries expand and diversify into new but closely related export products (Hausmann and Klinger, 2007; Hidalgo et al., 2007; Hidalgo, 2009). That is, countries tend to move into new export products that are related to their current export portfolio, and the wider the range of related export products available at the country level, the more opportunities countries have to diversify into new related export products. Boschma et al. (2011) have shown in a study on Spanish regions that this process of export diversification in related products is indeed important, but more so at the regional scale (i.e. the sub-national scale), as compared to the national level.

Neffke et al. investigated the probability of new industries to enter a region and the probability of existing industries to disappear from a region. Their study followed the evolution of the industrial structure in 70 Swedish regions during the period 1969–2002. They analyzed more than 2,500 events of a new industry entering a region. They found that an industry had a higher probability to enter a region when it is technologically related to other industries in that region. Neffke et al. (2011) also analyzed more than 3,500 events of an industry exiting a region. Their study showed that an industry was more likely to exit a region when that industry was not, or very weakly technologically related to other industries in the region.

The aforementioned studies have collected substantial evidence for the occurrence of regional branching, but the question remains how new and existing industries are connected, and through which channels related knowledge is transferred across those industries. This requires a comprehensive study of the types of entries that are involved in the process of regional branching, among other things. No such study (yet) exists, as far as we know. Boschma and Frenken (2011) discussed a number of mechanisms that might be responsible for this process of regional branching. An obvious candidate is entrepreneurship, and there is quite substantial evidence from studies on the life cycle of industries that entrepreneurship might indeed be one of the driving forces. What these studies tend to show is that existing industries give birth to new industries, in which the entrepreneurs have a previous background in related industries (e.g. as former employee), which they fully exploit and which enhances the performance of their firms in terms of survival (Boschma and Wenting, 2007; Klepper, 2007; Wenting, 2008; Buenstorf and Klepper, 2009; Buenstorf et al., 2010; Klepper, 2010; Buenstorf and Geissler, 2011; Buenstorf and Guenther, 2011; Frenken et al., 2011; Heebels and Boschma, 2011). In other words, through this spinoff process, knowledge (as embodied in these experienced entrepreneurs) is transferred from existing to new industries at the regional level, where it is reshaped and recombined with other knowledge.

The same line of reasoning may apply to labour mobility. Studies have shown that labour mobility is a crucial mechanism through which knowledge and experience are transferred from one company to the other at the regional level (Angel, 1991; Almeida and Kogut, 1999; Pinch and Henry, 1999; Saxenian, 1994; Rodríguez-Pose and Vilalta-Bufi, 2005; Eriksson, 2011). But the question is whether this applies to all types of labour mobility, and how important labour flows between related industries are in this respect. Boschma et al. (2009) demonstrated that labour mobility per se does not impact on

plant performance, but the recruitment of new employees with related skills (i.e. employees coming from related industries) did increase the performance of plants. This might be attributed to the fact that these related skills are new but also related to the existing set of skills at the plant level, and can therefore be integrated and recombined effectively. This is a promising avenue for further research but this has not yet been taken up in the context of the industry life cycle. In that respect, research should focus on the extent to which firms in newly emerging industries rely on labour recruited from related industries (like entrepreneurs have their origin in related industries), and whether that positively affects their survival rate in the long run.

But there might be other channels through which this process of regional branching occurs. Collaboration networks, like R&D networks, may bring related activities together out of which new economic activities may branch. There is some evidence that technological alliances that connect organizations with different but related capabilities lead to more innovative output (Nooteboom et al., 2007). But, like labour mobility, there is no systematic evidence yet that collaborations across borders of related industries have given birth to new industries where these were fruitfully recombined.

3. OPPORTUNITIES TO INTERVENE PUBLICLY TO ACTIVATE REGIONAL DIVERSIFICATION

One finding of the previous discussion was that new industries are more likely to emerge and develop in a region where that industry can connect locally to other industries to which it is technologically related. The question now is where to intervene in order to enhance a successful regional diversification process. Is it possible to think of any policy actions that might boost this process of regional branching?

To start with, we have to account for a number of limitations in this respect. First, we have to acknowledge that it is unpredictable which new industries will become the engines of economic growth in the next five to ten years. This means there might be serious limits to picking-the-winners policy approaches. And secondly, we hardly can build on successful cases where public policy was fully responsible for giving the decisive boost to the successful development of new industries in particular areas (Lambooy and Boschma, 2001; Pack and Saggi, 2006). Policy makers often refer to success stories like Silicon Valley, but forget to make a proper analysis of how public policy contributed to that success. What we have learned though is a lot from studies that have investigated policies that failed to achieve regional diversification. According to Howells (2005), 'best practice policies' are often hard to adapt to local situations and difficult to implement (Hassink and Lagendijk, 2001).

When thinking about the policy implications of this process of regional branching, it is a prerequisite to take the existing industrial structure in a region as a point of departure. The industrial history of regions provides the context and defines the opportunities but also sets the limits to what can be achieved by public policy (Lambooy and Boschma, 2001). This requires a thorough analysis of the industrial structure of a region, in which the degree of technological relatedness between industries is identified (see e.g. Neffke et al., 2011), because this determines the opportunities for regions to diversify into related activities. One should be cautious to support so-called very promising industries (like nanotech) that take a very peripheral position in the regional industrial structure. When that is the case, new industries will not connect easily to other industries in the region, because there are no other regional industries to which they are technologically related. In that sense, new industries cannot draw on local resources (like knowledge and skills) that might support their further development. In these circumstances, new industries are also not very likely to contribute to the development

of other local industries (e.g. in terms of knowledge spillovers) from which they are very distant in a cognitive sense.

As public money is scarce, policy makers have to pursue a risk-averse policy strategy. This implies that regional policy should better focus on those new industries that can more easily connect to the existing industrial structure, because that will increase the probability of policy success. This is in line with the scientific literature stating that it is wrong to follow a 'one-size-fits-all' policy, which is still, however, common practice in regional policy in many countries (Todtling and Trippl, 2005; Raspe and Van Oort, 2006; Asheim et al., 2011). Consequently, policy strategies should be tailor-made, in order to capitalise better on region-specific assets that come from technologically related industries in the region.

Another possible policy implication that has drawn little attention in the literature is that backing declining industries in a region is not necessarily bad. So far, we claimed that it is a waste of public money to support declining industries that take a peripheral position in the industrial portfolio of a region, because they already have a high probability to exit the region sooner or later, because of their low degree of embeddedness. This stands in contrast to those industries that have strong technological ties with many other industries in a region. When such industries are confronted with a temporary demand fall, their disappearance would threaten the existence and development of other regional industries to which they are technologically related, especially when these industries form a hub in the network of local industries and act as a bridge through which related assets are transferred and diffused further down into the regional industry space. In that case, their loss would seriously lower opportunities in regions to diversify into related activities.

But what is most crucial when enhancing the process of regional branching is that policy should aim to make connections between local industries that are technologically related. The main objective of such policy is not to make strong sectors even stronger and to secure local vested interests, but to enhance interaction and exchange between complementary activities in a region, and to support the process of regional branching. How that might be achieved through concrete policy actions is the topic of the next section.

4. POSSIBLE POLICY ACTIONS TO ENHANCE REGIONAL BRANCHING

To an increasing extent, one can identify policy efforts that come close to the idea of regional branching, as discussed earlier. These have been labeled platform policies that aim to connect industries and establish re-combinations in order to enhance regional development (Asheim, Boschma and Cooke, 2011; Cooke, 2011; Harmaakorpi et al., 2011). We briefly discuss three knowledge transfer mechanisms (i.e. entrepreneurship, labour mobility and collaborative networks) through which industries may be connected at the regional level, and through which policy intervention might encourage regional branching.

As pointed out earlier, experienced entrepreneurs make a difference during the first stage of the life cycle of an industry, because they create new industries in which they can exploit the experiences they acquired in related industries (Boschma and Wenting, 2007; Klepper, 2007). As these types of spinoffs tend to locate in the same region as their parent organizations, they represent an effective mechanism through which knowledge is transferred from a related industry to a new industry at the regional level. Policy could play a role here by targeting and supporting experienced entrepreneurs that set up new companies in a different industry than they were active in before, but to which it is

still related in a cognitive sense. This would mean a very different approach to entrepreneurial policy as it is practised now.

Another mechanism through which knowledge and skills are transferred across related industries is labour mobility (Boschma et al., 2009). Policy could certainly play a role here, by informing both job seekers and companies about opportunities in related industries. Job seekers should be encouraged to apply their experience in other industries they worked previously for, but where their skills are still highly relevant and can be used effectively. Companies should be informed not to go for new employees with a background in the same industry the company is active in, but select employees from related industries, because employees with related skills and knowledge may boost innovation in firms. Such policy intervention would not harm too much the incentive of firms to invest in their own personnel, because if their employees would leave, they would not go to their competitors but instead to organizations in different industries. In this respect, encouraging labour mobility between related industries (both within the same region as well from other regions and even other countries) could contribute to the process of regional branching.

Collaborative networks could also be an effective vehicle through which knowledge is exchanged across related industries (Nooteboom et al., 2007). Public policy could play a role by means of the establishment of platforms in which knowledge spills over and diffuses across related industries. This means competition policy should enable the creation of networks in which organizations in related industries come together, because it might be an effective way of diversifying regions into new but complementary fields of activity. What is crucial is that policy should be designed in such a way that it avoids vested interests of established players to take over and dominate these networks, and newcomers and smaller players are denied access. This type of network policy should include extra-regional actors, as they might bring in new related knowledge into the region (Boschma and Iammarino, 2009).

5. CONCLUSIONS

This paper has focused attention on the process of regional branching in which new industries branch out of existing industries at the regional level. There is increasing evidence that the entry and growth of a new industry in a region depends on the local presence of (a variety of) industries to which it is technologically related. We discussed some implications for regional policy, and explored how technological relatedness across industries may be used as an input for effective policy making that encourages regional branching. We claimed that public policy should not support declining industries that take a peripheral position in the industry structure of a region, nor should it pick winners that are not embedded in the regional industrial space. More in particular, we claimed that flows between related industries should be activated by policy through entrepreneurship, labour mobility and networks, because that might lead to new re-combinations and make regions branch into new directions.

Having said that, we need to know more about the various transfer mechanisms that connect existing industries with new industries. How important are these mechanisms when new industries emerge and develop in regions? And did public policy play any major role in this respect? And if so, can this be replicated in other regional contexts? In addition, we did not discuss other factors that might be considered crucial in this process of regional branching, such as institutional restructuring (Maskell and Malmberg, 2007; Hassink, 2010; Strambach 2010). There is a strong need to understand better what roles public policy played in the process of regional branching at various spatial scales

(regional, national, international), and whether and how institutions can be changed. These questions need to be taken up in future research, in order to increase our understanding of this process of regional branching.

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LARGE AND MEDIUM-SIZED TOWNS IN BULGARIA IN REGIONAL DEVELOPMENT AND REGIONAL POLICY

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Abstract. The implemented regional policy in Bulgaria gives priority to the growing role of the towns, especially the large and medium-sized ones, and of the urban agglomerations in the regional development as well as to the cohesion between regions. The uneven distribution of cities and towns is one of the reasons for differences in the socio-economic development, for disparities between administrative districts, planning regions and primarily for intraregional differences and for the available problem “centre-periphery” (Operative Program..., 2007). Thirty six agglomeration areas are identified in the country, being poles of growth in the national economy. The urban zones of three of these cities are defined as European functional regions – Plovdiv, Varna and Bourgas.

Key words: Bulgaria, large town, medium-sized town, regional development, regional policy

There are significant differences between the urban settlements in Bulgaria in terms of their socio-economic, infrastructural, spatial and cultural-historical development, their number of population¹, demographic structure, functions, role in regional development and regional policy. The implemented regional policy in Bulgaria gives priority to the growing importance of the towns, especially of the large and medium-sized ones, and of the urban agglomerations in the regional development as well as to the cohesion between regions.

Large and medium-sized towns constitute a small portion of the total number of urban settlements in Bulgaria (In total there were 255 towns in 2010) (Fig. 1). Approximately 180 of them (70 per cent) have less than 10 thousand inhabitants. Most of the cities took shape in the second half of the

¹ According to the classification, accepted by Bulgarian experts, the urban settlements are divided into five groups: very big cities (above 400 000 people), cities (100 000 – 400 000), medium-sized towns (30 000 – 100 000), small towns (10 000 – 30 000) and very small towns (up to 10 000 people) (Naredba No 5..., 1995). For the purposes of 2011-census, the EU statistic division of the towns by number of population was accepted. Information about the groups of towns with 20000- 24999 and 25000-50000 people makes it difficult to delineate the medium-sized towns In the country (30 000 – 100 000).

20th century. The low share of the urban population and the lack of big cities in the country until the mid-20th century indicated a low urbanization level.

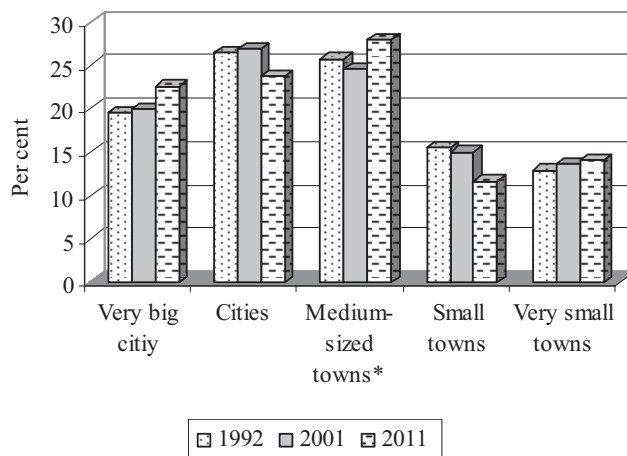


Fig.1. Structure of Bulgarian urban settlements by size

* medium-sized towns in 2011 of over 25 000.

Data source: National Statistical Institute

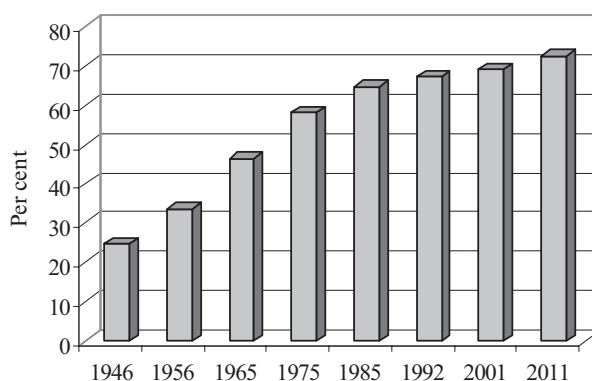


Fig. 2. Share of urban population in Bulgaria by census years (1946-2011)

Data source: National Statistical Institute

In the second half of the 20th century the number of towns and of the urban population significantly increased and as it can be seen from the last census (1.03.2011) 72.5 per cent of the Bulgarian population lives in cities and towns (Fig. 2). a characteristic feature of the urbanization process in Bulgaria, observed in the recent years, is the greater concentration of population in the cities and medium-sized towns. In 2011 more than 45 per cent of Bulgaria's population is concentrated in 29 cities and medium-sized towns of over 50 thousand people, i.e. 74.3 per cent of the urban population. About 33.6 per cent of the country population live in the cities of over 100 000 inhabitants such as Sofia, Plovdiv, Varna, Burgas, Ruse, Stara Zagora, Pleven (of them 16.4 per cent live in Sofia). Among the factors, which considerably encourage the migration increase to the large and medium-sized towns, are their bigger attractiveness, the greater expectation of people, better job opportunities,

successful life and many others. At the same time, the process of sub-urbanization in Bulgaria is weaker as compared to that of the Central European countries in transition.

A pronounced tendency towards a decrease of the urban population in Bulgaria can be observed in the last two decades as a result of the negative demographic processes (negative natural increase, negative migration balance). This is closely related to the continuing drop in the total number of the country's population (Fig. 3).

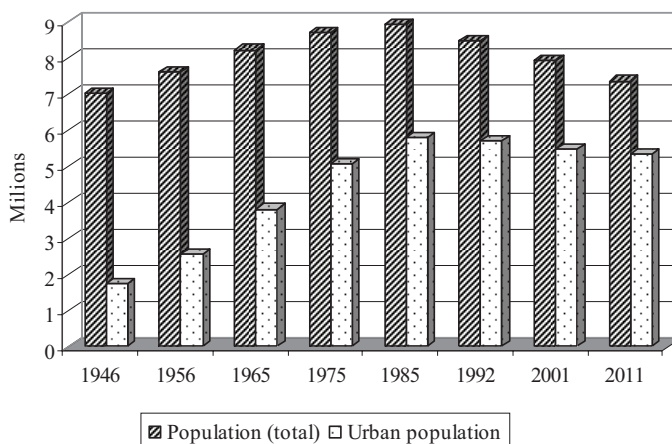


Fig. 3. Number of Bulgaria's Population by census years (1946-2011)
Data source: National Statistical Institute



Fig. 4. Territorial Distribution of the Urban Settlements in Bulgaria
Source: Operational Program Regional Development

Considerable differences can be observed in the territorial distribution of the urban population on a nationwide scale. There are vast areas, where the urban population has either a very small share or it entirely lacks, e.g. in some peripheral regions, mountain zones, plains and valleys. In the present day picture of the settlement network, the uneven distribution of the large cities stands out clearly against the background of the overall even distribution of the small cities/towns and villages (Fig. 4). Only 5 out of the total 28 districts (NUTS3) have more than one city or medium-sized town (districts with centres Plovdiv, Haskovo, Stara Zagora, Lovech and Veliko Tarnovo). This means uneven distribution

of the population on the territory, a certain lack of balance of the settlement network in terms of location of the large cities and respectively uneven socio-economic development. As a consequence, vast areas of the national territory remain away from the big urban service centres and give rise to the “centre-periphery” problem. The uneven development of the network of large cities is the cause for the observed disparities in the socio-economic development within the boundaries of the national territory, whose partial expressions are the differences among the planning regions and above all inside the regions (Natsionalna Strategia..., 2005, Operativna Programa..., 2007).

The geographical situation of Bulgaria on the Balkan Peninsula and in South-Eastern Europe is favourable and makes it an important trans-regional centre and a “bridge” between West and East Europe and the Middle East. But Bulgaria has a peripheral location, regarding the metropolises in the European core, and maintains poor connections with these cities. “In most of the peripheral countries and regions, the day return business trips² to foreign cities are simply not possible” (ESPON 2013..., pp. 37). These facts determine the unique location and significance of Sofia capital city as a political, administrative, social, transport and service centre on a national level as well as its place in the European settlement network. “In the 2003 ESPON Project of Nordregio and partners, concerning the network of functioning urbanized areas (FUA) in Europe, the evaluation points out to the existence of one such areal in Bulgaria – a city of European significance (MEGA) (Sofia), three areas - cities of international/national significance (Plovdiv, Varna and Burgas) and 27 areas – cities of regional/local significance. In our estimation the number of 27 is somewhat overestimated and should rather read 12 cities, since quite a number of the medium-size cities, including some district centres, have lost their active organizational role and characteristic of centres of growth” (Nationalna Strategia..., 2005). By 2004 ESPON the metropolitan agglomeration of Sofia capital city is assigned to the lowest 4th category (MEGAs typology), while the urban zones of Plovdiv, Varna and Burgas are defined as European functional regions (Operativna Programa..., 2007). According to Nordregio ESPON TeDi, 2009, functional urban areas of different categories have been defined – for example, Sofia (under the category 1-5 million inhabitants), Plovdiv and Varna (250 000 – 1 000 000), etc. With respect to the number of its functional urban regions, Bulgaria does not differ from the other Central and East European countries in transition, where the number of big cities is much smaller than the one in the one in West European countries.

Sofia, Plovdiv, Varna and Burgas are the biggest cities in Bulgaria. In comparison with the inter-census period between 1992 and 2001, there was a change in the dynamics of the population size during the last decade, which witnessed a population increase in three of the seven large cities (Sofia, Varna and Burgas) (Table 1).

Manufacturing activities, services, education, science and cultural life are concentrated in large cities. The latter with their vicinity demonstrate a better general development level. “Large cities are and will continue to evolve as powerful centres with diverse regional functions: university education, science, R&D activities, manufacture, health care, business, commerce and banking, tourism, culture and spiritual life” (Operativna programa..., 2007, p. 48). Some of these cities form the biggest agglomerations in Bulgaria – Sofia, Plovdiv, Varna, Burgas, Pleven (Fig. 5). Owing to the specific parameters and functions of the biggest agglomeration in the country, the agglomeration of Sofia, has the greatest contribution to the formation of the state polycentric spatial structure in the context of

² a one-day business trip according to ESPON 2013 means to have at least 6 hours available at the destination between leaving home after 5 a.m. and coming back home before 11 p.m. on the same day. The transport modes considered are rail, air or a combination of rail and air, based on actual timetables.

the European conceptions. The agglomeration of Sofia is remarkable for its best developed material and technical facilities, diverse economic structure, completed technical and social infrastructure, etc. It produces the biggest share of the GDP in the country. The highest share of the direct foreign investments are oriented to the district of Sofia capital city – it received 60.8 per cent of the direct foreign investments in the country (2007, with accumulation) (Ilieva, 2006).

Table 1 Population dynamics of Bulgarian cities*

	1946	1956	1965	1975	1985	1992	2001	2011
Sofia	473,3	652,1	825,5	990,3	1120,9	1114,9	1091,8	1204,7
Plovdiv	128,6	164,9	229,0	299,6	342,0	341,1	338,2	338,2
Varna	80,3	123,8	184,7	252,5	302,8	308,4	312,9	334,9
Burgas	51,3	79,1	117,5	162,8	193,7	195,7	192,4	200,3
Ruse	57,8	88,4	128,9	159,6	185,4	170,0	161,5	149,6
Stara Zagora	38,3	56,2	88,6	122,3	150,3	150,5	143,4	138,3
Pleven	39,1	57,6	78,7	107,6	129,7	130,8	121,9	107,0
Sliven	35,3	47,3	69,9	90,2	102,1	106,2	100,4	91,6
Dobrich	32,7	44,0	56,6	88,2	109,1	104,5	100,0	91,0

* The cities of Sliven and Dobrich lost part of their population and passed to the group of medium-sized towns after 2001

Data source: National Statistical Institute



Fig. 5. District centres in Bulgaria (NUTS3 level)

1 – a city of over 1 million inhabitants; 2 – a city with 200 000 - 400 000 inhabitants.; 3 – a city with 100 000 - 200 000 inhabitants.; 4 – medium-sized towns; 5 – cities - cores of agglomerations.

The role of the capital cities in regional development, where the most important elements of market economy are concentrated, is observed by Horvath (2009) in almost all countries of Central and Eastern Europe. According to him, this adverse and continuous territorial concentration must be changed. Fassmann (2000), Enyedi (2005), Tarkowski (2008), Horvath (2009) and some other authors emphasize the growing role of the capital, metropolitan and big cities in different countries.

The development of the agglomerations of Sofia-capital, Plovdiv, Varna and Burgas has a positive influence on the development of the respective districts. These districts contribute with the highest share to the national GDP. The changes in GDP of the districts, occupying the first three and the last three positions³ in their ranking imply that the territorial disparities between them, deepen (Table 2). The share of the first three districts markedly grows (by 11.7 points, 1999-2007) whereas the share of the most underdeveloped districts decreases, although insignificantly. Slight changes have taken place in the composition of these groups.

Table 2 Share from the GDP value In Bulgaria

Year	The first three units in the districts rank		The last three units in the districts rank	
	Districts (NUTS3)	%	Districts (NUTS3):	%
1999	Sofia-capital, Plovdiv, Burgas	38.70	Vidin, Smolyan, Silistra	3.88
2006	Sofia-capital, Plovdiv, Varna	47.40	Vidin, Silistra, Yambol	3.05
2007	Sofia-capital, Plovdiv, Varna	50.39	Yambol, Filistra, Vidin	2.81

Source: author's calculations, based on data from the National Statistical Institute

Sofia-capital, Varna and Burgas districts have achieved the best results in socio-economic transformation as revealed by the investigation of the territorial differences of transformation process in Bulgaria's 28 districts (NUTS3) on the basis of the calculated values of integral indicator⁴ (Ilieva, 2011).

The highest value of the integral indicator is recorded in the capital city of Sofia. Similar is the place of Budapest in comparison with other territorial units in Hungary. According to Enyedi (2005, p. 19) „the most significant regional change in the economic performance has been the outstanding success of the Budapest Metropolitan Region, producing a growing gap between the capital city and the rest of the country”. The current situation, conditions and prospects for future developments give grounds to assume that the differences between the capital city of Sofia and other districts will grow in the coming years.

Bulgaria's districts Varna and Bourgas come second after Sofia with significantly lower integral indicators. The value of their integral indicators differs considerably from calculated values of other areas. Against the background of the other areas in Bulgaria, Sofia-capital, Varna and Burgas districts can be conditionally defined as transformation's winners. Of course, it goes without saying that in comparison with NUTS3 in the EU configuration, even the capital city of Sofia is among the EU underdeveloped territorial units of that type.

According to Fassmann (1997), one of the regional consequences of the transformation measures is the increased importance of urban centres as growth poles of the national economy. The largest agglomerations in Bulgaria (those of Sofia, Plovdiv, Varna, Burgas) are formed in areas, characterized in this study by a high degree of socio-economic transformation (Fig. 6). Being economically better developed, they are in a favourable situation, “have experienced more easily the difficulties of restructuring and have been given better chances to attract investors, including foreign ones”

³ 10% of the number of analyzed territorial units (28) are used as a criterion in the table

⁴ The value of the integral indicator for each NUTS3 is obtained as a result of summing up the standardized values of the chosen 15 indicators

(Parysek, 1998, p.40). Of the other big cities in Bulgaria (Rousse, Stara Zagora, Pleven) only Pleven is a core of an urban agglomeration (Iliev, 1995).

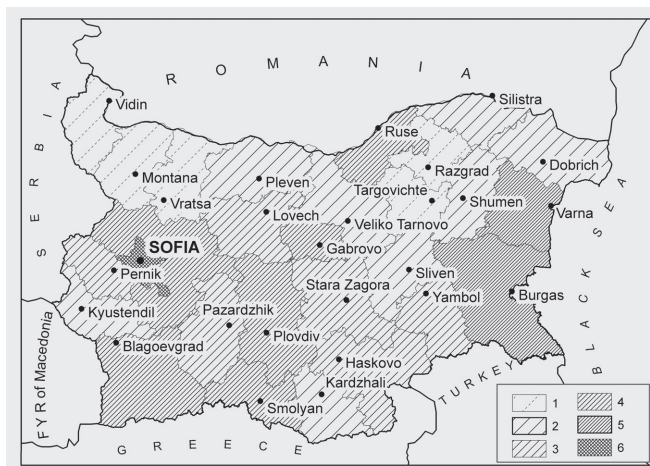


Fig. 6. Degree of socio-economic transformation, currently achieved
Value of integral indicator: 1 – from -10.9 to -5.1; 2 – from -5 to -1.1; 3 – from -1 to 1; 4 – from 1.1 to 5;
5 – from 5.1 to 10; 6 – over 28.

Source: author's calculations, based on data from the National Statistical Institute

The First ESPON report (2010) underlies that “disparities in GDP per capita between the urban areas and their rural hinterland changed between 1995 and 2004. The functional regions in the eastern parts of the ESPON space show a marked increase of disparities” (p. 42). “It appears that the change of disparities in Eastern Europe is linked to the overall economic development of the regions. Strong economic growth in the cities has created opportunities which rural areas that are often still very agricultural cannot match. Growing disparities are the result. However, different phases in urbanisation processes may also play a role” (First ESPON..., p. 43). This research shows that, the disparity levels between Sofia and Varna metropolises and the surrounding region on NUTS 3 level (1995-2004) increase. The scale and trend of change in GDP per capita ratio during this period for Sofia is similar to that in Warsaw, Budapest, Prague, Bucarest, and for Varna – to those in NUTS3 with centres Bratislava, Gdansk and Dresden. .

The analysis indicates that the disparities between regions and districts in Bulgaria are also increasing in terms of the number and structure of population. The dominance of the large cities in different regions (NUTS2) in the country is growing in comparison with the previous periods. Relations between the population of the biggest city and the second urban settlement in the regions now vary from 1.45 (South-East region) to 15.02 (South-West region) (Table 3).

The growing importance of the Bulgarian urban settlements and agglomerations in the regional development underlies the regional policy, which has been implemented for the past two decades. “The uneven distribution of large cities becomes a factor for inter-regional and especially intra-regional differences, which are more typical of the country and create challenges for the domestic (national) regional development policy” (Nationalna Strategia..., 2005, p. 49). The economic and demographic potential of Sofia and the other cities turn them into major dynamic regional centres

with highly diverse national and regional functions. Besides, the development of the medium-sized towns has to be promoted by an efficient policy (Operativna Programa..., 2007).

Table 3 Dominance of the largest cities in regional settlement systems

Regions	Biggest city	Population of the biggest city (1.03.2011)	Share of the biggest city's population from region population	Relation between population of the biggest city and the second urban settlement	Name of the second urban settlement
		Thous. pers.	%		
North-West	Pleven	107	12,63	1,76	Vraca
North Central	Ruse	149,6	17,37	2,17	Veliko Turnovo
North-East	Varna	334,9	34,66	3,68	Dobrich
South-East	Burgas	200,3	18,58	1,45	Stara Zagora
South Central	Plovdiv	338,2	22,86	4,43	Haskovo
South-West	Sofia	1204,7	56,48	15,02	Pernik
BULGARIA	Sofia	1204,7	16,36	3,56	Plovdiv

Source: author's calculations, based on 2011 census data

Therefore thirty six agglomeration areas are identified in the country, being poles of growth in the national economy. The core of these areas are towns with a population of over 20 000 people (except for the town of Panagjurishte whose population is below this limit) (Table 4). These agglomeration areas embrace about 1/3 of the municipalities in Bulgaria. It means that 75 per cent of the country's population lives in them. The present-day national territorial-urban model identifies 3 hierarchical levels of city-centres and their surrounding agglomeration areas: capital city with its agglomeration, other cities of over 100 thousand inhabitants – Plovdiv, Varna, Burgas, Ruse, Pleven, Stara Zagora with their surrounding agglomeration areas and towns (incl. medium-sized towns and towns of over 20 thousand inhabitants) (Table 4, Fig. 7). The development of intra-regional cooperation between the core centres and their zones of influence is expected to enhance the development of the whole agglomeration area and thus to diminish somehow the intra-regional differences by expanding the economically more active territory and by facilitating the growth rates through relevant interventions.

Table 4 Agglomeration areas in Bulgaria

Number of inhabitants of city / town	Number of agglomeration areas	Number of cities/towns in Bulgaria in corresponding category
Capital city (over 1 million)	1	1
Cities of over 100 000	6	6
Towns 20 000 – 100 000	29*	37**

* - including 1 town of less than 20 000; ** - without 1 town of over 50 000.(Asenovgrad), which is included in Plovdiv functional area and 8 towns (20000-50000 inhabitants), included in the agglomeration areas of other cities/towns in Blagoevgrad, Burgas, Gabrovo, Haskovo, Lovech, Sliven, Veliko Tarnovo districts.

Source: data from the Operational Program "Regional Development" and the National Statistical Institute

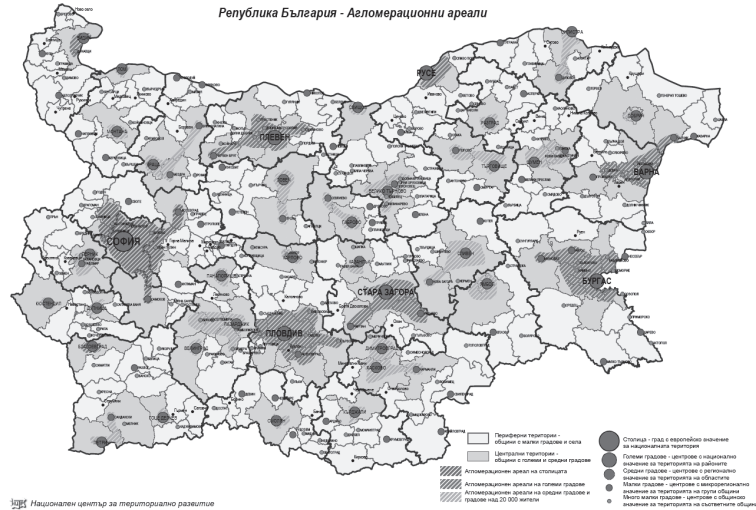


Fig. 7. Agglomeration areas in Bulgaria
Source: Operational Program “Regional Development”, 2007

The Operational Program “Regional Development” (2007) emphasizes that the long distance from the city centres has favoured the formation of peripheral regions not only in the border areas but also in the inner margins of the Danube Plain (North Bulgaria), the Upper Thracian Lowland (south part of the country), etc. By contrast with Poland⁵ and some other countries, in Bulgaria there are no geographical investigations of the existing transport links and accessibility to the big cities and medium-sized towns, of the links between large companies, of the social relations, etc. Taking into account the expert assessment, it can be concluded that alongside with the railway transport, which in the other countries is fundamental for the connection of the metropolises, the road transport in Bulgaria seems to be very important for the transport links between the big cities and the centres of the functional urban areas. In some cases (e.g. Varna, Burgas) the availability of airports and the maintenance of home airlines are also significant factors. Because of the long distances between the large cities, their distribution in the form of two semi-ellipses (Sofia-Pleven-Ruse-Varna, Sofia-Plovdiv-Stara Zagora-Burgas), the location of some of them in border areas (Ruse, Varna, Burgas), the configuration of the railway and road network, etc., the time needed for business and other trips is highly different. Due to the daily flights to/from Sofia, the time to cover the distance to Varna and Burgas (about 400-500 km) is less than that needed to reach other big cities, 150-200 km away from Sofia. According to ESPON FOCI 2010 research, the potential multimodal accessibility⁶ only for Sofia district is higher as compared to the ESPON average. Similar is the situation with the remaining countries from Central and Eastern Europe, where only the capital-city areas are notable for their higher values of the indicator and the other parts of the countries the potential multimodal accessibility is lower in comparison with the ESPON average.

⁵ Komornicki, T., P. Siłka (Eds.) Functional linkages between polish metropolises. Warszawa, 2011

⁶ Potential accessibility describes how easily people in one region can reach people located in other regions. Within the accessibility model used by ESPON, potential accessibility is based on two elements: (a) population in NUTS 3 regions, and (b) effort in time to reach them (ESPON..., 2010, pp.40).

The regional policy of Bulgaria defines the towns as the driving force of development, accentuates the urban dimension of cohesion policy, emphasizes the importance of the territorial planning strategies, and encourages the relationships between urban and rural regions which are currently underdeveloped. "The thriving cities/towns, closely connected with their less populated countryside, in the long run will cause beneficial changes for regions, now experiencing a serious decline and depopulation. Thus in practice, the problem of intra-regional differences will be solved. [...]. On the other hand, the better connection of the cities/towns with their adjacent area in terms of access not only to the transport system, but also to information and communication networks, services and efficient energy resources, will result in more favourable conditions for development in these regions." (Operativna Programa, 2007, p. 94-95).

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TERRITORIAL POTENTIALS OF A GREEN ECONOMY

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Abstract. The research - which is the base of this paper - examines the effects of different social, economical and ecological driving factors of the land use changes at the border areas of the South Great Plain Region.

The multidimensional model is used to analyze interactions at the landscape-scale, hereby it helps to understand the dynamic of the changes and also contributes to develop “best-practices” at the landscape-planning.

The different kind of land use conflicts depends of the target of spatial planning. This paper tries to present methods and semi-results which can be used to examine the problems.

Key words: green economy, spatial development, territorial potential

WHAT IS GREEN ECONOMY? - CONCEPTUAL QUESTIONS OF THE GREEN ECONOMY

The industrial transformation inducing continuous growth and expansion of economic development, dating from the half of the 19th century, nowadays carries a high volume of environmental stress which exceeds the capacity of the ecosystem. Because the problem is due to the nature of today's economic activity, researchers see the solution in the transformation of the latter.

The main goal of the ecological economics, which is the theoretical foundations of the Green Economy (GE), is to harmonize the economic processes with the natural processes while the economic components are integrating in the ecosystem cycling processes, thus causing the least damage (*circular economy, biomimicri*).

The primary purpose of switching for the GE (the theory of ecological economics as a baseline) is to reduce the human activities on natural ecosystem processes. Translated into a sectoral approach, this means the reduction of all impacts of the different economic activities on climate change, namely on global warming.

THE GLOBAL GREEN NEW DEAL (GGND)

By the year of 2008, three global crises occurred simultaneously: the fuel, food and financial. The Global Green New Deal (GGND) (UN 2009) based and developed on the target system of Roosevelt's

New Deal program in the 1930s, is the United Nations' program getting out from these crises. Its main object is to encourage the development for a global strategy. The United Nations Environment Program (UNEP) discussion paper "*A Global Green New Deal*" argues that today's multiple crises demand the same kind of government leadership, but at the global scale and embracing a wider vision. A Global Green New Deal is proposed as a manifestation of that leadership.

The three priorities of the GGND are: (1) the economic and environmental long-term sustainability by investing into the "green sectors", (2) developing the regulatory systems of the nations, and (3) the international cooperation. The target of the strategy plan is not only 'greening' of the economy, but also to prepare an incentive system, and try to reduce the global carbon dependency, protect fragile ecosystems and alleviate poverty while promoting economic growth and create jobs.

Consequently, the national development and economic policy basically should be developed in the following three directions:

- 1) Make a major contribution reviving the world economy, saving and creating jobs, and protecting vulnerable groups;
- 2) Reduce carbon dependency and ecosystem degradation, putting economies on a path to clean and stable development;
- 3) Further sustainable and inclusive growth, achievement of the MDGs, and an extreme poverty by 2015.

The above also means that the new approach of development policy has to be met with two fundamental objectives. These are to reduce carbon dependency and ecosystem degradation.

The works of the UNEP, the *Green Economy Initiative* and the *Green New Deal Group* are based on the *Green New Deal* (UN 2009), - which follows the latest international trends, and becomes more popular at economists – tries to "greening" the economic policies of its members basically in five key areas:

- Old and new buildings for energy efficiency;
- Renewable energy technologies (wind, solar, Geothermal and biomass);
- Sustainable transport technology (hybrid vehicles, public transport, etc.);
- Ecological factors (water supply, forestry, soil);
- Sustainable agriculture (organic farming).

TERRITORIAL POTENTIALS OF THE GREEN ECONOMY

In the framework of the analysis of spatial aspects of the green economy, we have examined the territorial impacts of economic development on the basis of the logic of action embedded in the sustainability strategic approach. According to this concept, green economy is virtually the "greening" of the economy through green sectorial development processes, its reinvigoration through the promotion of sustainable entrepreneurial relevant industry and the environment, job creation, the reduction of environmental hazards caused by the industrial sector, the creation of an economy with low pressure environmental which would guarantee the long-term functioning of the ecosystem besides the creation of jobs. The examination of the spatial aspects of the existing efforts to establish domestic green economy was carried out through green sectors (energy saving building industry, renewable energy management, sustainable transport and agriculture, water management, environmental infrastructure), in the meantime, on the basis of the above, due to the horizontal nature of spatial development of the global synthesis of the processes in a real can only through an integrated approach. The objective of the comprehensive integrated "green" spatial development is the protection

of biological diversity, the development of agribusiness and the rural economies, and the simultaneous consideration of the social policy aspects of the exploitation of natural and cultural (traditional) in order to enhance the opportunities keeping power of population together with the rural areas and employment opportunities to establish an economy adapted to local constraints environmental (ecological agrarian industry). All this must be harmonized with sectorial policy measures directed at the popularization of renewable energy, the development of the agrarian sector and the preservation of natural and cultural values.

In the Territorial Agenda (2011), one of the main aims of the territorial cohesion is a more efficient exploitation of the territorial cohesion by strong local and regional condition potentials. The territorial dimension in the sense is the regional competitiveness, sustainable regional development, and the integration into the European space.

In the background, the potentials of regional green economy sectors can be examined through the dimensions of green sectors. Here are three green sectors representing the Hungarian opportunities in the development of green areas.

SPATIAL ASPECTS OF THE ENERGY MANAGEMENT

The energy sector is one of the most important parts of “greening the economy”. The “greening” perspectives of the energy management can be evident on the energy prices, energy efficiency (building) industry, housing and technology. In the country’s total energy consumption the residential and domestic use is the highest (264.000 TJ), followed by institutions (144.000 TJ), and the industry and agriculture. If the energy consumption is examined by territorial review (Fig. 1),

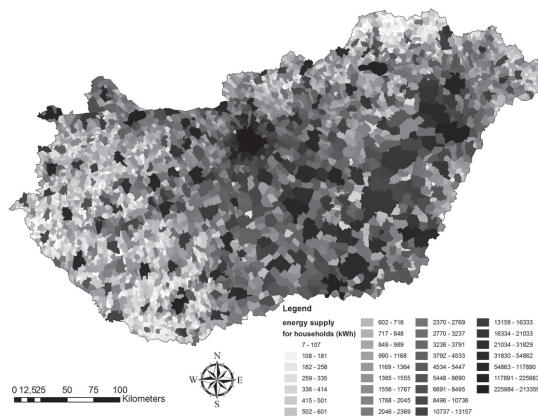


Fig.1. The quantity of electricity supplied to households, 2008 (kWh)
(Source: KSH T-STAR¹ 2008, CRS 2010)

examining the differences clearly emerges that the Great Plain has the biggest “energy hunger” with the towns of Szeged, Hódmezővásárhely, Békéscsaba, Debrecen, Nyíregyháza. Miskolc rises out of the line with the higher consumption mainly. The magnitude of income is an indirect energy consumption because the travel habits (eg, train or aircraft), the comfort level, the level in applied

¹ Hungarian Central Statistical Office settlement statistical database

technology (energy efficiency), rules, norms of behavior, attitudes and social habits (e.g. voluntary return of CO₂ quota) of the population depend on it frequently. The country's territorial income distribution (such as economic growth indicator) is closely correlating with the energy consumption (Fig. 2.).

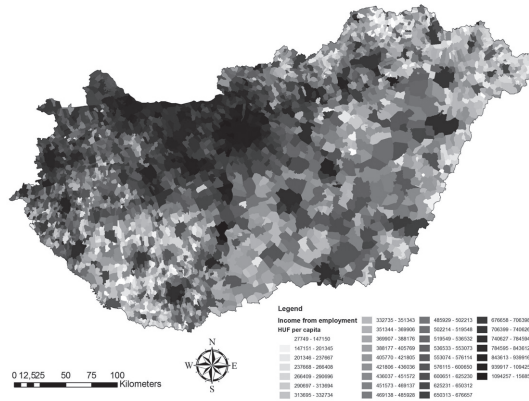


Fig.2. Employment income, 2008
(Source: KSH T-STAR 2008, CRS 2010)

The construction industry is 40% of the total energy consumption and – during the construction activity – more additional CO₂ emissions. The new buildings can contribute most significantly to reduce of CO₂ emission with technological innovation. Examining the domestic housing construction volume in 2008 (Fig. 3) we can clearly speak about urban phenomenon.

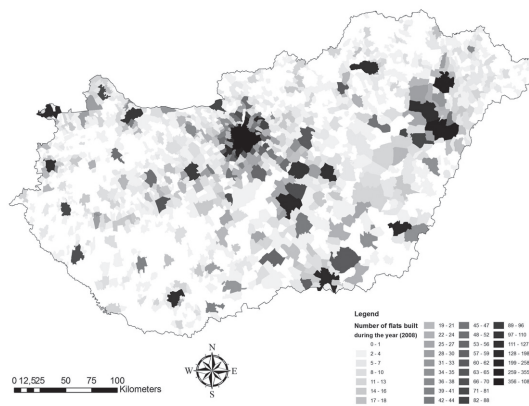


Fig.3. Number of flats built during the year, 2008
(Source: KSH T-STAR 2008, CRS 2010)

Besides all the pollution from the construction processes, starting suburbanization processes with housing stock and housing price increases, because of that the green areas are increasing.(Fig. 4).

More and more people are finding that the use of renewable energies - solar, hydro, wind, geothermal and biomass - could be the key to solve the energy challenges standing in front of humanity.

These possible applications, can be very different by the areas, if we want to use them correctly, several criteria are needed to be taken.

Considering Hungary, first is advisable to review the kind of available theoretical potential of which how much is sustainably utilized, what scale projects can be made on this plan, the energy balance and emissions (production, transport), taking into account the fact the green economy may be part of it, or what kind of opportunities are giving the future technological developments, and finally what power can be calculated with in the rural areas.

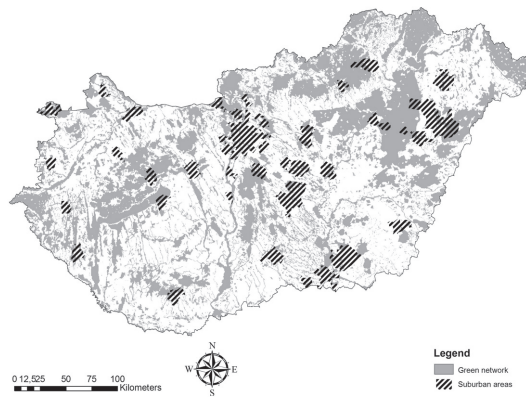


Fig.4. Areas of endangered green network by suburbanization, 2008
(Source: KSH T-STAR 2008, CRS 2010)

Hungary – according to the global trends – has to satisfy the increasing hunger of the population in a way, so that the total energy consumption from renewable energy sources should rise. If Hungary would like to raise the current 4% share of renewables by 10%, by the year of 2020, primarily, it has to promote the exploitation of rapid technological development and inventions regulated alternative energy sources. It has to promote its exploitation with rapid pace of technological development and regulated, alternative energy sources. Once the biomass potential is now the largest resource available (38, 3%, but 86% of firewood together!) expectedly in the near future it will remain, but at the same time improvements are needed in other renewables as well. In the production of electricity apart from the renewables, the biomass and the wind energy have major roles as well. In the production of thermal energy, the natural gas has big role, biomass is about 90% share in line of renewables, and the geothermal heat has a considerable volume.

The Carpathian Basin, particularly under the area of Hungary, the earth's crust is thinner than the average, so the geothermal circumstances in Hungary are very favorable (Fig. 5). The Earth's interior outward heat flux 90-100 mW/m² average value, which is about twice the continental average. The geothermal gradient in Hungary (0,042-0,066 °C/m) is twice as the Earth's gradient (0,020-0,033 °C/m). Due to the above mentioned thermal conditions - in the depth of 1000m - layer temperature reaches or even exceeds the 60 °C under our area. The temperature isotherms at a depth of 2000 m discover large fields above the temperature of 100 °C. The geothermal energy is mainly coming from the thermal water in the Carpathian Basin. Most of the thermal water is used by the agriculture. Firstly heating the crop growing places is efficient.

The amount of solar energy is characterized by two data: the global radiation and sunshine duration (number of hours of sunshine). The global radiation map (Fig. 6) clearly shows that the major

radiation of our country can be expected at the lowland areas and the places of South Transdanubia. The Southern Great Plains Region is the richest area in our country, concerning the solar energy. The spatial distribution of the solar radiation is homogenous, the region's average is only exceeded in the Tisza valley and along the lower reaches of the Danube. The five-year average radiation data and the region's average considered global radiation averages (466,449 J/cm²), with high security, can be treated base data for planning solar energy.

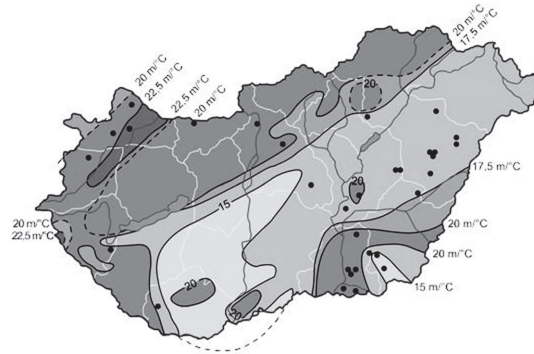


Fig.5. Geothermal gradient
(Source: FÖMI² 2010)

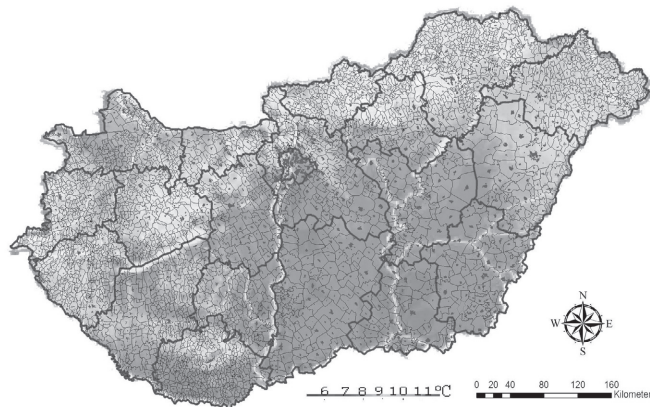


Fig.6. Average annual temperature of Hungary
(Source: OMSZ, 2008)

The growth of green energy is a direct impact on land use, especially for rural land use. It can be an explicit effect on the prices of agricultural products, and indirectly on the farm diversification and the employment. After - looking back on many decades of history – the plain (here: Great-Plain) economic and social problems are mitigated by the improvement of the above mentioned factors. Among the renewable energies, the biomass is given a prominent. The available biomass potential in Hungary is about 360 million tons (2006 data). From this amount, renewable is approximately

² Institute of Geodesy, Cartography and Remote Sensing

110 million tons each year, of which 68 million tons are for producing food, animal feed and other uses (e.g. industrial use). The remaining 42 million tons is the theoretical potential energy, of which approximately 420 PJ/year can be energy production, which is 37-38% energy consumption of 2008 (Dinya 2008). In the biomass production sector increased interest areas can be appointed by the renewable energy sources due to inhomogeneous spatial distribution. The biomass is related to the agricultural activities on the Great Plain. This is the place where the 180 PJ of heat value, nearly 10 million tons of dry biomass are generated.

If we look at the country's total renewable energy potential by sub-regional distribution (Fig. 7), it is evident that Great-Plain (biomass, geothermal), and the forested areas (firewood, biomass), are the best. The Great-Plain's high energy demand (13,680 TJ per year, see Fig. 1) could be satisfied with the local green energy sources (134,341 TJ). Top of it all, the above mentioned could help the domestic realization of a new type local energy supply towards a socio-economic paradigm.

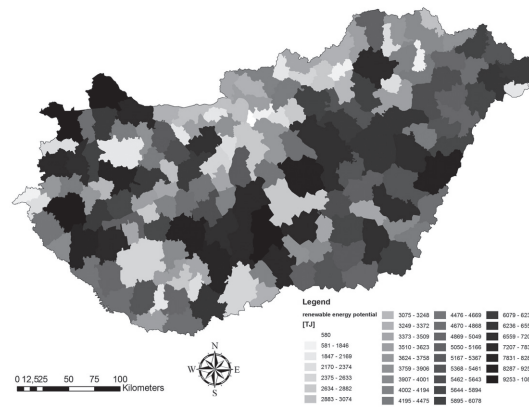


Fig.7. Renewable energy potential (by sub-regional)
(Source: KSH T-STAR 2008, CRS 2010)

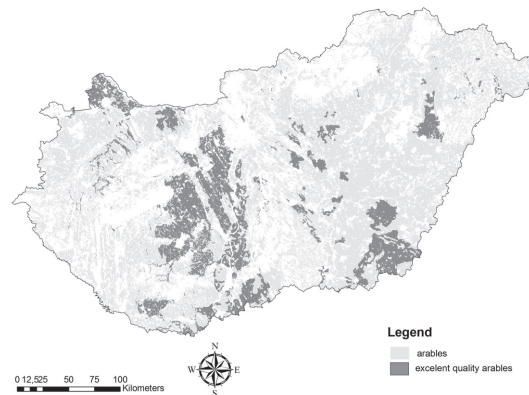


Fig.8. Distribution of excellent quality arable land in Hungary
(Source: VÁTI OTfT 2008³, CRS 2010)

³ Hungarian Public Nonprofit Company for Regional Development and Urban Planning, National Spatial Plan

It is an important issue - relating to bioenergetics of the long-term sustainability - whether on the available arable we produce energy or food. Based on this, the bioenergy productions and developments should be optimized on smaller areas. The fuel demand of the power stations should be primarily agricultural, municipal and industrial wastes. Besides of that, using the unfavorable endowments (poor quality arable) areas in this process can be possible (Fig. 8).

Another question is whether growing energy crops threatens the landscape and biodiversity or not. In our opinion this is a real danger, even if we have a well-designed land-use concept as well. The plants producing in this way can become “monocultural” or the gene modified pieces can cause harm to the nature with its migration to another place. Especially the nature and water resource protected areas are at risk (Fig. 9 and 10).

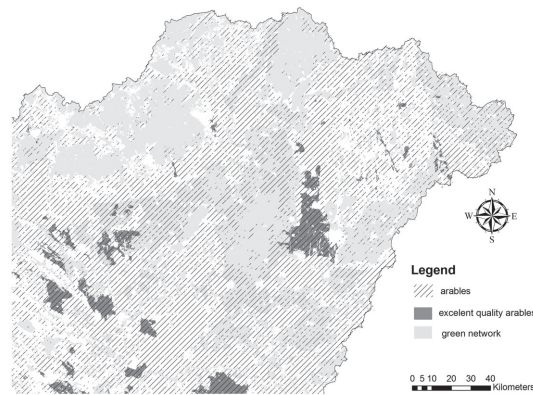


Fig.9. “Hot-Spots” of production of food and energy raw material
(Source: VÁTI OTrT 2008, CRS 2010)

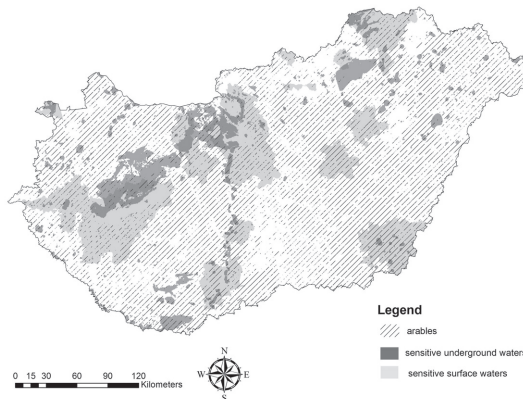


Fig.10. Water quality protection zones of surface waters and arable land conflict zones
(Source: VÁTI OTrT 2008, CRS 2010)

WATER MANAGEMENT

By the climate models, the period between 2021 and 2040 the climate change in Hungary will have an average 1.2 °C temperature increase, which will affect all seasons. Regionally in the Great-Plain is higher than in Transdanubia. Although the regional models are not significant, the drying trend is outlined of them. The extreme weather events (storms, heavy rains, hot days) are mentionable which have high influence on the industry and the agriculture. From the models we can figure out that the rainfall intensity will increase, thus the number of heavy rain and storms are expected to increase and the number of small rainfall events associated with thinning will be less. Because of that, the flood risk will increase the drought of summer season and groundwater levels reduce, the latter mainly in the Great Plains.

Overall, by the climate change the surface water and the water runoff formation conditions will change and all of these have a deep effect on the technical infrastructure (eg sewerage and drainage), and related agricultural activities. The ground water can reduce and the metropolitan areas and regional water supply respectively could be under danger (e.g. in Homokhátság area).

The various water use differences (retail, power generation, irrigation, “water footprint” etc) between Transdanubia and Tisza places can be seen. (Fig. 11). The available water resources due to regional differences can clearly show that the water is not always can be found where it is used. The seepage, evaporation, and runoff is not in harmony with the water withdrawals, top of it all, the power supply anomalies and its spatial, quantitative and qualitative differences are added to it.

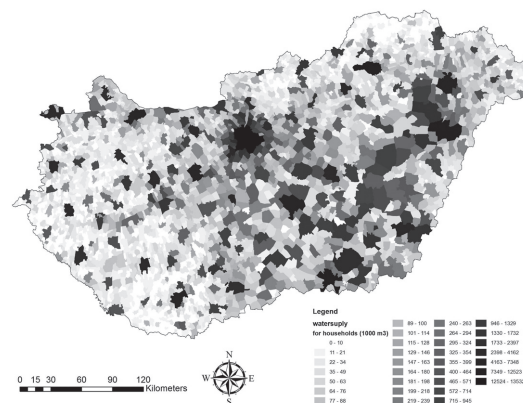


Fig.11. Total quantity of supplied water, 2008
(Source: VÁTI OT&T 2008, CRS 2010)

The guidelines of the Habitat Directive (1992) shows a similar input-output problem by which on the protected areas the water withdrawals should be reduced, at the same time in some regions beyond licensing happens.(see: Natura 2000, Water Framework Directive). The various land use and land cover type are also directly have an effect on the infiltration and runoff (see: drainage, flooding, urban spaces, installation method etc), thereby influencing the amount of surface water bodies (see: irrigation).

Reducing floods is the most common (and also have a territorial dimension) activity during the transition to a low carbon economy. Flood control (indirectly) is the conservation of biodiversity, and also the built and cultural assets (land, buildings etc) protection. All of this, with the appreciation

of the tourism and leisure activities will be come into view. The various management and social activities in the landscape helps the flood risk reduction but requires intensive researches. Flood risk assessment and the analysis of various interactions of land uses should be a priority area of the integrated spatial analysis.

SPATIAL DEVELOPMENT OPPORTUNITIES OF THE MULTIFUNCTIONAL AGRICULTURE

The agro-environment scheme is based on the Hungarian land use zone system (Ángyán 2003a) reported that the territory of Hungary by the agricultural suitability and environmental sensitivity indicators, is divided extensive and intensive agricultural area. The land can be classified by the scores in the assessment system (Fig. 12).

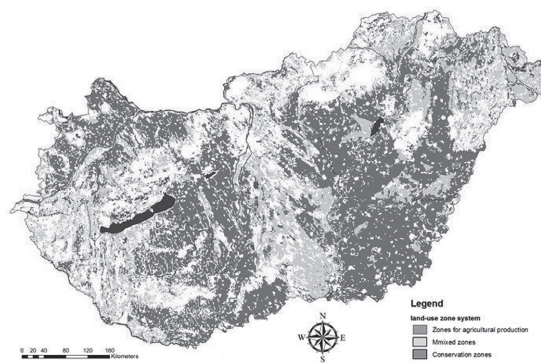


Fig.12. The location of arable land in the proposed land-use zone system (Scenario No2)
(Source: Ángyán 2003b)

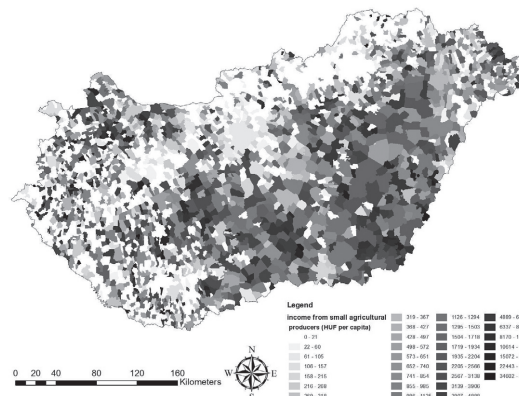


Fig.13. Income from small agricultural producers, 2008
Source: KSH T-STAR 2008, CRS 2010

The aim of the zone system is that the nature conservation areas could be integrated in the economic and social processes through a gradual transition (buffer zones, double-favored areas specified). Considering that, the most of primary producers in Hungary farming on the Great- Plain

(Fig. 13), which is suitable for intensive agricultural management, furthermore, the extensive and nature conservation areas are important, a major issue is that what the agricultural sector is, in which these producers can thrive.

Our results show that, even today, the agriculture is significant in the rural areas, and its and extensive cross-industry relationships, and only a well-functioning agricultural can be the base of a harmonious rural development. So the promotion and development of the multi-functional agriculture, as part of the green economy cannot be circumvented by the Hungarian rural areas. Another important issue that there are not only significant regional differences in the environmental review of land use side, but in the economic and social indicators specify the sector as well. In our opinion, not just in the agro-environmental special programs should be applied with different regional preferences, but in the entire agrarian subvention system as well. The grant targets and the development of related tools connected to it would be appropriate at a regional level. On the areas with good endowments, (because of the already low landscape and biological diversity) a large-scale, precision farming approach⁴ is recommended. Target areas of this measurements can be the small areas and the places which are perfect for intensive farming, such: Backa, Mezőföld, Kisalföld, and some of Békés county's landscapes and some areas of Jasz-Nagykun-Szolnok and Hajdu-Bihar counties.

On the sandy lands of the Danube and Tisza rivers and the south part of Békés County – where a significant number of fields are cultivated by small farmers – a competitive family economic model should be supported. All these activities would be producing fruits and vegetables, grazing animals within the framework of organic farming. The latter activity also should serve the interests of nature conservation on the grasslands of Kiskunság and Koros-Maros National Park.

The high agricultural density of the Northern Great-Plain (especially in Szabolcs-Szatmar county), is combined with small-scale and low income, of which that the social functions of agriculture should be strengthened with the landscape maintenance. It is primarily that we should help the establishment of regional self-sufficiency, vocational training (agricultural related, and a lot of vocational education), and social cooperatives.

Based on our results of 14 mostly hilly, highland areas (Transdanubia, Northern Mountains, Mecsek and Somogy hills), we consider to give high priority to forest areas and for further development and support of them. Promoting the bio-and organic farming is possible with supports but with other resources. A good example for that is the Hungarian rye production which is, essentially within the framework of organic farming. The reason is that the market price may not be adequate to earn the cost of pest control. So in our view, after a proper control the domestic crop should be declared and sold as organic product. There would be demand from our west neighbors for these organic products.

In addition, we should take steps towards diversification, the position on standing on more feet, and develop incentives and political support. Here - along much more opportunities - especially the cultivation of medicinal plants should be mentioned (in the future, the limited use of chemicals will be allowed). Hungary in this area in the 1970s and 1980s considered to be a real superpower. After the compensation, it was strongly reduced and the collection has been so dominant. However, both Western and Eastern Europe, people are increasingly turning to natural substances in the health field. Thus, in the longer term, Hungary can also be an important place for the cultivation of herbs

⁴ This "concept" and technology is that the agricultural board, within the local context in line with the injected nutrients (fertilizer and organic manure), pesticides and seeds. The production method is designed to optimize the return on invested capital, so that you minimize the negative environmental effects (Tamás 2001).

industry and could improve the income to herbs industry. The listed programs and supporting goals – apart from preserving rural jobs – can have further advantages, like strengthening the intellectual population, as it needs highly qualified human resources.

All of these can increase - besides of the available human capital on the settlements - the implantation of added high valued activities, such as in the practice of rural development in the U.S. (Whitener, Parker 2005).

CONCLUSIONS

An outstanding result of our research is that, agriculture may become the catalyst to Green Economic Development in Hungary due to its strong links to other sectors. Thanks to the multiplier effect of green agrarian development on other sectors, the latter may generate positive processes in environmental protection and rural society as well. Hungarian agriculture as well challenges involved in energy in two ways: on one hand, the Energy Efficiency of production must be enhanced, and this is crucial since the realization of efforts of WTO Negotiations directed at the liberalization of the agricultural trade would raise competitiveness of the Hungarian products, on the other hand, the utilization of biomass for energy purposes would reduce the energy-import dependence of the country, Increase the stability of the market of agricultural products, improve the profitability of the agrarian sector and promote the creation of rural jobs. Our research devoted special attention on how the theoretical foundations of green economy are validated in local spatial development policy (integrated urban development).

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UKRAINE'S ECONOMIC SPATIAL STRUCTURES AS A BASIS FOR THE IMPROVEMENT OF TERRITORIAL AND ADMINISTRATIVE ARRANGEMENT

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Keywords: Ukraine, administrative structures

INTRODUCTION

One of the prerequisites of the realization of a Eurointegration strategy for Ukraine is the adaptation of its administrative-territorial division to the requirements of the European Union (EU). This is a long-term policy and it is directed at the improvement of the territorial-administrative system of Ukraine on the basis of merger of the existing administrative units and the creation of spatial units – economic regions of different hierarchical levels corresponding to NUTS1, NUTS2, NUTS3.

The formation of a new system of administrative-territorial division requires the determination of objectively existing spatial units, that is, the use of spatial economic zoning as objective basis for a new administrative-territorial division, taking into account the fact that spatial economic zoning as the objective process, while administrative-territorial division is a subjective process. Practice shows that administrative-territorial system is more inert and it is often an obstacle in the way of formation of objective spatial system of economic regions.

The notion of “national economy” has been defined by Robert Reich in his investigation *The Work of Nations* as a part of global economy limited by national borders [1, 244].

The necessity for the spatial approach to modern national economy is connected with the formation on its basis of an inno-tech network – a system of information-communicative, spatial and motivational connections between its componential and functional subsystems, adapted to global humanitarian economy – attachment strategy.

Chorologic concept is the basis for the formation of modern post-industrial, global information (network) society, the most important feature of which is the substitution of territorial principle of the organization of society by the network principle which is practiced on an ever larger scale.

The term of spatial development by its contents differs from the term of territorial development. In the former case we understand the evolution of the morphology of socio-economic development when space is considered as an order of arrangement of things (Aristotle's line). In the latter – changes

of functional character in spatial processes are considered, where a territory is a place of arrangement of things (Democritus' line) (5, 34).

The necessity for structuredness of space of national economy as the basis of territorial-administrative division has been underlined by a number of researchers. Thus, Jane Jakobs believes that most countries within their national borders are characterized by a combination of very different spatial subsystems [2, 31], which taken as a whole form the national economic space.

Spatial approach is combined with genetic approach, which considers socio-economic processes from the point of view of their genesis, dynamics, spatial differences.

Thus, the national economic space is a dynamic system, the parts of which (local regions) are localized on separate territories with appropriate program of development, competitive advantages and synergetic effect.

The investigation of the problem of zoning includes two interrelated approaches – qualitative (systemic) and quantitative (cybernetic). Economic space is characterized by such features as continuity and discreteness and consists of m components – economic regions, formed according to different principles and different hierarchical levels, and n connections between them.

Spatial economic zoning can be regarded as a process of definition of historical, economic, political and social processes in a certain cultural environment, territorial units of which are singled out as parts of spatial structure of society.

An important feature of an economic region as an integral system is spatial stability and inertness, that is, an ability to preserve its structure in the changing environment. An economic region is a system of a complex of factors of production, demands, supply which defines its spatio-temporal structure.

Economic effectiveness of economic regions is defined by two groups of factors. The first is connected with spatial concentration of factors of production, the second consists of the factors which are conditioned by new interrelations and interdependencies between the participants of the process of reproduction in an economic area.

At the same time, it is necessary to underline that economic zoning should take into account congruence, that is, objects of administrative-territorial division should stay integral units.

THE ESSENCE OF INTEGRAL ECONOMIC ZONING AS THE BASIS OF TERRITORIAL-ADMINISTRATIVE SYSTEM OF UKRAINE.

Modern economic zoning of the national economy of Ukraine which is connected with the development of world economy, processes of globalization, international economic integration may be based on the system of principles (integral, sectoral, historical, ekistical (agglomeration and metropolization), innovation infrastructure, network structures) with account of chorological (spatial) character of their use. Economic zoning, irrespective of the principles of its realization, requires the division of national economy into relatively independent systems, each of which is distinguished by the respective level of social, economic, public integrity and independence.

The aim of economic zoning is the strategy of competitive recovery of the national economy on the basis of balanced long-term spatial socio-economic development. Its realization requires in each economic region agreement of regional and sectoral policies, which directly influences spatial structure of national economy (policy of spatial development).

Depending on the principles at the basis of economic zoning, a spatial system of economic regions, different in genesis and structure, is formed. They include integral economic regions which

are based on integral principle of zoning. They are the basis of creating NUTS1 regions, and smaller economic regions formed on other principles of zoning as the basis for the definition of NUTS2 and NUTS3.

Integral economic regions define basic directions of socio-economic development of national economy, reflect spatial cooperation, integrity of all the components of national economic and social environment. They may become the carriers of the idea of a new institutional pluralism, the basis of the democratic development of a country.

Such regions must exist and develop according to inter-regional and international division of labour, its cooperation. Their definition requires the transformation of the existing systemic-structural organization of national economy, structuring of national economic space, defining spatial differentiation and concentration of social phenomena.

Integral economic regions are characterized by their discreteness in space, specific structure (polycentric or monocentric), logic of development and functioning.

The Ukrainian legislation has not yet defined the status of integral spatial economic regions, but their formation may favor the adaptation of territorial administrative division of Ukraine to the EU requirements on the way to the realization of its Eurointegration strategy.

Such regions may become analogs of voivodships in Poland, regions in France, Belgium, Great Britain, autonomous regions in Spain, Portugal, provinces in the Netherlands.

The functioning of territorial administrative units of such a level must favor competitive recovery of the national economy on the basis of a more effective use of competitive advantages of respective economic spaces, optimization of their foreign and home relations, entries to new international markets.

Spatio-temporal characteristics of integral economic regions are defined by the level of concentration of socio-economic "masses" (nods) in them as elements of social recreation, formation of growing points in them, "networks" as centers of anticipatory spatial development (centers of activity) which are defined by the concentration of material, service, financial resources.

Integral economic regions define spatial organization of national economy, that is, the location of subjects of economic activity, spatial connections between them and interrelated with them spheres of national economy – spatial interaction, integration of all components of national economic and social spaces.

Thus, an integral economic region is a system of factors of production, demands, supply, which defines its spatial-temporal structure. Such regions are formed on the basis of gravitation theory, the influence of centripetal and centrifugal forces. Centripetal forces create a concentration of subjects of economic activity and a respective zone of their influence, while centrifugal forces define their location in the system of national and world economy.

Economic efficiency of integral economic regions is defined by two groups of factors. The first is connected with spatial concentration of factors of production, the second group comprises the factors which are conditioned by the appearance of interconnections and interrelations between participants of the reproduction process in an economic region.

The formation of integral economic regions may be favored by metropolization, which is characterized by such processes as concentration of different types of activities in the centers of countries – metropolises; the growth of the share of their population in the general population of the country. Such regions become the sources of new ideas, technologies and innovations, generators, engines, stimulators of economic growth.

The prerequisites for the formation of integrated economic regions on the basis of metropolization may be the following: concentration of scientific potential in large cities, which are the basis of metropolization processes; access to scientific and information infrastructure, research centers, construction industry; existence of favorable conditions for the development of vertical and horizontal integration; formation of the labor market and consumer demand which provide for “economy of scale” for large and small business.

An integral economic region which is formed around a large center-metropolis is characterized by such tendencies as:

- preservation of quasi-static zones near the center which in market economy are formed under the influence of the search for spontaneous equilibrium between demand for and supply of goods and services during decrease of intensity of the development of territories distant from the center of demand;
- continuous or discrete “pressure” on the existing spatial-functional organization of space, which is connected with the desire to obtain the largest possible income from production;
- permanent changes in dynamics and character of demand for and supply of separate groups of goods and services which is the result of changes in demographic and social structure of society. The impulses going from social needs, ecological limitations, technical innovations in the economic region exert pressure on the functional structure of its center;
- growing influence of ecological factor on the location of separate types of activity.

The metropolises which are formed on the basis of cities as centers of gravitational influence on the surrounding environment, according to Eric Lampad, Bert Hozelitz and Wilbur Tompson, may be of three types: productive, economical and performing the controlling function.

In productive metropolises, short distance, size and concentration of potentials of the metropolis provide for the economy of scale and competitive advantages in production costs.

Economic metropolis is an incubator of innovations and entrepreneurship. It favors the interaction of inventors and entrepreneurs decreasing in this way costs for developing and adoption of innovations.

Metropolis of control is the center of decision making, communications and data gathering. The controlling function of a metropolis is based on the concentration within it of a specialized information, communications, central offices of leading companies of the region.

The level of influence between metropolises is directly proportional to the size of their mass (population, economic and innovation potentials, natural, material, financial resources) and inversely proportional to the distance between them.

Such features of metropolises also directly influence economic development of respective integral economic regions. Defining constant rise in the quality of factors of production, support and enlargement of infrastructure, raise in efficiency of social services.

The competitiveness of an integral economic region provides the basis and motivation for its functioning, influences the formation of national market, the place of national economy in the global economic system through:

- interconnections between integral economic regions on the basis of the development of transport, communications, innovation infrastructure;
- adequate functioning of all integral economic regions within national economic system;
- existence of common elements of national economy (currency, monetary, regulatory, foreign policies);

- regulation of development on the basis of institutional economic mechanisms of cooperation.

In modern conditions, all the types of economic zoning are characterized by the innovation principle, which is based on the formula of “three i’s” – innovations, investments, information technologies.

The existing innovation approach to spatial development is based on the theory of convergence and “economic growth.” Because of lower dependence of the development of economy on traditional factors of production, competition for the inflow of investments which are the basis for the formation of the model of national economic space development is becoming stronger.

Integral economic zoning as a spatial socio-economic phenomenon has the following features:

- a highly dynamic structure;
- a high level of specialization;
- “diffusion” of social and productive processes in space.

Integral economic zoning is aimed at effective use of endogenous and exogenous factors of the development of the national economy with the aim of raising the level of its competitiveness, providing for the convergence of the national economic space. An integral economic region can be defined as a spatial polystructural heterogeneous system which is defined by integrity; a complex of inter-related subsystems and synergetic effect of their interaction. Its functioning is aimed at megaspace homogenization of socio-economic environment on the basis of the development of spatial functional, genetic interconnections and influence of mobile factors of production, their internationalization.

Structural transformation consists in the restructuring of subsystems of an integral economic region according to the elaborated national strategy which defines general principles and an institutional economic mechanism of its realization. Of special importance is the development of innovation strategies of integral economic regions.

Depending on the level of socio-economic development and competitiveness, supply of resources such regions may develop innovation strategies:

- offensive – consists in its entry on the markets with a brand new product;
- defensive – aimed at keeping the region on the existing segments of the market;
- vanguard – characteristic of spatial integral economic districts with highly innovative segments of market, competitiveness which permits entering new markets;
- imitating, according to which an integral spatial economic district tries to imitate strategies of other regions.

Each strategy is a field of economic activity which is characterized by a systemic integrity of monetary, financial, pricing, investment activity, and can be regarded as an inseparable part of a system of social relations which organically combines economic, social, political, spiritual, psychological, religious, ethnic, domestic and other relations.

International cooperation can be regarded as a factor of additional competitive advantages of an integral economic region which promote the formation of extrovert and introvertive spatial relations and functions. Not defined, but they can favor raising the competitiveness of national economy on the basis of a more effective use of competitive advantages of respective economic spaces, optimization of their foreign and home ties, entry to new international markets.

MAIN DIRECTIONS OF THE ADAPTATION OF THE STRUCTURE OF ECONOMIC SPACE OF UKRAINE TO THE REQUIREMENTS OF THE EU

In the conditions of structural transformation, territorial-administrative reform of the regulation of the development of integral economic regions must take into account possible reformation of their functional, technological interrelations and respectively form a new structure of regions.

In 1957-1961, Ukraine made an effort of transfer from branch to territorial principle of management on the basis of formation of administrative economic regions under the control of the Soviet of national economy (sovnarkhoz). Sovnarkhozes according to the principle of their formation may be considered integral economic regions.

Ukraine created 14 sovnarkhozes, and after their merger in 1962-1965 there were 7 of them (Donetsk, Kyiv, Lviv, Podilia, Dnieper, Kharkiv, Black Sea). Each sovnarkhoz consisted of several regions – their territories coincided with the administrative-territorial division.

In the first years of independence (1990-1996) Ukrainian scientists suggested different variants of integral economic zoning. Authors suggested forming from 10 to 6 economic regions on the territory of Ukraine. The main principles of their formation were: socio-historical peculiarities of regions; approximately equal levels of the development of productive, scientific and technical, cultural potentials.

O.I.Shablyi singled out six integral economic regions on the basis of account of processes of agglomeration. These were the following: Western Central, Eastern, South-Eastern, Central-Eastern, Southern with respective centers in Lviv, Kyiv, Donetsk, Kharkiv, Dnipropetrovsk, Odessa.

In the modern conditions there are different schemes of integral economic zoning. The authors of these schemes are O.M.Marych, V.A.Popovkina, F.D.Zastavnyi, V.M.Tureyev, S.I.Dorohuntsova, A.M.Fedoryshcheva, P.O.Masliak and P.H.Shyshchenko, V.K.Symonenko and others.

It is necessary to continue the work on the formation of integral economic regions as the basis of transformation of administrative-territorial division. In the modern conditions of development the national economy of Ukraine with the account of the influence of globalization and international integration, that is, the existence of extrovert and introvertive factors of the formation of the strategy of its socio-economic development.

Natural, resource, ecological potentials; geopolitical situation; human capital; innovation and financial resources; the level of capitalization of enterprises, infrastructure play a decisive role in the formation of competitive advantages of integral economic regions which define it as a subject of economy and foreign economic activity. The interdependence between the level of socio-economic development of an integral economic region and the level of the use of competitive advantages define the level of its competitiveness. Integral economic regions must become the main object of regional policy in accordance with the requirements of the EU Common Regional Policy which is based on the realization of neoclassical regional theories combined with theories of concentrated growth.

The EU experience of the solution of problems connected with convergence of its regions is important for Ukraine taking into account Eurointegration strategy of its development. For the first time the rate of convergence of EU member states was calculated by A. Rodriguez-Posse for 110 its European regions for the period from 1977 till 1993 and Armstrong – for 85 regions from 1975 till 1992. They believe that the mean coefficient of regional convergence in the EU member-states in 1977-1993 was annually 1.2% (7, p.369; 8, p.146)

The aim of the EU Common Regional Policy for the period from 2007 till 2013 is favoring the realization of three tasks: convergence, regional competitiveness and employment as well as territo-

rial cooperation. The sum of €308.041 bln will be used for the financing of these three tasks of the EU Common Regional Policy.

The main task of the EU Common Regional Policy for 2007-2013 is convergence, the rise in competitiveness of regions of member-states in accordance with "Community Strategic Guidelines." To this end, the EU member states worked out "Convergence Programs" which define the aims, factors of macroeconomic and regional development of regions (work, productivity, capital).

Provisions concerning Regulations of the EU Common Regional Policy for 2007-2013 include the realization of the policy of convergence on the basis of EU strategic guidelines concerning the leveling of socio-economic development, its growth and the solution of the problem of employment. The policy of convergence is aimed at the solution of problems connected with economic, social and territorial inequalities of regions and faster restructuring of their economy. It is based on the priorities based on Lisbon (economic growth, competitiveness and employment) and Göteborg (environmental protection) principles. Besides, principles and rules concerning cooperation, planning, management, monitoring and control have been worked out on the basis of commitments of the EU member states.

In Ukraine there is a substantial divergence of regions as to the levels of their socio-economic development and connected with it level of competitiveness. In the period from 2007 till 2010 the differentiation of the levels of socio-economic development with the account of the index of gross regional product (GRP) per capita of the regions of Ukraine increased.

Our calculations show that according to this index the regions of Ukraine may be divided into five groups which show deviation from mean state value by:

- 125% and more – the city of Kyiv, Dnipropetrovsk and Donetsk Regions;
- 10-125% - Poltava and Zaporizhia Regions
- 76-100% - Kyiv, Odessa, Luhansk, Mykolayiv Regions and the city of Sevastopol;
- 75-50% - Lviv, Ivano-Frankivsk, Chernihiv, Kirovohrad, Sumy, Khmelnytsk, Rivne, Volyn', Vinnytsia, Cherkassy, Kherson, Zhytomyr, Zakarpattia Regions and the Autonomous Republic of the Crimea.

The performed cluster analysis of the regions of Ukraine as to the level of their innovation potential let us conclude that its mean level is characteristic of the city of Kyiv only, low – of 9 regions and the lowest – of 15 regions. Most of them belong to the groups of regions in which per capita GRP is less than 75% of mean state index.

Thus, divergence of regional development is prevalent in Ukraine. The creation of socially-oriented economic system of the country is impossible with the change of the tendency of the development of its regions to the opposite – convergence of their socio-economic development. In this connection, the experience of the EU Common Regional Policy in the solution of similar problems is important for Ukraine. The development of market environment and market structure corresponding to it will enlarge the possibilities of the use of the experience of the EU Common Regional Policy.

Integral economic regions may become the basis for the realization of such a policy in Ukraine which is directly connected with convergence of national economic space on the basis of:

- provision of the quality of life and raising the well-being of its people;
- balancing the labor market, its quantitative and qualitative structures;
- development of inner national integration, foreign economic ties;
- optimization of inter-regional material, energetic, information, investment relations.

Creation of necessary conditions of the use of competitive advantages in the system of a spatial integration economic region promotes higher competitiveness on the home and foreign markets.

The policy of coordination, integration and cooperation in the system of national economic space on the basis of integral economic districts includes:

- provision of spatial unity on the basis of convergence, polycentricity of development in the system of economic regions and national economy;
- the use of means of urbanization on the basis of the development of metropolization which must favor the use of endogenous resources – private national capital, direct foreign investments; the development of depressed, rural territories, increased competition among spatial integral economic regions; equal conditions of spatial access on the basis of realization of state programs of the development of transport infrastructure (railroads, highways, ports, airports, telecommunication network);
- better access to information and knowledge first of all for regions with low level of innovation development, the development of technology towns and technological centers in them;
- solution of ecological problems on the basis of coordination of state programs in the sphere of agricultural management, revival of depressed areas which suffered from industrial pollution;
- development and protection of natural resources on the basis of comprehensive use of water resources, including protection of rivers and drainage areas; control of the use of fertilizers in agriculture; definition of natural objects which require protection; preservation of cultural and historical objects within the economic region, and promotion of common (inter-regional) use of objects of tourism;
- joining efforts aimed at the elimination of negative consequences of natural phenomena (earthquakes, floods etc.) within the limits

The cooperation on the level of a spatial integral economic region will favor the adoption of agreed inter-regional decisions on the basis of avoiding contradictions and developing cooperation; economic, social integration of economic regions and national space on the whole, their development on the innovation basis.

Among the instruments of financial stimulation which are used in almost all EU member states and which can be used in Ukraine one can mention investment grants, subsidizing interest rates, tax concessions of subsidies connected with the use of labor force, tax rolls for depreciation, a wider support for the development of business environment in problem regions as assistance which is aimed at improvement of conditions of business activities for all companies of a given region, creation of physical infrastructure combined with “softer” elements of infrastructure. They include the support of information networks, consulting activities, education, scientific research, development works, general (national) programs of economic development.

Special attention should be paid to the activities of agencies of regional development. Their tasks include:

- information and consultations on management of enterprises, attraction of investments, transfer of new technologies;
- provision of financial resources (credits, bank loan guarantees, grants, subventions) for small and middle businesses;
- formation of entrepreneurial infrastructure (technology parks, business incubators, leasing buildings for offices and production).

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PART III
CROSSING BORDERS.
EMERGING CHALLENGES AND PERSPECTIVES

ENVIRONMENTAL PROBLEMS OF THE WESTERN BALKAN REGION AND THE REGIONAL ASPECTS OF TRANSBOUNDARY RISKS

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Abstract. Environment in the Western Balkan Region is determined by the stage of development, economic structure, burdens of war destruction, stage in approaching and joining the EU and the limits of support. Industrial emissions, mining activities, and the communal waste burdening are key issues among environmental damages in the region which has very dangerous transboundary impact as well. Bilateral intergovernmental cooperation in the field of environmental policy has not been fully exploited among the region states. Cross border and international environmental cooperation and its support (EU IPA Program) have been created to manage water and environmental problems related to divided waters, border rivers and lakes. There is similar cooperation in the coordinated management of cross border protected areas (national parks).

Key words: Western Balkan, cross border cooperation, environment and nature protection,

INTRODUCTION

Western Balkan Region is located in the Balkan Peninsula, south of the River Danube and Drava, and west of Romania and Bulgaria. Regarding its political geography (Croatia and Serbia) the region nevertheless stretches into the Carpathian Basin (the territory of Pannonian Croatia and the province of Serbian Vojvodina), which is entirely different from the rest of the Balkans in its physical geography. In the present study I apply the terminology and definitions used by the Institutions of the European Union, according to which the Western Balkans is defined as Albania and the constituent republics of the former Yugoslavia, without Slovenia. This duality in physical geography results in a number of dissimilarities regarding the environmental features of the region. The predominantly mountainous Balkans in its northern border region, which is the southern edge of the Carpathian Basin, becomes an area of alluvial plains creating flatlands suitable for intensive agricultural activities and thus has developed urban settlements and significant population. Economic differences due to the varied landscape structures result in dissimilar levels of environmental pollution.

NATURAL VALUES

Environment in the Western Balkan Region is determined by the stage of development, economic structure, burdens of war destruction, stage in approaching and joining the EU and the limits of support. EU member state Slovenia has much less problems than soon-to-join Croatia and Macedonia or other states waiting for preliminary negotiations about joining the European Union. Traffic, industrial emissions and the communal waste burdening are key issues among environmental damages in the region. These environmental burdens and problems (mining activities, polluted river waters) have very dangerous transboundary impact of environmental pollution in the Region.

Among natural resources soil, forestry, hydroelectric power, and metal mining have utmost economic significance. Especially agriculture and forestry can be pursued in local farms in Albania, Kosovo and Bosnia. The proportion of cultivated land differs from one region to the other and depends on relief and geological features.

The size of forests is considerable, which proves the importance of forestry and the volatility of forest ecosystems (Table 1). The amount of farmland is decreasing in the area, yet at the same time there is increasing construction in city suburbs due to infrastructural and traffic development. However, degradation from soil erosion is also characteristic. There is no perfect irrigation system where it would be necessary, property ownership and land registers are often unregulated. EU regulations concerning soil conservation and the use of pesticides are not implemented strictly enough except in Croatia and Serbia.

Table 1 Forestry data

	Albania	Bosnia and Herzegovina	Territory of Kosovo	FYR Macedonia	Serbia	Montenegro	Croatia
Per cent forest area	29	42,7	41	35,6	26,7	53,9	38,2
Deforestation (per cent change, 1990–2005)	0,0	(+) 0,1	No figure, known + rates	0,0	(-) 0,4		(-) 0,1

Source: 2006 Little Green Data Book; EC Progress Reports, 2005; UNECE, 2005; REC, 2006; Kosovo NEAP, 2006.

Forests are endangered by mistaken forestry as well as illegal deforestation especially in Bosnia-Herzegovina and Kosovo leading to soil erosion and loss of flood control as well as it endangers the ecosystem.

The region is rich in endemic species: four times as many endemic species can be found there as in other European regions. The organizational structure of nature protection areas is most developed in Croatia, Serbia and Macedonia, which have been incorporated into the Nature 2000 Network, and their operational principles also harmonize with EU regulations. Although officially the size of protected areas increases some of these areas are yet only planned to go under protection. Thus, the preservation of biodiversity, the development of infrastructure, and the sustainable use of resources in these areas are not settled due to the lack of management and organization. These problems result mostly from the continuing heritage of the 1990s political conflicts as well as the difficulties of economic transition which has not yet given priority to nature protection in Bosnia-Herzegovina, Kosovo and Albania. By the end of the first decade of the twenty-first century, the proportion of protected areas has nevertheless grown significantly compared to that before the change of regime and

the civil war. Among the countries in the region Albania has put the largest territory under protection (Table 2). Several wetland habitats are located in the region, a few of which can be found along the coastline or in border regions, requiring close cross-border cooperation. The number of Ramsar sites in Serbia is 9, 4 in Croatia, 3 in Albania, 2 in Bosnia and 1 site in Montenegro and Macedonia. Furthermore, several wetlands and oxbow lakes are under protection. Such natural values together with the cultural heritage of the region are important as a tourist attractions providing substantial revenues in these states.

Table 2. Increase of protected areas in the Western Balkan Region

Year	Albania		Bosnia Herzegovina		Croatia		FYR Macedonia		Montenegro		Serbia	
	Protected areas (ha)	% in total territory	Protected areas (ha)	% in total territory	Protected areas (ha)	% in total territory	Protected areas (ha)	% in total territory	Protected areas (ha)	% in total territory	Protected areas (ha)	% in total territory
1981	52207	1,88	36730	0,72	240304	2,74	157194	6,11	50870	3,68	174953	1,98
2008	349070	12,58	58931	1,15	747150	8,52	222050	8,64	90870	6,58	542333	6,14

Source: 2006 Little Green Data Book; EC Progress Reports, 2005; UNECE, 2005; REC, 2006; Kosovo NEAP, 2006.

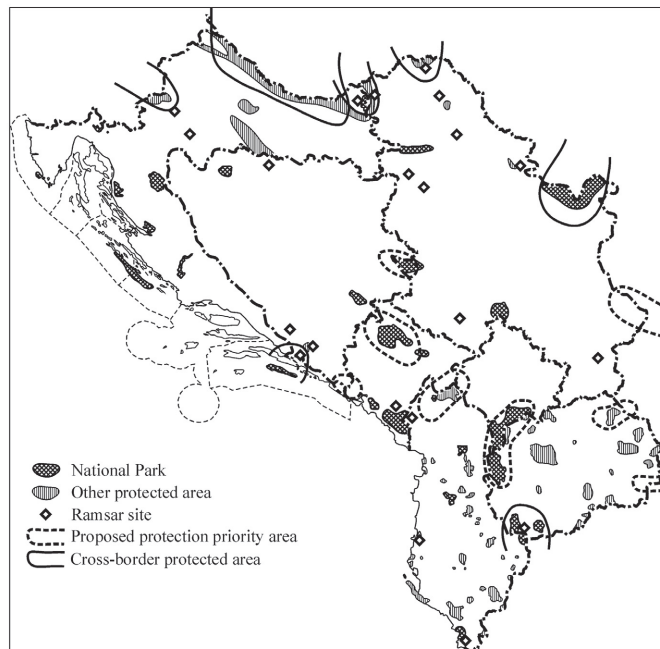


Figure 1. Protected areas in the Western Balkans with special view of transboundary cooperation in nature protection

Source: <http://maps.grida.no/go/graphic/protected-areas-and-conservation-hotspots-in-albani> http://maps.grida.no/go/graphic/biodiversity_and_protected_areas_in_macedonia; <http://www.dzpp.hr/>; <http://www.eko.vojvodina.gov.rs>. modified and expanded by the author

National borders often divide and cut across precious protected areas. In the case of such territories neighbouring countries can jointly develop the measures of protection, and the EU, through its programs, supports various forms of cooperation aimed to resolve such problems. Protected areas stretch across inner and outer borders in the Western Balkans and this fact has prompted cooperation in nature protection. The demand for trilateral cooperation is not rare either, which enables the protection and care of jointly owned nature protection areas in Hungary-Croatia-Serbia or Montenegro-Albania-Kosovo (Figure 1.).

EVALUATION OF THE REGION'S STATE OF ENVIRONMENT

Traffic, industrial emissions and the communal waste burdening are key issues among environmental damages in the region. The source of air pollution is mainly the growing number of vehicles in interstate and inter-region transportation. In Albania emission of nitrogen-dioxide escalated substantially (21%) in 1993-2003. In Macedonia it increased by 17% and in Croatia - 47%, whereas Serbia-Montenegro succeeded in decreasing such pollution - 11% and Bosnia - 14%.

Mainly in Montenegro, Kosovo, and Macedonia air pollution from heavy industry occurs due to the lack of control and use of out-dated technology mainly in metal, energy and chemical industries. Sulfur-dioxide emissions were decreased in Croatia by the turn of the Millennium and Croatia with its new highway network successfully decreased potential tourism-related pollution. In the continental region there are counties that do not even need the monitoring system. Modernized waste management is accomplished in up-to-date regional waste disposal sites. Yet in Macedonia such pollution was still increasing and was eventually stopped in 2003.

Acid rains together with industrial pollution slow down the growth of vegetation yet accelerate the deterioration of built environment. Carbon-dioxide emission per capita is highest in Macedonia, Albania and Kosovo whereas per capita communal air dust is highest in Albania (Table 3). In Albania, Bosnia-Herzegovina and Croatia the amount of emitted CO₂ has increased, yet the amount of floating dust has decreased in Bosnia, Serbia-Montenegro and Croatia (EEA, 2010).

Table 3 Air Pollution

	Albania	Bosnia and Herzegovina	Territory of Kosovo	FYR Macedonia	Serbia and Montenegro	Croatia
CO ₂ per capita (metric tons, 2009)	1,1	6,9	5,5	5,1	3,7	5,2
Particulates (urban-pop.-weighted avg., µg/m ³) (2009)	44	19	N/A	21	17	30

Source: 2009 Little Green Data Book; Kosovo poverty assessment 2005.

Floating and sedimenting dust emissions, responsible for an increasing number of respiratory diseases, are the result of pollutants occurring from traditional heating in cities and large industrial centres. Air pollution remains an important source of pollution in Macedonia, Kosovo and Montenegro even after the turn of the Millennium. According to forecasts PM₁₀ emission will decrease by 10% in 2000-2020 in the majority of the region's countries. However, the threefold increase of PM₁₀ is forecasted in Croatia similarly to PM_{2,5} emissions. Earlier these pollution indicators were highest

in Serbia and Bosnia (EEA, 2010). Even though all states in the region signed the Kyoto Protocol there has been little advancement in the field of implementation.

Surface of water and groundwater quality deterioration occurs as a result of the insufficient public sewage system, substandard wastewater treatment and untreated industrial wastewater effluents (Figure 2 and Figure 3). Sewage disposal and treatment do not meet EU environmental norms so EU standardization in this field and related investments will pose a great challenge for all these states. While the sewage problem is partly solved in big cities especially in districts with high population density, in villages wastewater treatment is very much below the standard. In areas where the groundwater is close to the surface nitrate pollution due to intensive cultivation and raising of livestock means a source of danger. Except in Croatia and Serbia water quality monitoring is underdeveloped or completely out-dated, so local authorities are unable to estimate related health risks. The level of service is still low despite the better treatment of sewage in cities.

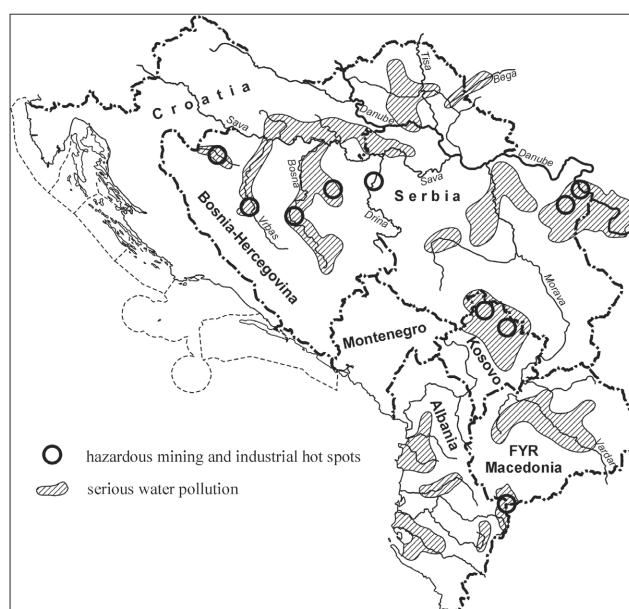


Figure 2 Water pollution sources, the pollution of water and cross-border effects

Source: Identification and verification of "environmental hot spots", Atlas of Eastern and South-eastern Europe 1985–1989, modified and expanded by the author

The sewage system is unevenly developed across the region and in many countryside settlements people gain drinking water from their own wells. Data about water supply are difficult to find especially regarding mountainous areas, moreover political conflicts and the war destruction also slowed down the pace of developing even essential water infrastructure.

The annual per capita amount of communal waste in the region (234 kg in 2003) is growing and by 2007 it reached 330 kg. Such increase is a result of rapid economic growth and the spread of market economy (EEA, 2010).

In Albania deforestation, pollution from urban communal waste management, and industrial pollution are typical state-wide problems. The rapid population growth (40% of the population lives

in seaside cities) could not be followed by communal infrastructure development therefore urban environmental problems are exacerbated by low level of communal hygiene.

Bosnia faces similar environmental challenges, as drinking water supply and sewage disposal are unresolved problems together with waste management. Only half of the cities have organized waste collection, villages entirely lack this service. Thus, illegal waste dumps are frequent along roads and railroads. Industrial zones along the river Bosnia contaminate the river and are sources of continuous air pollution (Zenica, Sarajevo).

Environmental problems in Kosovo are the consequence of the lack of communal infrastructure. Water infrastructure is underdeveloped. Only 44% of the population, 8.4% of village population, has access to tap water. In rural areas water supply is provided from groundwater as well as surface springs, thus the organic and bacteriological pollution of the water reserve occurs frequently. In 2002 the proportion of households connecting to the public sewer system was a mere 28%.

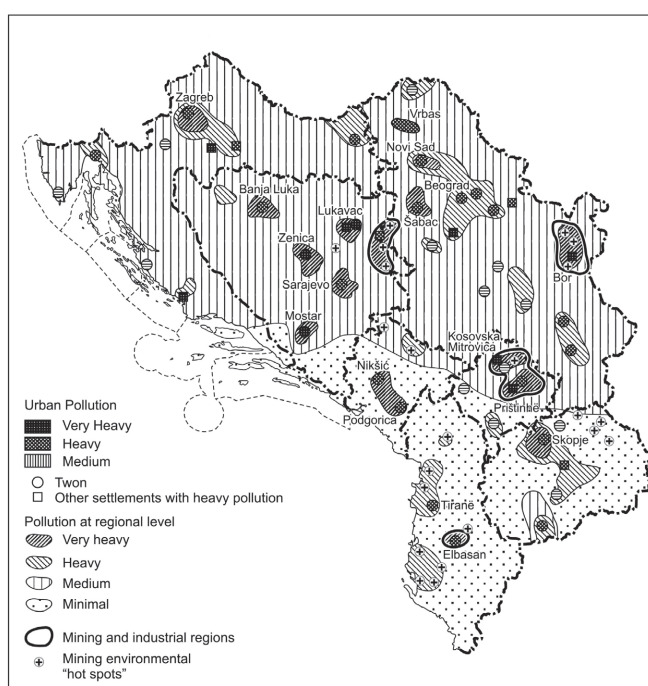


Figure 3 Spatial characteristics of the state of environment in the Western Balkan

Source: Identification and verification of "environmental hot spots", Atlas of Eastern and Southeastern Europe 1985–1989, modified and expanded by the author

In Macedonia surface water contamination is especially significant in the lower Vardar (Category III–IV), Pčinja, Bregalnica, Crna Reka Rivers that flow through densely populated areas. Similarly to other countries in the region such pollution is mainly a result of untreated communal, industrial, and sometimes agricultural wastewater, as only 6% of drained sewage is being treated before it reaches the recipient river.

As far as water quality is concerned in the region it can be stated that the average level of BOD₅ recorded in 2006 in the region, 2.43 mg O₂/l, is slightly higher than the average value for EU rivers

(2.38 mg O₂/l). On the other hand, average ammonium concentrations in the Western Balkans are much lower (EEA, 2010).

The quality of coastal seawater is satisfying despite the impact of tourism and urbanization. There have been significant developments in Croatia to avoid pollution of coastal and surface waters. Croatia has built several wastewater treatment plants with World Bank support. These investments reach EUR 400 million (Adriatic Project, Internal Water Project). Water quality checked at 851 coastal survey- and measuring sites always met national standards.¹

CROSS BORDER COOPERATION

An UNEP study establishes four basic categories of transboundary pathways of harmful pollutants: 1. airborne transport of pollutants such as dust, smelter emissions, gases, vapours; 2. mass movement of “solid” wastes (generally tailings containing heavy metals and toxic compounds); 3. mass movement of liquid, or semiliquid wastes (again, generally tailings containing heavy metals and toxic compounds); 4. waterborne transport of wastes as suspended solids and as dissolved materials (South Eastern European mining-related risks: *Identification and verification of “environmental hot spots”*, Lund, Vienna, 2006). The table below (Table 3.) presents transboundary impacts of pollution according to state, sites of pollution and assessment of its potential cross-border effects.

Spatial aspects of environmental issues in the Western Balkans are defined by the region’s natural resource endowments, mining, the different developmental levels of industrial technologies, the dissimilarities in economic development, and the lack of unified environmental policy. Processes of environmental management have been indirectly influenced by earlier historical, demographic, and economic characteristics as well as the civil war of the 1990s. In the spatial structure of environmental risks (on regional and national levels) industrial and mining cities, harbours (Dures, Bar, Split, Rijeka), large tourist centres and capital city conurbations (Beograd, Novi Sad, Sarajevo, Skopje, Zagreb) are the most significant.

Bilateral intergovernmental cooperation in the field of environmental policy has not been fully exploited in the region. Cross border and international environmental cooperation and its support have been created to manage water and environmental problems related to divided waters, border rivers and lakes. There is similar cooperation in the coordinated management of cross border protected areas (National Parks).

¹ In Albania this result was characteristic to 80% of the existing 70 survey and measuring sites, whereas along the mere 17-km-long coast of Bosnia-Herzegovina these norms were met to much less extent, under 50% (EEA, 2010)

Table 3 Transboundary impact of environmental pollution from mining in the Western Balkan Region

Country	Mine Site	Environmental Hazards	Potential Transboundary Harm/ Consequences
Albania	Elbasan Ferrochromium, Fe (steel) Ni mine	Toxic and heavy metal emissions, uncontained and unprotected wastes, residues and chemicals.	Cross border air pollution, pollution of Lake Ohrid shared with FYR of Macedonia Pollution via Shukumbinit River to Adriatic Sea. Tensions with FYR of Macedonia.
	Shkoder Cu mines (incl. Palaj, Karma I and II)		Pollution of Lake Shkodra shared with Montenegro. Tensions with Montenegro, Serbia & Montenegro.
Macedonia FYR	Bucim Cu mine	Toxic/acidic effluents, uncontained waste rock, dust emissions and unsecured workings, poorly contained and/unstable tailings wastes. Toxic solid waste, airborne toxics and SO ₂ , untreated waste	Cross border pollution to Bulgaria then Greece via Nivičanska River, tributary of Strumica then Struma. Danger of political tensions with Bulgaria and Greece.
	Lojane Cr & Sb mine and beneficiation mill		Political tensions with Serbia & Montenegro and Kosovo.
	Kavadarci Fe-Ni and Sb mine(s)		Cross border pollution Greece via Vardar River. Political tensions with Greece.
Serbia	Bor (RTB) Cu mining		Tensions with Romania and Bulgaria due to pollution of downstream Danube
	Krupanj – Veliki Majdan Pb-Zn mine		Cross border pollution to Bosnia-Herzegovina via Drina River (BiH Border). Tensions with Bosnia-Herzegovina.
	Majdanpek Cu mine		Cross border pollution to downstream Danube countries via Pek River, then Danube. Tensions with downstream Danube countries (Romania and Bulgaria).
Bosnia-Herzegovina	Srebrenica Energoinvest Pb-Zn ore mine		Cross border pollution via Drina River (Serbian Border) and into Danube River. Tensions with Serbia and downstream Danube countries (Romania, Bulgaria).
	Birac Zvornik – Alumina Refinery and Aluminum smelter		
Montenegro	Podgorica –Aluminum smelter and refinery		Cross border pollution of Lake Shkodra Political tensions with Albania.
	Brskovo Pb-Zn		Cross border pollution of the Tara River. Political Tensions with Bosnia-Herzegovina.
	Šuplja Pb-Zn		
Kosovo	Djakovica chrome ore mine		Cross border pollution of Albanian border rivers (Erenik River), Lake Fierzës.
	Trepča Pb-Zn mines (Kriva Feja, Rudnik, Zvečan, Kosovska Mitrovica).		Cross border pollution of border rivers in Serbia (Ibar Danube). Cross border air pollution

Source: Reducing Environment & Security Risks from Mining in South Eastern Europe modified by the author.

Table 4. Some examples of Environmental programs and priorities supported by IPA Western Balkans Neighbourhood program

IPA Area	Priorities and supported
Croatia-Bosnia-Herzegovina	<ul style="list-style-type: none"> - Planning documentation for water supply and water waste systems with cross border impacts; - Joint environmental programming and initiatives: river catchments management, air pollution, - thermal water extraction, awareness campaign targeting industries and general public; - Prevention of natural risks – intervention actions (in case of floods and fire) - Studies and direct actions on applicability of renewable energy sources - Studies on environmental impacts of human activities - Protection and/or preparation of documentation for nature protected areas - Awareness raising activities on environmental management and protection - Education and know how transfer in environmental protection - Clean-up actions in the border area - Promotion of renewable sources of energy
Serbia-Bosnia	<ul style="list-style-type: none"> - Improving the productivity and competitiveness of the areas' economic, rural and environmental resources.
Croatia-Serbia	<ul style="list-style-type: none"> - joint actions to ensure that sites of high environmental and landscape value are managed so that they can sustain the pressures of tourism development without losing their value. - the development of effective systems of flood prevention control - the development of joint waste management and minimisation strategies
Albania-Montenegro	<ul style="list-style-type: none"> - Part of the Programme is designed to support environmental protection measures, awareness and - respect of environmental aspects focusing in particular at Shkodra/Skadar Lake

Sources: IPA CBC Croatia-Bosnia-Herzegovina Project Summary, <http://www.srb-bih.org>,
 IPA CBC Albania-Montenegro, Project Summary 2007-2009, <http://www.croatia-serbia.com/>

One form of cooperation in the field of environmental protection is the EU IPA sponsored support to protect environment, landscape and biodiversity in cross-border regions. This program enhances and implements local environmental cooperation between areas on both sides of the border with the joint efforts of state and independent organizations, local governments, and environmental institutions.

The CBC programme of IPA supports cross-border projects that call for attention to think together, joint planning and framing these activities. CBC meets multiple goals such as: advertising the activities of environmental protection and nature conservation institutions, protecting cultural heritage sites and disseminating information about them as well as managing the multiple uses of these places, and implementing joint projects in environmental training and know-how transfer (Table 4).

Such joint projects have been devised to spur the protection of the Black Sea-Danube region, the Mediterranean basin or the joint environmental management of lakes (Lake Ohrid, Lake Prespa, Lake Shkodra) among Albania, Macedonia and Montenegro. Similar efforts can be mentioned in connection with border rivers (River Drina, Neretva Delta, River Sava and Drava) as well as related to the coordinated management of Transborder protected areas such as, the mountains of Montenegro and Albania. Similar joint projects are being implemented in the Western Balkans and the neighbouring large regions: the Iron Gates National Park, River Danube between Romania and Serbia, and in the region of the rivers Danube and Drava in the three borders region.

CONCLUSIONS

Analysis of environmental problems in the Western Balkan Region yields the following conclusions:

- The most important sources of environmental burdening include the dead rock deposits, pollutants and hazardous waste coming from the mining technologies of the internationally significant ore mining (lead, zinc, nickel, chrome, bauxite). The “hot spots” of these activities are internationally known and recorded. Due to the location of the mines, pollution from mining spreads across the borders as well, or is a potential pollutant to territories in other countries, thus being a source of international or bilateral conflicts.
- Besides pollution from mining, urbanization generates more contamination through communal living and transportation as it spreads the spatial boundaries of mining damages, and the regional structure of pollution changes.
- Growing tourism causes environmental problems especially in the Adriatic region, overcrowded roads and heavy traffic is an unresolved issue in Montenegro and some Croatian cities.
- Protected areas are managed in compliance with EU regulations (Natura 2000), the directives of their sustainability and infrastructural development have yet to be worked out.
- Management of transboundary protected areas can become more effective through inter-institutional cooperation, which is an existing protocol in states aspiring to join the EU.

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REGIONAL CHARACTERISTICS AND DEVELOPMENT POSSIBILITIES FOCUSING ON ENVIRONMENTAL ISSUES IN THE SERBIAN-HUNGARIAN CROSS-BORDER REGION

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Abstract. Nowadays, the Serbian-Hungarian cross-border region can be described as presenting complex and serious settlement-environmental problems. The negative processes accelerated in the last decade causing many environmental, economic and social conflicts. After all, we think that this cross-border region will have a better future in the twenty-first century. Under the aegis of the IPA INNOAXIS project, we carried out a spatial research in this region covering three districts in Serbia (in Vojvodina autonomous province) and eight microregions in Hungary. The aim of the project was to discover the features and the development alternatives of this cross-border area. In this study we try to summarise the main characteristics and the most important strategic issues in the region from the environmental aspects.

Keywords: Serbian-Hungarian cross-border region, natural values, environmental problems, - partnership, - strategy,

INTRODUCTION

The fate of the neighbouring regions situated along state borders and the quality of life of the local communities living there are essentially affected by the character of the border. Where the co-operation between the regions and settlements located on the sides of the border is good, “border regions” can be formed with numerous opportunities; for example, through strengthening the commercial, infrastructural and cultural relations, or with respect to the exchange of information and labour force, or just the same with environmental protection, nature conservation and joint regional and settlement development. The “connecting borders” may mean a new quality and may offer several special opportunities for joint developments (Süli-Zakar, 2010). Many authors claim that the most important driver of euroregionalism is provided by cross-border co-operation initiatives. Indeed, where the borders become more open, local development may rely on cross-border regional co-operations, whereas when the dividing character of borders persists the peripheral character

remains predominant (Krätke, 1999; Havlíček, Chromý, 2001; O'Dowd, 2001; Anderson et.al. 2003; Ladysz, 2006; Newman, 2006).

In our days, there are several border regions all over Europe where a higher level of regional co-operation can be detected; thus, these regions are no longer only economic-trading zones but reached the level of wide-scale environmental-social-economic integration (Williams, 2007). The EGTCs (European Grouping of Territorial Cooperation) are intended to achieve such kind of comprehensive integration within the European Union (EU). The EGTCs, due to the relatively flexible financial and institutional structures, develop very well functioning programme-oriented partnerships, and thus in fact may be regarded as “functional regions”. The functioning of the EGTCs may be prospective in the field of cross-border co-operations. However, so far they can be operated only on areas located on the EU territory and the establishment of such organisations is not yet possible along the borders between EU member states and non member states (the countries along the external borders of the EU which are likely to become EU members in the medium term – thus including Serbia as well – form a special group where the IPA (Instrument for Pre-Accession Assistance) provides support for the co-operations along the borders).

We think that the conditions of the Serbian-Hungarian border would demand the formation of a well organised integrative structure similar to the EGTC, since one of the most important criteria in this border region is the presence, preparedness and power of the flexible institutional system.

The final goal of the regional studies conducted in the above named border zone is that through the alleviation of the dividing role of state borders and through the strengthening of the cross-border concentration the peripheral situation of the region shall cease, and the quality of life of the local communities shall improve. In the field of partnership, the advantages resulting from the geographical location of the border region and upgrading landscape resources and environmental co-operations and developments serving sustainability will presumably get a determining role. Focusing on these aspects, our study – in addition to the description of the region concerned and its most conspicuous environmental conditions – attempts to highlight possible environmental-conscious cross-border co-operation alternatives.

METHODS AND OUTPUTS IN BRIEF

The primary objective of the researches carried out in the Serbian-Hungarian border region within the framework of the IPA INNOAXIS “*The borderline as an axis of innovation*” (<http://www.innoaxis.hu/>) project was the exploration of the specific features of the region and of the development opportunities which may be built on them. This work comprised of the collection, survey and processing of the regional data and background documents necessary for the analysis, and the conduction of interviews with the prominent persons concerned. Eight different sectoral research reports were prepared based on the collected information, including the environmental sectoral document which contains situation evaluations, analyses and recommendations. Throughout the survey, the professional recommendations were harmonised with the social actors of the region, then the decision-makers in Vojvodina and in Hungary (provincial, county, microregional leaders, mayors, leaders of local communities, local development groups, and civil sphere) discussed the prepared outlines with the authors in details. After all this, the main concluding documents of the cross-border regional research project were prepared as a synthesis of the existing materials (and also on the basis of the environmental sectoral strategy).

THE SERBIAN-HUNGARIAN CROSS-BORDER REGION AND ITS ENVIRONMENTAL STATUS

The regions lying along the Serbian-Hungarian border are coherent from the aspect of the landscape and the environment, in fact there is no natural borderline running between the two countries (Figure 1). The region occupies a peculiar geographical position between the River Danube and River Tisza which has been divided by the present border for almost a century now.



Figure 1. The examined area of the Serbian-Hungarian cross-border region

Source: Great Plain Institute CRS HAS 2011

The spatial structure, due to the still strong dividing role of the border is rather split. The settlement complexes formed in the environs of Szeged, Szabadka, Zombor, Baja and Zenta constitute relatively developed poles of the region (the weight of Szeged is outstanding) but further away from the gravitation zones there are lagging behind rural areas (Figure 2).

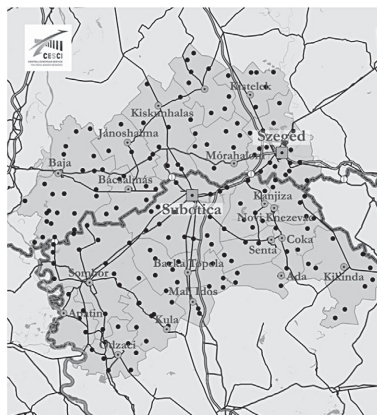


Figure 2. Spatial structure and the towns

Source: CESC 2011

The image of the region is defined by puszta, meadows, wetland habitats, forests and agricultural areas. Despite of the lowland features, the area is diverse and rich in natural resources whose ecosystems include the sand puszta, loess ridges and alluvial plains. The determining elements of the natural environment of the region are the Danube, the Tisza and their tributaries and backwaters, and the protected areas which also include nature conservation areas of international importance (Figure 3). These, on the one hand, provide opportunity for creating green corridor systems; and on the other hand, also represent a recreational potential. In this respect, the harmonisation of the development of the linear infrastructural networks and of the natural environment – within it in particular the patterns of the traffic routes and the green corridors, and the protected natural values in the landscape – means a great challenge especially along the River Danube.



Figure 3. Protected sites

Source: Great Plain Institute CRS HAS 2011

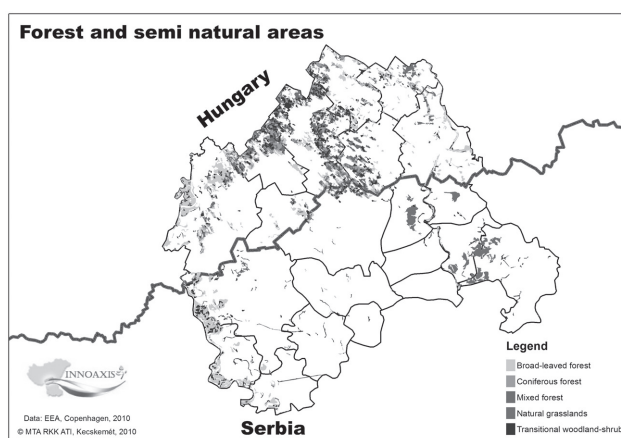


Figure 4. Semi-natural patches of the cross-border area

Source: Great Plain Institute CRS HAS 2011

The former natural vegetation cover can be studied only in smaller patches on the area of the region because the intensive land use turned the original environment into cultural landscapes. In the past period it caused a problem that the clearing of the forest patches, alleys and forest belts resulted

in the fragmentation of the ecological corridors. This intensified the vulnerability of the separated symbioses, and resulted in large-scale landscape homogenisation and degradation due to the aridity and inappropriate land use. The landscape preserved its equilibrium state only in some semi-natural patches (Figure 4).

The area is characterised by continental climate, and regarding the precipitation the region concerned belongs to the dryer regions of the Carpathian Basin, and we may even experience a micro-climate tending to drought. The unfavourable ecological changes related to the aridity characterising the region, and the negative economic and social tendencies partly caused by it may injuriously influence the competitiveness of the entire region (Table 1).

Table 1. The complex settlement-environmental problems of the Serbian-Hungarian cross-border region

Natural-environmental problems
• growing extremity of the climate, uneven precipitation supply
• the groundwater is deep under the surface
• degradation of soils
• homogenisation of landscapes
• unregulated architecture not merging into the landscape and wasteful environmental use
• ecological degradation
Socio-environmental problems
• negative symptoms of the rural society – deprivation, unemployment, ageing, out-migration, social exclusion
• cumulative social stress – poverty, criminality, “segregation”
• a significant decrease in the dominancy of agriculture, the uncertainty of agricultural production
• the “collapse” of the relationship between towns and villages, conflicts of urban and rural lifestyle
• slow infrastructural development
• the lagging behind and powerlessness of the environmental management and planning – the missing plans of territorial development

Source: own elaboration (2011)

On the whole, the chief potential of the studied region still resides in its existing environmental resources. From among the “rural-environmental” resources encountered here the ecological and agro-cultural landscape conditions are the most important. In addition to them, however, we should increasingly consider the unfavourable factors. Though, the border zone under consideration does not belong to the group of environmentally dangerously damaged regions but some of its parts were not avoided by the pollutions and damages resulting from the ill-considered land use. In the region, the process of urbanisation was not – or only in a very varying way depending on the area – followed by the development of those infrastructures which serve the mitigation or prevention of the loading and damage of the settlement environment. In many points, especially in the case of the Serbian settlements, the classic environmental prevention and protection measures and investments were missing. Huge regional differences developed in almost all fields of environmental activities, and thus today the environmental management of the settlements (including waste management) is significantly below the European standard. In principle, the regions on the Hungarian side – applying EU environmental rules – are in a better position but the situation of the individual microregions on the Hungarian side differs.

One of the most important recognitions of the past period is that most of the conflicts of the region may not be linked only to the economic problems but also to the social behaviour lacking and neglecting the appropriate environmental knowledge and approach, and to errors and deficiencies in environmental management experienced on the professional and decision-making levels.

THE MOST IMPORTANT STRATEGIC ISSUES

The development of a regional environmental management system which can be harmonised with the help of the co-operations in the Serbian-Hungarian border region became extremely urgent. The extension of the co-operations is an important task on most of the sectors of environmental protection; both in relation to the establishment of the nature conservation, common environmental and water management objectives, and the strengthening of the human background of environmental protection.

In the course of the joint protection of the natural environment, the acquaintance with the best practices already applied in the EU and the elaboration of cross-border landscape and environmental management and drinking water protection strategies are necessary. The elaboration of the cross-border waste management strategy and the transfer of the best practice from a Hungarian side to the Serbian local governments may be high priority objectives. For the sake of this, it must be examined on the regional and local government level on which areas the joint waste collection public service development could be implemented, and where and under what circumstances the waste collection and disposal habits of the population concerned could be improved.

The creation of the partnership is also of considerable importance in the settlement of the water management of the region. For the flood events of the past decade called attention to the fact that new and reconsidered actions are needed to increase flood safety in the border region both for the Danube and the Tisza. Although, the tasks related to water management – in particular flood mitigation – are not really regional environmental tasks because of their international strategic significance but they have regional as well as local aspects and tasks. The achievement of flood safety, the optimising of water management of the areas affected by aridity, in addition to the protection of surface waters and the rehabilitation of backwaters and canals, the technical inspection of the flood defence-works and networks of canals, the modernisation of the objects concerned constitute a complex scope of duties related to landscape management, agriculture, spatial planning and environmental awareness raising in the region. The joint water management requires the harmonisation of the agri-environmental objectives in many respects. For instance, land use transformation, the rehabilitation of the ecological and water system of the floodplains and the drafting of joint landscape management programmes should be encouraged on the low flood plains suitable for floodplain landscape management.

The environmental state of a region mostly depends on how the communities living on the area approach the landscape and the settlement environment. The environmentally more balanced development implies environmental consciousness; that is, an environmentally friendly social approach and attitude. In this respect, the spread of local environmentally friendly forms of production, consumption patterns and alternative environmental technologies should be encouraged, the producers as well as the social communities should be motivated to fully respect the gradually tightening environmental norms, and to rational and efficient management of the less and less resources. This requires continuous learning and spread of the environmental approach in the local social communities. It is particularly important for the microregions along the border and for the Serbian villages to make environmental consciousness the aspect of long-term sustainability. Therefore, one of the most

important priorities of the environmental strategy focuses on raising the environmental awareness of the people (Tab. 2). Environmental education must be developed on all levels of public education, it should be achieved that environmental consciousness becomes part of the general knowledge. It must be brought to consciousness that the improvement of the environmental conditions is not the honouring of an obligation serving external interests but the direct condition of the improvement of personal welfare. Those eco-schools are especially appropriate for this purpose which incorporate the environmental knowledge into their basic training in accordance with the local conditions, and transfer the “green approach” through a systematically built curriculum from the early school years. There are excellent examples in Hungary whose many years’ experiences could be also applied in the schools of Vojvodina.

2. Table 2. Priorities of the environmental strategy in the Serbian-Hungarian cross-border region

I.	Co-operations for the protection of natural resources and for modern waste management (alignment with drinking water protection and waste management)
II.	Establishment and renewal of co-operations in water management
III.	Intensification of environment-consciousness, transfer of educational training methods in awareness raising for the Serbian settlements – knowhow transfer, expansion of background information
IV.	Use of alternative energy – dissemination of the use of renewable energy sources, encouragement of the use of environmentally friendly “clean” production and heating technologies with the help of joint investments
V.	Promotion of sustainable landscape management and providing attractive recreational and eco-management environment in the studied border region
VI.	Development of a more liveable settlement environment

Source: by own elaboration (2011)

It should be emphasised that the above named developments may be implemented only in the case of a scenario in which the harmonisation of the environmental acts based on the agreement of the countries is achieved in the future, the EU environmental principles are adopted, the EU case-law is introduced and the environmental regulatory prescriptions are kept and given effect in Serbia.

SUMMARY

The creation of the modern environmental management and the provision of the regional equilibrium in environmental quality are important components in the development of the Serbian-Hungarian cross-border region. As a consequence of the earlier EU accession of Hungary, today considerable differences may be perceived on the two sides of the border regarding the state of the environment. While the environmental-conscious transformation of the formerly most critical sectors (for example, waste management, wastewater management, drinking water supply) in the eight microregions on the Hungarian side significantly accelerated during the past decade (and with the Natura 2000 Networking Programme the situation of nature conservation has also significantly changed), in the case of the villages in Vojvodina the environmental actions in these fields progressed only very slowly in the past few years and the environmental-infrastructure developments are still missing.

The common development of the natural, man-made and the social, cultural-mental environment are important conditions for the regional catching up and equilibrium. The specific ecological-landscape features of the region can be preserved in the long-term only through the emergence of

complexly interpreted environmental actions. The border region will become an agri-environmental and ecoturistic target area only through development initiatives underlying an environmental approach, and it will keep its population only through making the settlements more liveable. From the aspect of the development of the Serbian-Hungarian cross-border region, therefore, it is a criterion of primary importance to protect the affected landscapes and settlement environment systems, and to harmonise and catch-up the environmental activities in the institutional and civil spheres. The improvement of the quality of life of the population concerned may be achieved through the creation of environmental safety in the cross-border region which means both the liveable settlement environment and the sustainable use of resources. The optimal use of the landscape conditions and settlement environment systems is an essential pledge for the prosperity of the population living and working in the border region.

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PART IV
LOCAL ASPECTS OF DEVELOPMENT

QUALITY OF LIFE AND ECOSYSTEM SERVICES IN RURAL-URBAN REGIONS¹

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Abstract. The study here presented concerns the possibility of making use of the natural environmental potential, expressed through ecosystem services, in the establishment of foundations for and the direction of development of the rural-urban areas. The purpose of the study is to show the potentialities of using ecosystem services in governance, directed towards the economic and social development of the rural-urban regions, with consideration of improvement in quality of human life and preservation of the most valuable resources of nature as well as landscape qualities. Ecosystem services, being the nature-provided good, play an increasingly important role in the shaping of social and economic policies within the peri-urban areas, and thereby also their direct influence on the standard of living of the inhabitants increases. The scope of analysis that is presented in the report encompasses the problems of using the potential of the environment in the development of regions on the basis of modelling of reality with due account of the level of social awareness in the context of pro-ecological behaviour patterns. Assumption was adopted that even small differences in the initial parameters or a disturbance of the trajectory of regional development may have an essential impact on the ultimate effect, that is – on the role played by ecosystem services in this process.

Keywords: ecosystem services, perception of nature, attractors, trajectory of rural-urban regions development

INTRODUCTION

In conditions of the increasing pro-ecological awareness of the societies of many countries, especially the highly developed ones, the role of natural environment as an integral part of the mega-system of geographical environment, encompassing the socio-economic and the physical systems, is also increasingly highly appraised. The systems mentioned, mutually interconnected through interactions, are with respect to each other, respectively, the subject and the systemic environment (Degórski, 2004). In the context of the structure and functioning of geographical space the multi-functional character and the significant contribution that this space has towards the shaping of human life quality and health, are also being perceived (Degórski, 2003; Meyer, Degórski, 2005). In view of the fact that

¹ Study was supported by PLUREL: Peri-urban Land Use Relationships – Strategies and Sustainability Assessment Tools for Urban – Rural Linkages, 6th Research Framework Programme of the European Union.

these functions are not only of the generally nature-related or ecological character, but also of the socio-economic one (in particular, as the reserves of natural and mineral resources, as sinks for the emissions of pollutants and for the accumulation of waste, as well as the pool of habitat and landscape potential for human relaxation), they are increasingly frequently perceived as elements conducive to the development of regions (Łaguna, 2004; Degórski, 2007), especially of the rural-urban regions, as the areas featuring highly intensive spatial, natural, social and economic transformations.

In connection with the thus strong mutual impact of the economic, social and natural processes and phenomena, rural-urban regions become the place of numerous conflicts, mainly of spatial character, whose resolution depends largely upon the appropriate governance of the region, based on skilful use of all of its potentials, including the natural ones. Currently, governance is being defined as the rules of the political system for solving conflicts between actors and adopting decisions (legality). It has also been used to describe the “proper functioning of institutions and their acceptance by the public” (legitimacy). Further, it has been used, as well, to invoke the efficacy of government and the achievement of consensus by democratic means (participation).

In the procedures of planning and management of the peri-urban regions, especially in the countries with well-developed mechanisms of the free market, the natural environment becomes, thereby, a significant player in the processes of economic and social development of these regions. The macro-economic processes generate, in these conditions, definite directions of social behaviours and preferences, while natural environment, by virtue of the non-renewable character of its natural and landscape resources, and the utilitarian multiple functionality constitutes a product, whose value constantly increases. Societies are increasingly aware of its essence in the axiological aspect, as well as in the ontological (existential) one. It is namely so that the environmental qualities are more and more often decisive for the preferences as to the location of residence and leisure, for the choice of lifestyle, and so on. Multi-functionality of natural space is also perceived as an opportunity for increasing the development potential of the rural-urban regions through gravity produced by respective attractors and generation of the increase in their viscosity (Degórski, 2010). Areas, where air is purer due to increased forest share, or areas with good quality of waters, become highly attractive from the point of view of location and investment making. This, however, brings also very often definite negative consequences in the form of urban sprawl over the open spaces and the increase of anthropogenic pressure, whose effects are constituted by the fragmentation of the environment, destruction of ecological linkages, and, thereby, disappearance of the green belts, surrounding large cities.

In this context particular significance is gained by the controlled growth of urbanisation within the suburban areas, as well as by the proper use of the environmental potential in the process of management of space. One of the approaches of operational character, involving environment in the processes of managing space is associated with ecosystem services.

The purpose of the present study is to demonstrate the potential capabilities related to the use of ecosystem services in governance, oriented at economic and social development of the rural-urban regions, with consideration of the improvement of human life quality and preservation of the most valuable natural assets as well as landscape qualities.

PERCEPTION OF NATURE AND HUMAN CONSCIOUSNESS

Within the quickly developing rural-urban zones of the European countries, the potential of nature, expressed, in particular, through its multiple functionality, is – despite the increasing social awareness – still not sufficiently highly appraised by many decision makers and by plain citizens. The

problem lies primarily in the fact that the functions of the products of nature are poorly defined and insufficiently promoted among the local communities, which, in a democratic system, are capable of deciding of the directions of development of their respective regions. People often do not understand fully the kinds of services that nature provides. They very often are not aware that the pure water that they drink or the decomposition of waste in their gardens under the influence of microbiological life constitute exactly such goods or services, provided by nature, representing enormous existential value and obtained without any significant financial outlays. People are sometimes also not aware of the fact that the metabolism of ecosystems, taking place under very strong anthropogenic pressure, leads in many cases to their deformation, which, ultimately, may end up with their disappearance. Disappearance of numerous populations of animals or plants shall undoubtedly disturb the biotic equilibrium state, and hence hinder a lot of natural processes, taking place nowadays in the system of natural environment, with not fully predictable consequences.

Urban sprawl, and, more generally, settlement sprawl, and the increasingly intensive human penetration of the suburban green areas bring about the increasingly stronger impact of local communities on the environment. Raising income levels of the population, expressed through raising standard of living and changing preferences, resulting from the state of awareness, shaped largely due to the processes of education, cause the human pressure on the suburban areas to increase further, while the rural-urban areas, until now mutually functionally and spatially connected, shall undergo increasing mutual integration and disappearance of the functions typical for them (Fig. 1). Hence, they will be forming a multi-functional space, unified in terms of its functional character.

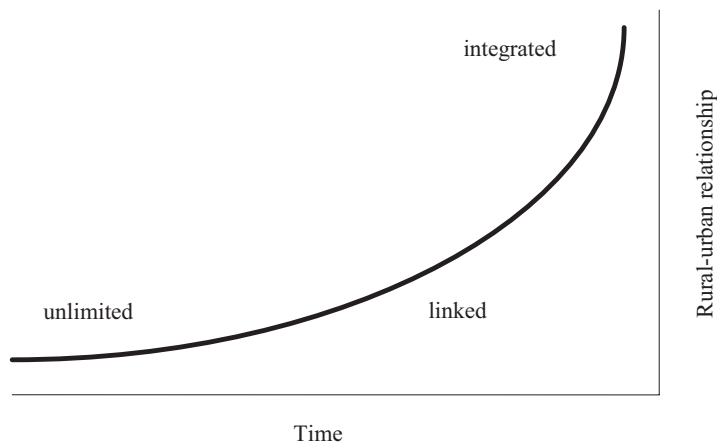


Fig. 1. Changes over time in the character of relations within the rural-urban areas

The fundamental problem in the integration of rural and urban areas, as seen from the point of view of quality of life is, therefore, the preservation of their natural elements, and of the entire system of environment, in a possibly good condition. Contemporary societies pay definitely more attention – when compared to the periods of the 19th and 20th centuries – to the harmonious co-existence of man and nature, making reference to the behavioural attitudes of people from the beginnings of civilisation. In those ancient times nature constituted for humans a shelter, a source of alimentation, and the environment of life and activity. Natural environment had for people ontological, epistemological, and oftentimes also sacral meaning. With the development of civilisation, though, the functions of natural environment underwent a change in evaluation in the context of social life. People, while

developing an own anthropogenic system, concentrated primarily on its improvement, and treated natural environment as increasingly distant external world. The natural hierarchy of values, resulting from the immanent, inborn and instinctively felt existential conditions, underwent a deeper evolution in the direction of depreciation of the significance of natural environment in the life of individuals and of the entire societies. The increasingly often adopted nihilist attitudes with respect to nature were associated with the image of *homo sapiens* as a tamer of nature, who is capable of transforming and adapting the environment to own needs, according to own visions and developed aspirations.

Nowadays, the majority of people, in the perspective of quality of life, wish to live and work in the environment characterised by the landscape possibly free of anthropogenic deformations, featuring spatial order, and the environment with good sanitary conditions. The pro-ecological awareness of the societies is again on the increase, and is one of the reasons why people migrate from the strongly urbanised areas to the rural-urban areas. People start to treat natural environment as not just solely a natural entity, within which they live and grow, but also as a good, which can and should be taken advantage of in the local and regional development. Yet, irrespective of the actual reasons, the increase in the ecological awareness of the societies is more and more visible (Fig. 2). This proposition ought to be adopted, though, with a reservation, perhaps paradoxical, that the increase of the pro-ecological awareness is associated with the state of the environment and the level of economic development of a given society. In distinction from the primitive consciousness, resulting from the instinctive premises, the currently developing human perception of nature, of secondary character, is a learned precaution and care for the future generations of the societies, and is increasingly burdened with economic calculus. It should, however, be emphasised that in both the case of the pro-ecological primitive consciousness, and of the learned one, they have very strong existential bases.

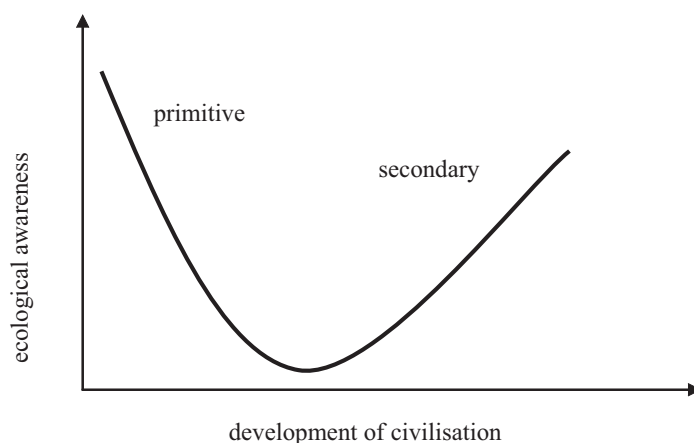


Fig. 2. Interrelation between the development of civilisation of the societies and their ecological awareness

ENVIRONMENTAL POTENTIAL IN THE RURAL-URBAN AREAS AND ECOSYSTEM SERVICES

Irrespective of the level of development of civilisation and the human perception of its causal relations to the potential of natural environment, the latter has played, plays now and shall continue to play an enormous role in the context of the socio-economic, cultural and existential development,

especially with respect to local communities. Very frequently in the rural-urban regions, taking shape under the influence of a rapid inflow of population, differentiated as to the perspectives on the problems of the environment, local communities of these areas form their preferences and adopt behaviour patterns that are different from those typical for both the urban and rural areas. In the urban system the ecosystems of greenery and surface waters (street greenery, parks, urban woods, meadows, lakes, water flows) provide very important services for the local resident community. Among such services we can mention purification of the air, regulation of the micro-climatic conditions, reduction of noise levels, retaining of precipitation, purification of wastewater, formation of proper conditions for recreation and leisure. Ecosystem services are perceived somewhat differently within the rural areas. Agricultural ecosystems are being actively transformed by people with the aim of maximising or optimising the production of alimentary, pseudo-alimentary, non-alimentary and indirectly alimentary plants. Yet, the multi-functionality of the agricultural ecosystems and provision by them of the ecological services, are essential for the improvement of water regime and water supply, as well as for the alleviation of climate changes (Zhang et al., 2007; Degórski, 2010). Still, the most important service, rendered by the agricultural ecosystems is the circulation of matter and energy, allowing for production of food, that is – for the satisfaction of the basic existential needs of people.

The already mentioned multi-functionality of rural-urban areas and disappearance of the leading functions cause that a specific perception develops within these areas of the ecosystem services. This might be partly attributed to the development of areas featuring high natural potential. The behaviour patterns evolving make very clearly apparent the care for the quality of life of all inhabitants, as well as of the entire local community. This local community frequently sees the improvement of their standard of living in the raising of quality of the environment and landscape (Fig. 3).

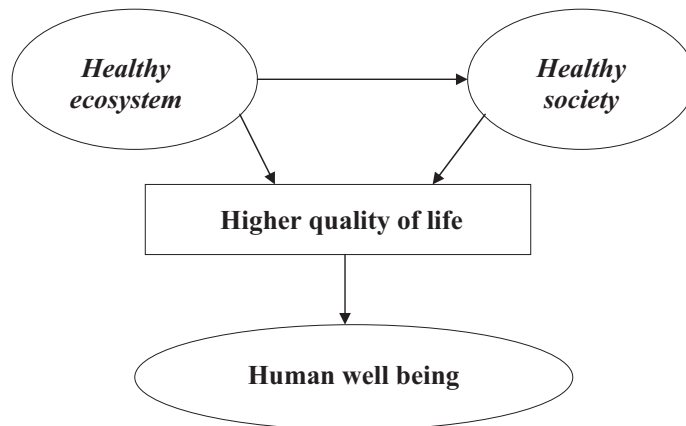


Fig. 3. Relationship between healthy ecosystems and human well being

Multi-functionality of the environment with respect to human life is also being registered in an increasing number of documents of the European Union. In the Millennium Ecosystems (2005), a report concerning the assessment of ecosystems in terms of, in particular, betterment of human living conditions, attention is paid to four basic functions that the ecosystems fulfil in our lives, providing definite services for people:

- the existential ones, of fundamental character, among which the circulation of matter and energy is mentioned, emergence of the soil cover, respiration, photosynthesis, etc., that is – the essential processes, decisive for life on the Earth;
- the alimentary ones, that is – decisive for the supply of food, water and raw materials for people;
- the regulatory ones, influencing the quality and the dynamics of climatic conditions, water conditions (droughts, floods), or forming the buffer conditions with respect to the spread of epidemics or pandemics;
- the cultural ones, yielding recreation, spiritual, educational etc. benefits.

In the rural-urban zones, in view of the quickly increasing human pressure on the environment and the use of the properties of ecosystems in the socio-economic development, the role of the ecosystem services is even more pronounced (Holdren and Ehrlich, 1974; Ehrlich and Ehrlich, 1991; Wallace, 2007). They are taken advantage of in numerous aspects of social and economic life, in particular for:

- purification of air and water,
- formation and protection of the soil cover and its renewal, as well as quality improvement, and thereby also soil fertility,
- alleviation of droughts and floods,
- detoxication and decomposition of waste,
- pollination of crops and increase of yields,
- dispersion of the seeds and causing the natural succession of plants,
- circulation of the nutrient substances,
- natural protection against a vast majority of potential agricultural pests,
- maintenance of biodiversity,
- protection of the seashore against the abrasion erosion, caused by waves, in the seacoast agglomerations,
- protection of the shores of inland flows from fluvial erosion,
- protection of people against the damaging ultraviolet radiation from the sun,
- stabilisation of weather conditions, and hence also partial stabilisation of the topo-climate,
- limitation of the extreme phenomena and their influence on the living conditions of people,
- provision of aesthetic impressions, beauty and “spiritual feast” for people, elevating for the personality and the aesthetic feelings.

Frequently, through achievement of high environmental standards in the rural-urban areas, synergetic effects are obtained, entailing the increase of land value, its attractiveness in tourist terms, or lowering of costs associated with wastewater management. Such effects, though, are often difficult to measure. There do not exist, namely, perfect yardsticks for measuring the value of ecosystem services (VES). Proposals forwarded in this domain to date do not account for the parameters so significant for the functioning of the geographical megasystem as attainment of ecological equilibrium, or the possibility of making use of goods of nature by a larger group of members of the local communities, allowing for the realisation of personal benefits (Howarth and Farber, 2002).

Estimation of the value of ecosystem services in conditions of market economy takes place most often on the basis of the difference of potential and actual costs, the latter decreased by the use of ecosystem services, or on the basis of profits generated through the use of these services in the economy of the region. Literature of the subject points out six main groups of measures for the value of ecosystem services, meant to estimate the socio-economic benefits resulting from the implementation

of use of these services (Farber et al., 2002; Degórski, 2010). In the rural-urban regions these measures include:

- magnitude of costs avoided – enabling determination of costs that would have to be borne in case, for instance, of lack of use of ecosystem services in water purification processes (e.g. through the use for purification of wastewater of the swampy land and vegetation), accounting also for the health care costs;
- decrease of the purpose-oriented costs – for instance, through replacement of the systemic solutions, produced by people, by strengthening or reconstruction of the natural conditioning (e.g. reinstating the natural watershed functions within the urban areas, rather than constructing water treatment plants),
- increase of the commercial revenue – through improvement in the quality of ecosystems, for instance – improvement of water quality entails increased fish production potential, and thereby establishes the basis for increased direct and indirect (downstream and upstream) revenues,
- travel-related profits – demand for participation in the use of ecosystem services may require movement of the population (e.g. willingness to pay the travel and accommodation costs in order to come to locations characterised by high natural qualities and to make use of ecosystem services, primarily during weekends),
- profits generated from hedonist behaviour of people – demand for ecosystem services may get reflected in the price that people would pay for a definite group of goods, resulting from the hedonist attitude to lifestyle (thus, in particular, houses located in places attractive from the point of view of environmental and landscape quality have much higher prices than houses situated in areas little attractive in terms of natural conditions),
- profits from the propensity of the societies to making use of ecosystem services in a well preserved natural environment – through construction of hypothetical scenarios for estimating the alternative profits from the access to these services (e.g. estimation of the price – and hence the revenue – that the visitors would be willing to pay for entering the national parks, the cultural-landscape parks and other areas of high natural value, situated in the rural-urban regions).

Ecosystem services, conform to argumentation of Boyd and Banzahaf (2007) should be considered within a much broader perspective than only as a final effect of service for the beneficiary. Authors of this proposition indicate that the assumed ultimate effect of the activities associated with the use of water resources of the region might, for instance, be the regulation of water economy, which, however, brings a number of indirect effects, very significant for the economy, like provision of high quality drinking water, possibility of retaining water for irrigation purposes, or an increased hydrological potential for power generation. Some of the services generate by themselves other kinds of service, remaining in causal chain leading towards economic success, see Wallace (2007), Fisher and Turner (2008). Practical use of such solutions brings about the situations, in which economic success is also an ecological success, and the environment, through the intermediary of ecosystem services, becomes a significant player in the general economic as well as social system (Haughton and Hunter, 1994; Bolund and Hunhammar, 1999).

MODELLING OF DEVELOPMENT OF RURAL-URBAN REGIONS AND ECOSYSTEM SERVICES

The procedures of economic assessment of the value of ecosystem services incorporate also social communication and information on social preferences, especially at the level of local solutions, which are typical for the rural-urban areas. They allow for a better identification of social expectations in the context of use of ecosystem services for the improvement of life quality and economic development of a given territory. In respective studies assumption ought to be adopted, though, that not everywhere the same kind of solution is capable of yielding similar benefits and providing the same final effect. One of the methods of predicting the final effect consists in the use of modelling instruments and the search for optimum directions of development. This is of special importance in the areas, where an intensive growth of the periurban zone is taking place now. An instance of such an area is provided by the metropolitan area of Warsaw, which, on the one hand, features still quite a low degree of urbanisation, but also, on the other hand – a high absorption capacity of urban type investments, estimated at the level of 7-8 million inhabitants, and an equally strong urban sprawl (Degórska, 2008).

Modelling of reality, based on theory of chaos, using the regularities of dynamics of nonlinear systems, demonstrates that the same initial data, for the very same system of mathematical equations, bring different results. Such procedures refer to the theory of deterministic chaos, in which the property of equations or systems of equations is made use of, consisting in a high sensitivity of solutions to arbitrarily small perturbations in parameters, describing the dynamic systems. Hence, even insignificant differences in the initial data bring about a different sequence of solutions of the nonlinear equations. This property of nonlinear equations makes apparent the sensitivity of the final results with respect to very small differences in the initial conditions over a sufficiently long period of time, called characteristic time. So, amplification of the small changes in the initial conditions over a sufficiently long time period may cause an entirely different final outcome. Conform to this assumption we can expect that the very same qualities of the environment may, but not necessarily so, lead to the same degree of success in regional development and investment-wise attractiveness, resulting from the use of ecosystem services. Many scholars note also that forecasting of the systems unstable in time is very difficult if one wishes to achieve a reliable result (Życzkowski and Łoziński, 2003). Yet, search for robust attractors constitutes an important direction of study in many domains of science. An attractor is a hidden, hardly observable, ordering of the process. If we knew it, we could perform predictions and influence the course of the respective processes, including also the processes of development of rural-urban regions in their entirety or their fragments.

Adopting, conform to the prerequisites of the Lorenz model, the emergent order, whereby the immeasurable and nonlinear reality becomes understandable, one must conclude that the direction of development of a given area also becomes thereby foreseeable. Chaos turns into order not only in the way, described by the Lorenz attractors, but also through such forms as solitons, bifurcations or fractals, which might be considered as mathematical models of emergence of order in nature. Analysis of changes in the landscape of the metropolitan area of Warsaw, carried out for the years 1998-2005, demonstrated that in the entire periurban zone the areas featuring the highest attractiveness from the point of view of development of the settlement system were those attractive in terms of nature and landscape (Degórska, 2008). The development of these areas is strengthened currently by the use of ecosystem services, and hence a spatial structure arises, characterised by a specific, internally diversified setting of units, differing as to the human potential.

Environment, therefore, constitutes a factor that is capable of generating a trajectory of development, which may get denser, forming locations exerting attraction – exactly the attractors – each with an own basin of attraction, which is also, among other factors, contributing to the viscosity of the area. This property of every region, including the rural-urban areas, is responsible for the drainage of human and economic capital from the surrounding region, and then the retention (rooting) of this capital, allowing for the achievement of an instantaneous state of socio-economic equilibrium. This state can be or become stable, or, under the influence of endo- and exo-genous factors may undergo further development processes. Attractors, being equilibrium points, attracting all (local) trajectories of a given dynamic system, owing to the nonlinear character of the socio-natural relations, constitute a factor forming in definite conditions systems featuring meta-stability (Domański, 2007; Degórski, 2010).

It must be recalled, though, that in accordance with the general system theory of Ludwig von Bertalanffy (1928), an attractor is an area or a point in a certain state space, towards which the system may converge, and around which this system may remain over an arbitrarily long scale of time, undergoing evolution in terms of chaotic dynamics. A system is considered chaotic, when its state space map contains saddle points, homoclinic crossing points (crossings of inflows and outflows of the very same trajectory), as well as heteroclinic crossing points (crossings of inflow and outflow of different trajectories). Exactly these properties of the map of trajectories cause that the qualities of the natural environment, expressed, in particular, through ecosystem services, do not have to always decide with the same force of the attractiveness of a region. As mentioned already before, even slight differences in the initial conditions related to the potential of the environment, may bring about a completely different final effect, and, in addition, the active economic surroundings of the natural environmental system exerts a strong influence on the course of developmental trajectories. The level of investments made into the transport and tourist infrastructure, human capital and economic potential, belong among the most significant factors, modifying the trajectories of regional development. When constructing the models of outlays into the environment and achievement of economic success, one should also account for and define the so-called maximum incremental social tolerance to irreversible costs (MISTIC). This indicator should allow for the assessment of the degree of readiness of a society to forego certain benefits for the sake of attainment of definite development objectives, including the costs related to introduction of pro-ecological solutions, very often entailing high costs. Let us note, though, that the contribution of the environment to the development of regions is not only limited to the aspect of direct protection of its most valuable assets, but includes also construction of the entire infrastructural system, with the aim of attaining the success that would be accepted by the society.

One of the ways to determine the true interrelations that take place between the economic domain and the conditions pertaining to natural environment in the regions, including rural-urban areas, is constituted by construction of economic-ecological models. The starting point for the simple study of causal relations consists in elaboration of the single-discipline models. Yet, in the multi-factor analyses of regional development, the multidisciplinary or the so-called holistic models are being applied. Instead of linking the detailed models into the increasingly complex formulas, in holistic models it is attempted to construct one model, encompassing the respective entirety, and giving the possibility of cognising the interactions that take place between the system of natural environment and the socio-economic system. Among the most often applied models let us mention the input-output models, also in an extended form, meant for management of environmental quality and energy policy (Degórski, 2007). They make up, one of the methods of integrated study of geographic environment,

facilitating the understanding of numerous processes and phenomena, of both natural and socio-economic character, taking place within the mega-system of geographic environment.

CONCLUSIONS

Fast development of civilisation and changes, taking place in the lifestyles of the enriching societies, exert undoubtedly an impact on the state and the evolution of the noosphere. In the highly developed countries the societies devote more and more time to leisure and an increasing role in their life is played by the care for the quality of this life. The frequently egocentric perspective on the conditions of life of the individuals yields an intended or unintended coincidence effect, which gains already a social dimension. At the level of the societies, care for a high standard of living must also be based on the environmental conditions, treated as one of factors of development of a given rural-urban region.

Such a way of thinking, even though, alas, not very common, as yet, gains an increasingly broad acceptance, both among the decision makers and in the direct reception of the societies of the respective regions. Inhabitants understand the best what is the most important for them and what ought to be implemented in the development of their regions. It can be proposed that actual pragmatic consideration of ecosystem services shall become more and more common. The development of human awareness shall evolve in the direction of thinking about the necessity of using the environmental assets and the potential of ecosystems as the factor of economic and social development, not only in the existential aspect, but also in view of the provision of a very tangible economic effect.

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ECO-SERVICES AND THE ROLE OF FUNCTIONAL REGIONS IN SERBIA

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Abstract. The new idea of functional regions has been interpreted in alignment with the idea of functional urban areas in the Serbian planning discourse and practice. The new Spatial Plan of Serbia introduced the idea in compliance with the Law on Regional Development and statistical nomenclature of regions NUTS2 and districts NUTS3 in Serbia. The functional region is understood and presented as a cluster of municipalities organized flexibly around some important project(s) with a proper (sub) regional institution in charge of spurring and realizing the same. The problem is with clustering municipalities i.e. understanding the role and meaning of it for their joint interest, with some political reasons and lack of awareness as the main reasons for that.

On the other hand the list of strategic priorities has been prepared for all functional regions. The list contains projects for economic, social and ecological development. Eco-services are among the high priority issues but asking for intensive horizontal coordination and clustering a group of interested municipalities. Regional landfills, waste water purification, protected nature (high mountains) use, small rivers cleaning, are among such projects with some hot spots eliminating as paramount ones. Activating all stakeholders in the implementation phase is permanent duty of planners and administration, with possible economic measures to be pursued by the state. Eco-services are under intensive surveillance of the state administration in the phase of adapting its legislative to EU membership with an expected transfer of duties and jurisdiction to local communities (municipalities and cities). Vertical coordination with regions and the state is therefore a must for municipalities in this phase of development of Serbia.

The illustrations will be presented for better understanding the initial position of functional regions in Serbia and the position of eco-services in the future of local communities clustering.

Key words: Functional regions, eco-services, strategic priorities, joint interests, clustering

INTRODUCTION

Functional regions and their practical meaning is one of new ideas in the Serbian legislation¹ but without necessary explanations and implementation in the context of territorial organization of the country. Several questions rise out of it but two major ones are: (1) what functional region (*oblast*) really means, (2) what is the difference between functional regions and functional urban areas as defined in the new Spatial Plan of Serbia². This is not only the case of Serbia but also of other Central-European countries in transitional process from centralized and unitary to decentralized and regionalized territorial and administrative system. In Bulgaria, as an EU member country, “the district is de-concentrated state administration unit responsible for implementing the government’s policy at regional level” (Spiridonova, 2011), similar to Serbia as a non-member country. The Romanian case is different with counties as “administrative-territorial units situated immediately below the state as chosen authority of public administration and having their own financial means” (Popescu, 2011). Croatia, similar to Serbia, introduced counties in their legislative as statistical units only. The new terms introduced in course of approaching to EU legislative and political systems have been defined without ample experience and necessary theoretical discourse. The formal reasons have been prevailing and practical consequences have not been visible enough. The planning practice in these countries had different standpoints, more informed and bred on their past experiences and applying some ideas without substantial understanding of their meanings. The discrepancy between legal system and planning practice in Serbia is paradigmatically obvious with different interpretations of counties (*oblast*), i.e. statistical versus functional territories.

On the other side eco-services are still present in Serbia as an idea in theoretical discourse only. The legislative and planning practice do not recognize the term and its meaning for the future development, population or eco-systems destinies and the nature prospective in general. The first attempts with EMERALD network already established and NATURA 2000, as expected to be completed until 2014, are still initial endeavors of the state administration without vertical coordination to local and regional tiers and without proper horizontal coordination among local communities as key-players in the game of protecting and enhancing ecological systems and the nature as a whole. The planning ideas in a number of regional and local spatial plans and strategies³ have no adequate instruments to be effectively implemented in the post-planning phase. Many of them refer to eco-systems and the nature, listed either as planning visions or formal duties emerging from abundant new Serbian environmental legislative.

These two statements on functional regions and eco-services show that Serbia has hard duty to establish a functional model that would enable systematic eco-system protection and sustainable use engaging not only state administration capacities but also capacities of other tiers aware of eco-systems’ benefits, with their resources and processes related to their economies and social systems.

¹ The Law on Regional Development set a system of 5 statistical regions (European nomenclature of statistical units NUTS2) and 22 statistical counties (*oblast*) (NUTS3), without further explaining what *oblast* means except for statistics. The discussion about the role and meaning of *oblast* is actual at the end of 2011, with initial proposals that it means a functional cluster of interested municipalities around one of 22 official cities in Serbia, without legal or administrative subjectivity.

² The Spatial Plan of Serbia 2010-2020 analyzed functionality of 22 cities and their surrounding areas, concluding that 64 % of the national territory is covered by functional urban areas (FUA) in 2010 and the rest is without an urban center (city) asking for additional national efforts to support their development by the means of particular projects.

³ The effort of the spatial planning ministry with state and local agencies in Serbia has resulted with 9 regional and 144 municipal and city (municipality with more than 100 000 inhabitants) spatial plans, thus covering the whole state territory in 2011.

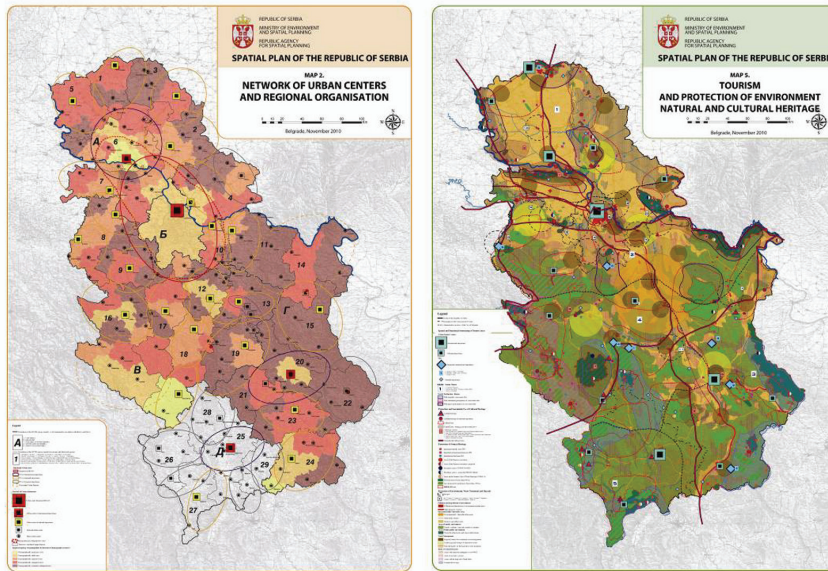


Figure 1. Functional urban areas and eco-systems maps in the Spatial Plan of Serbia 2010-2020
(Source: *Spatial Plan of Serbia, 2010*)

ECOLOGICAL SERVICES AS A PRIORITY FOR SPATIAL DEVELOPMENT IN SERBIA

Ecological services are relatively new idea in Serbian planning and administrative discourse and practice. Functional regions have been elaborated as one of basic development ideas in the future decentralized Serbia in the Law on Spatial Plan of Serbia (2010) and the Law on Regional Development of Serbia (2009). Both acts did not connected idea of municipalities clustering around eco-services but mainly around infrastructure endowment and some economic projects⁴. Nevertheless, maps from the Spatial Plan of Serbia evidently proof that eco-systems do not recognize border lines between neighboring local communities and even between countries but have their own natural, irresistible and irrefutable rules. In that sense ecosystem services are spontaneously becoming indispensable reason for local communities clustering. Local communities need to secure just use of eco-systems, coordinate interests of both the nature and people, and add to economic benefit of local communities, primarily in majority of underdeveloped rural communities in Serbia. These communities are dominantly located in mountainous and border areas of the country, where benefits like pure drinking water, abundant biodiversity, and resources for food, recreation and tourism are basic for their identity but completely underused or even misused in many cases.

In countries alike Serbia “ecosystem services are not fully ‘captured’ in commercial markets or adequately quantified in terms comparable with economic services and manufactured capital” (Costanza et al., 1997) and therefore decision makers pay no attention to them while different players

⁴ In the draft version of the Law on Regional Development oblast (cluster of municipalities) was named as economic region and in some theoretical papers as functional region or nodal region in former times.

use them for their, often illegal, activities. As a result eco-system owners, i.e. owners of resources (Law on Public Ownership, 2011) in a particular local community, have immeasurable costs while users having benefits out of it without compensating collateral costs adequately. As an example, the water accumulation is covering 35 % of the territory of the Knic municipality plus protection area around, with all development restrictions coming out of the legal framework, and the city of Kragujevac is using it for potable water supply to its 215 000 inhabitants and a large industry with no economic costs covering. The water as one of provisioning eco-services is generally neglected issue in Serbia and Djordjevic concludes that “our wish to provide precious water, to protect people of floods, and enable people to enjoy around river coasts, we have to operate with ethics of responsibility only” (Djordjevic, 2010). In spite of relatively limited resources in the country, the water as a multifunctional resource is usually treated as mono-functional giving advantage to one sector only. With availability of its own surface waters Serbia is among poor water areas in Europe with ca 1500 m³ per inhabitant annually, and with spatial unevenness of waters where some mountainous areas to the South have ca 30,0 L/sec/km² and some plain areas to the North less than 1,0 L/sec/km² in average. The time evenness is also lacking with 60-70 % of annual balance coming during torrents and long dry periods after a while, resulting with relation between minimal and maximal currents up to 1:2000 in some smaller rivers. Transit and underground waters are in similar situation. Ecological systems and biodiversity are final victims of such a situation. The weak vertical coordination between the state and local communities is contributing to the problem of one of the most vital ecological system such as water, but lack of horizontal coordination between sectors using the water and local communities as owners or users is making the trouble even worse. Risks of endangering ecological services and biodiversity, generated by transforming many natural river currents into the network of channels and pipelines for mini-hydro plants (up to 10 MW), is the consequence of lacking vertical and horizontal coordination.

Historically, the territory of Serbia is one of the most important biodiversity centers not only in Europe but also in Western Pale-arctic zone. High mountain area of Serbia (the Balkan range) is one of six centers of European and one of 158 centers of the World biodiversity. The large ecosystem, species and gene diversity is characteristic of Serbia, albeit improperly used and with potential biological resources relatively limited. But “in spite of the long tradition of nature protection in Serbia the problem of disappearing important number of fauna and flora species is evident during last 20 years in particular” (Radovic, 2010). Low awareness of eco-systems importance, in terms of economy and social functioning, is producing biodiversity disappearing especially in the rural hinterland and mountainous area covering more than 40 % of the territory of Serbia. Thus, one of crucial supporting or habitat services is getting endangered by non-systematic and non-sustainable treatment of the nature and its capacities, where the lack of local communities clustering has been noted.

With 5632 ha of agricultural land, covering 63.7 % of the Serbian territory, this country has a number of problems with the soil use nowadays: wind and land erosion, use of inadequate agro-techniques, soil sealing and many socio-economic troubles connected with land ownership transformations. In the period after the year 2000 the agricultural land was diminished for 37 000 ha in total. The problem of the soil use, as one of capital ecological systems, has been drastically neglected in the transitional phase aggravated by illegal constructing, uncontrolled land ownership, weakening agriculture as activity, depopulation processes and the like. The weak inter-sectoral cooperation, and missing public/private development programs on national, regional and local tiers, threatens one of the most significant ecological resources of Serbia and food benefits out of it. The low awareness of the fact that “natural resources are not invulnerable and infinitely available” (Wikipedia

2011), in spite of the new legislative in Serbia, asks for active and effective measures to save the soil for the future of the country. The soil is increasingly and almost dramatically attracting attention of new investors, around big cities in particular, especially where this natural element is crucial factor of development. The soil is progressively increasing interest among agro-producers on one hand side but also among investors with their greenfield investment ideas on the other side. For former ones it is a matter of their existence and for later ones it is subject of profit making, still cheap and easy to afford, not forgetting the fact that existence and profit could be mutually dependent. The ambivalent meaning and use of the soil is dramatically appearing during the period of transition in Serbia where the new value system has not been established properly and where greenfield investments are of key development importance. The obvious situation in this country is illustrated by harsh attacks to the soil (greenfields) pursued by liberal market forces, confronted with societal framework with no proper value system, weak legislative instruments and corruptive administration. In such a socio-economic context the soil, as crucial eco-system with its multifunctional services, is practically victim of new economies and missing understanding that the soil as an eco-system is being disposed over municipalities' borders where diverse and conflicting local policies and interests can jeopardize its valuable services.

All the eco-systems in Serbia are under careful surveillance in legislative and planning frameworks. A number of legal acts have already been adopted, institutional system has been re-established and plans and strategies completed. One of the most significant planning acts is the new Spatial Plan of Serbia, with precise analyses of eco-systems and with objectives, concepts and strategic projects incorporated within it.

As for waters the basic goal is integral protection and use of waters on the whole national territory. This means realizing multifunctional use of hydro-economic systems, in harmony with environment and adapted to other natural and functional systems. This practically means harmonizing hydro-economic, ecological and other development objectives with the hydro-economic space as a whole of the territory of Serbia. The soil is treated as a multifunctional resource and the policy is oriented towards protecting its eco-systemic, agro-ecological, economic, socio-cultural functions, simultaneous with enhancement of spatial heterogenous conditions for agro-production and food. For this policy the set of objectives relates to: land use control, erosion control and diminishing, elimination of noxious impacts of traditional agriculture, supporting production of healthy food, pursuing soil recultivation and revitalization, developing active inter-sectoral cooperation and other issues. The biodiversity is getting high priority among national policies in Serbia with special attention given to sustainable use of biological resources measured by several criteria such as: sustainability of biological resources, the quantity of biological resources, exploitation of biological resources, sensitivity of biological resources and their renewability. Finally, high mountain areas should be protected and developed by the means of functional and spatial integration or clustering of local communities around each mountain and its development strategy implementation.

The new policies and strategies will ask for dynamic activity of scientific, administrative and professional institutions as well as awareness raising among people especially over rural areas of Serbia. In any case, one issue is becoming of utmost importance for the future of mentioned eco-services: the role of functional regions, i.e. meaning of clustering local communities around eco-system issues, their protection, use and development.

FUNCTIONAL REGIONS AND THEIR ROLE IN DEVELOPING ECO-SERVICES IN SERBIA

The new legislation on regional development of Serbia, introducing the idea of regions and statistical regionalization, defined two types of regions: macro-regions (region) and districts (oblast). The definition of districts is not elaborated but usual interpretation is that district means functional region. Further interpretations go to several directions but the most important and feasible one is that district is not administrative unit but a sort of clustering local communities around common projects or interests. It is close to traditional definition of functional regions as “grouping municipalities by the criteria of common interests or flows of goods, people and communications between them” (Encyclopedia Britannica, 2011). Some theorists in Serbia are using classical German or French theories explaining the notion as “nodal region” (Veljkovic, 1991) or “functional nodal region” as a region where a number of places is linked by communications or by organizing certain functions (activities) around an urban place. The statement that “nodal regions are defined by evaluating the external contacts of small areal units” (Nystuen and Dacey, 1961) is summarizing the notion with further explanation that “each of these areal units is assigned to that place with which it has the dominant association”. The urban place is pivotal point and its functional surrounding is non-determined and fluctuating. Functions, interests or even problems, expressed by some project(s), are influential factors to connect territorial units around the point. The common definition explains functional regions as “grouping municipalities by the criteria of common interests or flows of goods, people and communications between them” (Encyclopedia Britannica, 2011). Of particular meaning is the notion that functional regions are flexible and dynamic, as much as interests or flows are dynamic and flexible. In terms of that Nystuen and Dacey point out that “direction and magnitude of flows associated with social processes are indicators of spatial order in the regional structure... The notion of nodal point is dependent upon the levels of strongest association within the total flows” (Nystuen and Dacey, 1961). This definition is fifty years old but still valid in general terms and applicable in situations such as in Serbia nowadays.

The notion of functional regions asks for better understanding the role of local community, i.e. endeavours of people at the lowest tier of governing, who has its problems and interests unable to solve or capitalize them without either networking with other communities for achieving higher level of capacity to do it (professional, institutional, financial) or asking the national center to do it for them. The situation in Serbia is paradigmatical with the state slowly shifting from centralized to decentralized political system but not yet in total. Local communities are still looking to the national center (government) to solve all their problems, to realize local projects or to support any of their interests, in spite of some new given instruments such as fiscal decentralization or public ownership enacted by particular laws between 2007 and 2011. An explanation of nodal regions offered to students in Africa could be of use in such a situation: “Interactions (trade, communication) and not shared physical characteristics, define nodal regions. Regions are social constructs. They are created by humans to help organize, make sense of, and interpret human activity within a given geographic space” (Exploring Africa, 2011).

The most sensitive query and acute in Serbia is rising nowadays: How to pursue clustering of local communities in a country with inertia of centralized political system, when all tiers are still looking towards the national center? Majority of local communities (municipalities) are helpless and the state is helpless too and in such situation using participatory criteria to help some of them.

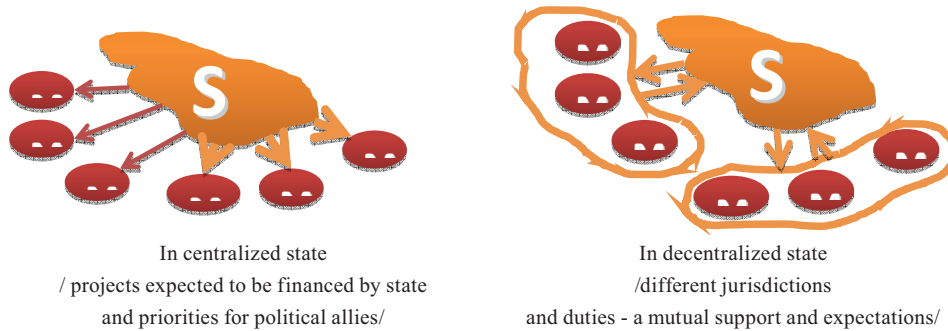


Figure 2. Different political systems' outputs

Local communities in Serbia have new development ideas launched by spatial plans in each of 122 municipalities and 23 cities, many of them spurring linkages with neighbours, but they look up to the national administration and the central budget for their implementation. The awareness of functional regions meaning and the advantage of clustering (networking) with neighbours is missing so far.

Networking as a dynamic activity, linking municipalities around joint projects in Serbia nowadays, could be treated as a mode of cooperation between interested parties to better and jointly use their resources, to realize some strategic project crossing over their borders or to solve some common problem where some have benefits and some have costs. Networking is an organizational instrument where some municipalities are jointly dependent upon resource(s) on their territories, and where they could have benefit(s) by pooling the resource(s). Municipalities should be aware of possible achieving important economic or social enhancement by means of networking but also of some possible costs for some of them. If we understand a functional region as “a territorial unit resulting from the organization of social and economic relations that is characterized by high frequency of intra-regional interactions” (Karlsson, 2007), then the performances of the unit should be calculated from the standpoint of different parties and their interests, benefits and costs. Also, the issue of network's sustainability should be taken into account with all expected internal (organization, financing, know-how) and external (legislative, technology advancement, market demands) threats and influences.

The appropriate reason for networking, emerging as one of spatial development priorities in Serbia, are eco-services, that is protecting and sustainably using ecological systems with their potential services to rural and lagging areas around big rivers, mountains, protected natural areas, etc. In the Spatial Plan of Serbia such areas have been registered with numerous projects listed as priority in the mid-term period between 2011 and 2015. Eco-services have been recognized as a form of direct or indirect interdependences between stakeholders interested in ecological issues but generally expecting positive externalities (benefits) out of it. For this reason functional regions, that is clusters of municipalities, around some ecological system, asks for prudent analysis to enlight the rationale of networking with all positive and negative (costs) externalities calculated. The necessary policies, organization, and financial and informatic models are indispensable to maintain long-term sustainability of such network and its permanent functioning. The acute problem in Serbia relates to pursuing municipalities to cluster for eco-services sustainably functioning.

The opportunities in Serbia during next mid-term period are under jurisdiction of national agencies related to raising awareness among municipalities on functional regions (*oblast*) meaning and importance, simultaneously with legislative improvement and completing. In each particular case municipalities have to be provided with basic information on all externalities, benefits and costs of

networking, direct and/or indirect effects to employment and economic performances based on ecological enhancement, necessary horizontal and vertical linkages with adequate organization needed, dynamics of cluster and its consequences to each party in the project, possibilities of public-private partnership, etc. The existing strategies in the form of local spatial plans and their strategic-development dimension will be good foundation for networking municipalities. The intrinsic attention needs to be paid to the role of infrastructure as a public good determining the size of a functional region, and to the paramount role of urban center and its capacity to lobby for national and European funds. For this Konjar et al points out that “in centre-based delineation particular care needs to be taken in definition of the centres. While some countries identify centres according to the population or level of employment, others take account of commuting conditions” (Konjar, Lisec, and Drobne, 2010).

On the other side numerous constraints stand in front of implementing the idea of municipality clustering around eco-systems and their services in Serbia. Among them the low level of local infrastructure is crucial with weak accessibility as a result. The next are limited human resources in lagging areas, in terms of size, age and educational structures, and their capacity to handle and adequately manage eco-projects in their public sector. The limited funds combined with lack of effective public (municipality) ownership, poorly implemented so far, is another constraint for municipality networking. Therefore the constraints imposed by negative externalities for a party (municipality, firm or individuals) and without adequate compensation are becoming unsurmountable threshold for a cluster’s functioning. The agreement on internalizing one party costs is harsh task for any clustering attempt. The uncomplete information system in the national statistics of Serbia is also one of threats for the notion of clusters since the Census data are not classified on the county (oblast) level. Finally, the unclear legal status of counties, in the Law on Regional Development, and functional regions in the Law on Planning and Construction, is not able to pursue networking municipalities around eco-services or other development projects.

The list of eco-services, as one of priorities in regional development of Serbia, is rather long and it starts with regional solid waste disposal, regional systems for liquid waste purification, mountain areas protection and sustainable development, rivers and other hydro-system resources, NATURA 2000 areas establishing, and others that have to bring Serbia to the higher level of environmental quality. The problems of human activities overusing or abusing natural resources over European standards, polluted environment in cities and even over rural areas and settlements, several hot-spots over Serbian territory, the nature biodiversity threatened in many cases, aggravate the goal of achieving 10 % of the Serbian territory protected with higher standards until 2015⁵. The soil is “the ambivalent meaning and use of the soil is dramatically appearing during the period of transition in the countries where the new value system has not been established properly and where greenfield investments are booming, with people in rural hinterlands oriented to shifting from poor agriculture in former times to some new activities hopefully bringing fresh finances nowadays” (Stojkov, 2009).

Protected areas have highly important role in protecting eco-system services and biodiversity. According to Foley et al. (2005) the natural eco-systems are capable to support many services at high level of quality such as regulatung air quality, climate, water currents, forest production, habitat and biodiversity. The crucial step in establishing the mentioned services is formation of European Ecological Network NATURA 2000 (Biereznoj and Tripolszky, 2007), necessary to save natural systems and quality with all their services include. The diversity of eco-system’s services offered by NATURA 2000 is enormous (Kettunen et al., 2009) with areas offering services of purifying and

⁵ Serbia has 5.86 % of its territory protected under the Law of Nature Protection in 2011

maintaining water level in wet habitats, depositing carbon and controlling erosion or avalanches. Besides, these areas provide services of recreation, education or eco-tourism, contributing also to local or regional identity. For implementing the ideas of NATURA 2000 and eco-system service the role of local communities and their possible networking is indispensable. Some examples in Serbia could enlighten the problem in sequel.

ECO-SYSTEMS IN SERBIA AND THEIR SERVICES

Ecological systems have been theoretically treated as multifunctional in spatial development strategies of Serbia during few last years. It is close to the statement of Costanza et al. pointing that “ecosystem functions refer to the habitat, biological or system properties or processes of ecosystems” (Costanza et al., 2007). Functions and services offered by the systems are classified according to the UN Millennium Ecosystem Assessment (2005) as:

- Provisioning services – food, water, gene resources, natural medicines, biomass, fossil fuels, etc;
- Regulating services – services based on eco-system’s capacities to regulate natural processes such as climate, air quality, water quality, erosion, etc;
- Supporting services – services needed as prerequisite for functioning all other services such as photosynthesis, nutrient and water cycling, soil formation, etc;
- Cultural services – non-material services coming out of saved ecosystems such as spiritual, aesthetical, recreative, educational, etc.

According to the Assessment ca 60%, or 15 out of 24 global eco-system services are dilapidated, unsustainably or inadequately used, and natural and antropogenic factors influencing eco-system changes and their services could be direct (over-exploitation, invasive sorts, pollution, climate changes, habitat changes) or indirect (demographic and technological changes, economic activities changes, socio-political-cultural factors). Consequently, “the soil is becoming a victim of the new dynamism and lack of proper understanding of its multifunctionality, eco-structure and substantial importance for the future of climate, food production or water capacity” (Stojkov, 2006).

Following the global and national situations Serbian administration understood that intrinsic policy changes, institutional advancement and practice enhancement, together with education, could diminish some of negative consequences and pressures to eco-systems over her territory. Naturally, different investments in environmental protection, education, health services and capacity building are necessary if expected results could be feasible in the near future.

Serbia has 463 protected areas to-day according to the state legislative with five national parks and 16 parks of the nature, covering 5,86 % of the state territory. This is relatively small amount in relation to European criteria. The international status has been given to 10 areas registered on international lists, such as 9 RAMSAR sites and 1 Biosphere Reserve-UNESCO MaB, together with 42 Important Bird Areas (IBA), 61 Important Plant Areas (IPA) and 40 Prime Butterfly Areas (PBA) registered in the Law on Spatial Plan of Serbia. The basic conception of the nature protection is now oriented towards increasing the total area under protection up to 12 %, followed by establishing ecological networks of protected areas up to 20% of the state territory. The identification of areas for European ecological network NATURA 2000 will happen till the end of 2014. Realisation of these objectives should result with providing eco-services to different areas, enhanced local development as well as increased efficiency of protected areas management through adequate institutional arrangement and cooperation of different stakeholders. Numerous possibilities of networking local

communities around common projects or functions of eco-services lead towards idea of functional sub-regionalization instead of administrative one. The possibility and constraints of clustering local communities on eco-system services will be illustrated by an example out of several protected areas in Western Serbia, the river Uvac.

The protected area of the river Uvac is in the South-West area of Serbia, preliminary listed for European ecological network NATURA 2000 and identified as EMERALD, IBA, IPA and PBA area too. Covering 7543 hectares it is classified as 1 Category - special nature reserve. The protected area is encompassing parts of six municipalities lagging in development. The protected area offers numerous eco-system services such as pottable water and organic food provision, hydro-energy, spa resorts, beautiful landscape, gene resources, etc., but inevitably asks for the municipalities networking. The problem is in managing natural systems with each one controlled by different institutions. Sectors alike water, energy, forests, nature reserve and spa resort are directed by set of institutions with their mono-functional strategies, programmes and budgets, albeit the Spatial Plan for the area integrates them in the integrated strategic form but with no power to implement it properly. The lack of integrative regional institution in charge of clustering municipalities and coordinating eco-system's functions is more than evident.

Table 1. Eco-system services and functional region aspect around Uvac to-day

ECO-SERVICES	USE	BENEFITS	COSTS	INTER-NALIZING COSTS	INSTITUTIONAL ARRANG.
POTABLE WATER (provisioning service)	Part of regional water system	5 municipalities	Limited use of pesticides; high % under protection in 1 municipality	Compensation to rural settlements; water rent to 1 municipality	Directorate for Potable Water Use Management
HYDRO-ENERGY (provisioning service)	Hydro-energy plant	National energy system and employment in 6 municipalities	2 municipalities with flooded soil	No compensation	HE Directorate
HEALTH PROVISION (provisioning service)	Spa center	Employment in 2 municipalities	Neutral in other 4 mun.	No	Ministry of Health
FLOOD REGULATING (regulating service)	Water accumulation	3 municipalities	Neutral in other 3 mun.	No	National Water System
GENE RESOURCES (supporting service)	White head eagle Plants	common	No costs	No	Uvac Reserve Office
AESTHETICS & RECREATION (cultural service)	River meander Sustainable tourism	all municipalities and the region	No costs	No	Local governments and institutions

Clustering municipalities around eco-services delivers positive externalities (benefits) but for some parties negative (costs) too. The potable water is the most important service for each of the municipalities but one of them will have costs due to the large protected areas (water sources and protected nature) on its territory. The discontent of particular municipality to-day is resulting from land use limitations and building restrictions but primarily from the lack of resource rent and compensations, that is internalizing costs for the negative externalities. Practically solving this problem would be one of main duties of the integrative institution, agreed and constituted at the level of a functional region. Other important duties would be: (1) educating population on the role and meaning of eco-services for their future economic development, (2) providing market for organic food and guaranteed income for producers, (3) defining rules for constructing and integrated constructions in the landscape, and (4) incorporating the idea of eco-services into tourist strategies with necessary standards in accommodation, food, facilities etc. This might contribute to employment, improving age structure and activating depleted and underused housing stock in rural areas.



Figure 3. The river Uvac as natural phenomena and a multifunctional eco-system
(Source: Uvac Special Nature Reserve 2011)

CONCLUSION

The basic aim of promoting functional regions from the standpoint of eco-services in Serbia is achieving sustainability of eco-systems and biodiversity resources in particular local communities (municipalities). The crucial objectives would be common benefits from eco-services for wider sub-regional areas, decreasing poverty rate, employing professional and working capacities in lagging areas, improving infrastructure endowment and general environmental enhancement. Specific tasks would relate to: (1) providing cooperation among local communities; (2) opening perspectives to cross-border cooperation; (3) establishing platform for effective partnership at local and regional tiers; (4) stimulating and contributing to better understanding the mutual interdependences between local biodiversity, decreasing poverty and sustainable development and (5) pursuing eco-systems management in sustainable mode⁶. This asks for prudent local and regional planning, connecting eco-systems with economic and social strategies and objectives, and active participation of stakeholders within the

⁶ The education on eco-services is subject matter of Regional Center for Environment in CEE (REC) and their international offices in Serbia (REC 2011)

planning and programming processes resulting with consensus on strategic objectives and expected results, positive and negative externalities included.

The overall situation in Serbia warns to serious internal and external threats that could jeopardize sustainability of local community networks. Internally the problems are low level of infrastructure quality, legislative weaknesses and lack of horizontal coordination between legal acts and offices, political (party) confrontations, and weaknesses in management capacities. Externally the problems are in following technological advancement, changes in demands for services and other external disturbances. But Serbia, with its natural and biological capital on one hand, and ultimate necessity to shift from local autarchy to modern governance and cooperation on other hand, will have to move towards an idea of functional regions as a mode orf effectively activate its regional territorial capital in a sustainable way. Eco-services could be a perfect reason for that.

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URBAN AND RURAL CULTURAL LANDSCAPES IN THE FUNCTIONAL URBAN REGION OF BRATISLAVA

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Abstract. The characteristics both of urban and rural cultural landscapes were studied on the example of the NE sector of Bratislava Functional Urban Region (FUR), consisting of 18 municipalities with population of about 85,000. The aim of the paper is to assess three main domains – demographic changes, quality of life and environmental quality – in order to specify differences between the rural and urban cultural landscapes and classification of the area according to the urban/rural characteristics. The resulting distribution of urban/rural areas even with some deviations confirmed the general trend of an increasing rural character of the area with the increasing distance from Bratislava.

Key words: Urban/rural space, cultural landscape, Bratislava Functional Urban Region, demographic situation, environmental quality, quality of life, land cover

INTRODUCTION

Cultural landscape is often interpreted depending on the ambivalent understanding of the notion “cultural“. On the one hand, cultural can be interpreted as anything related to culture, history, cultural heritage. On the other hand, it can be a synonym for civilisation. According to the first interpretation, cultural landscape is the landscape reflecting traditional features of local/regional type/types of landscape, while the other means any landscape changed by human activities. In this sense as well as according to the European Landscape Convention (ELC, www.coe.int/european-landscapeconvention) landscape protection means actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity. Other notions relevant from the point of view of the study and compatible with the ELC philosophy include “landscape quality objective”, “landscape planning” and “landscape management”. Pursuing the definition of Hanušin et al. (2000), cultural landscape is originally a natural landscape recreated by human activities. The economic and social processes also accompany the natural processes going on in cultural landscape. Humans create a secondary landscape structure. According to the intensity of such recreation, cultural landscape can be managed or abandoned. Estimating by the dominant function, cultural landscape can be agricultural (specifically vine growing), urban, rural, industrial and the like. Cebecauerová (2007) reports that the study of changes under way in (cultural) landscape attracts increased attention as the human impact in

landscape is ever more evident. Landscape changes that took place in Slovakia since the 1950s are historically unparalleled in terms of speed, intensity and scope. In time of global challenges, planning and forecasting of developments in the sphere of landscape, the efforts identify the present status of landscape are now concentrated on interpretation of landscape changes and those of the dynamics of its individual components.

Cultural landscapes in Slovakia constitute a continuum from rural to urban landscapes, which have often developed over long periods of time. The complex of urbanization processes caused differences in formation of two basic landscape types: urban and rural. In the last decades, expansion of urban landscape becomes a more complex and unequal procedure in our planet (Antrop, 2004). Urban landscape is the result of interrelated economic, demographic, social-cultural, political, technological and environmental procedures that form its character. In urban landscape these procedures cause dynamical changes in land use as well as changes in man's behaviour and his way of life. Urban regions are considered hybrid landscapes where different urban and rural elements are inseparably mixed. This leads to new challenges, e.g. for the protection of natural resources, cultural heritage, but it also provides new opportunities for integrative approaches to landscape management that seek to establish beneficial relationships between urban and rural (Antrop, 2006).

The urban cultural landscape shapes the character of the city, town or village, a combined work of people, place and time, defining it as unique. Urban heritage areas are legible to both local citizens and the visitors. Urban cultural landscapes are multi-sensory vessels for spirit of place that combine tangible and intangible heritage values. There is a challenge in oversimplifying the urban landscape and in attributing only the most obvious aspects. Those who live in or study an urban landscape perceive this complexity as a composite that in total represents the spirit of the place within the urban landscape. The cultural landscape of many urban areas comprises significant part of the overall landscape space and contributes significantly to the spirit and character of the place.

Rural landscape is traditionally connected with agriculture, forestry and fishing. It is the storage of natural resources for the development of urban areas. It gives space for the infrastructure necessary for operation of urban environment. It serves as an open space for the development and expansion of urban landscape; it is a space where comes about also the significant part of consumption of inhabitants of urban environment as well as their recreation and relaxing activities (Claval, 2005).

According to Palang (2009), conventionally the term "landscape" relates more to the *rural* and less to the *urban*. The landscape definition as stated in the ELC also includes the development of the landscape, pointing at the natural and human-induced processes that have shaped the landscape. As stated by Primdahl and Swaffield (2009), European rural landscapes are currently in transition due mainly to two processes: structural changes in agriculture and various forms of urbanisation. Authors of this article rather tend to interpret cultural landscape as a territory with conventional ways of management, conserved traditional properties and an original functional structure of use.

Functional urban regions are empirically delineated on the basis of intensive daily job-commuting flows between the core of the region and its hinterland. They are defined as spatially contiguous groups of municipalities, which are internally coherent and relatively self-contained in terms of daily commuting. They represent areas where people live and work at the same time. There has been some consensus in the recent literature that a regional design derived from the concept of functional urban region provides a meaningful spatial framework for analysing population and other human geographical phenomena. Many empirical studies brought convincing evidence that the territorial units created for the needs of public administration (administrative districts, etc.) do not conform to the idea of regional units suitable for the analysis of spatial human activities and behaviour because

they do not correspond to the geographical concept of region. In Slovakia, several attempts have been made to identify such areas (Bezák, 1990, 2000).

The functional urban region of Bratislava is spatially the largest and most populated in Slovakia with population of about 680,000 in 110 municipalities. The response of academics to the massive spatial and social changes in landscape caused by industrialization and urbanization was captured in the concept of urban - rural continuum. Substantial transformation of the landscape had a number of major economic, social and cultural impacts and consequences resulting in continuous graduation of ways of life between rural areas and large cities (Halfacree, 2009).

The definition of the urban and the rural space or their divide is not unambiguous. Individual authors often adapt it to their objectives and orientation of their studies. An overview of the terminology (emphasizing urban ecology) and a manual of its standardization can be found in, for instance, MacGregor-Fors (2011). Interesting seems MacGregor-Fors' proposal that the agriculturally intensively exploited non-urban areas in the hinterland of cities referred to as rural should be called extra-urban. This author also often uses the term urban-rural gradient for the delimitation of the urban-rural divide introduced by McDonnell and Pickett in 1990. The paradigm of the urban-rural gradient is used in the study of urbanization's impact on ecosystems. Toit and Cilliers (2011) report that while establishing the urban-rural gradient, data from the landscape metrics, demographic or physical data are seldom used. An example of exploitation of a combination of such data for the establishment of the urban-rural gradient is the study of Hahs and McDonnell (2006). For the delimitation of the urban-rural gradient on an example of the Australian city of Melbourne, they used 17 metrics from three principal domains (demographic, physical – physical properties of the aerial image of the territory – and the landscape domain). Four criteria were established (via the PCA – principal component analysis – method) that characterize the urban character of a territory. Along with a specific physical criterion it was the population number per unit of urban land cover, shape index of the landscape unit and the dominant land cover.

The above-mentioned but also other studies demonstrate that it is practically impossible to formulate a universal and generally applicable definition of urban or rural spaces.

STUDY AREA AND METHODOLOGY

The characteristics both of urban and rural cultural landscapes were studied on the example of the NE sector of Bratislava Functional Urban Region (FUR) consisting of eighteen municipalities (including two Bratislava's city districts and three towns), with population of about 85,000 and an area of 408 km². The study area is the transitional zone between the Western Carpathian mountain system (Little Carpathians – up to 695 m a.s.l.) and the Western Pannonian basin lowlands (Podunajská Lowland 130 m a.s.l.). With an exception of the forested semi-natural landscape in the Little Carpathians, different types of cultural landscape - urban, suburban and rural with various type of human activities like viticulture, agriculture, forestry, tourism, industry, nature and culture heritage protection – prevail in the remaining area. The study area is administratively divided into the city of Bratislava and the Region of Bratislava (Pezinok district). It is one of the most developed parts of the country situated along the developing axe heading from Bratislava towards the north-east. The close neighbourhood of the Capital, with its relatively very high economic and financial potential impacts the economic development in the whole region and “produces” thousands of people with the tendency to move towards the hinterland of Bratislava. This intensive process has a basic effect on spatial organization of the territory.

The aim of the paper is to assess the demographic changes, quality of life and environmental quality in order to specify differences between the rural and urban cultural landscapes and classification of the area according to the rural-urban characteristics.

In relationship to the assessment of the reality, different notions and tools have been developed. For the purpose of this study, three categories applied in the sphere of the sustainable development are used (Huba et al., 2000):

- Principles,
- Criteria,
- Indicators (indexes).

The categories are hierarchically aligned from the most general principles over specifying criteria up to individual specific indicators of sustainable development. There are not always sharp limits between the above-mentioned three categories especially the principles and criteria often overlap. However, generally the principles should be universal while the criteria and indicators are chosen with regard to the particular conditions, the assessed object and the purpose of assessment. Likewise, the hierarchic arrangement from the most general principles to the most specific indicators holds. It means that the chosen indicators and principles should correspond to the adopted principles.

Three principal domains were assessed to establish the urban/rural character for each of the eighteen municipalities:

- Demographic
- Environmental quality
- Quality of life

In agreement with Hahs and McDonnell (2006) and Toit and Cilliers (2011), for the optimal delimitation of the urban-rural divide, it is appropriate to use comprehensive indicators of different nature, which enhance the objectivity of results. For each principal domain, individual criteria and indicators were adopted to help develop the resulting value from the point of view of the urban/rural character. Demographic and quality of life domains are related only to the permanently inhabited areas. Environmental quality domain is related to the whole cadastral territory. All domains are considered to have equal importance (weight). The cadastral territory of a municipality is the basic unit for the assessment. For each cadastral territory and each principal domain the urban/rural character was rated using the 5-level scale: urban, mostly urban, transitive, mostly rural and rural. The very final urban/rural character of the cadastral territory was set as an average value of three principal domains values (using the same 5-level scale).

Strengthening of the urban nature in case of larger populations concentrated in urban settlements with prevalence of immigration to the settlements can be expected in terms of the relationship of the demography to the urbanity or rurality of a territory. The relationship of life quality to the urbanity/rurality is more ambiguous and definitely depends on the choice and weight of individual indicators. On the one side, many classical measurable indicators suggest the continual proportion between their high value, quality of life and urbanity (availability of domestic appliances, amenities and infrastructure of the settlement, consumption items, accessibility of education and services), while indicators of life quality, some of them not easily quantifiable, with optimum values typical for rural areas such as the quality of environmental components (air, water and soil), noise and light pollution, aesthetic assets of landscape, life style, etc. may exist on the other side. Environmental quality vs. urbanity/rurality in our interpretation is given by the nature of land cover. As a matter of fact, urban nature of the territory is in continual proportion to the percentage of artificial surface areas.

RESULTS

DEMOGRAPHIC DOMAIN

The basic feature of the population's development in the region of interest is its close bond to the settlement development of Bratislava as the biggest agglomeration in Slovakia. While the extensive phase of urbanization in Slovakia (typical for mass immigration to towns and depopulation of the country) peaked during the previous decades, approximately in the second half of the 1990s this trend turned around and the towns began to loose population. Especially the villages in their hinterland became attractive. The villages of the Sub-Carpathian Region are among the most attractive in the country (Moravanská, 2010, Podolák, 2007, Podolák et al., 2011, Slavík and Kurta, 2007, Šveda, 2009).

Tab. 1: Selected characteristics of suburbanization

MUNICIPALITY	TOTAL POPULATION INCREASE 2001 – 2010 (in ‰) *	IMMIGRATION FROM BRATISLAVA (in %) **	CHANGE IN NUMBER OF NEW FLATS – 2001-2007 (in % to 2001)
Budmerice	16.1	28.0	9.2
Častá	6.9	29.7	6.0
Doľany	2.1	29.8	8.2
Dubová	7.5	29.7	6.8
Chorvátsky Grob	81.1	59.0	94.8
Limbach	42.4	54.0	23.4
Modra	5.4	28.5	7.4
Pezinok	6.0	31.0	9.7
Píla	20.2	23.5	13.6
Slovenský Grob	14.1	44.8	10.8
Svätý Jur	13.6	51.5	7.2
Šenkvice	10.1	22.3	6.7
Štefanová	0.6	12.0	4.5
Viničné	32.8	24.4	23.1
Vinosady	24.6	18.9	12.2
Vištuk	3.0	33.7	4.0
Rača	2.4	–	5.0
Vajnory	31.3	–	21.7

* The number indicates the average annual total population increase per 1.000 municipality inhabitants in period 2001-2010

** Number indicates the percentage of immigrants from Bratislava from the total number of immigrants to the municipality in period 2001-2008

Since 1970, population loss becomes evident in small and medium-sized municipalities of the region (Štefanová, Dubová, Doľany, Vinosady). Population also decreased in big villages (Častá, Slovenský Grob, Chorvátsky Grob, Šenkvice) and the town of Svätý Jur. On the other side, urban

centres of the region (such as Pezinok and Modra) maintained the population increase (which revived in almost all other villages after 1991) all over the 1970s. Rača and Vajnory are specific. These two traditionally wine growing villages became administrative parts of Bratislava in 1946 although they conserved the rural character for a long time. In Vajnory it is evident even today with the contribution of the existing spatial divide between the old and the new built-up parts. Construction of big housing estates started in Rača after 1970 and since then the village gradually merged with the neighbouring urban parts of the city. The Slovak National Council adopted a new Act on Bratislava after 1990. Pursuing this Act, these two former villages became urban districts with their own government, which provides them with certain independence.

The level of overall population change depends on the values of two components. The natural component of the overall increase after 2000 is very low; fewer babies are born than the number of dead. The level of migration balance then determines the overall increase values. It several fold exceeds the natural increase. The villages which most gain by migration are Chorvátsky Grob, Limbach, Viničné, Vinosady a Vajnory; it means the ones where new residential quarters with the highest increase of new dwellings were built after 2000. These villages also boast the highest values of overall population increase (Table 1).

The pronounced suburbanising tendencies in hinterland of the Capital prove (beside other) the fact that the out-migration flows from Bratislava to rural municipalities are several fold more intensive than in-migration. More people move out of Bratislava to all studied municipalities than vice versa. It should also be added that many inhabitants who move out of the city do not change their domicile or they keep their original dwelling. It means that the out-migration rate is in reality even higher than the available data and as the rural municipalities loose considerable amounts proceeding from taxes they try to compensate it by, for instance, an increased real estate tax for the not permanent residents.

QUALITY OF LIFE DOMAIN

Apparently, quality of life is a phenomenon representing the character or the evaluation of the human life itself. The complexity of human life is due to a number of its parts that sometimes overlap and to the different links that exist between them. According to Massam (2002), quality of life consists of a set of components that represent the partial components of human life and are evaluated by means of selected types of indicators.

Amenities and infrastructure are crucial for sustainable development and acceptable quality of life in communities. Experience from the post-war to more recent situation in settlements has repeatedly shown that infrastructure (e.g. local services like schools, shops, public transport, etc.) is needed at any stage of settlement development and the life of communities. Lessons from settlements in Slovakia over the past 50 years have shown that the lack of infrastructure to support residents slows the process of building a locality-based community and can create long-term problems for the social and economic well-being and opportunities of the new development (Ira and Andráško, 2010).

Saturation index of infrastructure in municipalities (58 indicators clustered in ten clusters – transport infrastructure, technical infrastructure, financial services, accommodation facilities, shopping facilities, health services, cultural and educational facilities, social services, and sport facilities) was briefly analysed in the studied region. Saturation index of the infrastructure of everyday life (Jarvis, 2005) was calculated from 19 indicators and its values were also analysed from the spatial point of view. The analysis of the saturation index of infrastructure shows spatial differentiation and a significant rural-urban divide. Perception of available amenities and quality of life was assessed through a survey conducted in selected municipalities (two urban and fourteen rural municipalities).

The results of the survey point to greater satisfaction with life conditions in rural municipalities influenced by the suburbanization process. The majority of respondents believe that both, infrastructure and overall quality of life in rural municipalities have been developing recently.

ENVIRONMENTAL DOMAIN

Overlapping of natural, rural and urban landscapes and their identification problems are most pronounced in hinterlands of big cities more so if they are situated in the vicinity of landscape units such as mountain ranges, wetlands or a high quality farmland (Huba et al., 2010, Huba et al., 2011). Bratislava and its FUR is a typical example.

Characteristics of land cover, especially the proportion of artificial surfaces in land cover were used as partial indicators for the delimitation of the divide between the rural and urban environments. Likewise, on the basis of land cover characteristics a rurality index was compiled from the percentage of land cover categories defined as rural or urban. These two are characterized by land cover properties regarding the natural or close to natural surfaces. Precisely the high percentage of artificial surfaces (AS) and the low rate of ecological stability are typical for urban environment while the rural environment is characterized by low percentage of AS and a higher level of ecological stability. Values of partial indicators like in other cases were classified into five categories based on Corine Land Cover (CLC) 2000 definitions and data. Artificial surfaces became the eponymous category of CLC, which also covered the urbanized fabric, industrial, commercial and transport areas, mining, dumping sites and construction sites along with the artificial, other than farming greenery. The highest proportion of AS in the cadastral territory corresponds to the urban districts of Bratislava – Vajnory (34 per cent) and Rača (24 per cent). Regarding the high representation of industrial, warehouse and transport areas, the non-settlement AS prevail in both cases. A specific case is the village Píla with the cadastral territory situated in a narrow densely built-up valley of the local brook where the AS occupy even 76% of total area. Distance from the centre of Bratislava measured to the centre of concerned municipalities was used as the hypothetic reference indicator for the rurality rate. It was found out that in case of the AS there are significant hints to the existence of a negative correlation between the proportion of AS in the area of the cadastral territory and the distance from Bratislava's centre. Correlation coefficient (-0,64) which is on the bottom limit of correlation reliability for such a small set suggests that the proportion of AS drops with the increasing distance from Bratislava's centre; in other words the rurality rate measured by this indicator increases.

Natural or seminatural areas, which regarding their great size in some municipalities complicate division of the territory into target categories proved to be foreign elements in the search for differences. This is the reason, why in case of the Bratislava's FUR such procedures aimed at the delimitation of the rural/urban environment rate were chosen, which eliminated natural areas. Individual LC categories were further broken into three basic groups: natural-rural-urban, where forest and seminatural areas (category 3 CLC), wetlands (category 4 CLC) and water bodies (category 5 CLC) were classed with the group natural; group rural covered the agricultural areas (category 2 CLC) and the group urban contained artificial surfaces (category 1 CLC). Areas or portions of natural areas, which are irrelevant in terms of urban/rural environment assessment, were excluded in the following analyses. The value of the rurality index (LCIr - in terms of LC) was obtained by the division of the urban/rural area proportions:

$$LCI_r = \frac{\text{Agricultural areas (category 2 CLC, in \% of the cadastre area)}}{\text{Artificial surfaces (category 1 CLC, in \% of the cadastre area)}}$$

The resulting urbanity/rurality values in terms of the environmental quality obtained as the average of two analysed indicators were divided into five categories.

It means that only Bratislava -Vajnory and the small village of Píla (for the above-quoted reasons) appear as urban areas. Bratislava – Rača, Pezinok and Modra are prevalingly urban. Transitive are the municipalities located in the central part of the territory (Slovenský Grob, Limbach, Viničné, Vinosady, Šenkvice). Municipalities grouped in two parts of the territory boast the mostly rural to rural character. Regarding the distance from Bratislava, the larger cluster of such municipalities in the north-eastern part of the studied region is no surprise. However, what does surprise is the status of the rural cadastral territory of the settlements in the close hinterland of Bratislava. Land cover structure is the reason in case of Chorvátsky Grob where almost 90 of the cadastral territory (situated in the Podunajská Lowland) is arable land. Svätý Jur, in spite being a town, possesses a low portion of artificial surfaces and a high rurality index value – the reason why this settlement has been classified among the rural ones.

THE FINAL URBAN/RURAL CHARACTER OF THE BRATISLAVA FUR

The resulting values revealed some expected results (Table 2, Fig.1):

- Two Bratislava urban districts (Vajnory and Rača) display the most pronounced urban character,

Tab. 2: Assessment of urban/rural character of 3 principal domains and final urban/rural character of individual municipalities in Bratislava FUR (5 urban to 1 rural).

MUNICIPALITY	Demographic domain	Quality of life domain	Environmental quality domain	Final urban/ Rural character
Budmerice	2	2	2	2
Častá	2	2	2	2
Doľany	2	1	1	1
Dubová	1	1	2	1
Chorvátsky Grob	4	2	1	2
Limbach	4	2	3	3
Modra	5	4	4	4
Pezinok	5	4	4	4
Píla	1	1	5	2
Slovenský Grob	3	2	3	3
Svätý Jur	5	3	1	3
Šenkvice	2	3	3	3
Štefanová	1	1	1	1
Viničné	3	2	3	3
Vinosady	2	2	3	2
Vištuk	1	2	1	1
Rača	5	5	4	5
Vajnory	5	5	5	5

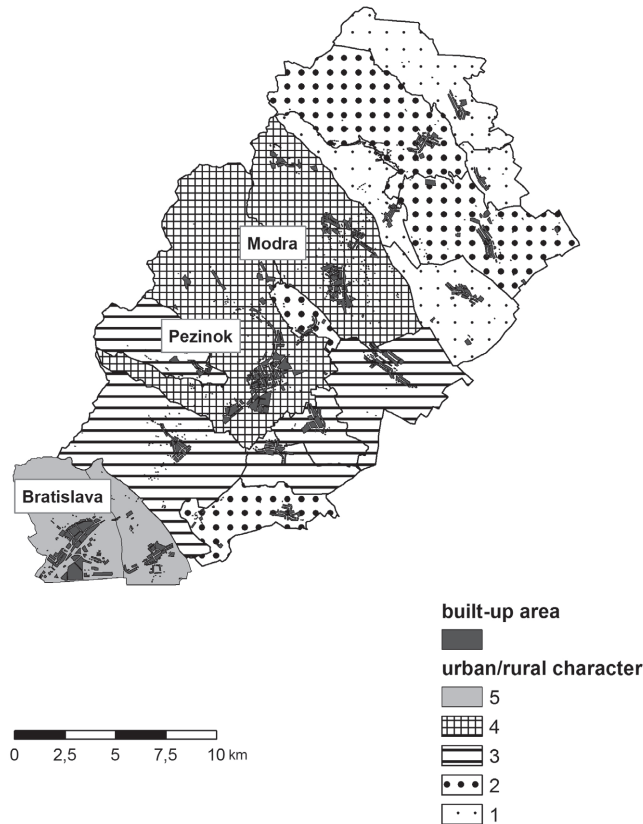


Fig. 1 Urban/rural character of the Bratislava FUR
(5 - urban, 4 - mostly urban, 3- transitive, 2 - mostly rural and 1 – rural)

- Other two biggest municipalities in the Bratislava FUR (towns Pezinok and Modra) boast mostly urban character,
- Character of municipalities on the NE edge of the region, remote from Bratislava, is either mostly rural (Vinosady, Píla, Častá, Budmerice) or rural (Vištuk, Dubová, Doľany). Štefanová with the three principal characteristics evaluated as rural is the most rural municipality in the Bratislava FUR region.
- Establishment of the urban/rural character of other municipalities is less unambiguous:
- Demographic domain is the most important factor of urban character of the FUR (the highest degree of urbanity measured by criteria of this domain corresponds to as many as five settlements). On the contrary, the domain of life quality rather determines the rural character of the FUR (measured by the criteria of this domain, twelve settlements are rural or prevalingly rural),
- Character of the municipalities located closer to Bratislava is transitive (Chorvátsky Grob being an exception) which is stipulated by the demographic characteristics (migration out of Bratislava, rise of the housing stock). Svätý Jur (the smallest town in the region) and Limbach are typical examples,

- The three principal domains are well balanced on the transitive level in other municipalities with transitive character (Viničné, Šenkvice, Slovenský Grob),
- Chorvátsky Grob has a very pronounced rural environmental and landscape quality and in spite of the mostly urban demographical character it is considered a mostly rural municipality.

CONCLUSIONS

The paper presents a possible alternative methodology for the determination of urban or rural character of an area. Urban or rural character of a territory is determined by the coaction of several factors of different nature, social, economic and natural. Differently from many other methodologies based on the assessment of relatively one-sided criteria (prevalingly demographic) the methodology used here tries to capture a wider spectre of factors determining the urban/rural character of a territory. The selected segment of the FUR Bratislava in the frame of the Slovak Republic represents a territory with one of the most important change gradients in urban or rural character. At the same time, there are comparatively extensive areas of a traditional cultural landscape, namely vineyards, which add a finishing touch to the singularity of the territory. The resulting disposition of urban/rural areas including some deviations basically confirms the trend of the increasing rural character of the territory with the increasing distance from Bratislava.

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DEVELOPMENT COOPERATION AND PARTNERSHIP IN THE MIRROR OF SOCIAL VALUES

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Abstract. The current theories of governance and economic development require the possession of certain social values. The spreading of these values is poor in the Hungarian society. Accordingly, *real* development cooperation activities and *real* bottom-up organised partnership networks in Hungary are not frequent phenomena. It seems that the early results of a research project in the agglomeration of Pécs verify this hypothesis.

Keywords: cooperation, social values, governance, agglomeration

INTRODUCTION

This paper was made apropos of a research project started in 2010¹. The research investigates the particular questions of the institutionalization of urban areas (agglomerations) in Hungary. The main goal is to provide possible institutional models for the wider development of these areas. The project has an interdisciplinary approach in which an important element is to detect existing cooperation forms, interorganizational relations and networks.

Cooperation between the city and its neighbourhood is motivated by common goals which rely on common interests of the given community. These joint activities are embodied very often in different development activities, in strong partnerships or turn to an enduring network which form establishes a *development coalition* with the active participation of local/territorial actors. Since the operation of these types of activities is *embedded* in the broader society their characteristics cannot be independent from it.

GOVERNANCE AS THE IDEA OF COOPERATION

The shift from *government* to *governance* in Western societies was one of the most significant political trend in the last decades. Whereas *government* is connected with top-down approaches

¹ "Particular questions of institutionalization of agglomerations" (OTKA 81789). Supported by Hungarian Scientific Research Fund.

of command and control systems, *governance* builds on self-adjusting group of different types of actors. These groups of actors cooperate tightly together in interactive networks. The substances of governance are the various ways of operating which do not rely on the power of the state (Stoker, 1997). The definitions of governance are very diverse and inconsistent (Pálné, 2008, Petters, Pierre, 2006, Rhodes, 1997, Stoker, 1997, Osborne, 2010). Despite the definitional uncertainty it can be stated that governance literature deals with relationships of various organizations, mainly the exchange between the state and society. Theories highlight the importance of *diversity* in cooperation so from this point of view *governance* is in fact outlined in the pattern of interactions. This pattern reveals the process and influential rules which are determining in the achievement of goals and shows blurred boundaries between public- and private spheres (Peters, Pierre, 1998).

In Rhodes' conception (Rhodes, 1997) self-organizing and inter-organizational networks can be an alternative to market and hierarchy. These networks consist of actors of the public- and semi-public spheres which are characterized by source-dependency and source-exchange. They develop a common policy along the continuous negotiations. This process results in a significant autonomy against the state. Sjöblom and Godenhjelm (2009) define the most typical governance tools; which are – among others – *soft law*, *networking* and *partnership*. Furthermore *projects* are very important tools as well with the various *temporary organizations* established in connection with the implementation of projects. According to the authors these tools represent a transition from the systems based on command to the systems based on cooperation. These *informal governance* tools cannot operate in the framework of a traditional top-down approach. So they require dense textured interactions between local governments and civil society which materialize in horizontal and vertical linkages.

BOTTOM UP ECONOMIC DEVELOPMENT AS THE IDEA OF COOPERATION

In parallel with the change in political leadership serious modifications in economic development theories have also emerged. The interventions led by governments are often discredited, instead the literature currently promotes bottom-up local economic initiatives which rely on endogenous characteristics of the respective areas/regions (Lengyel, 2010). According to this new paradigm, local economic development processes should involve local municipalities, local entrepreneurs, NGOs etc. (Horváth, 1998, Rechnitzer, 1998). The framework of their cooperation is the *regional network*, which can be described as “*a process in which several participants or groups of participants are involved who work towards a common goal on the basis of a common conviction or vision. This process is not, as a rule, based on formal contracts, but is founded on trust, partnership and the conviction that all those concerned profit from it.*” (Sprenger, 2001, 6).

Urban regime analysis has been one of the most significant urban public policy theories in the last twenty years. It is not considered expressly as an economic development theory even though it has a number of linkages to local economic development. The first urban regime case studies attempted to describe relations between public and private actors in U.S. cities. Shortly they started to extend their application to the analysis of broader areas i.e. from regional level to urban neighbourhood (Mossberger, Stoker, 2001).

According to *urban regime theory* power is fragmented and local public and private actors can “join their force” through different cooperation forms. The actors cooperate in order to achieve the most effective local governing. *Urban regime* is a “living organism”, “a mediator” or “a bridge” between the private and the public sphere (Stone, 1993).

Four elements are key to elaborating such *governing coalitions* (Stone, 2005):

- an agenda to address a distinct set of problems;
- a governing coalition formed around the agenda, including typically both governmental and nongovernmental members;
- resources for the pursuit of the agenda, brought to bear by members of the governing coalition; and
- given the absence of a system of command, a scheme of cooperation through which the members of the governing coalition align their contribution to the task of governing.

According to Iwona Sagan (2009) *urban regime* is a proper framework for understanding the process of new regionalism in Central-East Europe. The author emphasizes that *governing coalitions* are strongly *context-dependent* so it is not possible to separate their analysis from cultural and historical specialities.

PATTERNS OF URBAN NEIGHBOURHOOD COOPERATION IN THE PÉCS AGGLOMERATION

After a sketchy demonstration of the role of *cooperation* in theoretical paradigms, the next section attempts to describe several characteristics of the Hungarian urban neighbourhood relations. Empirical findings are taken from the research project “*Particular questions of the institutionalization of agglomerations*” conducted by the Transdabubian Research Institute of the Centre for Regional Studies of the Hungarian Academy of Sciences. The fieldwork focuses on urban areas of three Hungarian cities (Miskolc, Győr, Pécs). Since the fieldwork is underway (in November 2011) the results are limited and confined to the Pécs agglomeration. Despite this fact there are certain trends which are already visible in the early phase. This paper investigates only the different types of cooperations, it does not aim to explain the general mission of the whole research project.

The first item of fieldwork covered 30 settlements around the city of Pécs. This research area overlaps only partly the current public administration units; namely these settlements belong to three different microregions (NUTS 4): Pécs Microregion, Komló Microregion and Mohács Microregion. Furthermore, the selected settlements coincide only partially with the official classification of the Pécs agglomeration by the Hungarian Central Statistical Office (KSH 2003). The research uses an extended sample of settlements compared to the official classification. This enlargement was justified by several indicators and statistical data. On the basis of these indicators we could presume that proximity of the City had a significant effect on the selected settlements.

As a consequence of the nature of the Hungarian settlement structure the analyzed area is not comparable with metropolitan areas. Nevertheless it can be interpreted as a *functional area* or as an *urban region* where agglomeration and suburbanization processes are observable (Somlyódyné, 2011). Furthermore “*the administrative borders of local and territorial governments differ from the functional borders and from the natural flow of population and economy so conflicts and competitive situations occur. The most capable resolution of these problems is cooperation. Cooperation will establish unity of urban region.*” (Somlyódyné, 2011, 30).

In the course of fieldwork in the Pécs agglomeration 70 interviews were completed (with complex, half-structured questionnaires) with the key actors of the analysed area. In one part, questions were asked about the patterns of cooperation and organizational relationships, the other part consisted of questions on facts and opinions about the functioning of the local economy, society and public administration.

The main groups of interviewees according to organizational types are the following:

- a) Local municipalities (mayor)
- b) Enterprises (most significant enterprises of the given settlement)
- c) Civil organizations (most significant civil organizations of the given settlement)
- d) "Other" types of organizations (e.g. development agencies, chambers, clusters)

The next paragraphs explain the acquired empirical experiences based on the first three groups. Analyses attempt to reveal respondents' ego-network by means of predefined categories. These categories contain all of the potential and relevant actors of local development networks based on the literature. The possible geographical levels of cooperation were classified by the following categories: local, neighbouring settlements, microregional, county, regional, national, abroad. Other types of questions (mostly open questions) aim to grasp the quality of these relations.

RELATIONSHIPS AMONG THE KEY ACTORS WITHIN SETTLEMENTS

The first results of the research show that strong and enduring relations can be found among the key actors mostly on local level. On this level there are a great deal of linkages among local municipalities, local enterprises and local civil organizations. It means that those enterprises and civil organizations which were *visible* for the research (namely the more significant ones) and the local municipality are *usually* in connection with each other.

In case of local municipalities the total amount of their business linkages are established dominantly in their cooperation with local enterprises. Of course this statement can be interpreted inversely as well, namely the total amount of public linkages of business actors corresponds dominantly to the local municipality of their seat. It is a frequent set of local arrangements in analysed settlements that the mayor holds the position not as a full-time job but he/she manages his/her own private company in parallel. Many times these enterprises are the biggest employers of the settlement. In these cases the public-private cooperation is embodied in the person of mayor.

About the relationship of local municipalities and civil organizations it can be stated in general that cooperation operates mostly on local level. However these relationships show usually serious inequalities because relatively small number of local civil actors have their income predominantly from the local municipality. This phenomenon is a typical manifestation of the weak and underdeveloped Hungarian civil society.

Interactions between civil organizations and enterprises on local level are relatively dense as well. The content of these relations are fundamentally sponsoring of civil organizations by companies.

To summarize local level relationships of key actors it can be stated that in almost all settlements some kind of configuration of cooperation can be detected among the three key sectors with the local municipality in central position. The content of the cooperation covers local issues.

RELATIONSHIPS OF KEY ACTORS OUTSIDE THE SETTLEMENT

As we leave the world of local activities behind, the structure of cooperation is significantly changing. The boundaries between sectors become more rigid and the level of interaction is low compared with the number of possible variations.

In case of enterprises there are active relationships in all geographical categories with other enterprises in connection with their business activities. On the other hand, a crucial part of the poor linkages of civil actors is directed toward other similar types of civil actors located in neighbouring settlements.

The relations between municipalities are notable especially between neighbouring settlements and between settlements belonging to the same microregion. In the background of these active cooperation activities are service provision as an obligation of local municipalities which materialize on the level of the microregion through a municipal association. It was a long process until the current arrangement evolution (Kovács, Lados, Somlyódyné, 2008; Kovács, 2008). In this process central government motivated local governments through financial norms and incentives for cooperation. Accordingly it is important to see that these partnerships in many cases came into existence in a constrained form: “*Membership in Multipurpose Microregional Associations is theoretically voluntary but in reality is organized by necessity. The financial status of local municipalities does not allow them to keep away from the mainstream*” (Kovács, 2008, 215).

The Municipality of the city of Pécs including the enterprises and civil actors from the core settlement of the agglomeration, but do not appear as particularly important partners.

EXTERNAL RELATIONS OF KEY ACTORS

Beside the representatives of key actors there are further actors which have a very important role in the development of an area (Horváth, 1998, Rechnitzer, 1998, Lengyel, 2010). The following types of actors were identified in the questionnaire in order to investigate key actors’ relationships to them:

- a) territorial development organizations, rural development organizations
- b) economic development organizations
- c) professional associations
- d) universities
- e) research institutes

Relations with *territorial development organizations* and with *rural development organizations* show no variety: the only type of actor mentioned is the LEADER organization. LEADER non-profit organizations were established and covered the whole country in order to implement the New Hungarian Rural Development Programme. LEADER was originally an experimental rural development program in the old member states of the EU whereas in Hungary LEADER functions rather as a distribution platform of financial assistance. The essence of the LEADER approach can be summarized in seven key features (Fact Sheet 2006):

- Area-based local development strategies;
- Bottom-up elaboration and implementation of strategies;
- Local public-private partnerships: local action groups;
- Integrated and multisectoral actions;
- Innovation;
- Cooperation;
- Networking.

The Program implementation in Hungary excludes settlements over 10 000 inhabitants so considering our research area the importance of LEADER would be moderate for us. Nevertheless, the Program should have an effect on the patterns of cooperation in the analysed area according to its philosophy and principles. In reality linkages to LEADER are double faced: all the three types of key actor representatives mentioned their connection to the LEADER Program but beyond this fact no cooperation is evoked.

As regards the linkages to *economic development organizations* and to *professional associations* it can be stated that enterprises have relations with both types of organizations on the different

geographical levels as well. However these relations seem rather formalized and less lively. There is a similar situation between municipalities and their professional associations. The cooperation between municipalities and economic development organizations is not at all a typical form in the analysed area.

Cooperation with *universities* and *research institutes* is very rare in all the tree types of key actors.

PATTERNS OF COOPERATION IN THE PÉCS AGGLOMERATION

According to the available results of the research it would seem that there is no *urban regime*, *development coalition* or *regional network* which could fit into the theoretical criteria demonstrated in the first part of this paper. The revealed cooperation patterns among the studied actors do not indicate a pursuit for common goals or vision in order to achieve the joint development of the Pécs Urban Region.

This result is not surprising in light of the social value system of the Hungarian society. The next section will present a couple of cultural barriers in the current Hungarian society which can hinder the cooperation of actors.

VALUES IN THE HUNGARIAN SOCIETY IN LIGHT OF COOPERATION

It is not questionable in the course of studying literature cited in this paper that certain *cultural* elements are crucial in the implementation of current development activities. Sociology uses the term *culture* in a broad meaning accordingly the key elements of the culture are behaviour patterns, norms, values, beliefs and scientific knowledge in a society (Andorka, 2006). Considering *cooperation* as a fundamental driving force of economic competitiveness it is a vital question whether a society (nation or region) is able to adapt the cultural preconditions of cooperation or not. Those societies in which the *culture of cooperation* is not so prevailing face a big challenge. This challenge requires a huge work hence changing the *culture* is necessarily a slow process. *Culture* can reproduce itself through the channels of socialization. In addition, *the values* which constitute the core of culture (Hofstede, 2001) are acquired already in early childhood so their *operation* in people's activities is very often unconscious. The German sociologist Ralf Dahrendorf said about the perspective of Central-East European post-socialist countries that it took six months to replace a political system, six years to transform an economic system, and 60 years to change a society (Dahrendorf, 1990).

The Hungarian value sociology had a significant contribution in the last decades to understanding the value system of Hungarian society (eg. Hankiss, 1989, Füstös, Szokolczay, 1999, Varga, 2003). A detailed presentation of their results would exceed the framework of this paper. Summing up the main findings it can be stated that since decades Hungarian society is characterized by – among others – distrustfulness, low level of cooperative forms, high level of uncertainty avoidance and high level of paternalistic attitudes. Hungarian sociologist 30 years ago Elemér Hankiss wrote the following statement about cooperation which is still valid in our days: “*The value structure of the Hungarian society is fragmented, full of contradictions and it has rather community-destroyer than community-builder function. To say the least: it does not promote development of communities*” (Hankiss, 1983, 236).

The International Social Justice Project (ISJP) was a comparative international research investigating the new economic and social structure in Central-East European transition countries with a special focus on differences from West-European features (Csepele et al., 2004). During the exami-

nation of the social judgment of personal *success* and *enrichment* they found an interesting paradox in the judgment of *relational capital*. Ideally *relations* come into existence through mobilizing internal resources and in this way they are a crucial condition of success. However “good relation” has another possible meaning namely when somebody achieves his/her goals in an unmerited way and dishonestly. This can lead to corruption, personal interlocking, clientelism and paternalism on macro-level. In the ISJP research *relations* were used in the latter meaning because in Central-East European countries they found a negative correlation between internal resources and relations. In other words according to their results *relational capital* as an *attribute of success* correlates negatively with individual skills and efforts while positively with external fortunate starting circumstances. Regarding the phenomenon of enrichment the importance of the role of *relations* correlates most closely with dishonesty, unequal opportunities and with unequal external economic factors while it correlates negatively with hard work and talent.

The World Values Surveys (WVS) research project has collected data from 1981 regularly in the form of representative national surveys about values, attitudes, motivations and their change in different societies (Inglehart, 1997, Inglehart, Baker, 2000, Inglehart, Welzel, 2005, 2009). The WVS in collaboration with EVS (European Values Study) carried out surveys in 97 societies containing almost 90 per cent of the world’s population. The research uses a standardized questionnaire that measures changing values concerning religion, gender roles, work motivations, democracy, good governance, social capital, political participation, tolerance of other groups, environmental protection and subjective wellbeing. The most relevant statements of the fifth wave of WVS about the Hungarian value structure are the following (Keller, 2010, Tóth, 2009, Rádai, Tóth, 2010):

- Level of *trust* in institutions, politicians, business organizations, government, the media, trade unions and public authorities is extremely low compared with other countries.
- Participation in civil society is extremely low as well.
- Hungarians socialize with neighbours least in Europe.
- Two-thirds of Hungarians think that they are honest but their compatriots are not.
- Four-fifth of Hungarians think that no one can become rich in Hungary with honest work; and those who wish to succeed need to break certain rules.
- Hungarians are less critical of tax fraud and unlawful access to state aid than people in Poland or the Czech Republic and relatively tolerant towards petty offences: getting a free ride on public transport is a forgivable sin.
- Hungarians have the strongest belief that economic actors can prosper only at the expense of each other. In other words, business is a zero-sum game.
- Attitudes of uncertainty avoidance are very widespread. Hungarians think that the state is bound to guard its citizens from a wide range of threats but, in terms of the individual’s readiness to assume risks, they are behind the average in the European Union

CONCLUSION

The current theories of governance and economic development inevitably reflect the social values of the society in which they were born. Accordingly, essential dispositions of the traditional western democracies are the basis for them. Of course, it does not mean that in these theories different features of societies would not be taken into account. After all, it would be necessary – in case of new democracies – to give a more significant role in development policies to the shaping of these societal

factors. The doubtful materialization of principles of development policies in certain new member states causes primarily *social barriers* not only financial, coordination or administrative problems.

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