POLISH ACADEMY OF SCIENCES
STANISLAW LESZCZYCKI
INSTITUTE OF GEOGRAPHY AND SPATIAL ORGANIZATION
CENTRE FOR EUROPEAN STUDIES
POLISH GEOGRAPHICAL SOCIETY

EUROPA XXI

14

CORE AND PERIPHERAL REGIONS IN CENTRAL AND EASTERN EUROPE

EDITORS:
TOMASZ KOMORNICKI and KONRAD Ł. CZAPIEWSKI

WARSZAWA 2006

POLISH ACADEMY OF SCIENCES
STANISŁAW LESZCZYCKI
INSTITUTE OF GEOGRAPHY AND SPATIAL ORGANIZATION
CENTRE FOR EUROPEAN STUDIES
POLISH GEOGRAPHICAL SOCIETY

EUROPA XXI

14

CORE AND PERIPHERAL REGIONS IN CENTRAL AND EASTERN EUROPE

EDITORS:
TOMASZ KOMORNICKI and KONRAD Ł. CZAPIEWSKI

WARSZAWA 2006

CONTENTS

VOLUME REVIEWED BY:
'Andrzej Lisowski and Jerzy Bański

VOLUME CO-FINANCED BY:
Ministry of Education and Science

EDITORIAL OFFICE:
Institute of Geography and Spatial Organization, PAS
00-818 Warszawa
ul. Twarda 51/55
tel. (48-22) 69 78 849
fax (48-22) 620 62 21

www.igipz.pan.pl/cbe
e-mail: t.komorn@twarda.pan.pl

PREPARED FOR PRINT BY:
Małgorzata Cala
Department of Cartography and Geographic Information Systems,
Institute of Geography and Spatial Organization, PAS

ISSN 1429-7132

EDITORIAL

Eliminating disproportions in economic development and standard of living between regions at the European and national level constitutes an overriding aim of regional policy. At the same time, with ongoing globalization as well as taking place continental integration, the market processes lead rather to greater polarization as well as spatial metropolization. Enormous funds designated for reducing inequalities can merely soften these trends. However, one may admit that there are no conditions for reversing them. In this situation the question concerning the mutual relation between core and periphery is of supreme importance. It embodies economic, social and spatial (geographical) dimensions. The papers collected in the 14th volume of Europe XXI concentrate on these very matters. At the same time they are concerned primarily with the area of Central Europe.

The period of transformation in this part of continent, was characterized predominantly by acceleration of polarization processes. This thesis is proved in the papers written by G. Nagy and K. Kovacs. Moreover, it is also supported by the papers pertaining to the entire region (T. Tagai), Poland (K. Janc) as well as Slovakia (P. Hurbanek). The article by K. Janc discussing the spatial differentiation of human and social capital highlights one of the basic, historically conditioned, reasons for current polarization. Indirectly, it also points to the regional policy potential, among others, in the area of education. The paper by P. Hurbanek addresses the influence of spatial accessibility on the level of unemployment in Slovakia. It claims that transport availability is of a significant importance for the labour market at the meso- and macro-scale.

The specificity of spatial polarization in the region is expressed, among others, by the fact that trends towards polarization appears at the various geographical scales. Also, large centers composed of core areas are witnessing ever increasing socio-economic stratification. It is manifested, among others, by the quality of housing substance as well as its direct surroundings (including the extent of the open areas). In this context, the ageing processes of urban population take on more significance. These issues are dealt with—and as an example are given cities from western and eastern German Lands (Bonn and Dresden)—in the papers by I. Roch, B. Bense and C. Roch. Within the core centers in Central Europe, enclaves of wealthy population are now being formed, and at the same time the people from poorer social groups go on living in the post-socialist tower blocks. This problem is analyzed by M. Ilieva with an example based upon the city of Sofia.

The problem of spatial polarization is inextricably linked with the issue of administrative divisions. Often economic reasons are used as justification for establishing new territorial structures or removing old ones. On many occasions, however, the changes in administrative borders serve the political purposes. During the period of transformation, such changes were introduced in most states of Central and Eastern Europe. The

situation in Poland and Hungary in this respect is compared in the paper by A. Schmidt. Whereas an in-depth discussion on transformation of administrative systems in the post-Soviet republics is contained in the article by S. Tarkhov.

The separate and at the same time extremely important group of articles constitute the reports containing the results of the research and research projects, as well as suggestions offering implementation solutions with respect to interregional co-operation within the area of the new EU member states. All of these proposals deal with the core-periphery relation and one of their aims is to adopt an appropriate regional policy recommendation. The discussed projects include both the entire European space (ESPON, ESDP implementation) and individual regions (Baltic States, Adriatic region—CONSPACE).

Summing up the material published in the present volume: one is tempted to claim that in Central Europe during the period of transformation, the processes of diversification as regards the core-periphery relation were fully dynamic in nature. Therefore any attempts to describe them from the perspective of geography or economy face immense methodological problems. Despite a great number of research projects carried out at various spatial scales, so far no unambiguous policy recommendation has been developed that could be an answer to the process of diversification. However, it seems that a key to eliminating regional inequalities in Central and Eastern Europe are investments in transport infrastructure, as well as supporting development of human and social capital (in the first place through educational policy). This ought to contribute to increasing the social mobility, as well as to improved accessibility to labour markets.

Tomasz Komornicki

EUROPA XXI
2006, 14: 7–26

ECONOMIC POTENTIAL OF REGIONS—MODELLING THE SPATIAL STRUCTURE OF HUNGARY IN THE PERIOD OF TRANSITION

GÁBOR NAGY

Hungarian Academy of Sciences,
Centre for Regional Studies, Alfold Institute
5600 Békéscsaba, Szabó D. U. 42
e-mail: nagyg@rkk.hu

Abstract: This paper presents economic potential of regions and the spatial structure of Hungary in the period of transition. Author describes models of uneven spatial development—models of spatial polarisation, models of development based on internal resources underwent significant development between the 1970s and 1990s, the centre-periphery models, the globalisation theories and spatial inequalities. The influence of most important economic partners of Hungarian regions has also taken into consideration.

Key words: Hungary, the period of transition, the economic potential, spatial structure, regional inequalities

MODELS OF UNEVEN SPATIAL DEVELOPMENT

Studies and models bringing spatial polarisation into the focus of economic studies entered the mainstream of regional research in the 1950s. The school of thought associated with Gunnar Myrdal (1957) asserts that spatial inequalities persist and differences grow through imbalances that exist between the individual regions already at the outset, cumulative impacts, causal chains and the persistence of spread and backwash effects. Paul Krugman (1991), the father of the so-called new economic geography also belongs to this school of thought. His theory means a step forward relative to Myrdal's, as it provides an explanation for the emergence of and increase in spatial inequalities as well as the evolvement of a special regional economic character even when there are only low level initial differences. It attaches critical importance to the role of agglomeration economy and

is able to tackle the impact of state economic policy. The downside to the model is that it rules out technological externalities, ignores innovations and provides only a sketchy outline of the process of economic growth.

In contrast, another group of researchers (Rostow 1960; Friedmann 1973; Richardson 1980) claim that those significant regional differences which arise as a result of the adoption of the capitalist mode of production become less marked as mass production and welfare become common, and that regions, deeply embedded in national economies and on a more or less similar level of development, emerge. The main underlying idea of the models is the continuous presence of those spread effects that first facilitate the evolvement of strong economic agglomerations, and then play a key role in the creation of spatial cohesion and equalisation.

While advocates of the above models argue that spatial equalisation materialises through the spontaneous movement of market forces, economic experts in favour of the theory of growth poles (Perroux 1955; Paelinck 1965; Pottier 1963; Boudeville 1966; Lasuen 1969) are unified in their opinion that an active government policy is crucial. They claim that sectoral growth poles can emerge even in economically disadvantaged regions, and add that the development of wider regions can be stimulated by the impact of regional multiplicators. Analysing the examples of developing countries, Lasuen (1973), however, points out the role of artificial growth poles in the emergence of a dual economic structure and a disproportionate spatial structure that becomes fossilised in the long run. What critics of the theory of growth poles contest is not this, but rather the strength of the development link between growth poles and their 'hinterland' as well as the actual effect mechanism of an incubated core of development. The identification of the flaws in the theory encouraged the formulation of the theory of innovation-oriented development, on the one hand, and that of endogenous development, on the other. Although development concepts[1] based on the theory of growth poles crept in regional policies in Hungary in the 1990s, their implementation was, however, only partial due to scarcity of capital.

The innovation-oriented school of thought embraces Schumpeter's propositions (1980); however, it also goes further and addresses the issues of a systemic approach to innovations (Edquist 1997), an evolutionist approach to the national systems of innovation (Nelson and Winter 1982) as well as the possibilities and limitations of interactive learning processes (Lundvall 1992). For the purposes of this paper the importance of the neo-Schumpeterian school of thought lies in the fact that it can identify the regional systems of innovation that coexist with a global system of innovations, from which it can interfere geographical specialisation on a regional scale.

Models of development based on internal resources underwent significant development between the 1970s and 1990s. While initial theories hoped for almost automatic development and convergence through the enhanced exploitation of internal resources and the novel combinations of their utilisation, the past decade has been characterised by a new perception of technological knowledge and an unambiguous abandonment of neo-classical theories. According to Romer's interpretation, (1994) the spatial distribu-

[1] They found their purest form in the National Regional Development Concept (1999).

tion of knowledge (including its hidden components) is uneven, the possibility of its spatial transfer is limited and an exchange of expertise and experience personally is of key importance. The emergence and persistence of spatial inequalities in an imperfect competition is inevitable. However, as basis innovations change, so some places and regions, through rapidly activating the hidden components of knowledge, may be successful also over a longer term, while others may lose their existing competitive edge, believed to be long-term earlier, under a new economic paradigm.

Centre–periphery models seek to describe the system of spatial differences on a global economic scale. While Wallerstein (1974) uses a dual model that provides an academic abstraction of the evolvement of the modern global economic system in order to present the trends under review, spatial research made its mark by modelling dependence at a whole-economy (Friedmann 1966) and settlement level (Haggett 1983) as well as flow-induced dependence (Dicken 1992). The last type adopts a novel approach to how spatial differences become entrenched, while not ruling out the simultaneous emergence of trends towards concentration and deconcentration (decentralisation). Under this approach, regional networks are instrumental in the creation of a complex spatial structure and geographical differentiation. Another key components are urban regions, particularly the classic core regions.

The globalisation theories of the 1990s also help to acquire a better understanding of current trends in Hungary. Scott's theory on regions that are engines of economic growth and their 'hinterland' which are capable of progress (1988) can be applied to the European Union and Hungary relatively closely. Hamilton's interpretation of globalisation (1999), according to which, *'... [it is] a series of processes that provide a forum for key participants' securing their interests and for the implementation of their ideas about space'*, helps to understand the behaviour of foreign capital in a Hungarian context. This interpretation is further expounded by Dicken (1992), who discusses changes in the priorities of corporate strategy building and more specifically the optimal scheme of corporate governance adopted by multinational companies[2]. Knox and Agnew (1998) make it clear that there is a tough spatial competition for investment funds, in which the competitiveness of regions (i.e. areas and settlements) must be proved continuously.

Porter's theory on competitive development as a theory on regional competitiveness (1996) combines the main findings of the theories on agglomeration economies, growth poles and economic bases. The basic unit of his model is the regional economic cluster with low transaction costs, high synergies and mostly outstanding development determinants. However, it does not interpret the development outlook for regions that have no or hardly any development determinants, are only loosely connected to global competition and struggling technologically. It offers continuous productivity growth as its fit-for-all panacea, which presupposes that manufacturing tradables are produced for export in a high employment environment.[3]

[2] In analysing motives for FDI, Dunning's eclectic theory (1988) offers similar conclusions.

[3] Since the 'cultural turn' of the 1970s, a new paradigm in geography arised which reject spatial models due to their mechanical nature and formalism. It is new social geographical streams (i.e. behaviourial approach, humanistic and radical geography) that criticise these models the most adamantly. Their most frequent objection to them is that they ignore real space and the scale of spatial processes. (Martin 1999)

Our hypothesis was: the 15-year-long period of transition development of the Hungarian economy was fundamentally determined by a steady rapid increase in spatial differences and, hence, growing inequalities between the individual settlements and regions.

SPATIAL INEQUALITIES AT THE TIME OF THE TRANSITION

The fundamental characteristics of state socialist economic control were the mitigation of inequalities on the regional (primarily county-) level and spatial equalisation. Consistent with the ideological system of the regime, this was implemented mainly through the centrally controlled location of industries, initially (between 1965 and 1975) as a result of direct government decisions[4], later (i.e. after 1975) indirectly, through allowing for the spatial preferences of state-owned large industrial companies.

This led to significant reduction in spatial inequalities on the regional levels under review (i.e. planning/economic regions and even more importantly counties) and in the dimensions under review (i.e. fixed investment developments, output indicators, fixed assets, income and employment). However, a number of insidious trends also emerged which later added to spatial inequalities. One was that marked disindustrialisation[5] led to the post-industrial development of Budapest[6], which proved to be a structural advantage over the countryside after the regime change. Another was that an industrial belt (the so-called industrial axis) stretching in a North Easterly–South Westerly direction inside Hungary, which was the primary destination of industrial fixed investment[7] (Figure 1).

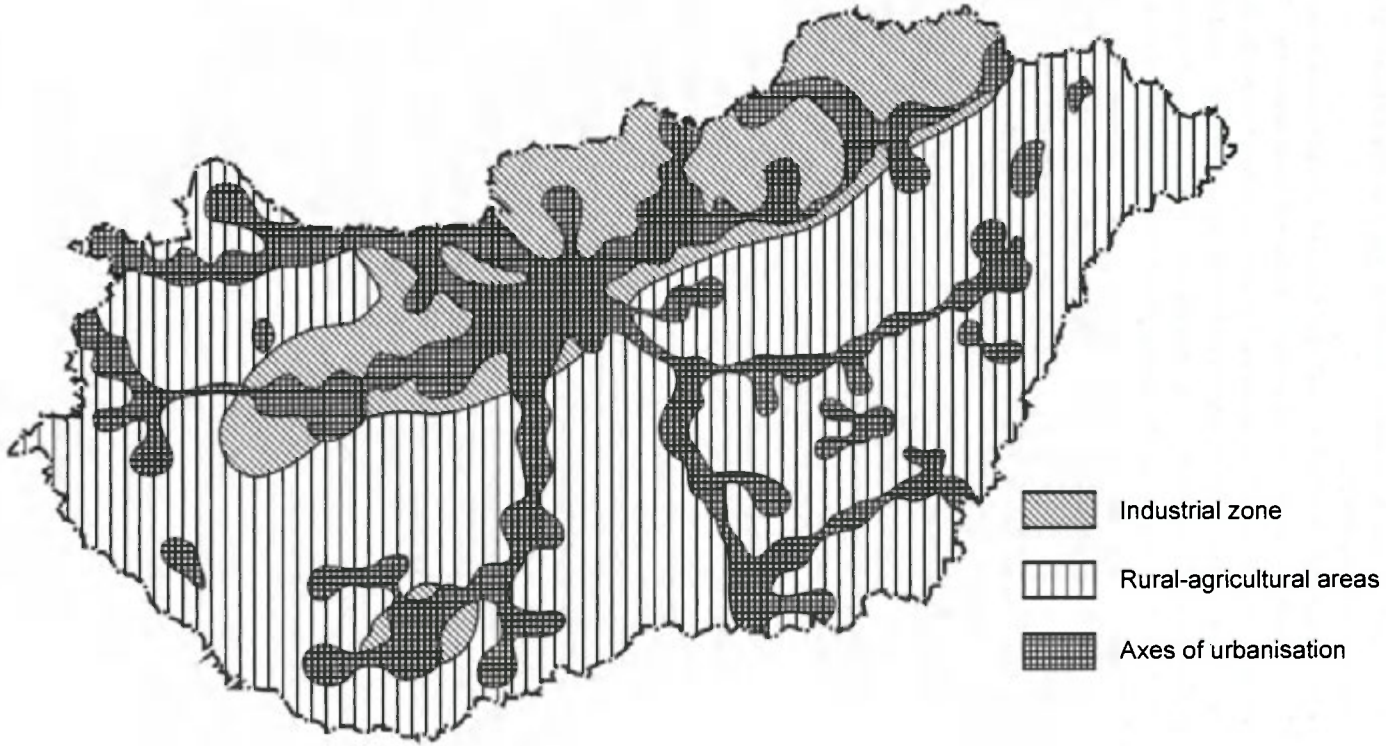
Key economic actors in the rest of the country included, almost invariably, industrial sectors satisfying local needs, labour intensive manufacturing sectors (food and light industry, especially, textile and clothes industry employing unskilled female labour) and local branches of large companies. Such local branches were a typical form of large socialist companies. Relying on one single resource, i.e. available labour trained to perform one single task in the production process, they were, in fact, the local units of production of large companies in economically backward (or, according to the prevailing system of values, under-industrialised) regions of the country. Neither qualified management, nor an efficient and experienced administrative staff was available at these branches. Nor were any powers of decision-making delegated to them. After the regime change large state-owned companies divested these branches, the majority of them were unable to survive

[4] Although MSZMP KB (the Central Committee of the Hungarian Socialist Workers' Party) passed a resolution on the industrialisation of the countryside in as early as 1958, its implementation only began in the mid-1960s.

[5] In the mid-1950s, despite the first massive wave of construction of large industrial centres, the share of the capital city in industrial wage earners still exceeded 40%, while its population accounted for a mere 19% of the country's population. When the process came to an end in the early 1980s, corresponding figures were 28%, and 20% respectively.

[6] It is safe to say that the early 1980s saw the beginning of a process in which the development of the dynamic space of the capital city and that of the provinces ran separate courses. The former was boosted by the services sector, the latter by the prevailing engines of growth in manufacturing.

[7] As increase in the volume of housing construction and the development of institutional and infrastructural networks and welfare systems were closely linked up to industrial fixed investment projects at the time, securing a high-profile government-funded investment project provided an excellent opportunity for the development of the settlement concerned and its region.



Source: Krajkó, 1982.

Figure 1. Regional structure of Hungary before the transition

under market economy conditions. By contrast, core-companies managed to remain in business through considerable sacrifices.

Settlement-owned businesses and non-agricultural arms of co-operatives were established to employ permanently or seasonally available labour in local economies. The former were set up to implement the development-related tasks of local councils. Most were able grow under quasi-market circumstances prior to the regime change. Later they were privatised predominantly by resident private individuals. Some economists seemed to identify a nascent hinterland industry in this group of viable businesses. Illusions were shattered by the transition.

The majority of former self-employed craftsmen had to work in cottage industry and small industrial co-operatives. Evoking the model of the Third Italy, the successful ones are still in business, producing specialised high quality commodities. Those that proved unfit for long-term operation either went out of business or their employees became self-employed again (or formed minor business partnerships).

As was pointed out by economists and regionalists at the time, the snare laid by what looked equalisation was that equalisation came at a price, i.e. spatial inequalities became increasingly sharp in the individual counties (regions). Gábor Vági (1982) outlined how development funds had been allocated within the individual counties. The development of county seats was accorded the highest priority. In the case of villages, which constituted the bulk of the settlement stock, however, budgetary funds slowed to a trickle. The reason why it engendered general social tension was that from the 1970s booming large agricultural companies contributed to development in villages heavily and ran a verifiable welfare system. Household plot production on the pieces of land allotted to members of the co-operatives was a source of supplementary income, which also resulted in tangible improvement in living standards, through a significant amount of extra work, though.

The radical left-wing of MSZMP, which considered the class of organised industrial workers and, within this, skilled workers to be the backbone of the party, detected agriculture-fuelled rural convergence, and urged immediate steps. As one of its last realistic measures, the 'Kadár regime'[8], while remaining in favour of growing wealth in the provinces, allowed for the possibility that labour in large industry could also earn supplementary income. Its tool for this was economic teams, which it first supported, then, in 1982, officially approved. This change led to the incorporation of the principle of productivity and the possibility of financial reward for individual performance in the system. In the 1980s the development of small-scale businesses rested on the social capital and trust[9]. The rapid spread of quasi-private enterprises and, after 1984, private companies proper (e.g. economic associations, civil law companies, co-operatives etc.) foreshadowed the emergence of a new divide in the country's spatial structure along a new dimension. (Nemes Nagy and Ruttkay 1989) Subsequent studies (Rechnitzer 1993) also attest to a similar spatial divide in entrepreneurial activity, which ran in a West-Easterly direction, while activity in large centres was outstanding.

However, the emergence of predominantly small business units was only one spectacular, but not the most efficient factor that shaped the new economic spatial structure that

[8] János Kádár was the leader of the communist party from 1957 to 1987.

[9] The existence of a 'second economy' was instrumental in transition into market economy and in the establishment of enterprises.

evolved after the regime change. The two key processes were privatisation and greenfield investments, as the amount of capital that was involved in them (especially in the former) was far greater than what was involved during the enterprise boom. The transformation and privatisation of former state-owned (settlement-owned) companies did not have a significant direct impact on spatial structure in the first phase, as there was a change only in the owners of existing production capacity. However, the timing of privatisation, the sectors involved, the type of owners vested with decision-making powers, the corporate strategies on which developments were based and the results of these strategies did matter. Thus, in the case of privatisation it was quality components that were key to corporate level success and ability to adjust as well as, from a broader perspective, development prospects for entire settlements and regions.

In the case of privatisation it was existing supply that motivated investors. By contrast, greenfield investments were influenced by the market, logistical positions, accessibility, existing professional culture and the tradition of co-operation, depending on investors' objectives. As regards privatisation, spatial inequalities of supply and the end of the privatisation process strengthened the economic position of the capital city and its wider space and that of Northern Transdanubian counties. However, the real cause of a dramatic increase in spatial inequalities was the regional distribution of greenfield investments. The regions which investors prioritised were practically identical to the space referred to in connection with privatisation, except that greenfield investments targeted rural space, the Austro-Hungarian border zone, the Vienna-Budapest axis and the capital city's wider agglomeration space (Figure 2).

Inequalities in the spatial distribution of enterprises, privatisation and even greenfield investments alone would not have led to such sharp spatial differences that they actually did had they not been coupled with the crisis and phase-out of sectors which were the engines of growth in those regions that were less prioritised by capital. A lopsided industry with a wasteful pattern of raw material and energy consumption in former industrialised regions and regional economic models based on large-scale agrarian production as well as related manufacturing and light industry faced crisis. Neither privatisation, nor greenfield investments (which, although they did emerge isolated, had no material catalytic impact) were able to help the regions concerned overcome it until the final years of 1990s. Increasingly strong separation between crisis and dynamic spaces engendered inequalities across the country, which in turn transformed the pre-regime change spatial structure profoundly and contributed to the entrenchment of internal division (Figure 2).

Market forces during the stages of development that followed the regime change—crisis, economic downturns, consolidation with time lags and spatial delays and rapid economic growth followed by more lacklustre growth after the turn of the millennium—added to regional inequalities. This dichotomy was clearly reflected in inequalities between the capital city and the provinces, those within rural areas and in the level of development of the constituents of the settlement network. Experience confirms that spontaneous forces in the Hungarian market economy, which, in essence, operate along neo-liberal principles, undoubtedly generate inequalities and division rather than integrate regions with different potential and relative advantages.

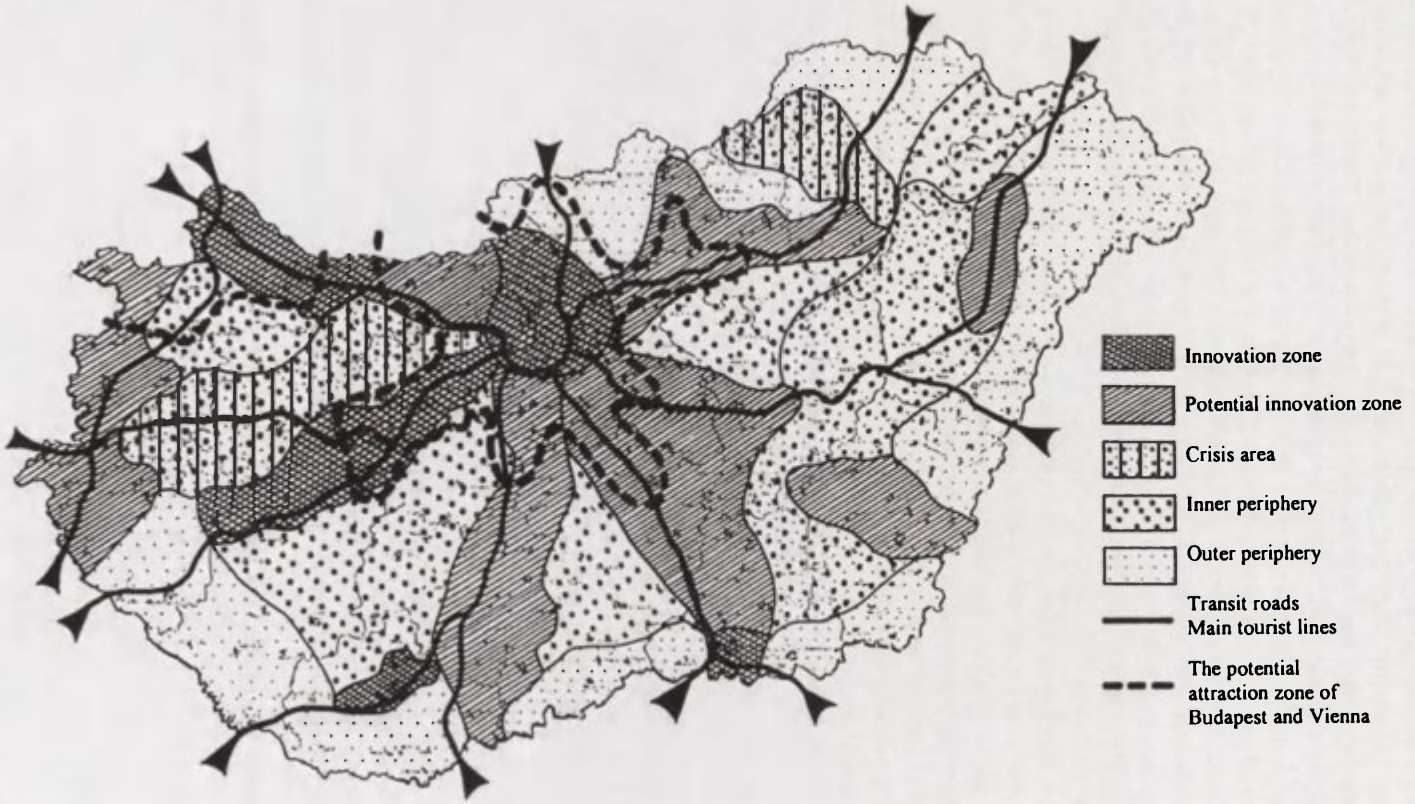


Figure 2. Potential spatial structure of Hungary

Source: Rechnitzer 1993.

The state development policy of the time also adopted neo-liberal principles, prioritising the sectoral approach over the regional one. This approach focused mainly on improving the competitiveness of the country as a whole, setting a pace of economic growth exceeding EU average and narrowing the productivity gap. It addressed social and regional tensions arising from, among other things, job losses, a lack of investments and less attractive investment opportunities through case-by-case interventions on the wrong scale. What further exacerbated the situation was that the state itself as a key investor[10] contributed to spatial inequalities significantly[11].

Regional development and spatial planning, for which a legal background was provided in 1996, was hardly able to finance material developments or materially influence the development trajectories of the individual regions for lack of funds. Contrary to appearances (the number of tenders submitted, that of successful tenders and the amount of the funds granted), the Szechenyi Plan, initiated by the Orbán government in 2000, added to an already large number of differences between the individual regional units and settlements through its projects directly associated with the economy.

Although it is still early days to assess the impacts of the National Development Plan for 2004–2006 (some of the tender opportunities have not even opened up and the majority of the tender procedures have not been completed yet), the subjects of the calls for tenders reflect the survival of an earlier logic. This is hardly likely to be conducive to more even spatial development through the involvement of EU funds (more specifically Structural Funds). The current position of the central budget offers limited leeway for development projects financed through the involvement of domestic funds. Raising funds for national co-financing in order to secure EU funds puts financial stress on the individual government agencies. Given the circumstances, it is sheer naivety to expect sectors to adopt a development policy that accords priority to the principle of regionality, and this is hardly affected by the fact that, compared to earlier years, regions, key units of area development, can dispose over a larger volume of funds of their own (92% of the funds transferred by the central government are dedicated funds rather than all-purpose ones and serve sectoral rather than regional interests).

Spatial developments in economic indicators and changes in income positions move in parallel. That the proportion of wage earners is higher, that of the unemployed is lower and labour is better paid in dynamic regions are not the only explanations. Material spatial inequalities are also discernible between more affluent and less well-off regions and settlements even in the case of the public sector, frequently criticised for its size, where, in principle, spatial inequalities are equalised. Differences on a similar scale are also detectable in the pension scheme. A slope running in a West-Easterly direction, though less steep than the one in the private sector, is also present in sectors under government control. Lower income is not coupled with lower costs of living. The financial value of the key components of wealth (i.e. land and housing property) held by families in lagging regions is a mere fraction of their counterparts in dynamic regions, which dampens willingness to move from stagnating or lagging areas to those perceived as successful.

[10] Central government investments accounted for 20%–25% of the total volume of fixed capital investment, in contrast to the weight of economic participants, which represented nearly two-thirds.

[11] Calculations attest that the contribution of the central government to spatial inequalities amounted to 17%–18% in the 1990s.

The era of the regime change was, without a doubt, that of spatial differentiation in Hungary, and with a decade and a half having passed, it proved right the spatial models that expected moderate initial differences to grow into marked regional differentiation and projected the persistence of such differences.

MODEL CALCULATIONS: A TOOL FOR INTERPRETING SPATIAL STRUCTURE

Potential models included in the category of spatial models based on physical analogies are hardly used by geographers, demographers or economists in Hungary. These models emerged in international literature as part of what is called quantitative revolution (Stewart 1948). Although there have been a few pioneering studies seeking to define demographic and transport potential, subsequent investigations have been far and few between. A summary of geographic approaches has been provided by Hayes and Fortheringham (1988) in the Anglo-Saxon literature and by József Nemes Nagy (1984, 1998) in its Hungarian counterpart.

COMPILATION OF DATA BASES, THE FORMULA EMPLOYED AND CORRECTIONS

The database used for regional-level model calculations was based on a European spatial structure where the European Union was made up of 15 Member States and the rest of Europe comprised of nation states. Our first model treated the EU as an economic unit where the role of borders was negligible, but that of the EU's outer boundaries in filtering economic effects was of key importance. As regards the second model, our main concern was that economic policy decisions at the national level were still dominant in the EU. Hence, we decided to carry out a study at the national level. In order to make model calculations straightforward we chose not to distinguish national borders. We assumed that borders ensured a flow of goods, people and information with equal intensity—in other words their filtering effects were practically the same. Our basic assumption was that more borders reduced the efficiency of interaction between two neighbouring economies in a roughly linear fashion.

The selection of attraction centres made the model even more straightforward. Capital cities were given the role of such centres, no matter how far they were from the actual economic centres. For EU Member States, this posed a problem only on one occasion (that for Germany and Berlin). As for non-EU Member States, Slovakia and Croatia faced the same problem. Given the current state of affairs, however, we could not do anything else.

The software (Michelin's European Route Planner) used to define distances offered two possible approaches to interpreting distance. One was distance expressed in kilometres, the other was the time needed for the journey. As this software provided data on the basis of the 2004 road network, the first approach seemed to carry a lower risk of marked bias since, as a result of thoroughfare improvements, the average journey time (i.e. journey time per kilometre) had changed significantly almost everywhere. Unfortunately, we could not use an older version of the software in making our calculations, which would have reflected the 2001 state of road networks.

In calculating the potential, we used the following formula:

$$\mathbf{P_i = G_i/d_{ii} + \Sigma(G_j/d_{ij})\ (j=1,...n;\ j\neq i),}$$

where: $\mathbf{P_i}$ is the economic potential of the spatial unit i, $\mathbf{G_i/d_{ii}}$ denotes the 'internal' economic potential, $\mathbf{\Sigma(G_j/d_{ij})}$ (j=1,...n; j≠i) is the 'external' economic potential, where G_i and G_j represent the economic weight of the spatial units i and j respectively, d_{ii} is the estimated intra-regional distance calculated in the following manner: $d_{ii} = (T_i/\Pi)^{0,5}/3$, where T_i represent the size of the spatial unit (counties and regions) under review, d_{ij} denotes the distance between the spatial units i and j.

As a result of the calculations, regional and county-level shifts and the extent of changes could be identified. Thus, a fundamentally static model was dynamised, which in turn allowed for fuller utilisation.

RESULTS OF MODEL CALCULATIONS

While devising the model calculations, we adopted the hierarchy that followed from the logic of the formula. As a first step, we calculated the inner potential of the Hungarian regions (Table 1). In order to be able to do so, we generated regional GDP data in EUR billion as well as an inferred internal distance. The latter automatically lowers the value of large regions with smaller economic power, while it highlights high regional GDP generated by relatively small areas among competing areas. Assuming that the economic potential of the capital city is 100, the relative potential of the two regions taking the lead in economic restructuring (successful re-industrialisation) is within the 18.2%–18.5% range, while that of lagging regions varied between 11.5% and 14.5%[12].

As a second step, the interaction between the Hungarian regions was assessed. Except for the region that also includes Budapest, the economic potential 'received' from other Hungarian regions exceeded the amount of inner potential. As regards the metropolitan region, the contribution of the other large Hungarian regions hardly exceeded 15%, which means that the development of the capital city and its economic 'hinterland' is largely independent of the processes that occur in the other regions of the country. However, in the reverse case, i.e. in the case of the countryside, (due to the outstanding economic weight and central status of Budapest and its region) the degree of dependence is much stronger. When the relative economic potential of the other regions is compared to that of the metropolitan one, a clear shift can be detected, relative to the previous step. Through the economic impulses that arrive predominantly from the central region, there was a considerable rise in the value of the relative potential (the Budapest region continues to be represented by 100 units). It was twice the original value even for that of lagging regions.[13] Of the two success regions in the provinces, the relative potential in Western Transdanubia, which is further away from Budapest, is a good 10% lower than

[12] Southern Transdanubia has the lowest values, while the Northern Great Plain has somewhat higher values.

[13] Southern Transdanubia continues to bring up the rear. The potential in Northern Hungary turned out to be somewhat higher in the group.

Table 1a. The economic potential* of Hungarian regions, 2001

Regions	Inner potential Gi/dii	National potential from outer regions	National potential sum.	Outer potential from foreign countries	Potential overall
Central Hungary	3,414	0,521	3,935	3,366	7,301
Central Transdanubia	0,630	1,168	1,798	3,566	5,364
West Transdanubia	0,624	0,723	1,347	4,247	5,594
South Transdanubia	0,402	0,530	0,932	3,089	4,021
North Hungary	0,468	0,584	1,052	3,017	4,069
North Great Plain	0,495	0,497	0,992	2,851	3,843
South Great Plain	0,463	0,559	1,022	2,931	3,953

* countries as economic units

Table 1b. The economic potential** of Hungarian regions, 2001

Regions	Inner potential Gi/dii	National potential from outer regions	National potential sum	Outer potential from foreign countries	Potential overall
Central Hungary	3,414	0,521	3,935	4,834	8,769
Central Transdanubia	0,630	1,168	1,798	5,086	6,884
West Transdanubia	0,624	0,723	1,347	5,846	7,193
South Transdanubia	0,402	0,530	0,932	4,507	5,439
North Hungary	0,468	0,584	1,052	4,375	5,427
North Great Plain	0,495	0,497	0,992	4,111	5,103
South Great Plain	0,463	0,559	1,022	4,258	5,280

** EU15 as one economic unit without inner borders

in Central Transdanubia, which is unequivocally attributable to its relatively peripheral location. Even so, 'home potential' in Western Transdanubia is 7.5% higher than that of the region immediately following it. This suggests that the development position of the region is relatively favourable even within the tight framework of the national economy.

The third step was the measurement of the impact exerted by the neighbouring national economies on the Hungarian regions in accordance with the above two model variants. In order that the manageability of calculations could be ensured, effects scoring lower than 10[14] were considered as marginal and excluded from further calculations. In the variant where the European Union was treated as a single economic space, the inner potential of the Hungarian regions, except for Budapest, of which the share was 40%,

[14] It denotes a value pegged to Budapest that, in theory, allows other nearby regional centres to have impact scores that reach or even exceed 10. In practice, however, this has never been the case.

always remained below 10%, while the so-called 'home potential'[15] varied between 17% and 27% (it rose to 45% in the metropolitan region). These low values point to the openness of the Hungarian economy and its heavy reliance on external relationships. It follows from the nature of the model that the regions in the west receive a higher supplementary potential than do those on the eastern peripheries, as in Europe's spatial structure it is in the western hemisphere of the Continent that GDP values are high.

In this model, all the Member States of the European Union (except for Luxembourg) materially influenced the development possibilities of the Hungarian economy. The size of impulses received from remote countries like Ireland and Portugal was identical to that transmitted by Bulgaria and neighbouring Slovenia. The countries that exert the strongest impact on the individual regions are nearly the same. The first five always include Germany, Italy, France and the UK, the four key economies of the EU, in the same order in terms of distance. As well as these countries, Austria (due to its proximity) or Russia (due to its economic weight) is usually also included in the first six. The only exception to it is Western Transdanubia, in which case the sixth country is neighbouring Slovakia, with Russia coming seventh. Western and Central Transdanubia are also special in the sense that the impact of the Austrian economy on local economies is much stronger than could be expected based on its size. In the case of the former region Austria comes second after Germany, in the latter it comes third and has rather a high value. *In this model variant, except for the above, local characteristics (nearby capital cities and cross-border relations) influence the economic potential of the Hungarian regions only to a moderate degree* (Table 2).

Again, comparing potential values paints a picture of the development possibilities of the individual regions relative to the metropolitan one. The involvement of external economic centres further reduced the differences between the regions. The rise in the potential of the four disadvantaged regions in the Hungarian spatial structure was over two-fold (in Southern Transdanubia nearly three-fold). Thus, measured against the metropolitan region, their convergence value reached 58%–62%. Mainly due to the proximity of Italy and the broader Mediterranean region, Southern Transdanubia had the highest value. The Northern Great Plain again brought up the rear, since only few supplementary development impulses reached it from the Eastern economies of the Continent. The two success regions in the provinces also changed places. Lying further west, West Transdanubia, its potential having more than doubled, accounted for 82% of the capital city's, while the corresponding figure for Central Transdanubia, at a more moderate growth rate, was over 78%. *In this model the country has a clear tripartite structure: the capital city takes the lead in development, followed by Western and Central Transdanubia, constituting a relatively homogeneous space. Those spaces that are perceived as peripheral on the national scale and, viewed from outside, look like a single cluster come last. This scheme of spatial distribution is a relatively accurate approximation of spatial inequalities in Hungary both at a regional level and in other economic and social dimensions, even though the extent of the differences may be quite significant*[16].

[15] Home potential denotes the value of potential measured in the Hungarian economy. This is the sum total of the regions' inner potential and the development potential received from other regions.

[16] GDP per capita expressed in PPS amounted to 83% of EU average in the metropolitan region in 2001; corresponding figures for the two most developed Transdanubian regions and the four lagging ones were 54%–57% and 33%–39%, respectively. Regional purchase power was 107% of the national average in the central region, 92%–95% in the lagging ones and around the national average in regions undergoing re-industrialisation.

Table 2a. The influence of most important economic partners* of Hungarian (NUTS 2) regions, 2001

Regions / Countries	Central Hungary		Central Transdanubia		West Transdanubia		South Transdanubia		North Hungary		North Great Plain		South Great Plain	
	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point
Germany	1	772	1	800	2	888	1	678	1	744	1	604	1	639
Austria	2	421	2	507	1	920	3	295	4	244	4	219	3	252
Italy	3	367	3	386	3	376	2	405	2	321	2	311	2	348
Russia	4	241	5	231	6	226	5	218	3	267	3	267	4	236
France	5	237	4	244	5	259	4	228	5	211	5	206	5	213
United Kingdom	6	169	7	174	7	183	6	163	7	153	7	149	6	154
Poland	7	168	8	153	8	156	7	131	6	199	6	175	7	135
Slovakia	8	150	6	183	4	373	8	99	9	90	8	133	{11}	{82}
Ukraina	9	102	9	97	10	92	9	88	8	120	9	123	10	98
Czech Rep.	10	89	10	97	9	117								
Rumania	{11}	{80}							10	86	10	99	9	98
Croatia							10	82						
Serbia and Montenegro													8	104

* countries as economic units

Table 2b. The influence of most important economic partners** of Hungarian (NUTS 2) regions, 2001

Regions / Countries	Central Hungary		Central Transdanubia		West Transdanubia		South Transdanubia		North Hungary		North Great Plain		South Great Plain	
	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point
Germany	1	1142	1	1200	1	1332	1	1017	1	1115	1	906	1	959
Italy	2	551	2	579	3	564	2	607	2	481	2	466	2	522
France	3	474	4	487	4	518	3	455	3	422	3	411	3	426
United Kingdom	4	423	5	434	5	457	4	408	4	382	4	373	4	384
Austria	5	421	3	507	2	920	5	295	6	244	6	219	5	252
Russia	6	241	6	231	7	226	6	218	5	267	5	267	6	236
Poland	7	168	10	153	9	156	9	131	7	199	7	175	8	135
Spain	8	153	8	157	10	152	7	160	8	143	8	141	7	149
Netherland	9	150	9	155	8	165	8	144	9	133	10	130	9	135
Slovakia	10	150	7	183	6	373	10	99	11	90	9	133	14	82
Ukraina	11	102	12	97	13	92	12	87	10	120	11	123	12	98
Belgium	12	93	13	96	12	111	11	89	13	82			13	83
Czech Rep.	13	89	11	97	11	117								
Rumania	14	80							12		12	99	11	98
Croatia							13	82						
Serbia and Montenegro													10	104

** EU15 as an economic unit without inner borders

In the second model variant, where EU Member States are treated as national economies, both the internal and home potential of the Hungarian regions gave higher proportion in overall potential. In the case of the capital city internal potential alone amounted to 47% of the calculated total potential, while home potential stood at 54%. As regards the remainder of the countryside, inner potential was 10%–13% and home potential was mostly 23%–26% (with the exception of Central Transdanubia with high home potential, where it stood at 33.5%). In the light of this, it is safe to assume that, in the vast majority of the regions, two-thirds or even three quarters of development impulses arrive from economic actors outside the country. Therefore, according high priority to a network of external market relations is of fundamental importance in both economic and regional policy (Table 1).

One of the characteristics of the model is that not all economies reach the threshold level set by it even in West Europe. Besides Luxembourg, Ireland and Portugal are also excluded from the countries that exert a material impact on Hungarian regions. The impact of Scandinavian countries is identical to that of Bulgaria and Slovenia. As borders act as filters, spatial proximity gains in importance in the Western hemisphere of the Continent as well. Thus there was a change in the order of strength of the individual national economies. One conspicuous phenomenon is that neighbouring countries—Austria in particular, but also the Czech Republic and even more significantly Poland—rose in importance[17]. Another is Russia's high ranking (depending on the region, it ranks from 3rd to 6th), which makes its possible influence on the Hungarian economy comparable to that of France. *In this model cross-border relationships play more important roles, while the weight of an increasingly unified Western Europe is quite less.* (Table 2).

Although the relative potential of the Hungarian regions (using the metropolitan one as a benchmark) increase spectacularly relative to home potential, its values remain below the level calculated in the first model. In the lagging regions the value rises approximately two-fold (the most rapidly in South Transdanubia), amounting to 52%–56% of Budapest's[18]. Expressed in scores, the difference between the Northern Great Plain—which brings up the rear—and the somewhat more advantageous Northern Hungary is only 3. In the case of the two Transdanubian regions that take the lead in economic restructuring, the direction of the process is identical to what was described in connection with the first model, with its extent being somewhat more modest.[19] *The country's fundamental spatial structure remains unchanged, however. Only the metropolitan region stands out from the regions more markedly and clearly.*[20]

[17] Based on the scores, its impact is comparable with that of the UK.

[18] Relative to the first model, the extent of the decrease in potential is 6%–7%, i.e. the nation state model almost automatically reduces the value of the country's less developed peripheral regions.

[19] Western Transdanubia is below the 77% level, while Central Transdanubia is below 73.5%, which is 5%–6% lower than in the first model variant.

[20] Criticism has been voiced of the causal link according to which the social concentration of power entails the evolvement of the role of a spatial hub.

CONCLUSIONS

AshAmin (1976) relied on the uneven distribution of power in formulating his theory on the centre–periphery relationship. Core regions concentrate economic power and control technological advance and production through an unequal exchange. Moveable goods, resources and the value added created during production flow from peripheries to centres in order to support the further development of the latter. The autonomous development of peripheries (i.e. development independent of centres) becomes increasingly difficult, as centres devise decision-making mechanisms that suit their own interests[21].

Storper and Walker (1989) argue that the main shaper of regional differences is the spatal expansion of production, i.e. the selection of global premises, which, by the 1980s, hadbecome a more important cause of uneven spatial development than trade (unequal exclange). Krugman (1991) adds that an aggressive sectoral and regional policy and new baclground conditions (i.e. new economic paradigm) may provide for the possibility that new regional units may rise to a higher position and that the current spatial structure of geographic concentration may be overhauled. The essence of Krugman's conclusion is that mobile capital must be offered outstandingly favourable conditions for investment, ensuring the possibility of earning high returns[22].

In reality, only dominant societies can develop organically through the exploitation of their internal resources on a close to optimal level. Dependent societies can only grow as a proportion of the needs of dominant actors, which they, in a sense, reflect. The example of energing markets suggests that their spectacular development, which can be attributed to the establishment and operation of market economy, is highly dependent on the control of global and supranational organisations (especially global financial markets). There are serious social risks inherent in this development path, since an asymmetric system of relations can easily dismantle the social structure of a dependent country, while the latter only scratches the surface of the system which operates a dominant society.

Subsidiaries of multinational companies, which have become key actors in local economies, and local suppliers and subcontractors which do business with them are cogwheels in the machinery of capital flows concentrated and controlled by external decision-making centres The reason why they are involved in global economic trends is to realize extra profit. Local decision-makers' room for manoeuvre, controlled by a network of national and internatonal regulatory systems and institutions, has become rather limited. Nevertheless, the development of centres depends on whether or not there is an under-developed periphery and on the persistence of spatial inequalities. Yet, this interdependence, no matter how one-sided it is does provide some space for local initiatives, actions and development. In consequence, genuine development, convergence with more developed regions and reduction in one-sided dependence may, nonetheless, materialise. Successful restructuring, which also presupposes a change in economic policy, may easily lead to higher rungs in the global ladder.

---

[1] Although the deconcentration of production and the decentralisation of certain components of decision-making could reshape the global economic landscape, if control over the key components of the production chain is reained, no fundamental change occurs in global economy.

[2] The model worked out by Slater (1975) for developing countries can be applied to spatial processes and the regional practice of communication in Hungary.

The dependence of large urban regions on peripheries is stronger than it looks. This was the message of the Brandt Reports (1980, 1983). The reason for this is that while peripheries may decide to opt out of global trends and establish a relationship with centres that offer better development opportunities, thereby easing their dependence on core regions and expanding their leeway, opting out of global trends as an alternative is out of the question for metropolises with a central role. If their peripheries shrink, their supply position available for mobile capital deteriorates, which feeds into a decline in the volume of investments and competitiveness.

The supply of traditional economic resources alone can no longer attract mobile capital. The high-quality provision of the widest possible range of external conditions is becoming increasingly important at least with respect to target activities. This leads to the evolvement of specialised local and regional economies which are concentrated in space. Underdevelopment on a regional level is, usually, associated with unbalanced spatial structures. For regional units, the token of their own development is good working conditions maintained with remote centres rather than co-operation with neighbouring regions or seeking joint solutions to problems[23].

Marxist geographical approaches (Harvey 1982; Smith 1984) speak of the uneven distribution of power, which involves spatial inequalities, be they direct or indirect control, the organisation and reorganisation of space through established networks or the utilisation of technological and innovational advantages. They identify ownership, or rather the unequal ownership of the means of production, as the cause of unevenly distributed power. Actors with the greatest power organise space and processes in it and channel profits to themselves, which generate class divisions manifesting themselves in social, economic and political conflicts. A privileged minority uses even public officials to reach their goals, while letting them have some of the profit.

Uneven spatial development heavily exploits temporal and structural differences in the level of development of the individual regions. Today Europe's most advanced urban regions mostly follow a post-industrial path of development. Those regions whose convergence was spectacular in the 1980s (e.g. Southern Germany, Southern France, Catalonia, the Third Italy) owed their dynamic development to industrial production based on post-Fordian principles and flexible specialisation. The implementation of the new production model was accompanied by vigorous economic restructuring, with new, often 'imported' sectors becoming the engines of local/regional economic growth. This upswing can only be temporary, since—apart from activities that are cutting edge even in global comparison—competitors offering cheaper wages possess comparative advantages today. As Neil Smith (1984) put it, in the movement of capital oscillation can be detected between underdeveloped regions, which does not transform existing power relations fundamentally.

The evolvement of centres and peripheries in the Hungarian economy is not independent of the above global processes. While government policies accord high priority to Hungary's soonest possible convergence with leading economies in Europe, a large part of the country is unable to follow the pace of development set by the capital city and a

[23] This does not mean bribing directly government officials. In return for the passing and implementation of decisions in favour of capital, the possibility of access to information and participation in decision-making are provided.

significant part is falling behind EU average. Although a large group of relevant regional theories set great store by government policies, Hungarian regulatory and control policy is dominated by (outdated) beliefs in the omnipotence of the market. Except for ad hoc measures aimed at managing crisis situations, no complex spatial policy is in place on a government level. It is true that neither parliamentary, nor extra-parliamentary forces have as yet put forward an effective strategy that could be interpreted as a response to the challenges posed by this area.

REFERENCES

Amin, A. (1976), Unequal development. *Monthly Review Press*, New York, London.

Bouceville, J.-R. (1966), *Problems of regional economic planning.* Edinburgh Univ. Press, Edinburgh.

Brandt-Report (1980), *North-South: a programme for survival.* Pan Books, London.

Brandt-Report (1983), *Common crisis: North-South cooperation for world recovery*, Pan Books, London, MIT Press, Cambridge, MA.

Dicken, P. (1992), *Global shift. The internationalisation of economic activity*, Paul Chapman, London.

Dunning, J. (1988), The theory of international production, *The International Trade Journal*, 3: 269–296.

Edquist, C. (1997), *Systems of innovation*, Cassel, London.

Friedmann, J. (1966), *Regional development policy: a case study of Venezuela*, MIT Press, Cambridge MA., London.

Friedmann, J. (1973), *Urbanisation, planning and regional development*, Beverly Hills Cal., London.

Haggett, P. (1983), *Geography. A modern synthesis*, Harper-Collins, New York.

Hamilton, I. F. E. (1999), A globalizacio es a lokalis gazdasagi fejlodes [Globalisation and local economic growth], in *Helyek, terek, régiok* (Nemes Nagy, J. Ed.), ELTE Regionalis Foldrajzi Tanszek, Budapest, 87–101.

Harvey, D. (1982), *The limits to capital*, Univ. of Chicago Press, Chicago.

Haynes, K. E.; Fortheringham, A. S. (1988), *Gravity and spatial interaction models*, Scientific Georgaphy 2. SAGE Beverly Hills, London, New Delhi.

Knox, P., Agnew, J. (1998), *The geography of the world economy*, 3rd edition. Arnold, London. Routledge, Chapman&Hall, New York.

Krugman, P. (1991), *Geography and trade*. MIT Press Cambridge, MA.

Lasten, J. R. (1969), On growth poles, *Urban Studies*, 6: 137–161.

Lasten, J. R. (1973), Urbanisation and development. The temporal interaction between geographical clusters, *Urban Studies*, 10: 163–188.

Lundvall, B. (ed.) (1992), *National systems of innovation*, Pinter, London.

Martin, R. (1999), The new 'geographical turn' in economics: Some critical reflections, *Cambridge Journal of Economics*, 23: 65–91.

Myrdal, G. (1957), *Rich lands and poor*, Harper&Row, New York.

Nelson, R., Winter, S. (1982), *An evolutionary theory of economic change*, Harvard Univ. Press, Cambridge MA.

Nemes Nagy, J., Ruttkay, É. (1989), *A masodik gazdasag foldrajza* [The geography of the second economy], OTTGI, Budapest.

Nemes Nagy, J. (1984), Fizikai analógiákon alapuló területi elemzési módszerek [Methods of spatial analyses based on physical analogies], in *Matematikai es statisztikai módszerek alkalmazási lehetőségei a területi kutatásokban* (szerk.: Sikos T. T.) Földrajzi Tanulmányok 19, Akadémiai Kiadó, Budapest.

Nemes Nagy, J. (1987), *A regionális gazdasági fejlődés összehasonlító vizsgálata* [A comparative study of regional economic development], Akadémiai Kiadó, Budapest.

Nemes Nagy, J. (1998), *A tér a társadalomkutatásban* [Space in sociology], Bevezetés a regionális tudományba Ember-Település-Régió 2. Hilschler Rezső Szociálpolitikai Egyesület, Budapest.

Paelinck, J. (1965), La théorie du développement polarisé, *Economie Régionale*, 159: 203–254.

Perroux, F. (1955), Note sur la notion de póle de croissance, *Economie Appliquée*, 7: 307–320.

Porter, M. (1996), Competitive advantage. Agglomeration economies and regional policy, *International Regional Science Rewiev*, 1–2: 85–94.

Pottier, P. (1963), Axes de communication et développement économique, *Revue Économique*, 14: 58–132, Paris.

Rechnitzer, J. (1993), *Szétszakadás vagy felzárkózás. A térszerkezetet alakító innovációk* [Divergence or convergence. Innovations shaping spatial structure], MTA RKK, Győr.

Richardson, H. W. (1980), Polarisation Reversal in Developing Countries, *Papers of the RSA*, 12: 67–85.

Romer, P. (1994), The origins of endogenous growth, *Journal of Economic Perspectives*, 8: 3–22.

Rostow, W. W. (1960), *The stages of economic growth*, A non-communist manifesto, Harvard Univ. Press, Cambridge MA.

Schumpeter, J. A. (1980), *A gazdasági fejlődés elmélete. Vizsgálódás a vállalkozói profitról, a tőkéről, a hitelről, a kamatról és a konjunkturaciklusról* [The theory of economic development. Investigation into entrepreneurial profit, capital, credit, interest rates and the business cycle], KJK, Budapest.

Scott, A. J. (1988), *New industrial spaces*, Pion, London.

Slater, D. (1975), The poverty of modern geographical inquiry, *Pacific Viewpoint*, 16: 159–176.

Smith, N. (1984), *Uneven development*, Basil Blackwell, Oxford, New York.

Stewart, J. A. (1948), Demographic gravitation: Evidence and application, *Sociometry*, 11: 31–58.

Storper, M., Walker, R. A. (1989), *The capitalist imperative: territory, technology and industrial growth*, Blackwell, Oxford.

Vági, G. (1982), *Versengés a fejlesztési forrásokért* [A rush for development funds], KJK, Budapest.

Wallerstein, I. (1974), *The modern world system*, Academic Press, New York, London.

EUROPA XXI
2006, 14: 27–38

ECONOMIC AND POPULATION POTENTIAL FIELDS IN CENTRAL EUROPE

GERGELY TAGAI

Department of Regional Geography,
Eötvös Loránd University, Faculty of Science
1117 BUDAPEST, Pázmány Péter sétány 1/c., Hungary
e-mail: tagai@ludens.elte.hu

Abstract: In this study I make an attempt to map the economic and population forcefield of Central Europe with the application of the potential model. Accordingly I analyse the effect of the western part of the area on East-Central Europe in a core-periphery relation: how does it influence its position in the potential field. Beside I try to search local centres in East-Central Europe (both in the economic and population forcefield), which can counterbalance the effect of the western parts. I pay emphasized attention to the position of Hungary by comparison with neighbouring countries whose development was similar in the latest years.

Key words: Central Europe, potential model, economic and population potential, core-periphery

INTRODUCTION

The political and economic changes came about on the turn of the 1980s and 90s formed a new spatial structure in Central Europe, and after fifteen years it seems to become stable. As we know, there are great disparities among the states of Central Europe in the field of their economical and social situation. The belt of the former 'iron curtain' is still a remarkable border (if it also grows dim) between Western and Eastern Europe (and it cross Central Europe). Transitions passed off in Central Europe have solved numerous problems (economic, social and political), and have created yet more, while the disparities have been kept up.

These disparities can determine the position of the countries in the central European forcefield. In this way we can interpret the relationship between the western and eastern part of Central Europe along a core–periphery relation. But are the western parts dominant on the whole area, or there are also local centres far from the core on the eastern part? What about the patterns of population's spatial layout? Is it having a similar image? Author tried to answer these questions in this study with applying the potential model.

THE POTENTIAL MODEL

Since Newton's laws of gravitation we know that the strength of interaction between two bodies depends on their masses and the distance between them ($F = M/d$, where F is force, M is mass and d is distance—by this analogy the effect of body i on body j can be described as $F_j = M_i/d_{ij}$). This coherence can be adapted to connections in the economic and social spaces, as it was realised late nineteenth century (Carey 1858–59; Ravenstein 1885). Reilly and Young improved this theory in the twenties-thirties of the last century (Reilly 1929, 1931; Young 1924) modelling the Newtonian law and the gravity model became widespread in the investigation of economic and social spatial interactions.

If there are several bodies, the forces among them build up a forcefield, the potential space, in which every single body has its effect on the others. And the potential value of a body consists of the sum of these forces ($P = F_i + F_j + \ldots + F_n - P$ is potential value, F are forces). We can apply this model on the interactions of social space as we match the bodies to spatial entities (for example countries, regions), and the masses to economic or social power (for example total value of GDP, population, etc.). In this case we should assign these economic or social masses to a representative point of the countries, regions (for example to the capital cities) and we can calculate the potentials in the way above. Measuring the distance can be realised in several ways: by straight line, measured by route or rail and we can convert it time or cost format, which are analogous terms with distance. In this study I use the distance measured by straight line because that is widely available and can be calculates easily in view of the geo-coordinates. That distance correlates well with the other more specific applications, and in a model like this it is not wrong to use the simplest form.

In author interpretation the total value of potential (P_t) consists of the sum of three parts: the self-potential, which measures the effect of a mass on its own self ($P_{self} = M_i/d_{ii}$). With this step we can take into account the social and economic cohesion and adhesion, those forces, which work within the spatial entities and form their masses (Stewart and Warntz 1958). In this case we have to match the distance to an estimated virtual distance, because the distance of a point (region etc.) from its own self is zero, it can't be defined. Many authors described many ways to calculate an estimated distance to the self-potential (Ray 1965; Clark et al. 1969; Rich 1978; Court 1966; Stewart and Warntz 1958; Nemes Nagy 1998), which of them I chose the method of Nemes Nagy, which is quite a simple method. A region should be matched to a circle, which area fits to the region's area, and the distance of a region from its own self will be the radius of that circle. The second part of the potential value is the inner-potential, which measures the effects within a system

($P_{in} = \sum M_i/d_i$). It measures how the other spatial entities influence a chosen entity, in other words it can describe for example of the position a region within a country by taking into account the other regions. And at least the third part, the outer-potential: the effects of a wider area, which is not the part of the analysed system ($P_{out} = \sum M_k/d_{ik}$). It is similar to the inner-potential, but it takes into account a selected area out of the system, how it influences the several parts of that. We need to know that, because we can't assume that there is nothing around a chosen country, area, etc., a minor system is the part of a bigger one, and the latter has its effect on it (Figure 1). The potential model was worked out in the nineteen forties by Stewart (1947), and now is still a current method of investigating spatial patterns and regional interactions.

Figure 1. The content of the potential values

APPLICATION OF THE POTENTIAL MODEL TO THE ANALYSIS OF SPATIAL PATTERNS

There are numerous studies dealing with the European economic and social space, applying the potential model. One of the first of them was the study of Keeble et al. (1982) who drew the economic potential map of the twelve member countries of European Community. They put the formation of spatial layout in a core—periphery relation. This study implicitly doesn't include the eastern part of (Central) Europe. In several studies (for exanple in 1999) Copus computed the economic potential of a wide European space, and he natched the potential values to a peripherality index. In these studies we can get to know the spatial formation of economic potential (computed from GDP) on the whole, but they say less about Central Europe. However the studies of Copus includes for example the Czech Republic, Hungary, etc., but one country is just one polygon, and we don't know anything about their inner structure as we do in the case of other countries.

Whereas we know several studies dealing with the potential space of east-central European countries, like the investigation of Teresa Czyż in 2002, which is about application of the potential model to the analysis of regional differences in Poland or the study of J. Nemes Nagy, who has calculated the income potentials of the Hungarian micro-regions (Nemes Nagy 1998). In the recent years G. Nagy followed a little different conception, and worked out several applications about the economic potential of the Hungarian coun-

ties and regions (Nagy 2004, 2005). With these studies we could have a conception about these countries' inner structure into themselves, but nothing about a wider system, the forcefield of Central-Europe.

In their investigation Shürmann and Talaat (2000) calculated the economic potential (as a peripherality index) of Central Europe as well on a required regional level (NUTS 3), but it is settled in a whole European space, and the local attributes blend into this wide system. These studies and applications suit to some reports and projects of the European Union. Recently, the EU emphasizes the role of accessibility, which is a complex dimension of continental disparities viewed in core-periphery relations. Many studies were born in this topic: see Spiekerman and Neubauer (2002), who give a good summary of them. The most recent study in this domain is the ESPON project 2.1.1, which is about the territorial impacts of EU transport and TEN policies.

IMPOUNDMENT OF THE INVESTIGATION AREA

In this study author tried to choose the investigation area carefully focusing on Central Europe, especially the east-central European countries. It is hard to say what Central Europe is, and which countries are the parts of it, because it is so subjective. In the impoundment work the main sources were the special number of *Foldrajzi Közlemenyek* (1995), which tries to construe the topic fully, and a book by Iván Illés (2002), which is about Central and South-Eastern Europe on the turn of the millennium. This conception is also subjective, but with a right explanation can be supportable.

Because the goal of this study is to map the economic and social interactions of Central Europe, the investigation covers those countries, which are in close relationship since centuries, and whose development can't be imagined without one another. The main targets of the study were the similarly developed countries of the area, the states of the limited East-Central Europe (Czech Republic, Hungary, Poland and Slovakia). For understanding their position in the potential space it is possible to give picture of the dynamic core area as the action centre of Central Europe; without that the investigation of the forcefield couldn't be realistic. Author added to them a south-eastern periphery, which in his interpretation is also the part of a wide Central Europe concept.

So the countries included in the investigation area are the following: Germany, Poland, Slovakia, the Czech Republic, Switzerland, Austria, Hungary, Romania, Serbia and Montenegro, Bosnia and Herzegovina, Croatia, Slovenia and the northern part of Italy (and Liechtenstein as well). The countries not included in the analysed system have their role in the outer-potentials. For the calculation of that I chose a wider belt, from France to Ukraine and the Baltic states. Almost all of these countries (and those which have been mentioned above) have required data's on regional level, so I made my calculations with the total value of GDP (which is measured in € in current prices) and population data's of these countries and regions for the year 2002 on the level NUTS 2 using the sources of EUROSTAT and national statistical offices.

THE ECONOMIC FORCEFIELD

For understanding well the patterns of economic potentials it could be necessary to know something about the well-known layout of the patterns one of the most current development indicator: the GDP per capita (Figure 2). There are great disparities among the countries, between the western and eastern part of the area. The core regions (the action centres) are in the 'West' with few exceptions, in a zone from North Italy to South Germany, included also Switzerland, Liechtenstein and West Austria. The eastern side of Central Europe is fairly underdeveloped, in this area just the capital regions (like Prague, Mazovia-Warsaw, Central Hungary) rise above the others. In this layout we can observe the new structure after the transition. In the former years in the socialist countries the economic power focused in great industrial axis. After an economic crisis these axis were broken up and the spatial patterns were rearranged. In this way the western parts of these states got into better positions, for the foreign investments they were suitable than the other regions of the country (except the capital region), and the western areas have recovered themselves more rapidly, than the eastern parts have, and the orientation of inner-country disparities turned into west-east direction.

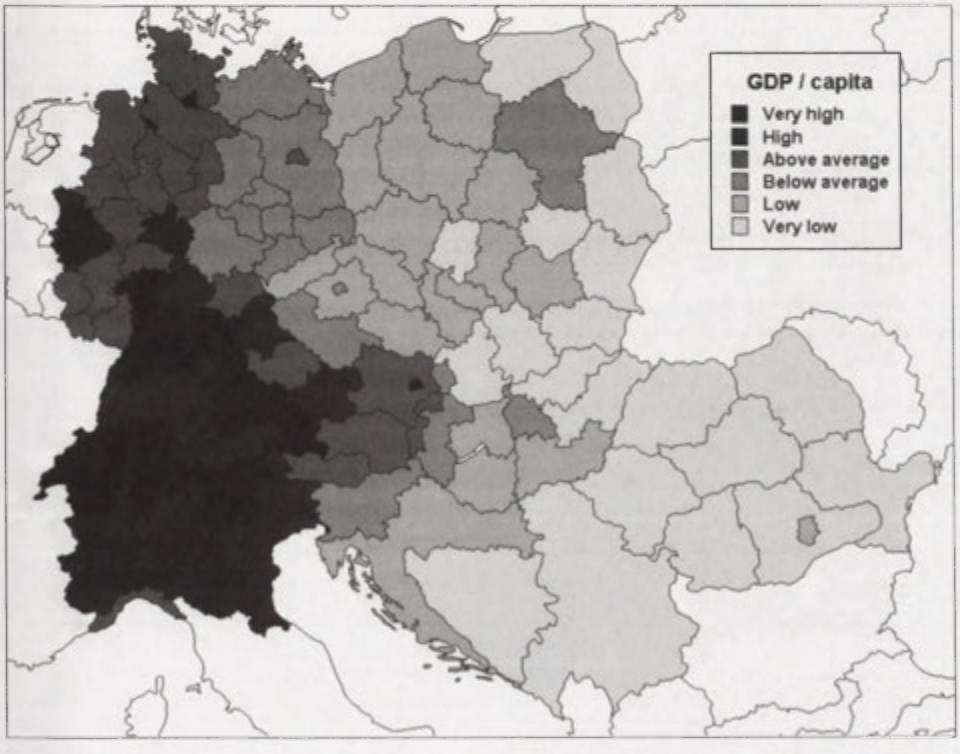


Figure 2. Gross domestic product per capita in Central Europe (2002)
Source: EUROSTAT and national statistical offices

The pattern of total economic potentials, which includes the self-, the inner-, and the outer-potential values, shows us the followings: the western parts dominate the potential field by their huge economic power (Figure 3). That is because their masses are so greats, that their effect is considerable on the regions far from them. That is why we can observe zonality in the total potentials within its belts a nearly uniform image with decreasing values of potentials moving off the core. The greatest potential values (above 21000 million € per kilometre) can be observed at the valley of Rhine, from Baden-Württemberg to the district of river Ruhr. On the one hand there are many of the most developed regions of Central Europe (beside Switzerland and North Italy), and on the other hand their western neighbourhood whose effect is calculated in the outer-potentials is also the part of the European dynamic core. These French, Belgian and Dutch areas give so much economic power that it has an effect, which helps to make South and West Germany real core of the Central European system.

The closeness of the core areas set the former German Democratic Republic into much better position in the potential field, than it has measured simply by its real economic power (GDP), and it is now on the level of North Italy. Besides, there are islands in the potential field with higher values east from the core areas, like Berlin, Prague and Vienna (in the category of 14000 to 17500 million € per kilometre). Their effect is only local, hardly

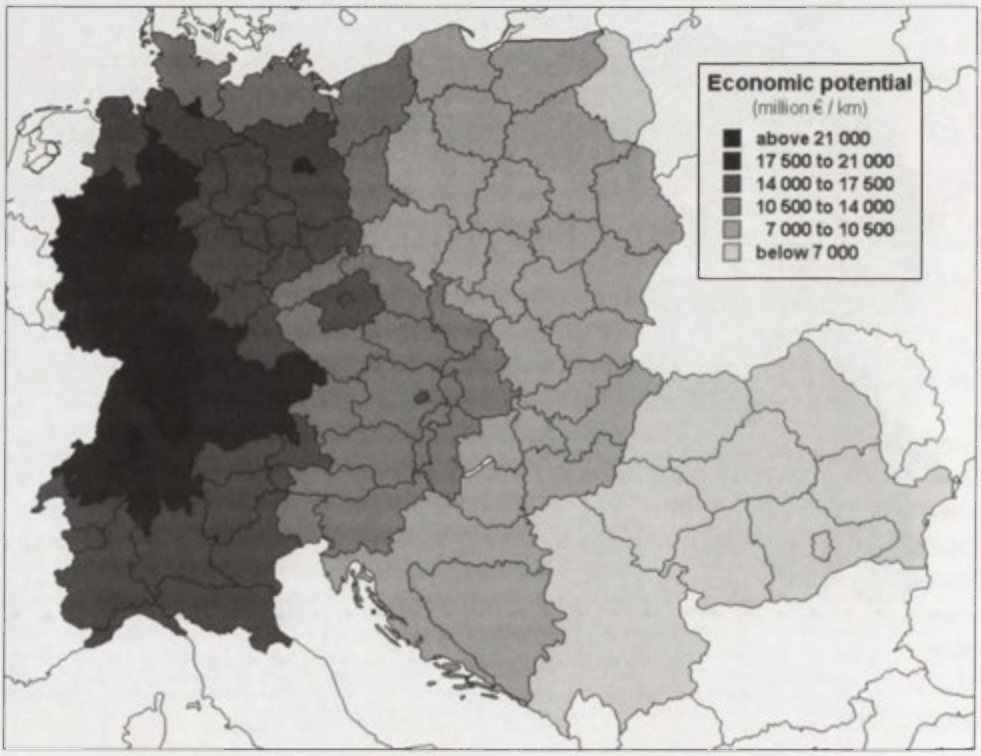


Figure 3. Economic potential (total) in central Europe
Source: EUROSTAT and national statistical offices

noticeable, the influence of the western areas outside the system is much bigger, and the localities blend into the forcefield. Those regions, which are far from the core and/or have less economic strength, they are in worse position (their value of total potentials are below 10500 million € per kilometre). That is how we can describe most of the regions of Poland, Hungary, and whole Romania and the former Yugoslavian states (except Slovenia).

The values of economic potentials without the effects of the areas, which are out of the central European system, give a similar pattern to the total potentials, but there are some differences as well (Figure 4). The most important is that the local cores (islands) have bigger effect on their neighbourhood by their proximity. Their presence turns down the distance-effect, and they have wide courts around them (for example, Berlin, Prague and Vienna). If we take into account only the self-, and inner-potential, we can emphasize not only the neighbourhood relations, but also the role of the real economic power. The biggest values of the self-potentials can be observed in the wide environment of the Ruhr district and in South Germany, where by the thickening of these great masses the biggest potentials (self-, and inner) present themselves (above 15500 million € per kilometre).

But we can mention the city regions as well in Germany (like Berlin, Hamburg and Bremen), which typically arise above the others only by their huge economic power. In some cases we can observe edged breaks on the border of the countries, which were on the

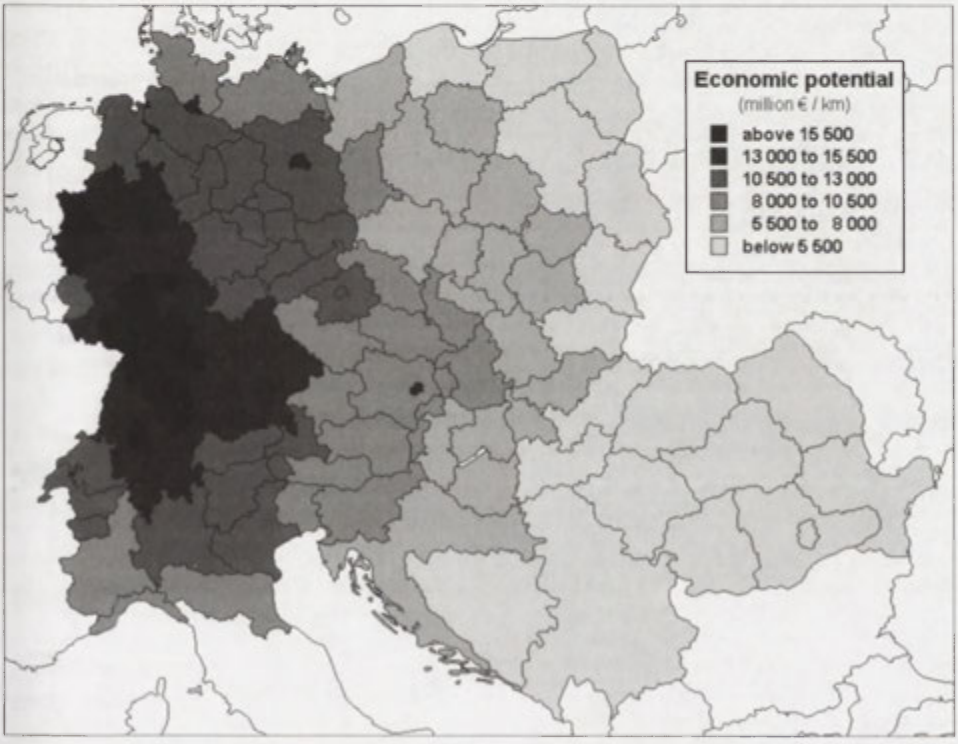


Figure 4. Economic potential (self and inner) of Central Europe

Source: EUROSTAT and national statistical offices

two part of the 'iron curtain'. It is remarkable for example on the border of the Czech Republic and the former German Federal Republic (West Germany), or between Germany and Poland. And it is not the difference in the position of Poland and the eastern part of Germany, because that better position of the former German Democratic Republic dues to the closeness of western German areas with high potential values, and it is that, what puts this break on the border. The eastern part of Central Europe in this way still can be regarded as the periphery of the mentioned cores.

THE POPULATION FORCEFIELD

In the case of population potentials the 'West'–'East' disparities are not so dominant, because there are populous, densely populated areas in every part of Central Europe, not only on the western side (Figure 5). I think I have to mention here that population density and population potential don't show the same although they have almost the same unit of measure, and they have relations with each other (population density correlates very well to the self-potential values in the case of population potentials). Anyway the biggest potential values (above 850 thousand persons per kilometre) are in West and South Germany, as in the

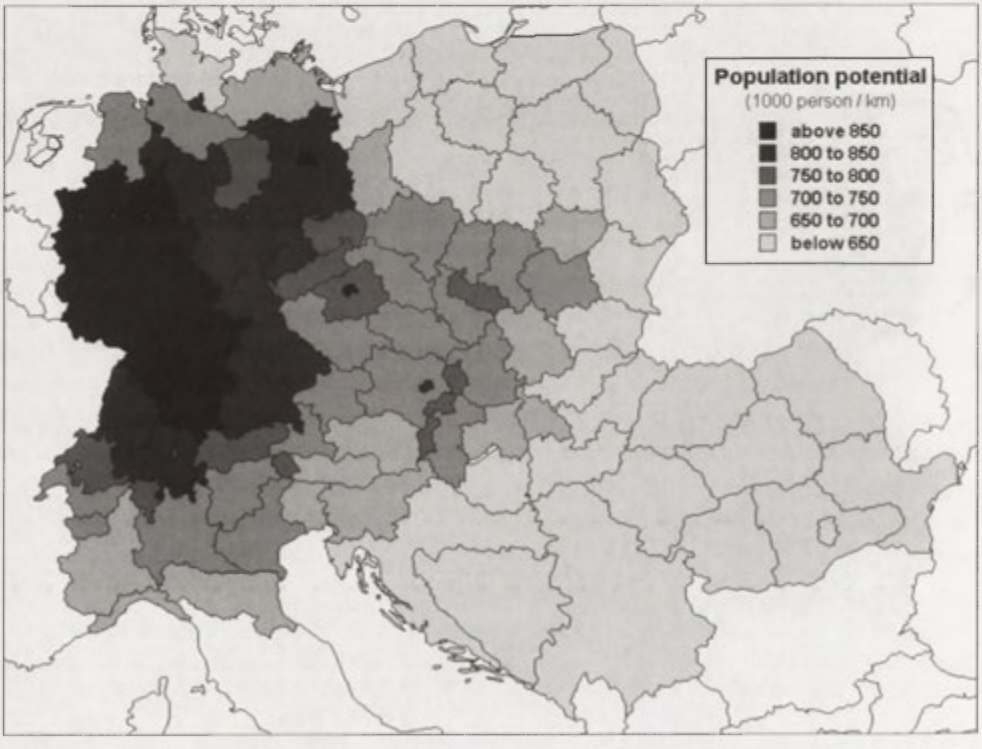


Figure 5. Population potential (total) of Central Europe
Source: EUROSTAT and national statistical offices

case of the economic potentials. That shows the trends of the sub-continental settlement of the population as we consider which is the most densely populated areas in Europe.

Position of the regions in the population forcefield just strengthens us about the core role of the western areas. But they don't have the same effect as it can be seen in the case of economic potentials. We can observe, that there is a transitionary, mixed zone in the centre of the area formed by local population cores of East-Central Europe (Prague, Vienna and the western parts of Slovakia and Hungary, as well Czech and Polish Silesia, whose population potential values are more than 750 thousand person per kilometre). These can take more effects on their neighbourhood than the main core areas of Central Europe can. Despite that the population potentials in East-Central Europe are generally low (below 650 thousand persons per kilometre). We can see that in the bigger part of Poland and Hungary, in Croatia, in Bosnia and Herzegovina, in Serbia and Montenegro, as well in Romania. This shows that the effects in the population forcefield are not so long-range as they are in the case of economic potential space. One more example on this: North Germany's population potentials are relatively low. It is owing to its self-potentials, which are also very low. This area is close to the population core of Europe, and its neighbourhood in the system is also in good position. Berlin, Hamburg, Bremen could strengthen its position as well, but they couldn't make them rise above, their power can't counterbalance the low self-potentials.

The observed trends can be confirmed as we look at the map of the population potentials, which involves only the self-, and inner-potentials (Figure 6). The effect of the western parts of the analysed system fades out perceptibly: in the close neighbourhood of the core regions there are those areas, whose potential values are very low (in contradiction to their position in the economic forcefield), especially in North Germany and North Italy. In East-Central Europe the potential values decrease with moving off the local cores of the area (for example in the neighbourhood of Silesia and the densely populated regions around Vienna), and mainly not from West to East, as we saw in the case of economic potentials.

Those regions, which have the biggest values of population potentials (above 600 thousand person per kilometre) can be interpreted as loose conurbations, like in South and West Germany (valley of the rivers Rhine and Ruhr), and around Berlin. And I can mention here the east-central European local population cores as well: Prague and its environment, Silesia, and the regions around the border of Austria-Slovakia-Hungary, completed with the wider region of Budapest. These so-called conurbations can be regarded as real conurbations, like in the case of the West German regions, but they are merely areas with high population density in the case of those in Poland, the Czech Republic, Hungary, Slovakia and Austria.

DIMENSIONS OF POSITION IN THE POTENTIAL SPACE

At the end it is possible to make a comparison among the similarly developed countries of the area, the states of the limited East-Central Europe in view of their positions in the forcefields (emphasizing the position of Hungary). This comparison is following the next dimensions: location, neighbourhood and local factors. In the case of location we can see while the Czech Republic has nearly central location (in the 'heart' of Central Europe),

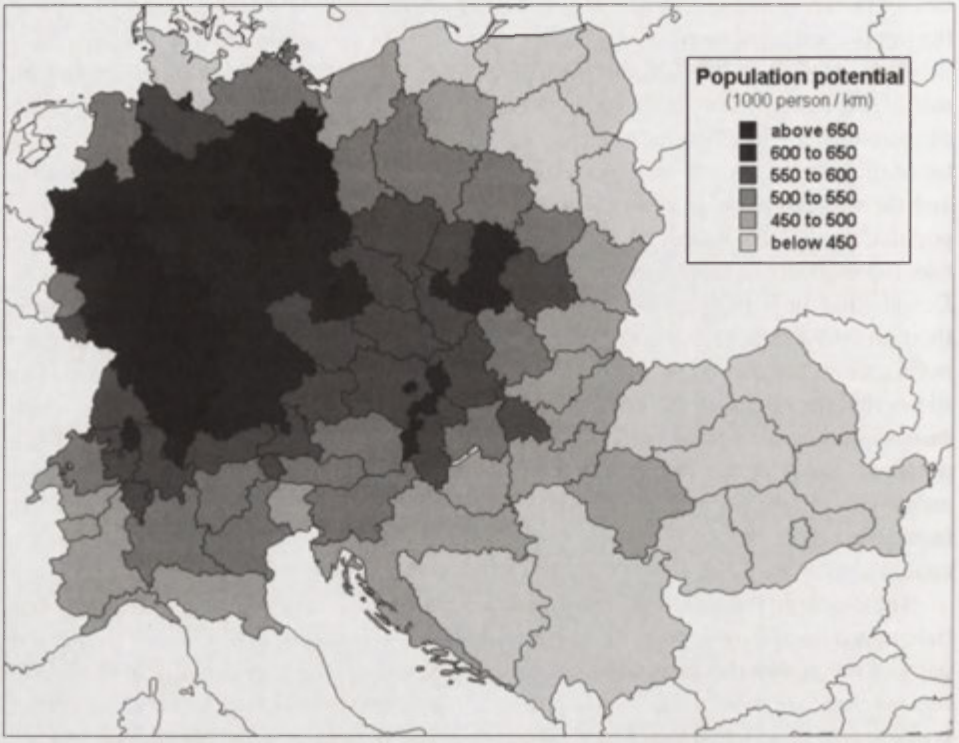


Figure 6. Population potential (self and inner) of Central Europe
Source: EUROSTAT and national statistical offices

and is near to the core areas, Poland, Slovakia and Hungary are far from the core (are on the periphery), so its effect is also less on them.

As we saw the neighbourhood effect is also an important factor. Regions with greater potentials can have positive effect on their neighbours, like Germany and Austria in the case of the Czech Republic, while an area with less potential values can influence its neighbour's position negatively (e.g. Poland and Slovakia in the same case). Poland and Slovakia have mainly good neighbourhood relations in this sense, and a neutral relationship with each other and Hungary. Hungary has such neighbours whose economic and population power in this system is not very big, and which are far from the western core areas, like Romania and the states of the former Yugoslavia (except Slovenia). In this case only Austria has positive effect on Hungary, Slovenia and Slovakia rather have a neutral effect on its position.

And at least these four countries are after an economic and social transition, which transformed the previous economic structure and spatial patterns. These local factors can be found in their economic characteristics and regional structure. In the case of Hungary I have to mention the primate city/region effect of Budapest (Kovacs 2002). By the population, economic and regional structure of Hungary, the capital dominates the whole country, and there are no

other areas, which can counterbalance its effects, and it causes disproportions within Hungary, opposite to the other three countries in which the regional structures are more balanced. In the Czech Republic, Poland and Slovakia it is also the capitals, which have the biggest economic and population power, but there are other areas in the country, which are fairly densely populated or are great economic centres in their country, and together constitute a rather proportional frame. Because of these causes I think Hungary has a relatively worse position in the Central European potential spaces, as the Czech Republic, Poland, and Slovakia have.

Table 1. Dimensions of position in the potential field

	Czech Republic	Poland	Slovakia	Hungary
Location	Central location	Far from the core	Far from the core	Far from the core
Neighbourhood	Germany, Austria + Poland, Slovakia –	Czech Republic, Germany + Slovakia 0	Czech Republic, Austria + Poland, Hungary 0	Austria + Slovakia 0 Romania, Former Yugoslavia –
Local factors	Transition; Regional system	Transition; Regional system	Transition; Regional system	Transition; Budapest as a primate city

CONCLUSIONS

And how can we summarize the results? The potential model is a quite good method to analyse core and periphery relations as we consider that great disproportions can be noticed in the patterns of economy's spatial layout—in the forcefield East-Central Europe can be regarded as the periphery of the western parts, which dominate the whole area. This peripheral position is due to the location and the differing development course of these former socialist countries. The so-called core regions in the eastern areas (like Prague, Vienna, Silesia) have mainly local effects, but in their neighbourhood it could be strong. In the case of population potentials we can see a relatively balanced framework owing to the populous regions and loose conurbations can be found in the whole area. In this case the core-periphery relations aren't so obvious, but the western parts are still dominants.

On the one hand the results of the study confirm our image on the Central European economic and social relations spatial patterns, but on the other hand they don't mark sufficiently the forcefield of our close area, the limited East-Central Europe (the four countries accentuated above). Beside the 'western' effect the interactions among the surrounding states are only imperceptible; the regional disparities blend into the field. Questions dealing with the characteristics only of these separate countries can be the themes of further investigations.

REFERENCES

Carey, H. C. (1858–59), *Principles of Social Science*, Philadelphia, Lippincott.

Clark, C., Wilson, F., Bradley, J. (1969), Industrial location and economic potential in Western Europe, *Regional Studies*, 3, 3: 197–212.

Copus, A. K. (1999), *A New Peripherality Index for the NUTS III Regions of the European Union*, A Report for the European Commission, Directorate General XVI.A.4, (Regional Policy and Cohesion).

Court, A (1966), *Population Distribution and Self-Potentials*, mimeographed paper, Departement of Geography, State College, San Fernando Valley.

Czyż, T. (2002), Application of the potential model to the analysis of regional differences in Poland, *Geographia Polonica*, 75: 13–24.

Illes, I. (2002), *Közép- és Delkelet-Europa az ezredfordulon* [Central and Southeastern Europe in the Turn of the Millennium], Dialog Campus Kiado, Budapest-Pecs.

Keeble, D., Owens, P. L., Thompson, C. (1982), Regional Accessibility and Economic Potential in the European Community, *Regional Studies*, 16, 6: 419–432.

Kovacs, Z. (2002), *Nepesseg- és Településfoldrajz* [Population and Settlement Geography], lecture notes, Budapest, ELTE Eotvos Kiado.

Nagy, G. (2004), A gazdasagi tavolsag meghatarozasa potencialmodell felhasznalasaval, Területi Statisztika [Determination of the economic distance by applying the potential model], *Spatial Statistics*, 44, 1: 31–41.

Nagy, G. (2005), *Changes in the Position of Hungarian Regions in the Country's Economic Field of Gravity*, in Barta, Gy. G. Fekete, E., Szorényiné Kukorelli, I., Timár, J. (eds.), *Hungarian Spaces and Places: Patterns of Transition*, Centre for Regional Studies, HAS, Pecs, 124–143.

Nemes Nagy, J. (1998), *A foldrajzi helyzet szerepe a tagoltsagban* [The role of geographical situation in the configuration], in Fazekas. K. (ed.), *Munkaeropiac és regionalitas az atmenet időszakaban* [Labour Market and Regionality in the Period of Transition], MTA Kozgazdasagtudomanyi Kutatokozpont, Budapest.

Ravenstein, E. G. (1885), The Laws of Migration, *Journal* of *Royal Statistical Society,* 48, 6: 167–235.

Ray, D. (1965), Market potential and economic shadow, *Research Paper*, 101, Department of Geography, University of Chicago.

Reilly, W. J. (1929), *Methods for the Study of Retail Relationship*, research monograph University of Texas, Bureau of Business Research, 4, (Bulletin 2994).

Reilly W. J. (1931), *The Law of Retail Gravitation*, W. J. Reilly Co., New York.

Rich, D. (1978), Population potential, potential transportation cost and industrial location, *Area*, 10: 222–226.

Schürman, C. and Taalat, A. (2000), *Towards an European Peripherality Index*, Final Report for General Directorate XVI, Regional Policy of the European Commission, Dortmund.

Special number of *Foldrajzi Kozlemenyek* [Geographical Bulletins], (1995), 69.

Spiekerman, K. and Neubauer, J. (2002), European Accessibility and Pheripherality: Concepts, Models, and Indicators, *Nordregio Working Paper,* 2002, 9.

Stewart, J. Q. (1947), Empirical Mathematical Rules Concerning the Distributions and Equilibrum of Population, *Geographical Review,* 37,7: 461–485.

Stewart, J. Q. and Warntz, W. (1958), Physics of Population Distribution, *Journal of Regional Science*, l, 1: 93–123.

Young, E. C. (1924), *The movement of Farm Population,* Bulletin, 426. Cornell Agricultural Experimental Station, Ithaca.

EUROPA XXI
2006, 14: 39–55

HUMAN AND SOCIAL CAPITAL IN POLAND— SPATIAL DIVERSITY AND RELATIONS

KRZYSZTOF JANC

Department of Spatial Management
Institute of Geography and Regional Development
Wroclaw University
Kuźnicza 49/55, 50-138 Wroclaw, Poland
e-mail: janck@wp.pl

Abstract: The paper aims to describe spatial diversity of human and social capital in Poland as well as to define relation between these features. Composite indices were used to describe spatial diversity of human and social capital. High quality of human capital in Poland is characteristic mainly for big cities and their surroundings. The difference between eastern and western Poland, where the quality is better, is also significant. Significantly high level of social capital is characteristic for some of big cities, prevailing part of the west of the country and in south-eastern Poland. Lower values are typical for central and north-eastern Poland. Spatial diversity of human and social capital in Poland is clearly seen. Correlation between social and human capital is positive and relatively strong.

Key words: Human Capital, Social Capital, urban-rural division, Poland

INTRODUCTION

Greater and greater role is being given to the human capital in increasing the differences between core and periphery areas. The social capital has become another important factor present in studies of socio-economical geographers for some years. Human and social capitals have become one of the main factors that explain spatial diversity of socio-economical development.

Concept of human capital was at first identified mainly with benefits from such investments in people as: education, trainings, health service, vitamins consumption and gathering of information about economical system (Becker 1962). These investments should

benefit in form of higher incomes. During last years, this term has been extended with such elements as: motivation, moral values and interpersonal attitudes and abilities (Cote 2001). The income aspect has been also extended with wider concept of prosperity—social freedoms, right to extend the knowledge, and noticeable well-being. Presently, the human capital is the most often determined as knowledge, skills, competence and other attributes embodied in a human being that enable establishment of personal, social and economical prosperity (OECD 2001).

The beginning of wider interest in the concept of social capital dates back to Coleman's work (Coleman 1988). He defines the social capital as the ability of people to work together in frames of groups and organizations in order to realise common purposes. These abilities result mainly from interpersonal trust, social norms and networks. Social capital is invisible resource embodied in relations between people and like the other forms of the capital influences economical activity. Putnam (1995), on the basis of Coleman's approach, states that the social capital reveals in social engagement and reciprocity norms. According to him, a tradition is the most important source of the social capital. Fukuyama (1995, 1997), accepting earlier definitions, claims that culture has the greatest influence on the establishment of social capital. So, despite various approaches to expressions and sources of the social capital, the fact that common activity, social ties and norms have potential economical value is the main idea of the concepts of the social capital. As Portes notices (1998: 7) *whereas economic capital is in people's bank accounts and human capital is inside their head social capital inheres in the structure of their relationships.*

Concepts of human and social capitals supplement each other and are comprehensive one to another by referring to the values embodied in human and interpersonal relations. Therefore, as Schuller (2000) points out, these concepts should not be confronted. Abundant correlations between both forms of the capital cause that the most often they are analysed together and their relations become the subject of the deepened studies.[1]

Attempts to describe human and social capital in Poland in the local scale are taken relatively rarely and deal usually only with the previous one (e.g. Czyżewski et al. 2001; Herbst 2004). As Domański notices (2005: 175) *the concept of social capital becomes a part of a wider course of search for social and cultural conditions of economical development and seems to have great explanation potential.* Not only may the social capital explain unequal development in different scales, but also may enable assessment of rule quality and explanation of spatial varieties of population health situation (Mohan and Mohan 2002). Taking into consideration above presented remarks, it was decided to try to introduce spatial diversity of mentioned problems.

The paper aims to present the spatial diversity of human and social capitals in Poland and to determine relations between them. The analysis of human capital was based on three groups of measures. They are related to expenditure for human capital, its stocks and effectiveness of its application successively. Spatial diversity of social capital was presented with one composite index. Relations between human and social capitals were determined statistically. On such a basis, a typology of areas according to correlations between both forms of the capital was carried out.

[1] Theoretical considerations of this matter are widely discussed by e.g. Cote (2001) and Schuller (2000).

Counties are the relative units (LAU 1). In 2002, there were 66 urban and 314 land counties, whereas in 2003—65 urban and 314 land ones. In order to omit artificial split of areas that are functionally connected, urban counties were joined with corresponding land counties. In this way 332 relative units were established. Analysis has a static character and refers to the year 2002, when the National Census took place. The Census is the only credible source of information about the level of education in population. For a part of the features, especially for those that may show great temporal diversity, mean values were used.

DATA AND METHOD

In majority data comes from Regional and Local Database of the Main Statistical Office. Moreover information from the Database about Non-Governmental Organisations (NGOs) of the Klon/Jawor Society and the State Election Committee were used.

Human and social capitals were determined with following features (S—stimulant, D—disstimulant):

A. Expenditure for human capital

1. level of readership—number of books borrowed from libraries per capita (2002–2004 mean)—S

2. self-governments expenditure for education per pupil in zl (2002–2004 mean)—S

3. Net migration per 1000 inhabitants (2002–2004 mean)—S

B. Stocks of human capital

1. share of people with higher education (2002)—S

2. share of councillors with higher education (2002)—S

3. demographical load—number of people at pre- and post- economically productive age per person at economically productive age (2002)—D

C. Effectiveness of human capital application

1. enterprise—number of private enterprises registered in REGON system per 1000 inhabitants (2002–2004 mean)—S

2. commune budget incomes per capita in zl (2002–2003 mean)—S

3. over-mortality of men at age of 35–60 (2002–2003 mean)—D

D. Social capital

1. number of NGOs per 10 000 inhabitants (2004)—S

2. sport clubs members per 1000 inhabitant (2002)—S

3. voters' turnout—mean turnout of parliament (2001), local authority (2002), presidential (2002) and the European Parliament (2004) elections and EU accession referendum (2003)-S

Criteria of the features choice included their factual value and availability in the local scale. Statistical criteria were also considered. In order to abandon features that multiply information, the maximum correlation threshold was defined for 0.81. Acceptation of such a value was caused by the fact that correlation of this level explains variability of one feature in 2/3 ($R^2 = 0.66$). Great variability of the features is required so that they were

appropriately spatially diversified.[2] All features vary enough and accepted minimum value of 7% does not discriminate against the utility of a given feature. Another criterion that results from the specificity of chosen method was a demand of positive correlation for stimulants and negative for disstimulants (B3, C4). Correlation coefficients and variability indices for features connected to human and social capitals are presented in Table 1.

Table 1. Correlation coefficients and variability indices for features

	(V_i)	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3
A1	33	1	0.23	0.04	0.19	0.34	-0.37	0.38	0.27	-0.23			
A2	27		1	0.02	0.68	0.54	-0.49	0.44	0.78	-0.30			
A3	296			1	0.29	0.11	-0.20	0.30	0.07	-0.06			
B1	33				1	0.55	-0.51	0.66	0.63	-0.32			
B2	31					1	-0.71	0.49	0.53	-0.49			
B3	11						1	-0.59	-0.49	0.55			
C1	31							1	0.51	-0.38			
C2	19								1	-0.32			
C3	21									1			
D1	66										1	0.37	0.21
D2	56											1	0.22
D3	7												1

In order to reduce the features space, their aggregation into a composite index was done. A simple method of Perkal natural indices was used (Kostrubiec 1963). As pointed out earlier, the necessity of positive correlation between features is the basic formal condition of application of this method. Features that meet this requirement should be standardised as follows:

$$z_{ij} = \frac{x_{ij} - \bar{x}_j}{S_j} \quad \text{—-for stimulants}$$

$$z_{ij} = -\left(\frac{x_{ij} - \bar{x}_j}{S_j}\right) \quad \text{—-for disstimulants}$$

where: z_{ij}—standardised value of feature j in unit i, x_{ij}—value of feature j in unit i, $\bar{x}_j$—arithmetic mean value of feature j, S_j—standard deviation of feature j

[2] Variability coefficient determined by formula was used $V_i = \frac{S_j}{\bar{x}} * 100\%$

Composite indices were calculated according to the following formula:

$$W_c = \frac{1}{n} \sum_{j=1}^{n} z_{ij}$$

where: W_c—composite index, n—number of used features

HUMAN CAPITAL

Analysis of human capital carried out in division into three categories enables to present the phenomenon in a complex way.

Indices (A1, A2, A3) used to determine the expenditure enable to describe some important aspects related to the increase in knowledge and skills in a given community. The level of readership determines engagement in rising of the level of informal knowledge (gained apart from the education system). Local authorities expenses on education prove the potentially better conditions of knowledge gaining. Migration balance affects the decrease or the increase in human capital stocks as the most often these are young, well-educated, venturesome and eager to change people who migrate. The stocks of human capital were described with two features that are connected to the level of education (B1, B2). The level of education of population shows the formal knowledge resources and is a basic feature that serves to describe human capital. Education of councillors is also important. Deciding about the development way and animation of economical life they are this social layer that should have proper competitions. Demographical load (B3) informs about the balance between people at economically productive age and those living on them, which enables to illustrate the human capital in quantitative way. Features concerning economical (C1, C2) and health (C3) aspects were included in term of effectiveness of human capital application. The enterprise as a feature describing people's ability to take up challenges and activity is enormously important component of socio-economical life. Commune incomes prove both success in individuals activity and efficiency of local governments. Overmortality of men is one of the most essential features presenting health condition and pro-health attitudes of the society that, in great measure, are the consequence of the level of the formal knowledge. One should remember that groups of features distinguished in this way are related to each other not only in a simple cause and effect way: expenditure-stocks-effects, but also there are other relations: e.g. effects–expenditure.

In a group expenditure for human capital (Figure 1) there is no evident regionalization, while urban areas distinguish positively. It is a result of couple of causes. Towns and their neighbour areas, because of offered chances for better-paid and more prestigious work and because of a better access to the social infrastructure, are attractive destinations for migration. Expenses for education are in towns remarkably higher too. Low expenditure occurs in Opole voivodship, where it is mainly caused by the outflow of people to the neighbour agglomerations and abroad. In central and eastern Poland low expenditure is connected to specificity of these areas. These are mainly rural areas with great emigration and poor access to the social infrastructure, which affects the low level of readership.

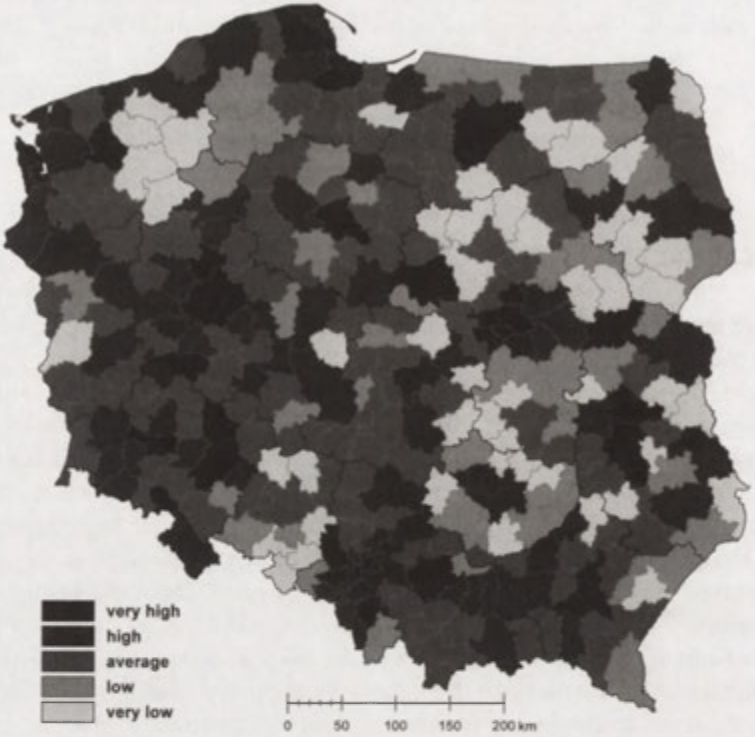


Figure 1. Expenditure for human capital (composite index) in counties

Analysing the spatial diversity of human capital stocks attention should be paid for a dominant role of large towns. They are the concentration places for people with higher education mainly because of better access to universities, lower costs of studying for the local people and immigration of well-educated to the work. Local authorities in towns also distinguish themselves with higher level of education. Immigration of young people and lower birth rate result in smaller demographical load as well. This phenomenon is perfectly evident in case of Warsaw, Kraków and towns in Górny Śląsk region. A belt from Małopolska to Dolny Śląsk, western Poland and seaside region also emerges clearly. It is the area of human capital stocks higher than in the rest of the country. Areas located away from large towns (mainly rural ones) are characterised by relatively small stock of human capital (Figure 2).

The greatest effectiveness of human capital application occurs in towns, western part of Poland, Pomorze and in the majority of southern Poland. The split into the west and the east is evident, but unlike the human capital stocks, in the west there is not such a big distance between large towns and areas located away (e.g. Wielkopolska, Pomorze Zachodnie). In the east, similarly to the stocks of human capital, the town–countryside division is sharp. It is mainly a result of greater enterprise of people from the west and greater efficiency of local authorities. One should remark that such a situation is strongly affected

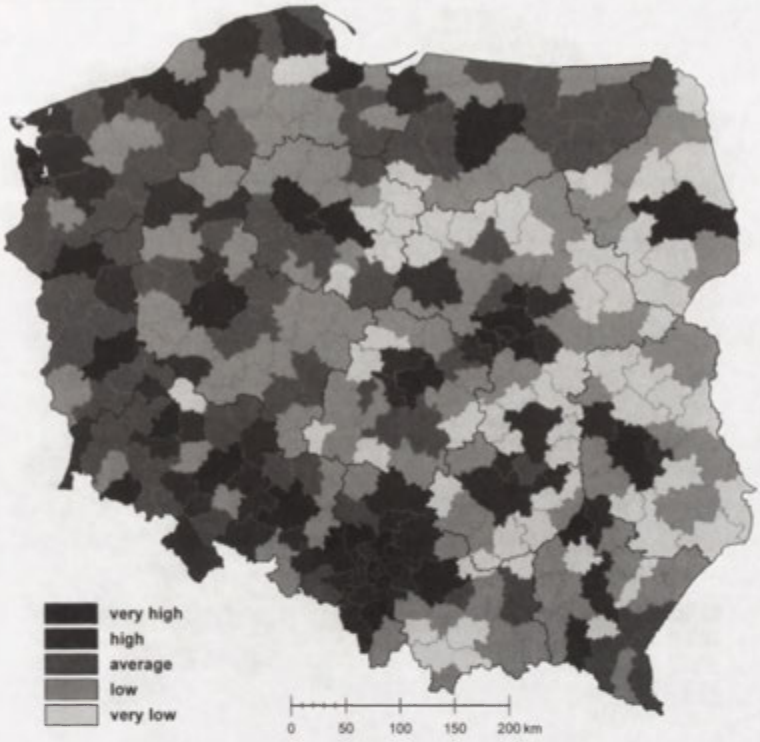


Figure 2. Human capital stocks (composite index) in counties

by better conditions for economical activity—proximity of western border (investments, diffusion of values and attitudes), better infrastructure, lower share of people that have been living only on agriculture until recently (Figure 3).

Evident spatial relations between analysed composite indices, especially in town-countryside and east-west dimension require statistical confirmation. Correlation diagrams (Figure 4) show positive relation between expenditure and human capital stocks as well as between stocks of human capital and effectiveness.

Positive correlation between individual components of human capital confirms that it may be established by suitable policy and that there is a shift between quality and socio-economical advantages of human capital. It is essential that relations are not so strong. It results from other factors that are superficial to the human capital and that in important way shape socio-economical behaviours.

Expenditure for human capital explains the variability of human capital stocks in 44%. So these areas may be stated either to be responsible for resource establishment or to utilize effects of this process. In such a case we deal with *brain-drain*.

The human capital stocks, explains their effectiveness in 63%. It is a high value and it confirms what is present in majority of theories of development that is the fact that human capital is a basic factor for the development.

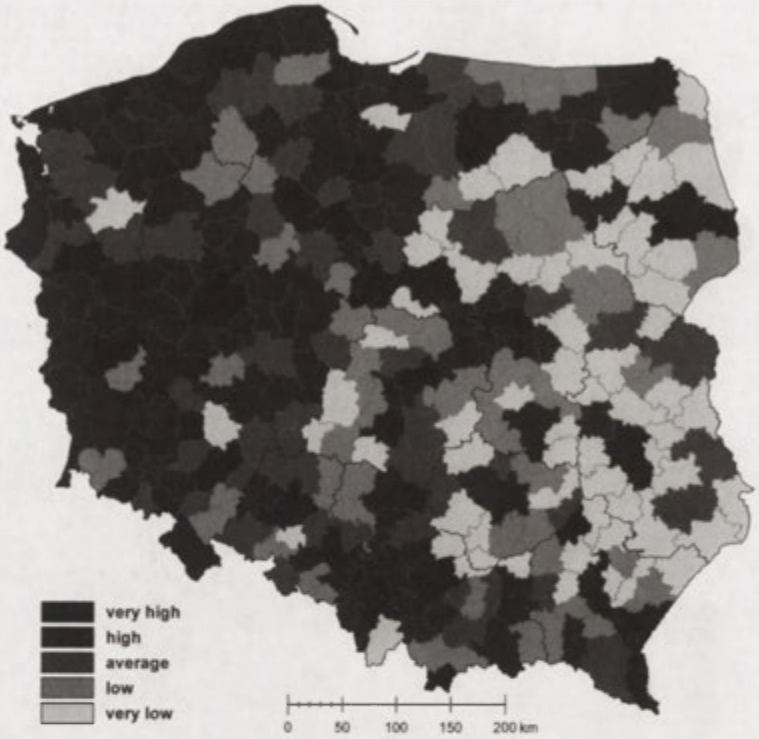


Figure 3. Effectiveness of human capital (composite index) in counties

The spatial diversity of synthetic indices of expenditure, human capital stocks and effectiveness presented on Figure 5 shows above described principles. It is important that the town-countryside division is more evident when all features related to human capital are included in one synthetic index than in the case of partial indices. One may state that in town there is an accumulation of expenditure, human capital stocks and effectiveness, and that their correlations are strengthened. The core—high value of the index and periphery—low value arise obviously. It is evident that the larger the town, the greater the area of higher or medium human capital. It is the most obvious in case of Warsaw. Similar situation occurs around Górny Śląsk conurbation, Kraków and Poznań. It is caused also by generally better level of socio-economical development as the majority of these towns are located in regions recognised as well-developed for ages. Of course, the influence of even the largest town is limited spatially hence the development of human capital in periphery areas will not be easy.

The east-west dimension of diversity is also very evident. It is a result of aforementioned causes. However, once all three components are included, the diversity is less sharp. The difference of one or two classes appears. In case of individual components, the variety was greater. It is caused by high values of the composite index for counties with large towns.

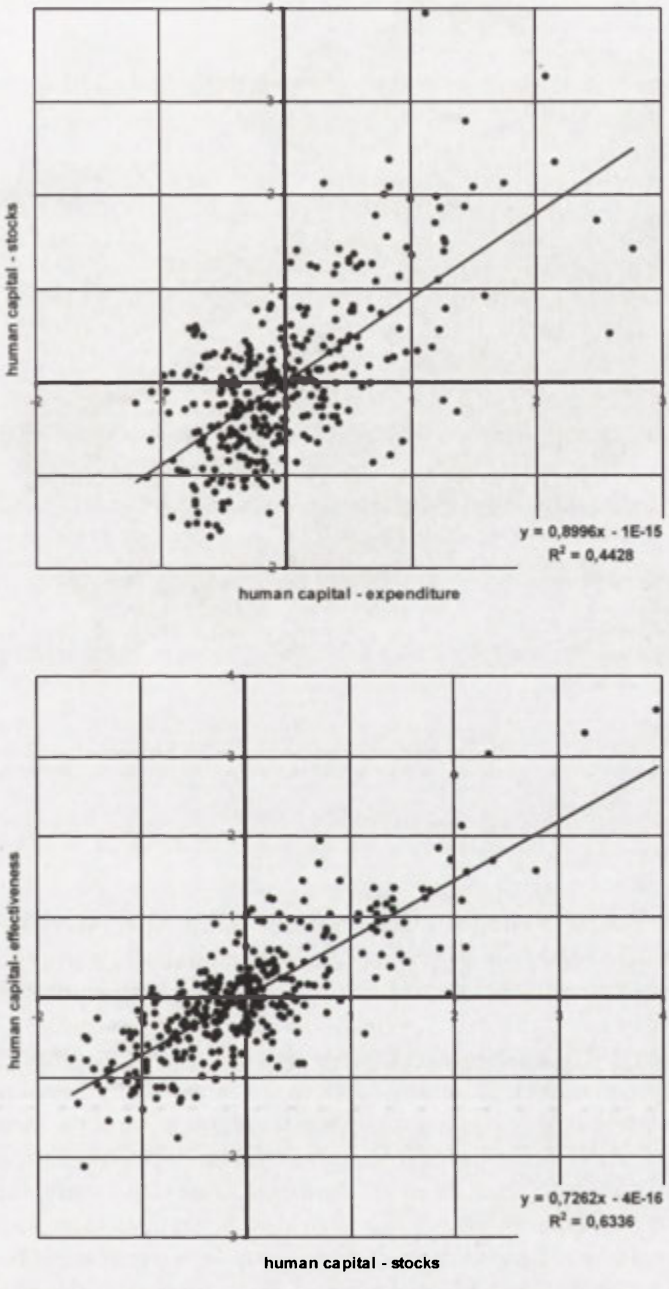


Figure 4. Relation between expenditure for human capital and human capital stocks and between human capital stocks and effectiveness of human capital

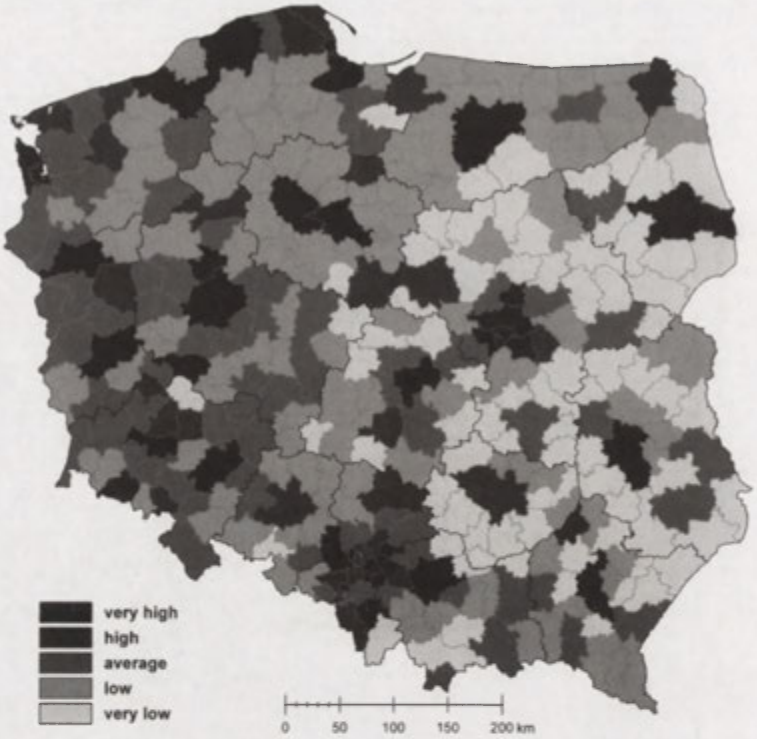


Figure 5. Human capital—one composite index in counties

SOCIAL CAPITAL

Construction of the composite index describing the social capital was based on three features. NGOs density (D1) shows how the society is interested in activity aiming at the community prosperity and ability to cooperate. It is the simplest measure of social capital and is often used by the scientists (e.g. Putnam 1995; Kołodziejczyk 2003). The membership in sport clubs (D2) is a measure that enables determination of quantity of people engaged in activity aiming at establishment of social ties by repeatable interactions among people. Activity in the field of promotion of physical culture is one of the most important forms that integrate the society not only by active, but also by passive participation. Voters' turnout (D3) refers to the level of the development of civil society, therefore it is one of elementary measures of the social capital. Such determined index surely does not present this complex phenomenon in an exhaustive way. However, it might be said to approximate it to the great extend. Figure 6 presents spatial diversity of this phenomenon.

High values of social capital index characterise large towns, south-eastern Poland and some areas of western part of the country. As long as town-countryside scheme is evidently noticeable, the east-west diversity is less clear than in case of human capital. High level of social capital in towns results from couple of causes. Firstly, there is greater

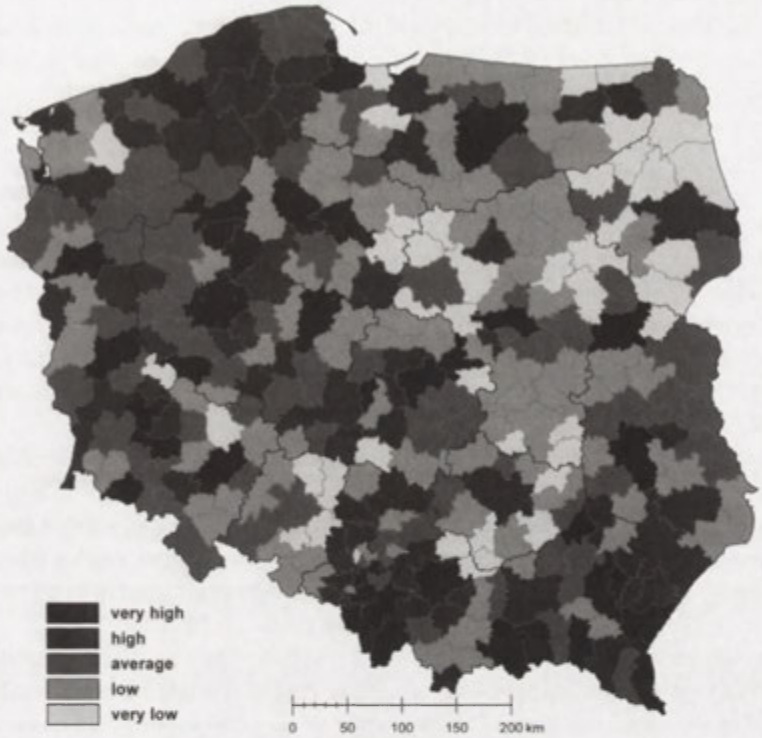


Figure 6. Social capital (composite index) in counties

concentration of NGOs. It is caused by the specificity of this kind of activity that is supposed to fill gaps among the state, local authorities and private sector actions. The proximity of governmental and self-governmental authorities, regional institutions, and big companies seats is necessary element of NGOs activity (Janc 2004). Membership in sport clubs is also higher in towns. Generally urban population is more eager to take part in election, but it is not a rule. There is a large group of towns where the civil society development level is low. Greater election activity is connected to better access to the politicians, information and wider offer of media. Higher education level is also essential as civil engagement, in great measure, depends on this factor. Apart from presented social conditions of urban population behaviours, processes in the society are important. Urban population turns to post-modernistic values in greater extend than rural people. Together with better living conditions, contestation of pure materialism and better awareness of social problems urban society begins to engage into pro-social activity. Activity in NGOs and especially participation in sport clubs become a form of spending one's free time and also an investment. The possibility of spending one's time with people of similar interests is essential element of widely understood prosperity. Difficult situation in the countryside—both economical and social (higher unemployment, lower incomes) affects the greater passivity of the society.

High social capital is characteristic for south-eastern Poland that is areas inhabited by people who have been living there for long time and have been cultivating the tradition. It is also a region with the highest religiousness in the country. It affects election behaviours and participation in various forms of public activity in great measure—these areas are characterised by numerous membership in sport clubs.

High social capital occurs in part of western and northern Poland too. Some causes of such situation may be found out. Wielkopolska, as a region with developed organisation of social and economical life, distinguish itself with high voters turnout (the highest in the country), which influence high value of social capital index the most. High social capital in Pomorze is mainly a result of great number of NGOs while the other parts of the synthetic index are also high. These are areas of poor economical situation (former areas of great share of social-agriculture), therefore a conclusion may be drawn that in this case the situation stimulates the society to activity.

Natural and cultural attractions and environmental threats are the other factors that influence the high social capital. Listed factors may be a starting point of common activities that integrate the society, which together with the enterprise of local authorities or other social-life driving forces affects the increase in social capital. Such a situation occurs in Legnicko-Glogowski Cupper Region (ecological dangers) and in some counties of Lubelskie and Warmińsko-Mazurskie voivodships (natural attractions).

The worst situation as far as the social capital is concerned occurs in central Poland, Podlasie and Opole voivodship. In case of central Poland it might be explained by aforementioned civilization conditions. Disintegration of social ties, poor cultivation of tradition, small social and civil activity (low turnout, low membership in sport clubs, little NGOs) influence the low value of the social capital index. The fact that these are areas with great share of rural population is the factor that strengthens the situation. More difficult economical and social circumstances and the lack of proper actions of the social life animators turn into the increase in social and civil passivity. With Opole voivodship the case is different. Great share of people who, although registered there, are temporarily or permanently abroad (inhabitants have double, Polish-German citizenship), which affects values of the index negatively.

Above presented matters may lead to the conclusion that social capital in Poland is not homogenous, as there are various conditions of its level. High level is a result of, on one hand, inherited value system and traditionalism and, on the other hand, of factors related to challenges caused by socio-economical situation. So, we may talk about the social capital that arises from the tradition and that results from the change of values. This latter factor is mainly present in western and northern regions, where the exchange of the population took place. Regional identity and awareness of people who live there, in great measure, have been established for several years, hence they accept changes easier and are more prone to cultural novelties. Without deeper studies it is hard to judge which form of the social capital is more favourable.

RELATIONS BETWEEN HUMAN AND SOCIAL CAPITALS

Statistical relation between social and human capitals is positive (Figure 7). However, one cannot state there is a simple shift between them ($R^2=0.42$).

Analysis of the regression residuals[3] enables to state that the greatest positive deviation from the trend-line is characteristic for towns (the highest value—Sopot, Warsaw), the greatest negative—counties from Opolskie voivodship (double citizenship population), north-eastern and central Poland (except large urban centres). The value of the social capital depends on the level of human capital however other circumstances are important as well. Very big deviation from the trend-line characteristic for towns with the highest values of human capital proves that after achieving defined threshold of human capital, the social capital increases remarkably. It is worth noticing that the surplus of social capital occurs also in counties of south-eastern Poland where human capital is low unlike the social one that is high. It confirms the earlier remark about heterogeneity of social capital. Quite important conclusion comes from this—social capital may be only in some, limited extend created by proper activities of decision makers.

A classification of counties was done in order to present diversity of Polish space on account of relations between human and social capitals. It was carried out on the basis of values of composite indices suitable for each kind of capital. Plus and minus signs were

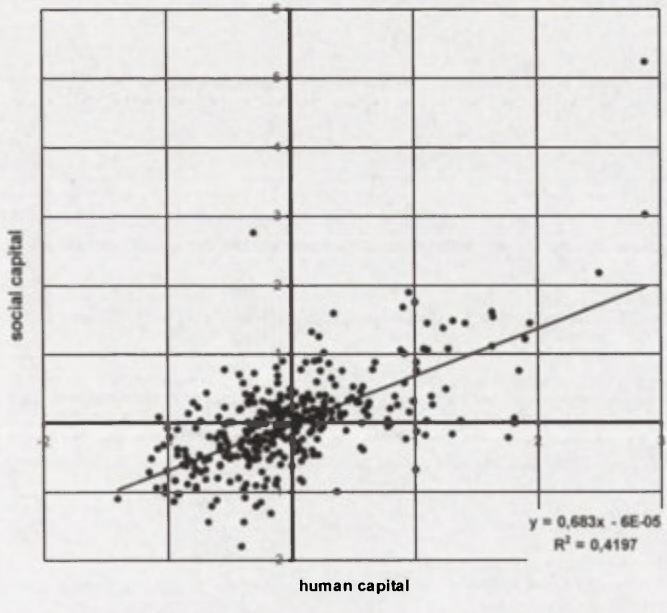


Figure 7. Relation between social and human capital

[3] z = y – Y, where z—regression residual, y—real value of social capital index, Y—regression value of the index

included and four classes informing about the kind of the relation were distinguished on such basis (Figure 8).

Positive human and social capitals occur in towns in the majority of western Poland (especially Dolny Śląsk and Wielkopolska) and in the seaside belt. It confirms the spatial diversity of social and spatial capitals. Negative human and social capitals are characteristic for eastern Poland (except urban counties) and in Opole voivodship, Kujawy and some counties of western voivodships. Positive social capital and negative human capital appear in great part of south-eastern Poland. This confirms conclusions of the regression rests analysis. Such a situation takes place also in a part of Pomorskie voivodship. Negative social capital and positive human capital appear usually around large towns and in smaller urban counties.

Some conclusions may be drawn from presented statistical and spatial relations between both forms of the capital. Firstly, high level of human and social capitals in the largest towns is a result of a specific environment that supports their establishment. It is worth noticing that in a town, as in the place inhabited by great number of people, face-to-face contacts are very usual, which in great extend affects the raising of human capital and establishment of social capital. It is connected to the fact that these contacts distinguish with successful communication, are useful for problem-solving, enable socialisation, education and increase in shared values and attitudes (e.g. Bathel et al. 2004;

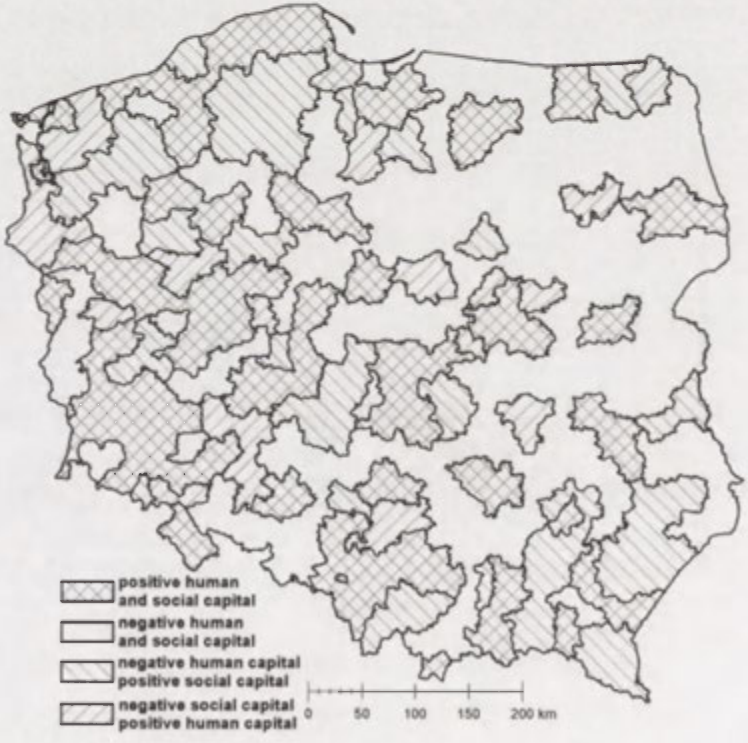


Figure 8. Classification of counties based on the values of human and social capital indices

Storper and Venables 2004). Universities and high schools play an important role being not only responsible for the level of education, but also for establishment of civil attitudes basis. Population of towns and their neighbour areas has the easiest access to the higher education and it is not only about the lack of the distance barriers, but also about better economical situation of urban population. Rural youth constitutes a small part of the students[4], which is mainly connected to the costs of the studying (economical barrier). High level of social and human capitals in towns is also affected by such determinants as: easier access to places that offer possibility of spending one's free time (recreation centres, cinemas, theatres, galleries, museums, night clubs), opening and greater approval for behaviours that are not tolerated in traditional societies (Florida 2002), and specific *climate* of some cities.

Historical conditions, tradition and political system influence the level of social capital[5]. Hence positive social capital appears together with negative human capital in south-eastern Poland. Areas where the tradition was kept in the most strong way prove that social capital may establish in the societies with low level of human capital.

CONCLUSION

Some conclusions may be drawn on the basis of presented analysis of spatial diversities and relations between social and human capitals.

The core-periphery scheme reveals. Evidently developed core-periphery scheme has serious consequences. On one hand establishment of megalopolises rich in human and social capitals should enable them successful competition at international stage. On the other hand establishment of strong centres at the costs of peripheral areas is a serious problem. Great differences that appear between large towns and the rest of the country may get deeper as long as there are no development impulses from the centre to peripheries.

Spatial diversity of analysed phenomena coincides in great measure with the level of socio-economical development of the country that is the east-west dimension. It proves the lasting heritage of Polish space that corresponds with the period of foreign rules in XIX century. Observed importance of historical and cultural conditions of social and economical activity is undoubtedly a cause of establishment of new concepts that are supposed to explain differences in the development of individual areas. Utility of the concept of social capital seems to be great, especially as there are a lot of relations to the human capital. These relations, although sometimes are hard to define in cause-effect way, should be valuable extension of analysis dealing with diversity of socio-economical processes in the local scale.

Existing relations between human and social capitals proves that there is some possibility to influence their development. It is crucial for this chance to be taken. However, there might be a conflict caused by heterogeneity of social capital. One should assume

[4] According to Bański and Stola (2002) only 3% of rural youth are studies.
[5] Putnam proves it on the example of analysis of the civil life in Italy (1995) and USA (2001).

that two main causes of high level of social capital that were pointed in this paper—tradition (weak relations to human capital) and new attitudes and values (strong relations to human capital) are not the only ones. More studies are required, especially on establishment of measurement methods and set of indices so that it would be possible to determine human and social capitals in various spatial scales. Present state of available statistics leads to this that analysis based on it cannot explain the phenomenon of social capital and its relation to the human capital totally.

ACKNOWLEDGEMENT

This paper was supported by Ministry of Science and Information Society Technologies and it is a part of scientific project *Spatial diversity of human capital in Poland* (grant No 2 PO4E 032 28).

REFERENCES

Bański, J., Stola, W. (2002), Przemiany struktury przestrzennej i funkcjonalnej obszarów wiejskich w Polsce [Transformation of the spatial and functional structure of rural areas in Poland], *Studia Obszarów Wiejskich*, 3, IGiPZ, PAN i PTG, Warszawa.

Becker, G. S. (1962), Investment in Human Capital: A Theoretical Analysis, *Journal of Political Economy*, 70 (Supplement): 9–49.

Bathelt, H., Malmberg, A. and Maskell, P. (2004), Clusters and Knowledge: Local Buzz, Global Pipelines and the Process of Knowledge Creation, *Progress in Human Geography*, 28: 31–56.

Coleman, J. S. (1988), Social Capital in the Creation of Human Capital, *American Journal of Sociology*, 94: 95–120.

Cote, S. (2001), The Contribution of Human and Social Capital, *Canadian Journal of Policy Research*, 2: 29–36.

Czyżewski, A. B., Góralczyk-Modzelewska, M., Saganowska, E. and Wojciechowska, M. (2001), Regionalne zróżnicowanie kapitału ludzkiego w Polsce [Regional diversity of human capital in Poland], *Prace Zakładu Badań Statystyczno-Ekonomicznych GUS*, 277, GUS, Warszawa.

Domański, B. (2004), *Nowe idee w światowej geografii społeczno-ekonomicznej* [New ideas In Word socio-economic geography], in Chojnicki, Z. (eds.), *Geografia wobec problemów teraźniejszości i przyszłości*, Bogucki Wydawnictwo Naukowe, Poznań, 169–190.

Florida, R. (2002), The Economic Geography of Talent, *Annals of the Association of American Geographers*, 94: 743–755.

Fukuyama, F. (1995), Social capital and the global economy, *Foreign Affairs*, 74: 89–104.

Fukuyama, F. (1997), *Zaufanie. Kapitał społeczny a droga do dobrobytu.* [Trust: The Social Virtues and The Creation of Prosperity], Warszawa, PWN.

Herbst, M. (2004), Zróżnicowanie jakości kapitału ludzkiego w Polsce. Od czego zależą wynik edukacyjne? [Diversity of the human capital quality. Where does educational quality come from?], *Studia Regionalne i Lokalne*, 3: 89–104.

Janc, K. (2004), *Poziom wykształcenia ludności i kapitał społeczny w Polsce* [Level of education and

social capital in Poland], in. Ciok, S. and Ilnicki, D. (eds.), *Przekształcenia regionalnych struktur funkcjonalno-przestrzennych*, 8/1, IGiRR, Wroclaw, 367–375.

Kołodziejczyk, D. (2003), Kapitał społeczny w rozwoju obszarów wiejskich [Social capital in the development of rural areas in Poland], *Studia Obszarów Wiejskich*, 4, IGiPZ, PAN i PTG, Warszawa, 27–38.

Kostrubiec, B. (1963), Klasyfikacja dynamiczna i wielocechowa województw Polski [Dynamic and multivariable classification of Polish voivodships], *Biuletyn KPZK PAN*, 35: 28–49.

Mohan, G. and Mohan, J. (2002), Placing social capital, *Progress in Human Geography*, 26: 191–210.

OECD (2001), *The Well–being of Nations. The Role of Human and Social Capital*, Paris.

Portes, A. (1998), Social Capital: its Origins and Application in Modern Sociology, *Annual Review of Sociology*, 24: 1–24.

Putnam, R. D. (1995), *Demokracja w działaniu. Tradycje obywatelskie we współczesnych Włoszech*. [Making Democracy Work: Civic Traditions in Modern Italy], Społeczny Instytut Wydawniczy Znak, Kraków.

Putnam, R. D. (2001), Social Capital: Measurement and Consequences, *Canadian Journal of Policy Research*, 2: 41–51.

Schuller, T. (2000), Social and Human Capital: The Search for Appropriate Technomethodology, *Policy Studies*, 21: 25–35.

Storper, M. and Venables, A. J. (2004), Buzz: Face-To-Face Contact and the Urban Economy, *Journal of Economic Geography*, 4: 351–370.

EUROPA XXI
2006, 14: 57–76

EXPLORATORY QUANTITATIVE ANALYSIS OF THE RELATIONSHIP BETWEEN ACCESSIBILITY AND UNEMPLOYMENT IN SLOVAKIA

PAVOL HURBÁNEK

Comenius University, Faculty of Natural Sciences
Department of Human Geography and Demogeography
Mlynská dolina 1, 842 15 Bratislava
Tel.: +421-2-60296695, Fax: +421-2-65429064
E-mail: hurbanek@pobox.sk, hurbanek@fns.uniba.sk

Abstract: The study examines the relationship between accessibility and unemployment in the communities of Slovakia. The main hypothesis is that the communities with lower accessibility have higher rates of unemployment. While Slovakia is the main study area, the Myjava and Skalica Counties are case-study areas. Three approaches are used to evaluate accessibility: container, straight line distance and road distance approach. Within the distance approaches, the centres of seven different hierarchical levels are used as potential work-commuting centres. Correlation analyses between the accessibility data and the unemployment-rate data for each community and testing of their results for significance are the last two steps in the methodological design.

Key words: accessibility, commuting, employment, unemployment, correlation, autocorrelation, scale, Slovakia, Myjava, Skalica

INTRODUCTION

A series of political (the fall of state socialism, the break-up of Czechoslovakia, the admissions to the NATO and the EU) and economic (the transformation from the centrally planned to a market-based economy, privatization, economy restructuring, internationalization and globalization) changes have taken place in Slovakia since the fall of iron curtain in 1989. Unemployment, a phenomenon officially unknown in the period of state socialism, is just one of the multiple socioeconomic outcomes of these changes. What makes the issue of unemployment disputable, besides its relatively excessive intensity, is

its differential distribution within the country with higher rates in peripheral areas, which poses the problem of inequity of job opportunities. Besides the high unemployment level, a poor accessibility is also a generally known problem of peripheral areas. Therefore, several questions arise: What is the relationship between accessibility and unemployment? What is the coincidence of their spatial distribution patterns? Does limited accessibility contribute to unemployment? If so, to what degree is the first a cause of the latter?

ACCESSIBILITY

One of the simplest of numerous definitions describes accessibility as 'the ease with which one place can be reached from another' (Johnston 2000, p. 2). This definition implies the spatial (physical) dimension of the term, and omits other dimensions, such as legal, economic, social, psychological, or temporal. Although the spatial dimension of accessibility will be of paramount interest in this study (Figure 1), let us mention also a more general notion of accessibility, defining it as a potential for interaction. Employment accessibility can be perceived then as a potential for interaction with employment or (in a more spatial view) a potential for commuting to work.

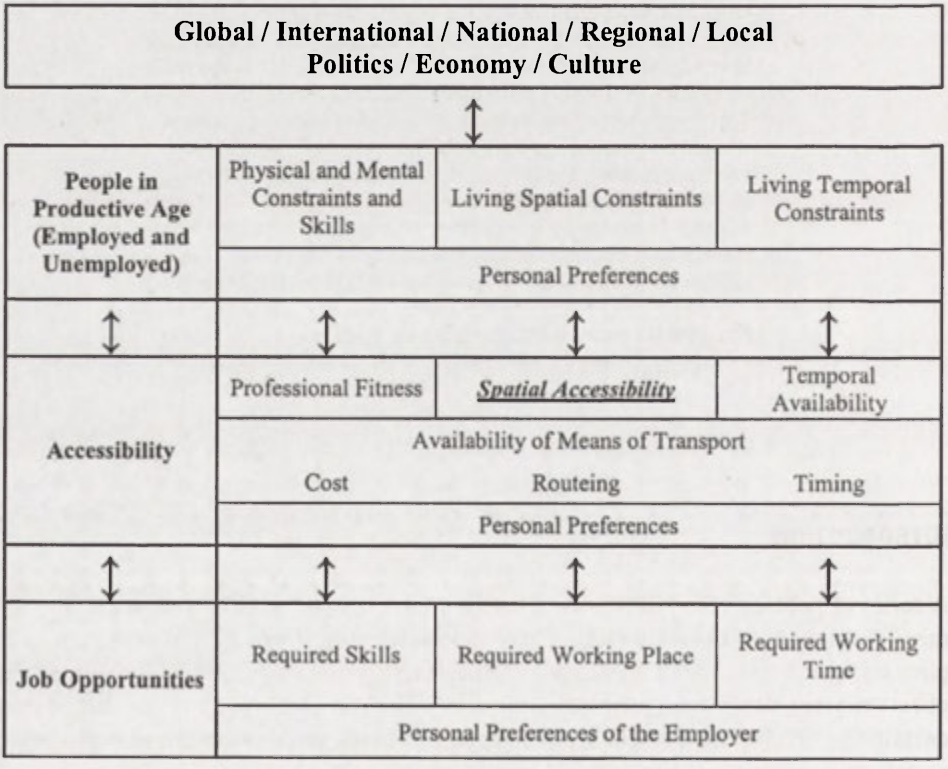


Figure 1. Theoretical Model of Employment Accessibility

The spatial dimension of accessibility is based on the concept of friction of distance or space. It can be measured in units of separation represented by geodetic distance (i.e. straight-line or air distance), topological distance (number of nodes or edges), journey distance (by road, railway, etc.), time or costs. The discrete notion of accessibility measurement is usually examined through the concept of direct (e.g. neighbourhood approach) and/or indirect topological accessibility. This notion of accessibility measurement includes also the container approach, which is based on the presence or absence of an object within a specified area (Lindsey et al. 2001, p. 334).

Moseley (1979) argues that the distinction between the concepts of spatial and social dimensions of accessibility is not to deny the existence of important interrelationships between these two. 'For example,' he writes, 'an improvement in a person's physical access to alternative places of work may bring social and economic benefits, which could increase the 'social accessibility' he or she enjoys' (Moseley 1979, p. 57). He continues with Ingram's definition of accessibility as 'the inherent characteristic, or advantage, of a place with respect to overcoming some form of spatially operating source of friction, for example time and/or distance.' Moseley objects that this definition divorces accessibility from the nature of the desired destination, and thus it is concerned with mobility, i.e. ability to move, rather than accessibility. Since travel is rarely an end in itself, he thinks that accessibility should incorporate destinations as opportunities, which may or may not be present as a result of person's moving. Moseley also argues that, while Ingram's definition of accessibility refers to 'places,' geographers should be concerned with accessibility of 'people,' as the circumstances of different people in any given place may be vastly different. Pacione (1984, p. 286) discerns between these two as the locational accessibility and the personal accessibility. Moseley concludes that 'it is the spatial dimension of accessibility, with which we are concerned, but the 'score-sheet' that we use should have social dimensions' (Moseley 1979, p. 58). Knox and Pinch (2000, p. 358) suggest that these social dimensions could be conceived of as externalities, i.e. by-products of relative location. Referring to the distinction made by Harvey (cited in Knox and Pinch 2000, p. 358) between the price of accessibility to desirable amenities and the costs of proximity to undesirable nuisances, they distinguish positive and negative externalities. This also shows that spatial and social dimensions of accessibility are complexly interwoven and cannot be separated.

In the case of employment accessibility, there are at least two more dimensions that are closely related to the spatial dimension: professional fitness and temporal availability (Figure 1). To illustrate this relationship, imagine an individual, who considers taking a new job. The maximum distance he/she will be willing to commute as well as the fact whether he/she accepts the employment at all depends on the following factors:

- Compatibility/coincidence between his/her spatial constraints (such as, for example, the place of living and places of other vital activities) on one hand, and the location of the employment, the commuting distance and routing of the means of transport on the other hand.
- Compatibility/coincidence between his/her temporal constraints (such as, for example, the time for sleeping and other vital activities, or childcare) on one hand, and the commuting time, working time and timing of the means of transport on the other hand.

• Compatibility/coincidence between his/her personal constraints (such as, for example, the physical and mental constraints and skills) on one hand, and required skills, offered income and costs of means of transport on the other hand.

OBJECTIVE, HYPOTHESIS AND RATIONALE

The objective of this study is to determine the nature of the relationship between accessibility and unemployment in Slovakia (the main study area) and in the Myjava and Skalica Counties (the case-study areas). Assuming higher levels of unemployment as well as more intense (in)accessibility problems in peripheral/rural areas (Moseley 1979; Gilg 1985; Pacione 1984; Robinson 1990; Leimgruber 1994; Taylor 1997, 1999, 2002; Marada 2003; Chromý and Jančák 2005), the hypothesis is that the communities with lower accessibility have higher rates of unemployment.

The first reasonable and most common rationale behind this hypothesis is that if a person cannot get to work (on time) and return home after working hours, he/she cannot work. Obviously, some jobs can be carried out at home, but most of them cannot.

The principle of the relationship between accessibility and unemployment can be explained using several theoretical models. The first model is based on the notion of settlement system development. A settlement system in a particular area is the result of its historical development. This system reflects the natural and socioeconomic conditions that influenced its evolution in the past and that are still in effect today. As the society develops, its settlement system created in the past might not be suitable for its present needs. If once there was nearly an equilibrium between peoples' places of living and places of work, this might not be true after the society has changed. Therefore, the mechanism of re-reaching of the lost equilibrium starts through commuting and/or migration. If neither commuting nor migration takes place, it leads to an unequal spatial distribution of unemployment. Moreover, the disparities in the spatial distribution of unemployment rate are positively related to the intensity of the shift from the quasi-equilibrium that once existed between peoples' places of living and places of work. Thus, more radical political and/or economic changes in a society lead to a more unequal spatial distribution of job opportunities in that society, eventually requiring more time for the new equilibrium to be reached.

It can be suggested that the transformation in Slovakia in 1990's—compared to the gradual evolution of the Western European societies in the second half of the 20th century—had a nature of a radical change and considerably contributed to the spatial inequity of job opportunities. With respect to the development of the 'living-working places inequilibrium,' the following main differences can be identified: (1) Slovakia experienced a more radical decline in agricultural employment (especially in the beginning of the 1990's), and therefore a more radical growth of the unemployment rate in rural areas than the West. (2) Because the construction of the apartment buildings in Slovak cities slowed down dramatically, the prices of housing in cities rose much faster (in relative terms) than in the West, thus slowing the rural-to-urban migration. (3) Both the reduction of public transportation services and the growth of their prices advanced at a faster rate in Slovakia

than in the West. (4) The reduction of public transportation services in Slovakia was neither 'preceded' nor 'accompanied' by the increase in the private car ownership and usage rate, which was the case in the West; vice versa—the latter lagged behind the former.

An alternative model of the relationship between accessibility and unemployment is based on an individual's decision-making. The decision-making model suggests that when an individual considers whether to take a new job or not, he/she weights the advantages and disadvantages of being employed or unemployed against each other:

$$I + SJ—C > UB + AS$$

In this expression *I* stays for income, *SJ* for personal satisfaction from the job, *C* for commuting, *UB* for unemployment benefits, and *AS* for alternative satisfaction. (A similar model could also include '– M' on the left hand side of the formula, staying for 'migration/moving costs' related to accepting the new job, but let us continue with the simplified version without considering migration.)

According to this model, the benefits coming from the job are greater than the benefits of being unemployed, and therefore the employment occur. If the sign 'is greater' in the expression was replaced with 'is smaller,' then the individual would not take the job and he/she would become or remain unemployed. On the left hand side, the model incorporates the advantages of employment (with positive sign), i.e. the income from the offered job and the potential personal satisfaction from the job, and the disadvantages of employment (with negative sign), i.e. commuting, mainly perceived in terms of time and costs. On the right hand side, the advantages of unemployment are introduced into the model in the form of payments of unemployment benefits from the government and the satisfaction from an alternative use of time, which involves leisure and/or personal satisfaction and income from an informal economy. Because accessibility is conceived as a potential for commuting, it can substitute the commuting in the model:

$$I + SJ—A > UB + AS$$

In this expression, the value of accessibility (*A*) co-determines the fact, whether the sign 'is greater' stays or is replaced by its counterpart 'is smaller.' Because the signs 'is greater' and 'is smaller' in this expression stay for 'employment' and 'unemployment' respectively, the relationship between accessibility and unemployment is obvious.

STUDY AREA

In 2001 (the year of the origin of the data employed in this study), Slovakia was divided into eight districts that were subdivided into 79 counties. For the purposes of this study, the five counties forming the area of the capital and the largest city of Slovakia—Bratislava (called Bratislava 1 through Bratislava 5) are merged into a single region called Bratislava. The five counties forming the area of the second largest city of Kosice and its surrounding (called Kosice 1 through Kosice 4 and Kosice-Surroundings) are merged

into a single region called Kosice. Thus, 71 'customized counties' are established, that will be called counties further on in this study. The local level of self-government administration in 2001 was represented by 2883 communities, out of which 138 have a city status.

As mentioned above, an additional analysis is conducted in the Myjava and Skalica Counties comprising 17 and 21 communities (respectively), both of them in the Western Slovakia at Slovak-Czech border. The population of the Myjava County is 29243, with 13142 inhabitants living in the town of Myjava, and the population of the Skalica County is 46791, with 15013 inhabitants living in the town of Skalica (SRSO 2001). While the Skalica County is more of a gateway-type area with seven border crossings between Slovakia and the Czech Republic (two of them being of national importance), the Myjava County has only two border crossings (both of them of just local / regional importance). This situation is, to a significant degree, determined by the topography and history of this area, which also influenced the development of the dispersed settlement in the upland Myjava County and the clustered/concentrated settlement in the lowland Skalica County.

UNEMPLOYMENT DATA

The unemployment data used in this study are provided by the Slovak National Labor Office (NLO 2002). They represent counts of unemployed in all 2883 communities as of 31 December 2001 (Figures 2 and 3). It should be realized from the beginning that this dataset representing just a cross section in the complex spatio-temporal development of unemployment cannot capture the nature of this dynamic phenomenon. Although, newer data at the same spatial resolution are not available, the benefit of this dataset is that the year 2001 is the year of the highest unemployment rate in Slovakia since 1989 up to present.

The data on the number of economically active (i.e. labour force—those who either have a job or are unemployed) in each community come from the 2001 Census carried out on 26 May 2001 (SRSO 2001). There is an obvious temporal mismatch between the unemployment and census data. Because unemployment rate is computed as a ratio of the number of unemployed and the number of economically active, this mismatch causes an error in the values of unemployment rate. As a result of this error, four communities have values of unemployment rate exceeding 100%. For the purposes of this study, these values are put equal 100%, as no other information for their refining is available. However, there are probably more errors in these data in addition to the temporal mismatch error, because, for example, in the case of the community of Radnovce, the number of unemployed (247) exceeds the number of economically active (184) by 63 (34%). It is unlikely that such a significant difference is caused only by the temporal mismatch.

The data on the number of job opportunities that are staffed (existing jobs) as well as those that are vacant (openings for applicants) in the communities of the Myjava and Skalica Counties as of 31 December 2001 were acquired from the NLO-CLOs in Myjava and Skalica (NLO-CLOs 2002, Figure 4). The most important drawback of these data is that they are not based on actual job locations, but on the addresses of the firms' headquarters.

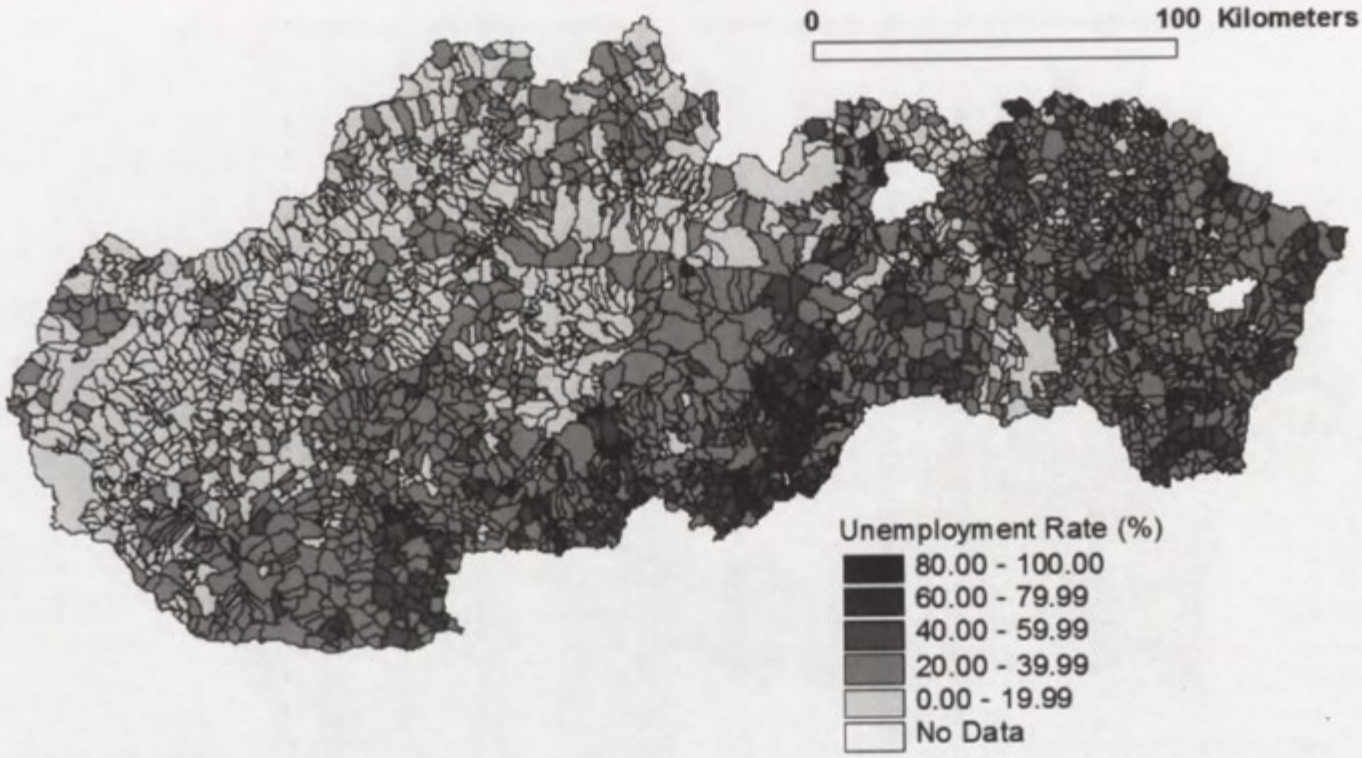


Figure 2. Unemployment Rate in the Communities of Slovakia as of 31 December 2001

Source data: NLO 2002 and SRSO 2001

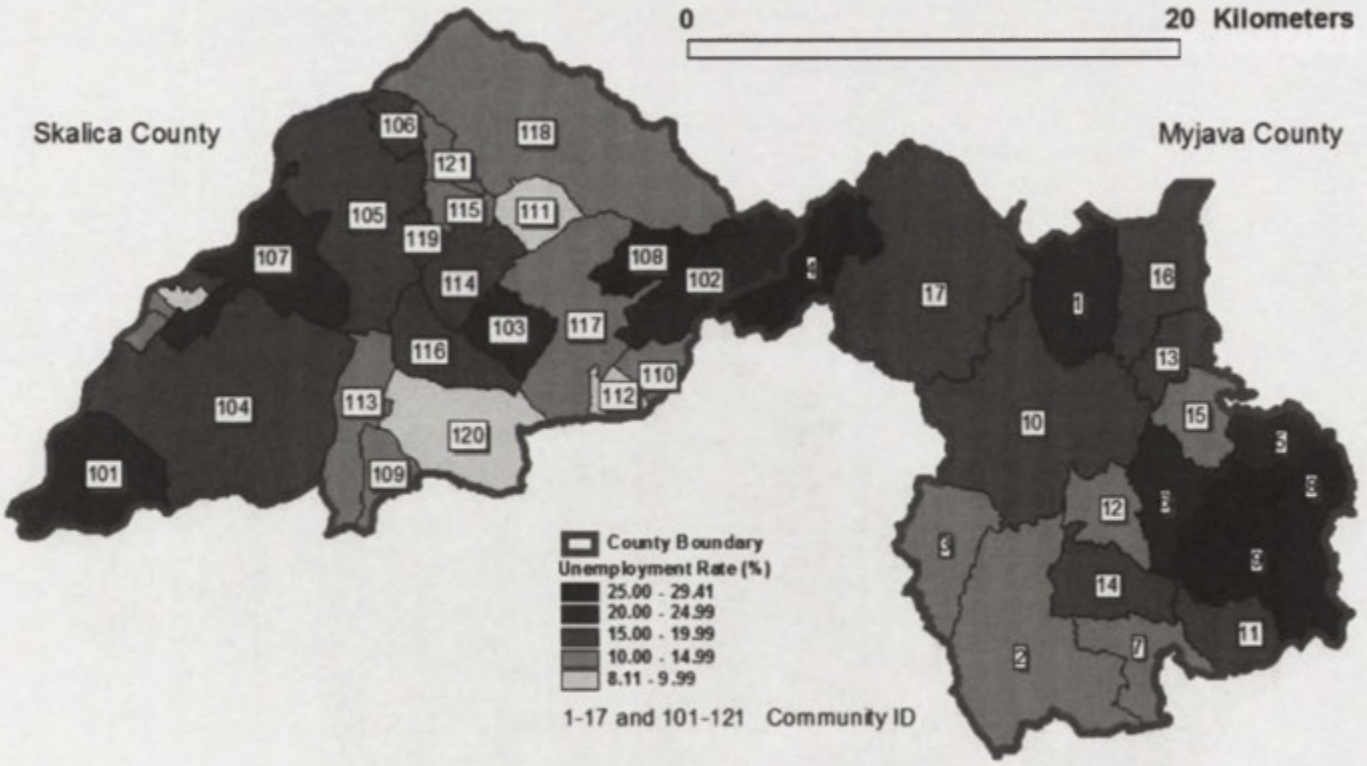


Figure 3. Unemployment in the Communities in the Myjava and Skalica Counties as of 31 December 2001

Source data: NLO 2002 and SRSO 2001

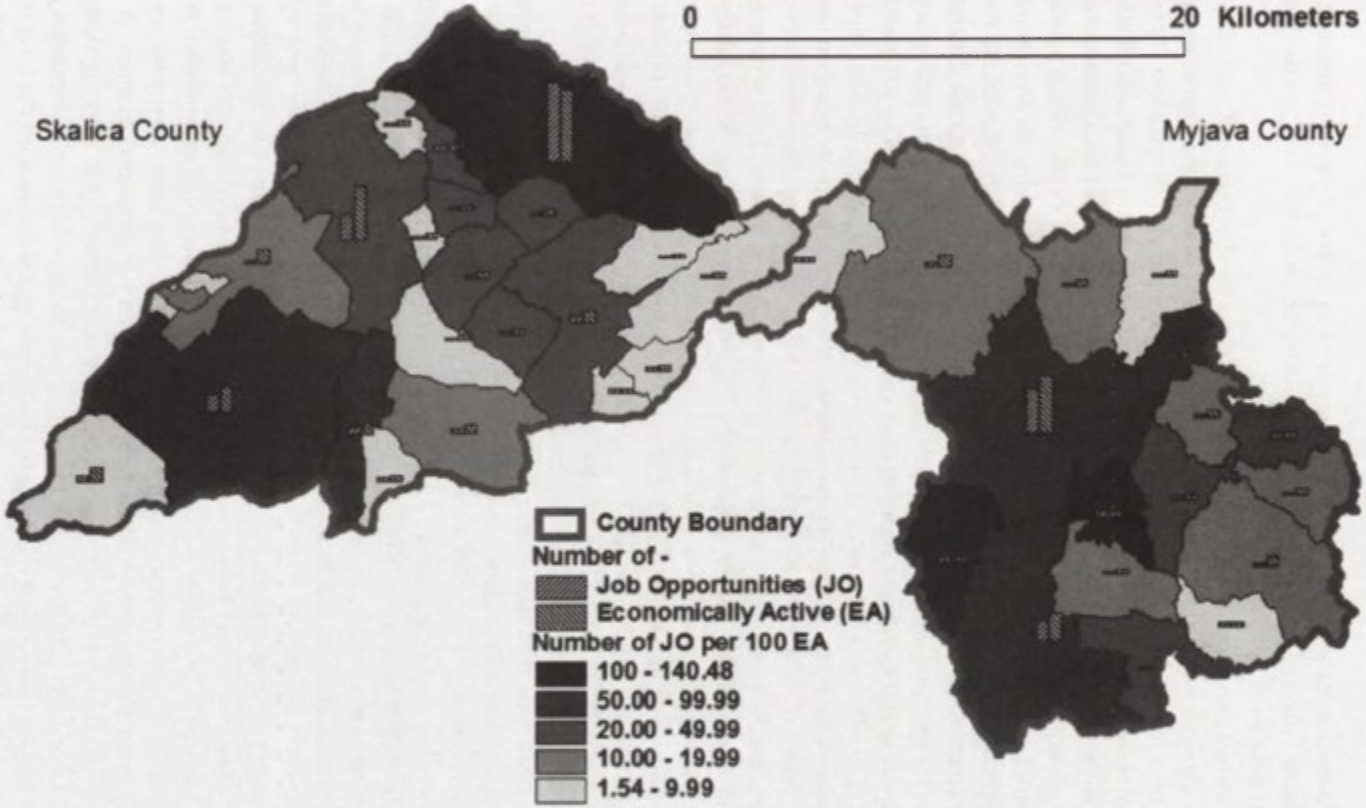


Figure 4. Job Opportunities and the Economically Active (Labor Force) in the Myjava and Skalica Counties

Source data: NLO-CLO 2002 and SRSO 2001

MEASURING ACCESSIBILITY: DISTANCE APPROACH AND CONTAINER APPROACH

Within the distance approach, accessibility is measured in terms of physical distance. While air distances are used at the national level, both air and road distances are used at the case-study-area level.

In reality, almost every community is the source as well as the destination of accessibility at the same time. However, this study uses a simplified model, in which each community is the source of potential commuting, but only some of them are also destinations. They could be called daily employment commuting centres. In the case, when a source is identical with a destination, the distance is put equal to zero. The selection of the destinations of potential commuting, to which the accessibility is measured, is one of the critical points in the methodology. The problem of their selection is based on the fact that the maximum commuting distances for different types of employment and thus also the sizes of the respective daily commuting regions vary significantly. One of the solutions is to use district seats, county seats and towns (Figure 5) as crude proxies for daily employment commuting centres, representing three different scales of daily commuting regions. This idea is based on a potential similarity existing between the functional hierarchy of public administration and the hierarchy of daily commuting regions. Another alternative, partially based on the central place theory (Christaller 1966), suggests that towns of certain sizes could serve as crude proxies for daily employment commuting centres. Again, a three-level system is applied: the towns with more than 30000; more than 20000; and more than 10000 inhabitants (Figure 6). Together these two alternatives yield six types of commuting centres: district seats (8 in count), county seats (71), all towns (138), towns with over 30000 inhabitants (23), towns with over 20000 inhabitants (40), and towns with over 10000 inhabitants (72). In all six cases, the air distance to the nearest potential employment regional centre is recorded, and thus each community is assigned six values of accessibility.

At the national scale, Bratislava—the capital and the largest city in Slovakia—may be theoretically considered the daily employment commuting centre of the highest possible rank. While one might argue that daily commuting to Bratislava applies only to a few types of jobs, the underlying nature of the input unemployment data reveals a good amount of logic in this assumption. Undoubtedly, the capital of Slovakia offers the greatest number of job opportunities in the country and the average income in Slovakia is by far the highest in Bratislava and its immediate hinterland. These two facts motivate people to commute to Bratislava from large distances. In many cases, however, instead of daily commuting, commuters choose to stay in temporary residencies in Bratislava, while returning home only weekly, biweekly or less often. Yet, they keep their permanent home addresses outside Bratislava. As a result, in official statistics they are included in the number of residents, economically active and employed in their home communities, thus effectively contributing to the lower unemployment rates of these communities. As such, they become what can be called 'seeming daily commuters.' This seeming daily commuting is the primary justification for measuring the distance between a community and Bratislava and for considering the potential influence of this distance on the level of unemployment rate in that particular community. Thus, each community is assigned the seventh value of accessibility.

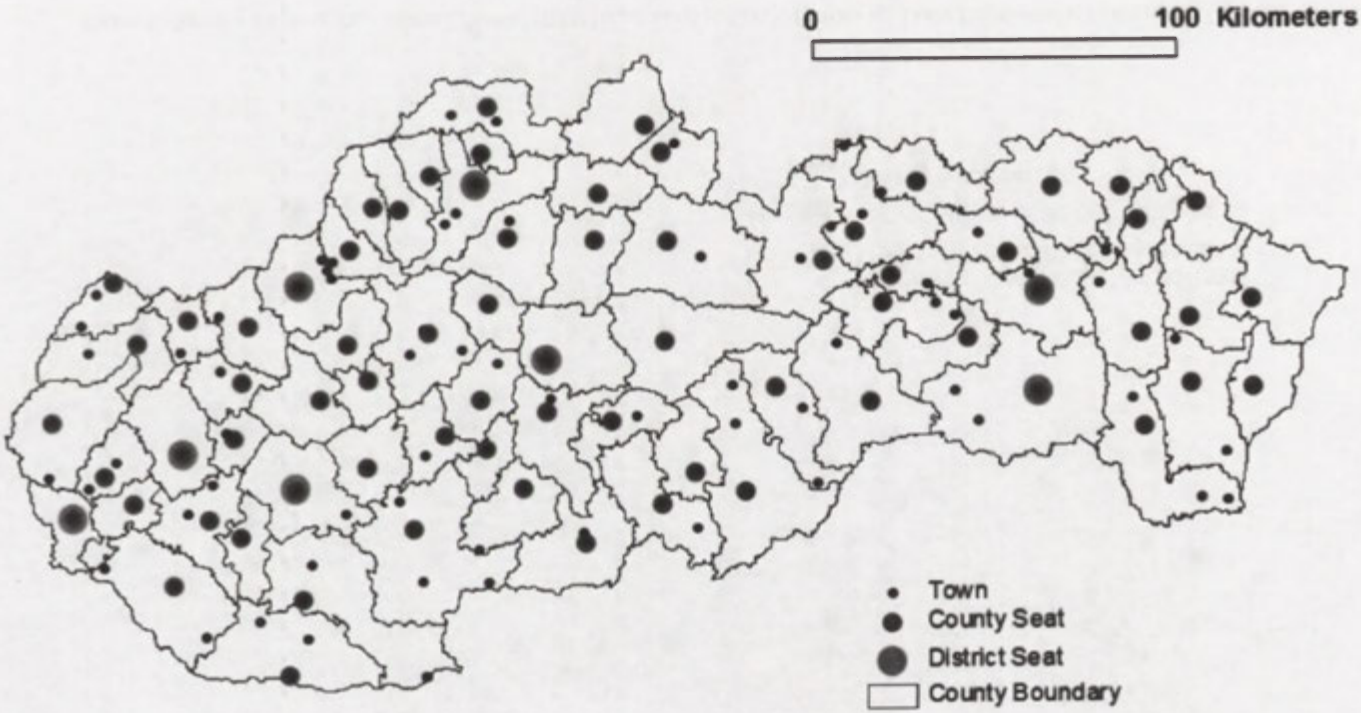


Figure 5. District Seats, County Seats and Towns as Crude Proxies for Daily Employment Commuting

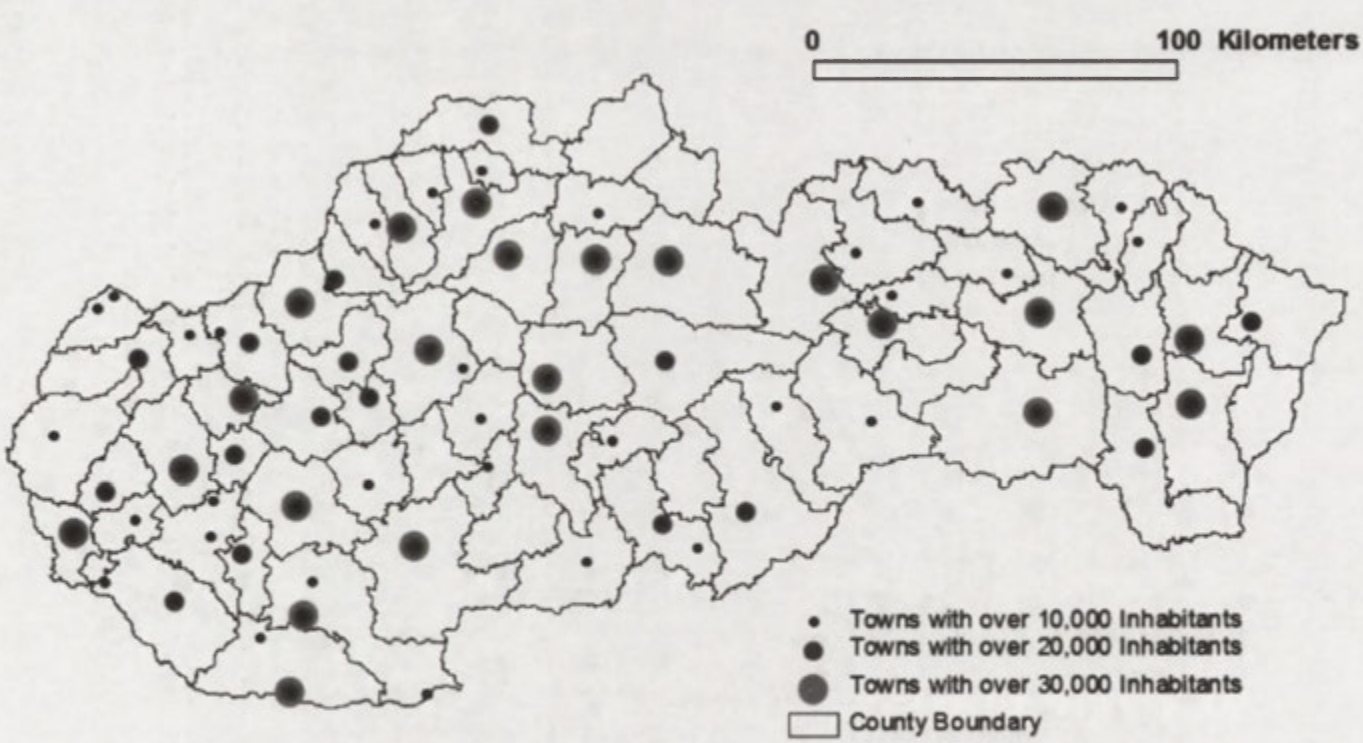


Figure 6. Towns with more than 30000 / 20000 / 10000 Inhabitants as Crude Proxies for Daily Employment Commuting Centers
Source data: SRSO 2001

The methodology based on air distances described above is applied to all 2883 communities in Slovakia. Similar methodology, based on road distances, is applied to 17 communities of the Myjava County and 21 communities of the Skalica County. In these case-study areas, only the accessibility to the nearest county seat and to the nearest town is measured. As the word 'nearest' implies, these centres may not necessarily be located within the case-study areas. Finally, each community is assigned two values of road accessibility—one to the nearest county seat and the other one to the nearest town.

In addition to the distance approach to measuring accessibility in the case-study areas, a container approach is employed. Within this approach, the employment accessibility in a community is defined as the ratio of the number of existing job opportunities and the number of economically active living in that particular community. If this ratio is multiplied by 100, then the accessibility is expressed as the number of job opportunities per 100 economically active (Figure 4).

CORRELATION ANALYSIS

Correlation analysis and testing of its results for significance are the last two steps in the methodological design (Figure 7). The relationship between unemployment and accessibility is evaluated by the two commonly used rank correlation coefficients—Spearman's ρ and Kendall's τ. Pearson's product-moment correlation coefficient (r) is also computed, but its values serve only an informative purpose, because the assumption of the normality of the input data is not met.

Javorina and Valaškovce, two out of 2883 evaluated communities, are actually not communities, but military zones with no permanent residents. Therefore, these two units are omitted from the analysis. The correlation analysis also does not comprise the com-

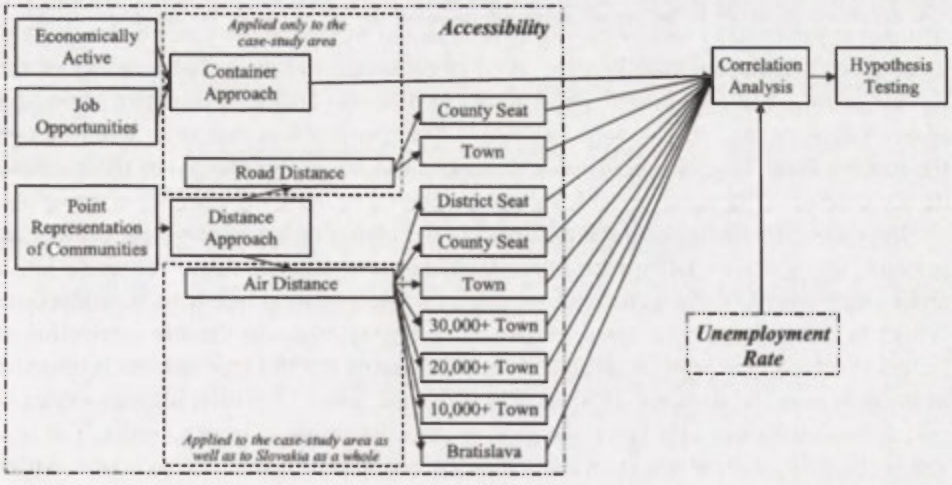


Figure 7. Methodological Design

munities that serve the role of destinations, i.e. the daily employment commuting centres, as their accessibility values are equal to zero.

RESULTS AND DISCUSSION

The results of the correlation analyses at the national level show that the unemployment rate and accessibility in Slovakia are positively correlated (Table 1). They are significant at $\alpha = 0.01$ and this suggests that the first hypothesis should be accepted. However, there are several other facts that have to be considered before stating the conclusion.

First of all, the flaws in the input data have to be considered when the outputs of the correlation analyses are interpreted. As mentioned above, there is the 'un-captured complexity' drawback, the temporal mismatch error, as well as other unspecified errors in the unemployment rate source data. The distance data have most likely also some shortcomings, since they are based on a simplified model. Although, probably the greatest amount of error is introduced through the fact that only crude proxies are used for the potential commuting destinations.

When the acceptance or rejection of a research hypothesis is being considered, not only the statistical significance, but also the practical significance has to be taken into account. While the exact percentage of explained variance can be determined in the case of Pearson's product-moment correlation coefficient analysis, the ordinal measures of association used in this study do not offer this capability. However, because the population sizes of the national level datasets are similar (2743 to 2880), and because all of the values of the nonparametric correlation coefficients are statistically significant, these values can be compared with each other. An interesting fact revealed by this comparison is that five of these seven values of Spearman's ρ and Kendall's τ (with the exceptions of Bratislava and county seats) decrease with the growing number of employment centres (Figures 8 and 9). This suggests that the relationship between unemployment and accessibility is stronger at the higher-order employment centres and weaker at the lower order employment centres. However, based on the assumption in the rationale that majority of the economically active population commutes short distances and only minority commutes longer distances (e.g. 50 kilometres or more), the opposite was expected. Even though the number of the long-distance daily commuters is additionally enlarged by the 'seeming daily commuters,' they are probably still outnumbered by the short-distance commuters.

To explain the finding that the distances to the higher-order employment centres experience stronger correlation with unemployment rates than the distances to the lower order employment centres, the issue of spatial autocorrelation needs to be addressed. While the autocorrelation in the unemployment dataset relates to the autocorrelation of factors that cause unemployment, the autocorrelation in the distance dataset is inherent to the nature of the distance data. As a general rule, autocorrelation inflates values of correlation coefficients. However, the issue of autocorrelation is more complex. The reason of this complexity stems from the scale-dependent spatial variance structure, which refers to different amounts of autocorrelation in a dataset at different scales or different lag distances. Although the scale-dependent spatial variance structure of the input data

Table 1. Correlation Analyses Results

	Size	Spearman's	Kendall's	Pearson's
Correlation Coefficients	N	ρ	τ	r[1]
ACCESSIBILITY—DISTANCE APPROACH				
Slovakia				
Air Distance to the Nearest District Seat (8)	2873	**0,513	**0,360	**0,518
Air Distance to the Nearest County Seat (71)	2810	**0,308	**0,206	**0,307
Air Distance to the Nearest Town (138)	2743	**0,218	**0,146	**0,226
Air Distance to the Nearest 30,000+ Town (23)	2858	**0,403	**0,277	**0,453
Air Distance to the Nearest 20,000+ Town (40)	2841	**0,364	**0,244	**0,296
Air Distance to the Nearest 10,000+ Town (72)	2809	**0,325	**0,217	**0,287
Air Distance to Bratislava (1)	2880	**0,435	**0,291	**0,356
Myjava County				
Air Distance to the Nearest County Seat	16	0,229	0,133	0,360
Air Distance to the Nearest Town	15	0,375	0,238	*0,519
Road Distance to the Nearest County Seat	16	0,274	0,150	0,360
Road Distance to the Nearest Town	15	*0,514	0,352	*0,537
Skalica County				
Air Distance to the Nearest County Seat	20	0,182	0,158	0,269
Air Distance to the Nearest Town	18	0,119	0,085	0,256
Road Distance to the Nearest County Seat	20	0,235	0,147	0,249
Road Distance to the Nearest Town	18	0,158	0,085	0,324
Myjava and Skalica Counties				
Air Distance to the Nearest County Seat	36	0,158	0,117	0,232
Air Distance to the Nearest Town	33	0,296	0,208	*0,354
Road Distance to the Nearest County Seat	36	0,194	0,117	0,226
Road Distance to the Nearest Town	33	0,318	0,193	*0,408
ACCESSIBILITY—CONTAINER APPROACH				
Job Opportunities per 1 Economically Active				
Myjava County	17	*-0,586	*-0,426	*-0,529
Skalica County	21	-0,232	-0,152	-0,249
Myjava and Skalica Counties	38	*-0,332	-0,220	*-0,346

[1] values of Pearson's r are only informative, because the assumption of normality is not met
*(**) Correlation is significant at the 0,05 (0,01) level—2-tailed test

has not been evaluated (e.g. by the semivariogram analysis), the visual interpretation suggests that the lag distances with significant values of spatial variance are much greater in the unemployment dataset (Figure 2) than they are in the distance datasets. It is also suggested that these distances decline with the growing number of employment centres just like the values of Spearman's ρ and Kendall's τ do (Figure 8). Therefore, the explanation of the stronger correlation in the case of higher-order centres is that the smaller the difference between the lag distances with significant values of spatial variance of the two datasets, the stronger their correlation. However, a semivariogram analysis would be needed to prove this claim.

Bratislava and county seats are the two exceptions from this general tendency. The explanation for county seats could be found in the negligible difference between the number of county seats (71) and the number of 10000+ towns (72), which also suggests a negligible rank difference between these two kinds of employment centres. The negligibility of this difference implies a small probability that such a type of inconsistency in the general tendency would appear at other ranks (e.g. at 5000+ towns or 15000+ towns) and that it is most likely just a result of the exaggerated approximation/'crudeness' of the selection of potential commuting destination proxies.

The exception of Bratislava can be probably also explained on the basis of the scale-dependent spatial variance structure of the datasets entering the correlation analysis. Based on visual interpretation, it can be suggested that the lag distances with significant values of spatial variance in the distance-to-Bratislava dataset are greater (almost the

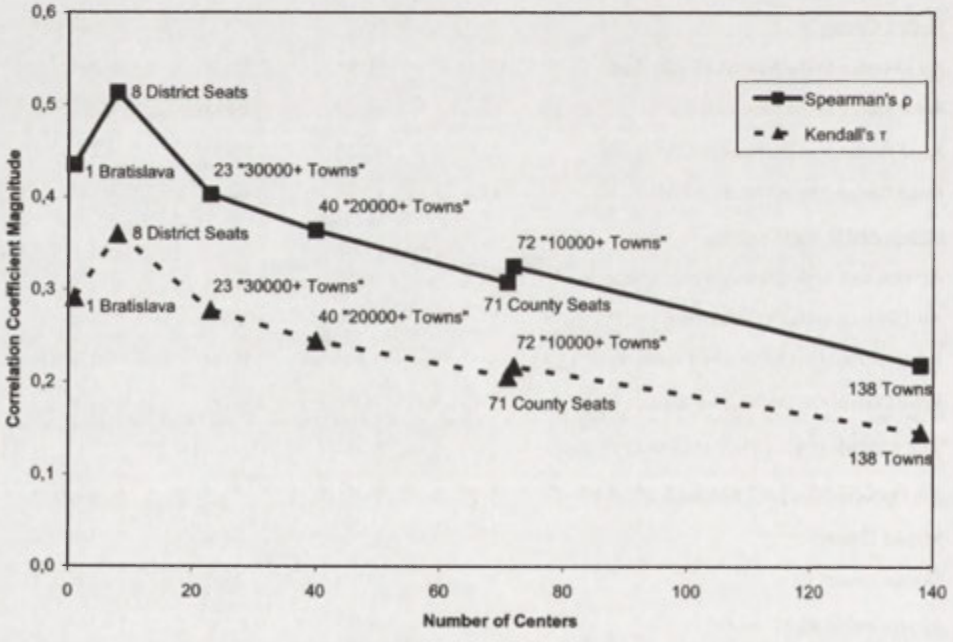


Figure 8. Relationship between the Number of Proxies for Daily Employment Commuting Centers and the Correlation Analysis Results

greatest possible) than they are in the unemployment dataset (Figure 2). At such a great magnitude of these lag distances, the lag distance difference between the two datasets is not as important (as it was explained in the previous paragraph) as the general direction of the increase of the values of the two datasets. While the distance to Bratislava increases in the general direction from west-southwest to east-northeast, unemployment increases in the general direction from northwest to southeast. If these two general directions were the same, the correlation coefficient values for the relationship of these two datasets would be greater than for any other of the six analyzed relationships at the national level (Figures 8 and 9).

However, there are also other possible explanations of the fact that the distances to the higher-order employment centres experience a stronger correlation with unemployment rates than the distances to the lower order employment centres. One possible explanation is that the proxies of higher order administrative/population centres may better represent the higher-order employment centres, than the proxies of lower order administrative/population centres represent the lower-order employment centres. Perhaps, the coincidence of the least accessible areas (peripheries) from (at the scale of accessibility to) the district seats (e.g. the Counties of Kežmarok, Spisská Nová Ves, Revúca, Rimavská Sobota, Roznava and Trebisov) and the 30000+ towns (e.g. the Counties of Revúca, Rimavská Sobota, Roznava and Trebisov) with the areas of relatively high concentration of Roma population, which generally experiences higher unemployment rates, also contributes to this phenomenon. Another explanation could be based on the fact that the areas of the

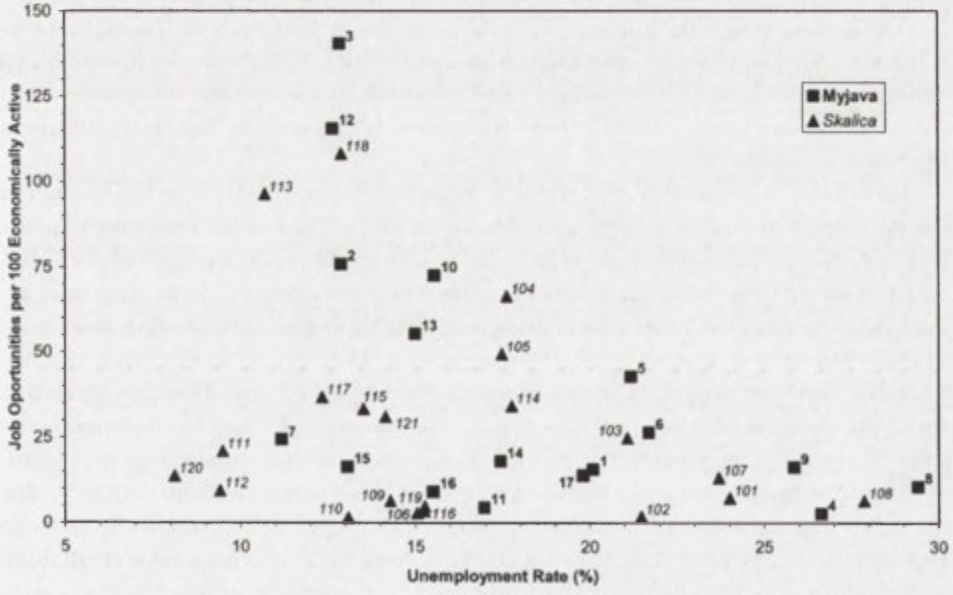


Figure 9. Relationship between Unemployment Rate and the Number of Job Opportunities per 100 Economically Active in the communities of the study area – the Myjava and Skalica Counties

greatest unemployment rate, i.e. southern-south-eastern and eastern parts of Slovakia, are also the areas of low population densities and low levels of urbanization where the higher order urban centres have not developed to the degree they did in the rest of Slovakia. Thus, the location of these areas is peripheral with respect to the largest population/administrative/employment centres.

Most of the correlation analysis results at the case-study level show that the unemployment rate and accessibility in Slovakia are not correlated (Table 1). The only exception is the correlation between unemployment rate and the road distance to the nearest town in the Myjava County, which is statistically significant at $\alpha = 0.05$. Overall, however, the results suggest that the first hypothesis should be rejected at the case-study level.

Although, no significant differences seem to exist between the road and air distances measured in the case-study area, it is interesting to note that in all six pairs of Spearman's ρ coefficients the values derived from road distances are greater than the ones derived from air distances. The same holds true with respect to the two pairs of Kendall's τ coefficients in the Myjava County. However, two other pairs of Kendall's τ coefficients tie and the other two pairs are inversed. Based on the rationale behind the hypothesis, this may suggest that (in most cases) road distances better represent real accessibility than air distances. Because this is an obvious fact, the claim can be reversed: Based on the fact that road distances better represent real accessibility than air distances, the greater values of correlation coefficients derived from road distances than the ones derived from air distances support the first hypothesis as well as the rationale behind it. However, it has to be stressed that—as mentioned in the preceding paragraph—only one out of the 24 correlation analysis results in the case-study area is statistically significant.

The container approach to the accessibility measurement leads to the highest correlation coefficient absolute values in this study (Table 1). While only the Spearman's ρ value is statistically significant at the whole case-study-area level, both Spearman's ρ and Kendall's τ values are significant in the Myjava County and none of them is significant in the Skalica County.

Due to the 'address mismatch' problem mentioned above, the data on the number of job opportunities contain a significant amount of error. The burden this error imposes on the results of the correlation analysis can be illustrated on the example of the furniture producing firm in the Myjava County. The company employs 233 workers and, according to the data used in the correlation analysis (NLO-CLO 2002), all of them work in the community of Bukovec (the community with ID number 3 in Figures 3 and 10). In reality, however, only the headquarters and one of the two operations are located in Bukovec, while the other one is located in the community of Košariská (the community with ID number 7 in Figures 3 and 10). It is obvious, that if accurate data were available, the position of these two communities in Figure 9 would be quite different. The extremely high value of the number of job opportunities per 100 economically active in Bukovec would decrease while the value for Košariská would increase. As a result, both communities would most likely better fit the imaginary trend line of the Myjava County dataset in the scatter plot, and the values of the correlation coefficients would further increase.

CONCLUSION

Although the correlation analyses results are statistically significant at the national level, the relatively low absolute values of the correlation coefficients suggest that their practical significance is secondary. The results at the case-study level are equivocal and further analyses are needed in natural socioeconomic regions rather than in administrative or statistical regions such as counties.

It is evident that the spatial autocorrelation in the data used in the correlation analyses inflates the correlation coefficient values. The more similar scales of autocorrelations in the two datasets whose relationship is being evaluated, the stronger their correlation. The fact that the distances to the higher-order employment centres experience stronger correlation with unemployment rates than the distances to the lower order employment centres suggests that the factors operating at mezzo- to macro-regional scales influence unemployment rates more than the factors operating at micro- to mezzo-regional scales. Because most of the commuting occurs at micro- to mezzo-regional scales, and because these scales (represented by accessibility to lower-order centres) demonstrate relatively weak relationships (compared to the accessibility to higher-order centres), it is concluded that the contribution of inaccessibility to unemployment is subordinate to other more important mezzo- to macro-regional factors influencing unemployment.

However, the correlation analyses results at both national and case-study-area levels also reveal that although the relationship is subordinate, it does exist and the exact share of its contribution to unemployment needs to be investigated. To assess this share, a method is needed that would filter out the effects of macro-regional factors. At best, this could be accomplished by a multiple regression analysis that would attempt to account for all the possible factors causing unemployment. A simpler alternative would be to conduct a separate correlation analysis in each natural socioeconomic micro-region / mezzo-region.

It is interesting to note that out of all four study areas (Slovakia, joint area of the Myjava and Skalica Counties, the Myjava County, the Skalica County) the Myjava County stands out 'best' with the highest absolute values of Spearman's ρ (and in most cases also Kendall's τ) in the distance approach (0.514) as well as in the container approach (0.586). While this may be partially related to the sample size, an additional explanation is possible. When the hypothesis of this study was first stated, it was not as much based on the rationale from the literature as on the rationale derived from pure logic (distance decay effect) and observation. Because the author of this study has spent most of his life in Myjava and its surrounding area, this is where most of the observation was accomplished. By stating a hypothesis based on the observation of a certain region, and testing this hypothesis also in several additional areas, it may come as no surprise that the hypothesis is accepted 'most successfully' in the region, on observation of which it was originally based.

This work was supported by Science and Technology Assistance Agency under the contract No. APVT-20-016704.

REFERENCES

Christaller, W. (1966), *Central places in southern Germany,* Translated from *Die zentralen Orte in Suddeutschland* (1933) by Carlisle W. Baskin, Prentice-Hall, Englewood Cliffs, NJ.

Chromý, P. and Jančak, V. (2005), Periferní oblasti Česka jako jeden z pólů polarizovaného prostoru [The peripheral areas of Czechia as one of the poles of polarized development], *Životne prostredie,* 39, 2: 124–126.

Gilg, A. W. (1985), *An introduction to rural geography,* Edward Arnold, London.

Johnston, R. J. et al. (ed.) and Smith, David M. (consultant eds.) (2000), *The dictionary of human geography (4th ed.),* Blackwell Publishers, Oxford.

Knox, P. and Pinch, S. (2000), *Urban social geography: an introduction (4th ed.),* Pearson Education, Harlow, Essex.

Leimgruber, W. (1994), *Marginality and marginal regions: problems of definition,* in Chang-Yi, D.C., Sue-Ching, J. and Yin-Yuh, L. (eds.), *Marginality and development issues in marginal regions,* National Taiwan University and International Geographic Union, Taiwan, 1–18.

Lindsey, G., Maraj, M. and Kuan, S. (2001), Acces, equity, and urban greenways: an exploatory investigation, *Professional Geographer,* 53, 3: 332–346.

Marada, M. (2003), *Delimitation of peripheral regions and studies of their atributes with the help of statistic analysis,* in Kowalczyk, A. (ed.), *Theoretical and Methodological Aspects of Geographical Space at the Turn of Century,* Warsaw University, Faculty of Geography and Regional Studies, Warsaw, 391–395.

Moseley, M. J. (1979), *Accessibility: the rural challenge,* Methuen & Co., London.

NLO—National Labor Office (2002), *Unpublished Internal Materials.*

NLO-CLOs—National Labor Office—County Labor Offices in Myjava and Skalica (2002), *Unpublished Internal Materials.*

Pacione, M. (1984), *Rural geography,* Harper & Row, London.

Robinson, G. M. (1990), *Conflict and change in the countryside: rural society, economy, and planning in the developed world,* Belhaven Press, London.

SRSO—Slovak Republic Statistical Office (2001), *Census of population, houses and apartments: basic data on population,* Bratislava.

Taylor, Z. (1997), Dostępność miejsc pracy, nauki i usług w obszarach wiejskich jako przedmiot badań geografii społeczno-ekonomicznej: próba analizy krytycznej [Accessibility to facilities in rural areas as the subject of the research of socioeconomic geography: an attempt of critical analysis], *Przegląd Geograficzny,* 69, 3–4: 261–283.

Taylor, Z. (1999), Przestrzenna dostępność miejsc zatrudnienia, kształcenia i usług a codzienna ruchliwość ludności wiejskiej [Accessibility to facilities versus daily mobility of rural dwellers], *Prace Geograficzne* 171, Instytut Geografii i Przestrzennego Zagospodarowania, PAN.

Taylor, Z. (2002), *Accessibility to facilities versus daily mobility of rural dwellers: the case of Poland,* in Higgs, G. (ed.) *Rural Services and Social Exclusion, European Research in Regional Science,* 12, Pion, London, 95–125.

EUROPA XXI
2006, 14: 77–94

SLOPES AND SLIDES: SPATIAL INEQUALITIES IN EMPLOYMENT OPPORTUNITIES IN HUNGARY AT THE TURN OF THE MILLENNIUM

ZSUZSANNA BIHARI and KATALIN KOVÁCS in collaboration with BÁLINT KOÓS

Hungarian Academy of Sciences,
Centre for Regional Studies
Department of Regional Development Research
1067 Budapest, Teréz krt. 13, Hungary
e-mail: biharizs@rkk.hu, kovacsk@rkk.hu

Abstract: This paper seeks to analyse those vigorous spatial processes of the 1990, focusing on employment issues. The first part of this paper examines indicators revealing the social structure of villages on the basis of settlement categories according to population size. The second part examines the impact zone and integrative ability of towns and cities. What was found as a major outcome of the analyses is that the geographical location of settlements, their distance from dynamic centres and the accessibility of such centres determined the prevailing conditions and future perspectives of local residents.

Key words: access to employment, job opportunities, core areas, spatial segregation, regional differences

INTRODUCTION

This paper seeks to analyse those vigorous spatial processes prevalent throughout the 1990s, focusing on employment opportunities.[1] The analyses are based on a database aggregated according to the size of settlements (villages and towns separatedly) and along the so-called statistical micro-regions, NUTS IV tier statistical units, effective from January 2004.[2]

---

[1] This paper was prepared as part of the research titled 'The Current State of and Possible Methods of Improving Equal Opportunities in Labour Market Competition with Special Regard to Disadvantaged Social Groups', sponsored by the Ministry of Employment and Labour Issues and conducted at the Department of Regional Development Research, Centre for Regional Research, Hungarian Academy of Sciences.

[2] NUTS 4-level regions under EU spatial classification.

What is proposed in the first part of this paper, which examines indicators revealing the social structure, employment and income-generating opportunities of villages of different size categories, still provide evidence for deep inequalities between cities and villages as well as between the various size-groups of villages. This outcome continous to be apparent, since what our findings also suggest, a deterioration of dramatic proportions in the conditions of those living in the settlements of peripheral location is so dominant that could not be counterbalanced by the more favourable indicators of those integrated small villages in dynamic regions. However, our analyses confirm the fact that it is between integrated and lagging regions that essential differences evolve.

This is substantiated by the second part of this paper, which examines, on NUTS IV level, the impact zone and the integrative ability of settlements with central functions as well as dynamism or decline in employment, population growth, age composition and other factors. We found that the geographical location of settlements, their distance from dynamic centres and the accessibility of such centres determined the prevailing conditions and future perspectives of local residents.

Our earlier empirical studies also confirmed that it was not the combined economic power of (large) cities or urban conglomerates that had triggered those spatial processes that determined the state of villages and had led, if not to anything else, to shifts in focus, relative to what had been the case earlier, and that was now transforming the Hungarian settlement network according to a West European pattern (Enyedi 1988). Those opting for villages as places of either residence or recreation integrated by urban economies or as places where the cost of living is lower and, overall, a new division of labour between the individual settlement categories played at least as important a role in the evolvement of poles and suburban zones and in the concentration of disadvantaged social groups on the peripheries as did urban employment capacity.

By the end of the decade the new functions of villages or those that were given a new emphasis, i.e. residence, recreation and landscape care, had become a new paradigm that influenced the European Union's rural policy. (Ploeg et al. 2000) After the political regime change, precipitating considerable migration, they gained ground in Hungary as well, as is illustrated at several junctures in this paper.

ON THE SLOPE: REFLECTION OF SPATIAL PROCESSES AND EMPLOYMENT OPPORTUNITIES IN THE VARIOUS SETTLEMENT CATEGORIES

When deciding on examining this aspect, we asked the following questions: Has the unrelenting consistence in the workings of the settlement slope that characterised the approximately four decades before the political regime change prevailed despite the processes, i.e. growing spatial inequalities and a positive balance of migration from large cities to villages, that have become increasingly marked since then?[3] Do those living in more populous villages stand better chances of employment, higher income and a more comfortable

[3] For a detailed discussion of the impact of settlement policies on the development chances of small regions, see Kovacs 1990 and Havas 1999.

life than their counterparts in the less populous ones? Are residents of large cities, ab ovo, in a more advantageous position than those in small towns? And, finally, do city dwellers still have better perspectives than do villagers? The answer to the above questions is 'yes'. The reason for this is that, although there are occasional signs of changes, on the whole, no breakthrough can be detected in terms of the overriding importance of the settlement slope or settlement size. Despite strong residential suburbanisation (Timár and Váradi 2001), especially in the metropolitan region and in the environs of regional centres, and contrasting trends of development in regions with small villages, only faint outlines of such trends are discernible in the aggregates formed according to the settlement categories based on population size.

What are the standard manifestations of the operation of the settlement slope? First and foremost, overall, demographic erosion in small regions continues. In other words, age composition remains the most unfavourable in small villages, where ageing is taking on increasing proportions and those moving out outnumber those moving in. Although the migration balance is positive in the majority of larger villages, ageing and a low number of children lead to shrinking population. Hence, the number of small settlements, even the smallest ones, increases, though that of their inhabitants diminishes. This is all the more intriguing as a 2-per cent increase in the number of taxpayers would logically lead to the conclusion that the majority of those moving in are economically active. As far as the income differences are concerned, the average income of those in employment in the smallest settlements is still the lowest (in 2001 77.5% of the average income excluding data for Budapesters), the gap in this respect has not widened. Rather, it has narrowed relative to what it was in 1994 (76.4%).

This suggests that mainstream trends hide even conspicuous, new and diverse trends. Higher migration gains and hence population growth in larger villages and a sharp rise in the number of taxpayers simultaneously reflect the impact of the moving in of both city dwellers and villagers. Townships coveting an urban status and lying in the environs of cities are clearly over-represented among those with a population of over 5,000.

As regards, however, the central issue of this paper, i.e. developments in employment conditions and employment capacity, despite irregularities in demographic data and data on population mobility, the settlement slope operates in keeping with expectations for its unrelenting nature. Local employment capacity, apart from a slight, 1% to 2%, deviation, grows in direct proportion in the settlement categories included in a hierarchy based on legal status and population size. The retention ability of economic activity, which is not necessarily based on employment at the place of residence, is less regular and depends on the room for manoeuvre for cushioning the impact of job losses (see indicators of commuting ratios in Table 1). Certain trends are, however, unmistakeable. They are as follows,

- Although to the lowest extent and well below the average, only in small settlements, i.e. in villages with a population of under 500, did local employment capacity grow between 1990 and 2001 (from 26% to 30% as a proportion of the economically active population), probably as a result of the establishment of local governments. On average 41% of those employed in villages find employment locally. Corresponding figures for city dwellers and residents of Budapest, the latter representing the top of the settlement hierarchy, are 81% and 96% respectively.

Table 1. A few data and indicators in a breakdown of settlement categories

Categories of settlements and headcount based on the number of the residential population 2001		Number of settlements	Number of the population (persons)	Difference between net and average income %	Locally employed persons as a proportion of the persons employed (%)	Number of the persons employed	Number of jobs	Number of out-commuters	Number of in-commuters	Persons employed as a proportion of the 15–64-year-old population (%)
		2001	2001	2001	2001	Changes 2001/1990 (%)				2001
Townships	Below 200	300	35,507	74.9	28.2	58.6	71.1	53.2	63.1	39.7
	200–499	697	237,027	77.9	30.4	71.8	71.8	68.4	60.5	44.5
	500–999	691	493,332	81.5	37.4	74.2	67.4	76.2	61.1	45.9
	1,000–1,999	654	919,066	85.4	40.7	77.6	66.6	83.3	59.3	47.5
	2,000–4,999	473	1,373,019	88.2	44.6	79.4	70.3	87.3	67.7	48.1
	over 5,000	68	469,724	101.7	43.0	92.0	88.6	98.1	97.2	52.2
	Total number of townships	2,883	3,527,675	87.7	41.4	79.1	71.3	83.7	67.0	47.9
	1,000–4,999	36	123,769	94.0	63.2	76.7	68.6	101.7	70.7	50.7
	5,000–9,999	80	574,443	87.5	66.5	76.8	70.7	95.8	73.4	49.2
	10,000–19,999	73	1,026,312	99.9	70.9	81.0	77.4	99.0	83.2	52.5
	20,000–49,999	42	1,208,284	107.5	75.6	82.4	75.8	118.6	78.0	54.1

• Although the proportion of the jobs held by commuters decreases further up the settlement slope, this decrease is not proportionate to local employment capacity. A quarter of the urban jobs (one-fifth in Budapest) are held by commuters. Corresponding figures for villages and settlements of the smallest size are 30% and 38% respectively. This is attributable to the discrepancy between locally available labour supply and demand mainly in those settlements that represent the lowest level of the settlement hierarchy. An analysis of data on commuting reveals that not even medium-size cities can employ local labour in jobsrequiring qualifications or retain all highly qualified labour locally. Its very impact is highly likely to be the underlying reason for commuting between centres.

• The number of commuters grew in those settlement categories, logically in larger cities, where it was outright low a decade before. This is especially true for regional centres and county seats, and less for Budapest. While the number of commuters in settlements at the lowest level of the urban hierarchy and the top level of the village hierarchy has stabilised, it has declined in villages with a smaller population in a direction and at a rate that are consistent with rules of the slope. It stands to reason that just the opposite is the case when indicators of the number of dependent and inactive persons per employed person and the proportion of the households with no members in employment are examined. These data reflect ageing, the getting stuck in villages of those who lost their jobs as well as the lack of commuting opportunities and financial capability to commute, which leads to inactivity of dramatic proportions, often as high as 70% as a proportion of the active-age population, in crisis zones and peripheral regions undergoing segregation.[4]

• Employment is at its lowest in the 15–64 age groups in the case of both sexes in settlements with the smallest population. It is in these settlements that reduction in the number of the registered unemployed was the smallest between 1993, when unemployment was record high, and 2002. Hence, the rate of unemployment is the highest here. Female employment is particularly low (37% as a proportion of the 15–64 age group), while higher, 50% male employment co-exists with a higher, 13% rate of unemployment. As a proportion of the 18–59 age groups, female unemployment was 10.6%. It is villages undergoing ghettoisation where diverse forms of old and new poverty (Ferge 2000; Spéder 2002) are discernible, the level of education of the population is low, economic activity is around 20%, female employment is especially low, unemployment, male unemployment (unemployed women do not get themselves registered[5]), in particular, the proportion of the economically inac-

[4] Relying on a study by Köllő(2003), Kertesi (2000) performed an analysis of the correlation between the rate of unemployment in the issuing and target areas of commuting and the costs of commuting. He concludes that inequalities in employment opportunities, especially in the case of those with a low level of education, are unbearably large in the various regions with respect to access to labour markets of varying degrees of absorption capacity and accessibility. Based on his research, he found that the costs of commuting were too high to be profitable for approximately 250,000 working-age village residents. Referring to the results of a questionnaire survey including formerly unemployed persons, Bartus (2003) complements and, to a certain extent, corrects Kertesi's findings. According to this, the number of commuters who commute at their own costs is strikingly low (approximately 20%). Accordingly, Kertesi's findings can be modified as follows: the costs of commuting are so high for 80% of employees that they cannot afford to commute unless their costs thus incurred are reimbursed. If this specific condition is met, however, nearly 90% are willing to commute in the case of both sexes. Nevertheless, Bartus (2003) also points out that there is an inverse relationship between the willingness of employers to reimburse costs and the characteristics of local labour markets in small regions, since the rate of unemployment is also inversely related to the likelihood of finding suitable labour.

[5] For a detailed discussion of female unemployment in regions with small villages, see Varadi (2005)

tive are high and income is low. Inertia prevails, since there is nowhere to go in terms of employment, and even if there were, it would be expensive. Both will and way are missing. As a result, the number of commuters fell by 40% between 1990 and 2001.

The underlying reasons for the above include (i) peripheral location, (ii) a lack of demand and supply (in a wide range of services, including public services) arising from the small size, (iii) a poor supply of resources such as education and capabilities (e.g. ability and willingness to set up businesses) and (iv) the large weight of crisis sectors, among them agriculture in particular, in employment. This held true during the era of socialism and at the turn of the millennium as well. In this regard, the settlement slope works almost perfectly: the employment capacity of agriculture was at its highest, i.e. 40%, in settlements with a population of below 500 in 1990. In 2001, too, the proportion of small village residents was the highest in the sector, though it was only 15% then, and the density of private farms was also the highest here in 2000, the year of the most recent agricultural census.[6] Although agriculture and, within that, small-scale production are of secondary importance, their utmost importance from the perspective of the livelihood of families can hardly be called to question.

ON THE SLIDE: SOCIAL AND ECONOMIC TRENDS IN THE SOUTH AND IN THE EAST

There seems to be general consensus in literature on rising spatial inequalities in Hungary and the gravity and deep impact of economic and social polarisation (Kiss 2001, Fazekas 2003, Kovács and Koós 2003; Nemes Nagy 2003). According to this, the slide slopes in a North–Southerly or a West–Easterly direction. Our study has not proven otherwise either. It confirmed the existence of a divide essentially between the regions in the East and the West and those in North and the South. However, our criteria for changes in employment indicators shed light on a few important details presented below:

- In the case of dynamic centres and when their commuting zones overlap, their influence on employment generates an impact factor at least on a mezo-regional level; but it is also discernible in a wider geographic space. The location of small regions with a better-than-average rate of economic activity reveals that the employment capacity of Budapest and the dynamic centres of the Central and Western Hungarian regions allowed for the possibility that a contiguous, economically better-than-average active region might emerge and that, along the state frontier and the main axis of traffic, a 'hyperactive' zone might evolve in North West Hungary (Figure 1). The regional impact of economic dynamism was able to adjust the implications of economic re-arrangement in employment, which entailed a dramatic fall in the number of jobs in certain small regions. With a few exceptions, the dynamic zone stretching between North West Hungary and Szeged is directly linked to international networks, mainly via the business connections of those transnational corporations that established branches in Hungary (Enyedi 2004).
- Economic suburbanisation, which is at its strongest in the Budapest agglomeration, and has led to the emergence of a unique region in today's Hungary where employment

[6] For a more detailed discussion of the issue, see G. Fekete (2005)

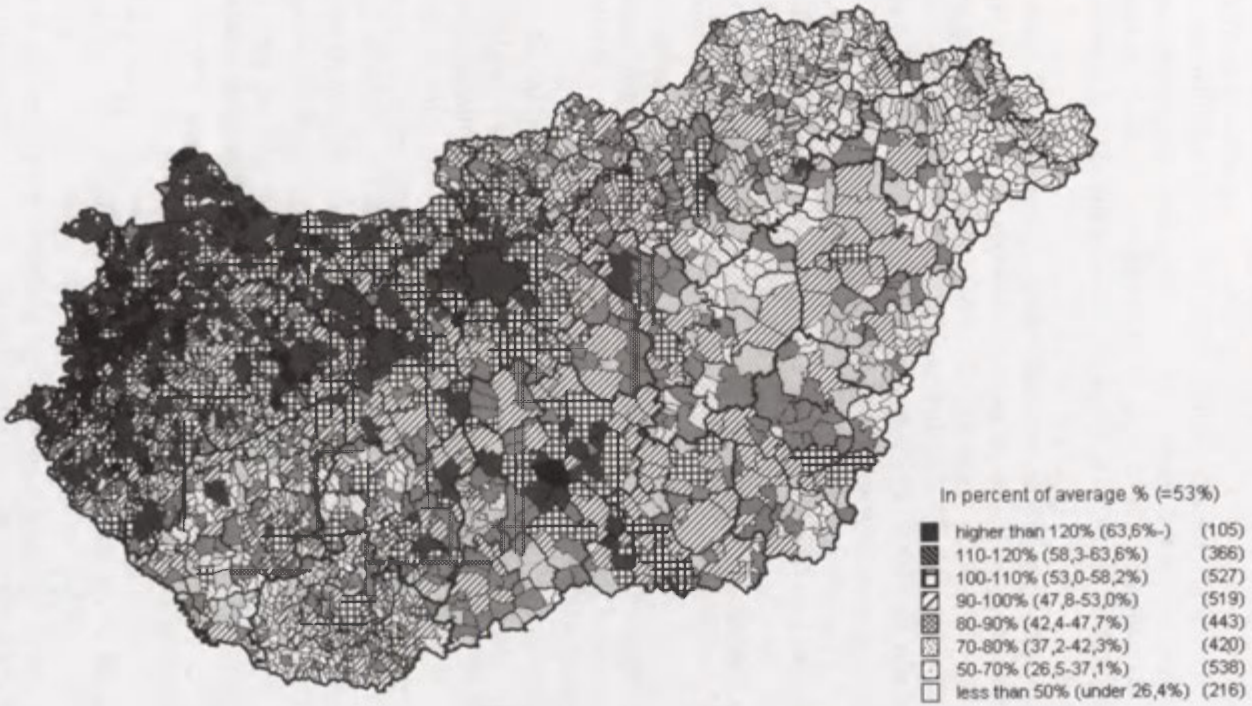


Figure 1. Employment rate in the proportion of population aged 15–64, 2001

(100.1%) has not changed since 1990 and the number of jobs has increased (101.2%), albeit slightly, is attributable in part to the power of dynamic centres and in part to the re-arrangement of the spatial structure of the economy. Figure 3 shows those small regions where, in addition to economic suburbanisation, classic residential suburbanisation in the social sense is dominant and the moving out of the urban upper and middle classes has re-arranged local communities. In these regions household income is above average, while the proportion of those employed locally is far below average (53% relative to the national average of 81%).

• Based on their population growth, commuting zones, including the Budapest agglomeration, can be regarded as the most dynamically developing regional units. While the population of the country shrank between 1990 and 2001, that of commuting areas grew by 137,000 or 7%. In these regions population growth is not or not primarily related to strengthening economies, rather to suburbanisation and the ability of centres especially that of Budapest, to attract labour.

• Commuting thus improves the chances of employment. Its dynamising impact is enormous and, given the trend-like evolvement of economic clusters, it is likely to remain so. Yet, its importance should not be overrated, since, in addition to economic power relations, the settlement network and spatial structure also influence commuting profoundly. In the Great Plain commuting intensity is far below average. Hence, to all appearances, the capacity of settlements with central functions to attract labour is weaker. This is attributable to the fact that the ability of settlements in the Great Plain to provide employment locally is much higher than that of small and medium-size towns with small villages in their environs in the rest of the country.

• Commuting as a possible life strategy can not be seen as equally guaranteed possibility. In the most dynamically developing regions, including the capital city's agglomeration zone and the Veszprem-Szekesfehervar 'corridor', employees can commute to dozens of industrial centers via public transportation (Figure 2). Contrary to these the workforce living in the remote peripheral areas -Belso-Somogy, Cserehat, Drava-mente—may only commute to one or two small towns. These towns are characterized with restricted employment capacity, therefore whole micro-regions suffer from high unemployment rate. The spatial heterogenity of wages also effect this phenomenon. The higher rate of wages in the dynamically developing territories attracts commuters from relatively great distances positively influencing the available of labour pool in terms of quality and quantity. Contrary to this, in the peripheral areas the low level of wages hampers the assurance of competitive workforce-pool as the willingness to commute remain low.

• In addition to the explanatory power of the West-East slope, the typology completed also resulted, at least on the mezo-regional level, in a few important conclusions and clarifications. (Figure3) One is the delimiting of crisis regions, which still include the unmistakeable zones of structural crisis in the extractive and heavy industries in the North East and the South West and inner peripheries mainly in the Great Plain and Southern Transdanubia. The fate of industrial crisis regions and depression zones proves the importance of the distance between the individual settlements and dynamic regions or hubs of development (Tagai in: Nemes Nagy 2003). While the industrial regions in North West Hungary in the field of gravity of hub areas, measurable at a Central East

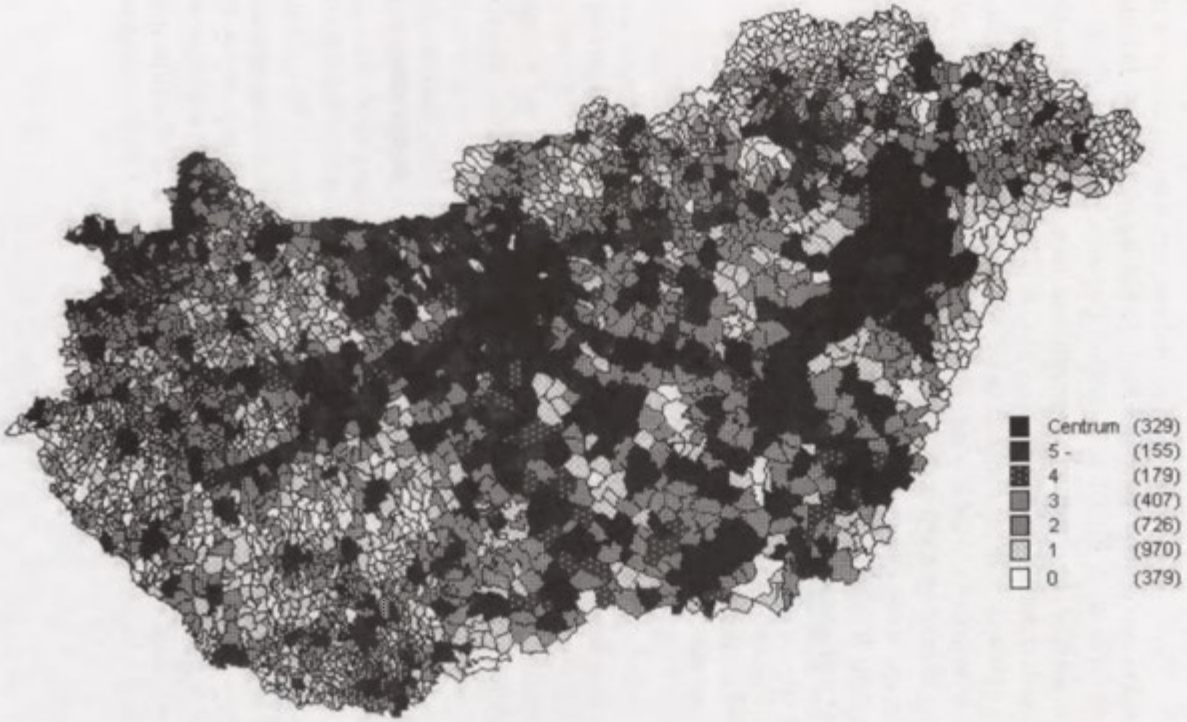


Figure 2. The number of commuting centres approachable within 30 minutes by public transportation

European scale, managed, for the most part, to overcome structural crisis, neither those in the Komló region in the South nor the ones in the Ózd, Kazincbarcika and Miskolc regions in the North succeeded in doing so.

• Another aspect of classifying typical labour market zones is based on the dominant sector of their respective economies. Such are contracting, yet still unique market town regions in the Great Plain and spa zones at Lake Balaton with a large number of small businesses and employees trained to a high standard and posting high income. In addition to industrial regions revamped through greenfield investments, successful privatisation and/or government-assisted restructuring, they constitute, from a sectoral perspective, a specific group of small regions.

• And, finally, a few facts about the slide along which mostly the small regions on the outer and inner peripheries of the counties in the North East, Eastern and Southern Transdanubia move increasingly farther down. Our typology refers to these small regions, a total of 30, where nearly one million people live, as regions where segregation appeared sporadically or as a prevailing pattern. Social erosion with an ethnic tint to it is what these regions have in common and what poses the most serious problem facing them.

TYPOLOGY OF SMALL REGIONS ACCORDING TO A SYSTEM OF CRITERIA BASED ON EMPLOYMENT AND SOCIAL STRUCTURE

In establishing the various types of small regions, we relied, as a starting point, on the classification based on the combined economic power of centres, their employment capacity arising from the number of jobs and their status[7] in the urban hierarchy[8] set up by Beluszky and Győri. The problem that this classification presented was that it included regions with very different characteristics in the same categories in the mid-section and at the pole representing weak economic power. Therefore, all small regions were examined on the basis of economic activity, the sectoral structure of employment, the intensity of commuting, household income, the level of education of residents, indicators of demography and commuting as well as data on centres. When needed, changes in other variables (structure of demography and trends) were also taken into consideration. Care was taken that each type should also exhibit typical labour market characteristics. Based on this, small regions were included in a system of categories comprising first 16 components, and then, a few components having been combined, 10. Categories were based on the characteristics of small regions as a whole, the relationship between centres (or settlements with central functions) and their environs as well as the circumstances of commuting. A brief description of the individual types is provided below. Figure 3 shows their spatial distribution.

[7] Naturally, not all settlements that we classified as centres were included in the urban hierarchy, as settlements with a township status were also included in the group of 342 settlements; they are, as a rule, labelled as 'only small regional centres' as weaker yet existing links of a kind.

[8] See Beluszky and Gyori (2005). The authors are greatly indebted to Pal Beluszky for his helpful remarks on the first version of the typology.

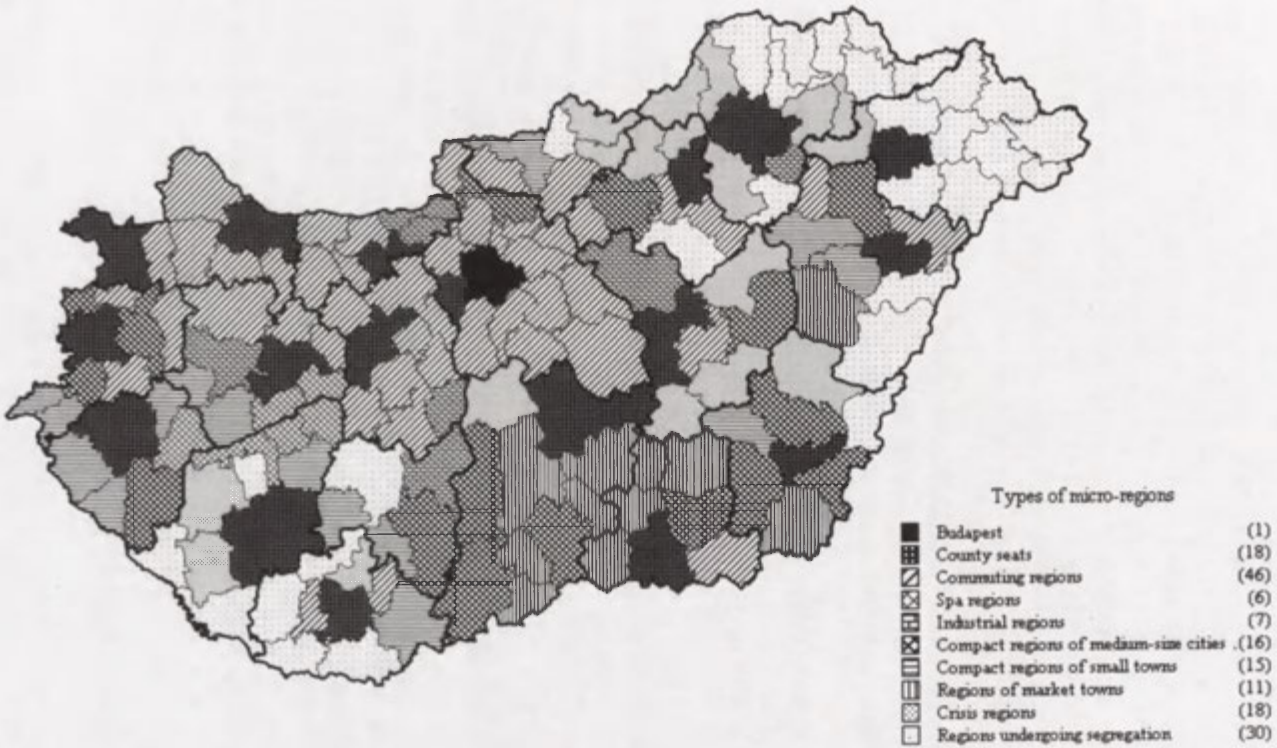


Figure 3. Types of micro-regions based on economic, labour market and social indicators

BUDAPEST[9]

Competitive even by CEE standards, Budapest is Hungary's centre with unique economic power. 46% of the registered capital of businesses operated, one-third of employees with a university or college and university degree lived and nearly 25% of all the jobs in Hungary were concentrated here in 2001. Approximately 175,000 persons from over 600 settlements commuted to Budapest every day. It has an overpowering concentration of businesses and human resources, to which it owes its rank as the centre of the country and on the basis of which it is among globally competitive metropolises.

REGIONS OF CENTRES WITH MUNICIPAL AND REGIONAL IMPACT ZONES

Serving also as places of residence for 2.5 million people, 474 settlements in a total of 18 regions are included in this category. The number of jobs in smaller centres with municipal and regional impact zones is 30–50,000, in larger ones over 70,000. Income and welfare indicators reflect a high level of education. Similarly to Budapest, these large cities with a high concentration of capital and jobs have an impact zone that reaches beyond the boundaries of their own small regions, though the geographical expansion of their catchment area and the numbers of commuters vary greatly. They owe their strength not only to the economic weight of the centres (large cities), but also to the growing potential of their more or less independent agglomerations, which rely and, simultaneously, exert an impact on large cities. A typical example is a few hubs in the Budapest agglomeration, Budaörs and its environs, in particular. Budaörs itself is the 'product' of agglomeration. At the same time, it has become a significant target area of commuting despite the fact that all the settlements in this small region are primarily attracted by Budapest, irrespective of the significant economic weight of settlements such as Érd and Törökbálint.

Historically, Debrecen, Szeged, Pécs and Miskolc are the strongest central settlements. By 2002 Győr and Székesfehérvár had also caught up with the largest centres with a regional impact zone. Centres with a regional impact zone include the remaining county seats, except for Salgótarján and Szekszárd, which were included in lower categories. They were replaced by Budaörs and Sopron. Overall, businesses operating in the small regions included in this category hold 22% of all investment capital and 30% of all jobs. One of these regions is a place of residence for 27% of all employees.

COMMUTING ZONES

What the 46 small regions with 697 settlements and a population of slightly over 1,900,000 that constitute the commuting zones have in common is a higher-than-average rate of commuting, the target of which is usually an attraction centre other than that of the relevant small region. Commuting zones can be included into three distinct sub-categories.

[9] For the purpose of this paper, Budapest qualifies as a micro-region here.

• Although centres have relatively large economic weight in 24 of the small regions of commuting (e.g. the Cegléd, Dabas and Szob small regions), the fundamental characteristic of their labour market is that the majority of employees commute to some neighbouring county seat or even to some regional one.

• The position of the 15 small regions constituting the second ring of the commuting zones is weaker than that of the above regions. Their own centres represent small economic weight and have a weaker ability to attract labour hence employees commute to one or more centres outside the region. At the same time, however, the economic activity of the population and wages are high and labour force is also trained to an above-the-average standard. Typically, they are small regions (e.g. Aba and Adony small regions) located in a ring with a 20–40-km radius around Budapest, Székesfehérvár and Győr.

• Seven small regions in the Budapest agglomeration constitute a special group. Here the rate of commuting, income and the level of education, relative to those in the above small regions, are high. What they have in common is that after the recession that accompanied the political regime change their respective economies strengthened. So much so that this is the only sub-category where the number of jobs, in contrast to national trends, grew rather then fell.

REGIONS OF INDUSTRIAL CITIES

The category of industrial cities includes seven small regions with rather strong economies, outstanding economic activity, high income, labour force trained to a high standard, a total of 199 settlements with a population of 400,000. Although the global downturn that coincided with the regime change hit all the industrial cities to a certain extent, these regions managed to survive the era of transformation, and their economies and labour markets also recovered. In the Esztergom region Suzuki's direct investment gave impetus to development, while the successful privatisation of the Lehel Gépgyár helped the Jászberény region recover from recession; the latter has, by now, become a Central European stronghold and is about to open a new plant in Nyíregyháza. In Ajka alumina manufacturing, which contracted, has managed to find new markets and recovered; the power station has successfully resumed operation; the aluminium smelter has been privatised and now has French owners; the shoe factory has been acquired by Italian investors. New businesses like zeolit mining have also taken root. Specialising in petrol chemical manufacturing, Tiszaújváros is a major chemical industry centre even by Central European standards. There has been practically no change in the operation of the nuclear plant in Paks, which generates 40% of the country's electricity consumption, as it was unaffected by the shock exerted by economic transformation. By contrast, industry in Dunaújváros was not; however, product restructuring with government assistance lent viability to production despite depressed prices. Dorog, where mining used to be the backbone of local economy, has been less fortunate. Although it did not manage to stave off severe recession, commuting to centres with rapidly rejuvenated economies helped it avoid the fate that awaited industrial crisis zones.

REGIONS WITH SPAS AND HEALTH RESORTS

Representing a category with the smallest population (i.e. 174,000 persons), regions with spas and health resorts constitute rather a special group, as it is difficult to identify the spa and resort function on the level of statistical data. It is only characteristic in cities and towns at Lake Balaton. Data on other well-known spas and health resorts only add a detail to the 'big picture' perceived of small regions. Special characteristics of spas and health resorts include an employment structure that has become strongly tertiary, high economic activity, entrepreneurial activity only comparable to that in the most developed centres and a high proportion of those with a university/college degree. Typically, all the small regions along Lake Balaton, except for the Tapolca one with a centre further of the lake, belong to this group. The reason for this is obvious: only at Lake Balaton is spa tourism typical rather than isolated and limited to a few (central) settlements. Only here do holiday-makers, mostly with seasonal presence, provide livelihood for a multitude of businesses on a regional rather than settlement level.

COMPACT REGIONS WITH MEDIUM-SIZE TOWNS

Compact regions with medium-size towns have a core town with strong attraction ability each. Even if commuting is common, it is to the region's own centre. The attraction impact of other centres is less strong. The 16 small regions with a population of 319,000 in this category are rather different in terms of economic activity, employment structure and commuting.

- Regions with relatively high local employment capacity and resultant low commuting lie mainly in the proximity of regional and municipal centres in the Great Plain (e.g. the Baja, Békés, Gyula, Hódmezővásárhely and Kalocsa small regions).
- Compact regions with medium-size towns where commuting is more common are in Transdanubia, where, in addition to larger centres, there have evolved medium-size and small settlements, from which those in employment commute mainly to small regional centres, while a relatively large number of the active age population in small regional centres seek employment in county seats or neighbouring towns. This 'cross-commuting', which is likely to affect quality labour in particular, is common in small and medium-size towns in Transdanubia.

COMPACT REGIONS WITH SMALL TOWNS

As a rule, compact regions with small towns have poorer indicators than their counterparts with medium-size towns, which have stronger economic power. They are significantly backward in terms of income. The proportion of those with a university or college degree is below average and the economic activity of the population is high only in a few industrial small regions. This category includes 15 small regions with a population of 410,000, of which three are located in the Great Plain, one in Nógrád County and the

remaining regions are regions with small villages mostly in Transdanubia. The example of these micro-regions, where development was organic, proves that healthy small-town economies can manage their relatively narrow attraction zones on their own and function properly (see the Oriszentpéter, Sümeg and Tapolca cases).

REGIONS WITH A MARKET TOWN CHARACTER

This category includes 11 small regions with a population of close to 380,000, where agriculture is still dominant. The proportion of those employed in the sector mainly in 'rural' settlements, but also in the centre(s) of small regions is higher than average. Although regions with a market town character resemble compact regions with small and medium-size towns in many respects, the economic activity and income of their population are significantly lower. With agrarian economy contracting, the number of small regions with a market town character has fallen sharply over the past one decade. While in 1990 the number of small regions where the proportion of those employed in agriculture exceeded 30% was 44, data for 2001 only allowed for the possibility of the delimitation of only 11 such regions.

All regions with a market town character are in the Great Plain. In Bács-Kiskun County it was specialised agricultural co-operatives in the Bácsalmás, Jánoshalma, Kiskőrösi Kiskunfélegyháza and Kiskunmajsa regions that contributed to the development of efficient market gardening on fundamentally sandy soil and, hence, to the survival of farming traditions. This led to the emergence of a group of thriving agrarian entrepreneurs with competitive expertise and market savvy. In Csongrád County this category includes the environs of Csongrád, Szentes, Kistelek and Mórahalom.

CRISIS ZONES

Including 18 small regions with 308 settlements and a population of 710,000, this category covers two characteristic crisis zones that represent separate subcategories under a more detailed typology. One comprises regions struggling with economic depression the other includes those bogged down in an industrial structural crisis. What they have in common is that there has been a 40% loss in jobs, the number employed has fallen by one-third and economic activity is very low, standing at a mere 28.4%.

Inner peripheries hit by economic recession (e.g. Kunszentmárton, Kunszentmiklós, Mezőtúr, Tiszafüred and Szeghalom in the Great Plain and Marcali and Nagyatád in Transdanubia) are a long way from county seats and other larger economic centres that may be able to invigorate their economies. They have been unable to attract external investment or master their internal resources in order to expand their dramatically contracted economic capacity.

Industrial crisis zones include extractive and heavy industry crisis zones, which form a contiguous area within a swathe with Salgótarján, Eger and Kazincbarcika at its boundary. Likewise, the space between Miskolc and Nyíregyháza is also crammed with small

regions sunk in industrial depression. Although employment in a dramatically shrunk industry provides decent income, it is unable to attract capital investment and is not strong enough to provide suitable employment opportunities and proper livelihood even for those living in the environs of cities. In Transdanubia the only industrial crisis zone is the Komló one, where the city has so far been unable to recover from the crisis in the wake of the collapse of mining. Nevertheless, villages in the Komló zone are better off now than Komló itself is, due to its population's commuting to Pécs, a regional centre.

REGIONS UNDERGOING SEGREGATION

Regions where, according to data on economic activity, education and demography, patterns of ghettoisation seem to be emerging are classified as regions undergoing segregation. This phenomenon occurs only in an isolated manner in a smaller proportion of the small regions in this category and is, for the time being, limited only to a few settlements. However, it sometimes also affects whole regions. This category includes extended areas with low economic activity, massive economic recession, peripheral location, a population with poor education, especially in rural areas, high unemployment and inactivity, a low proportion of commuters and a high proportion of households without employed members despite their young age composition. It comprises a total of 30 small regions with 725 settlements with a population of 963,000 living mainly in small villages.

Deterioration in the position of these regions is clearly reflected in the fact that, while in 1994 3.3% of the subscribed capital of business enterprises operated here, corresponding figure in 2001 was down to 1.5%. In 1990—9.6% of all jobs provided livelihood for those living in these regions compared to 7.8% in 2001. Monthly income amounted to 83% of rural average in 1994, while only to 79% in 2001. Relative to 1990, by 2001 the number of jobs had fallen to 63%, measured against the national average of 77%. What is even more dramatic is that a fall in employment was nearly twice the national average.

CONCLUSION

If, by way of conclusion, the question of 'What next?' is asked, we can only share a vague feeling with the reader, namely that thing will stay roughly the way they are. This means that the intensity and impact of spatial processes that picked up momentum at the end of the 20th century will gain in strength. Investors will continue to shape economic space along profitability, which will further boost the development of already developed regions (Fazekas 2003; Kollo 2003; Nemes Nagy 2003). The government is unlikely to be able to strike a balance, at least in the short run. Relative distance between developed regions and less developed ones will remain unchanged at best. Under a worst case scenario, it will further increase.

Yet, even expected stagnation or a rise in spatial inequalities cannot dim favourable developments, thus mainly the far-reaching impact of dynamic cities or clusters of cities, i.e. the regional impact of the concentration of development factors. Examples include,

in addition to the Budapest agglomeration and North West Hungary, a zone, albeit with a few isolated areas in it, reaching as far as Szeged and integrated into global economic networks.

A list of 'casualties' definitely includes market town lifestyle and economy taking an increasingly low profile, which renders the bigger picture more drab, but which may not exert adverse impacts only. The reason for this is that, concentrated mainly in the Southern Great Plain, regions with market towns are far from being disadvantaged. Due to their strong local economies and large size, their social structure is less vulnerable.

Last, but most importantly, the grave, complex and often interconnected issues that are posed by depression regions, industrial crisis areas and peripheries undergoing segregation can be addressed only by an efficient and innovational convergence policy. The dual aim of such a policy would be to stop the situation from further deteriorating and improve it through boosting social and economic integration until cross-border economic activity picks up, thereby creating a more benign climate for the larger regions as well. This is, however, is unlikely to happen overnight.

REFERENCES

Bartus, T. (2003) Ingazas (Commuting). In Fazekas, K. (ed.) *Munkaeropiaci Tukor 2003,* MTA Kozgazdasagtudomanyi Kutatokozpont, Orszagos Foglalkoztatasi Kozalapítvany, Budapest, 88–101.

Beluszky, P. and Gyori, R. (2005) *A Slow Response System: the Urban Network*, in Barta, Gy. Fekete, E. Szorenyine Kukorelli, I. Timar, J. (eds.), *Hungarian Spaces and Places: Patterns of Transition*, CRS, Pecs, 378–396.

Enyedi, Gy. (1980) *Falvaink sorsa* [The Fate of Hungarian Villages], Magveto Kiado, Budapest.

Enyedi, Gy. (1988) *A varosnovekedés szakaszai*[Stages of Urban Growth], Akademiai Kiado, Budapest.

Enyedi, Gy. (2004) Regionalis folyamatok a poszt-szocialista Magyarorszagon [Regional Trends in Post-Socialist Hungary], *Magyar Tudoman,* 9: 935–941.

Fazekas, K. (2003) A hazai és külfoldi tulajdonú vállalkozások területi koncentrációja Magyarországon [Spatial Concentration of Business Enterprises in Domestic and Foreign Ownership in Hungary], in Fazekas, K. (ed.) *Munkaeropiaci Tükor 2003*, MTA Kozgazdasagtudomanyi Kutatokozpont, Országos Foglalkoztatási Kozalapítvány, Budapest, 159–171.

Ferge, Zs. (2000) A társadalom pereme és az emberi méltóság [Social Peripheries and Human Dignity], *Esély,* 1: 42–48.

G.Fekete, E. (2005) Aprófalvak átalakulóban [Small Villages Undergoing Transformation], in Barta, Gy. Fekete, E. Szorenyine Kukorelli, I. Timar, J. (eds.), *Hungarian Spaces and Places: Patterns of Transition*, CRS, Pecs, 483–500.

Havas, G. (1999) A kistelepülések és a romák [Small Settlements and the Roma], in Glatz, F. (ed.) *A ciganyok Magyarorszagon,* MTA, Budapest, 163–203.

Kertesi, G. (2000) Ingázás a falusi Magyarországon [Commuting in Rural Hungary], *Kozgazdasagi Szemle* XLVII, Október, 775–798.

Kiss, J. P. (2001) Industrial Mass Production and Regional Differentiation in Hungary. *European*

Urban and Regional Studies, 8, 4: 321–328.

Kovacs, K. (1990) Urbanizacio alulnezetbol. Az utobbi evtizedek tarsadalomszerkezeti valtozasai aprofalvas regiokban [Urbanisation from a Bottom Perspective View], in Toth, J. (ed.) *Tér, idő, társadalom,* MTA RKK, Pecs, 272–302.

Kovacs, K. and Koos, B. (2003) Videki kaleidoszkop [A Rural Caleidoscope], *A falu* Osz, 41–53.

Kollo, J. (2003) Regionalis kereseti es berkoltseg-különbségek [Regional Differences in Wages and Wage Costs], in Fazekas, K. (ed.) *Munkaeropiaci Tukor 2003*, MTA Kozgazdasagtudomanyi Kutatokozpont, Orszagos Foglalkoztatasi Kozalapítvany, Budapest, 65–78.

Nemes Nagy, J. (2003) A fekves es az iskolazottsag hatasa a területi egyenlotlensegekre Magyarorszagon [Impact of Geographical Location and Education on Spatial Inequalities in Hungary], in Fazekas, K. (ed.) *Munkaeropiaci Tukor 2003*, MTA Kozgazdasagtudomanyi Kutatokozpont, Orszagos Foglalkoztatasi Kozalapítvany, Budapest, 133–143.

Ploeg, J. D. van der, Renting H., Brunori, G., Knickel, K., Mannion, J., Marsden, T., de Roest, K., Sevilla-Guzman, E., and Ventura, F. (2000) Rural Development: from Practices and Policies towards Theory. *Sociologia Ruralis,* 40 October, 391–408.

Speder, Zs. (2002) *A szegenyseg valtozo arcai. Tenyek es ertelmezesek* [Changing Aspects of Poverty. Facts and Interpretations], Andorka Rudolf Tarsadalomtudomanyi Tarsasag—Szazadveg Kiado, Budapest.

Timar, J. and Varadi, M. M. (2001) The Uneven Development of Suburbanisation during the Transition in Hungary. *European Urban and Regional Studies,* 8, 4: 349–360.

Varadi, M. M. (2005) *Increasingly Fossilised Labour Market Structures and Strategies of Livelihood. Chances of Disadvantaged Groups in the Labour Market,* in Barta, Gy. Fekete, É. Szorenyine Kukorelli, I. Timar, J. (eds.), Hungarian Spaces and Places: Patterns of Transition, CRS, Pecs, 289–306.

EUROPA XXI
2006, 14: 95–112

SOFIA IN THE TRANSFORMATION PERIOD 1990–2004: TRENDS AND PROSPECTS

MARGARITA ILIEVA

Institute of Geography, Bulgarian Academy of Sciences,
1113 Sofia, G. Bonchev str. bl.3, Bulgaria
Institue of Geography, Kazimerz Wielki University,
85-428 Bydgoszcz, 15 Minska str., Poland
e-mail: ilieva_mm@abv.bg

Abstract: The transformations of large cities in the course of the transition to a market economy are an issue inadequately studied in Bulgaria. This paper will therefore deal with that issue, and particularly with demographic and economic aspects related to the on-going processes, with the polarization of society, and with prognoses regarding the future development of the Bulgarian capital city. Sofia ranks first in the country in terms of population, numbers employed in the national economy, GDP generated and functions. The development of Sofia during the transformation period is seen to have characteristics of its own, and the coming decades are likely to see the capital maintain its dominance over all urban settlements in Bulgaria, in terms of both demographic potential and functions.

Key words: big city, Sofia, Bulgaria, transformation processes, trends, prospects

INTRODUCTION

Sofia is located in the south-western part of Bulgaria, in the Sofia Basin, and is an extremely important crossroads. It is a relatively young capital city declared to be such as late as in 1879. A count made the following year showed that theire were fewer than 20 500 inhabitants, leaving the city (town) in fifth place after Plovdiv, Rousse, Varna and Shoumen. However, the period between the first (1880) census and the most recent (2001) one withessed a 53-fold increase in population, and an increase in the share of the country's total population that grew from 0.7 to 13.7%.

Alongside the functions Sofia performs as capital city, there are those ascribed to 2 of the country's 28 existing administrative units (districts). The district of Sofia capital city embraces just one municipality (and is indeed the smallest administrative-territorial unit in Bulgaria). There is here the city of Sofia (93.4% of the population), 4 very small towns (each of less than 10,000 inhabitants) and 33 villages. Proceeding from the fact that statistical information is generally provided at a municipal level, most of the figures in this article refer not to the city itself but to the whole municipality.

DEMOGRAPHIC STRUCTURE AND ITS CHANGES DURING THE PERIOD 1990–2004

Sofia is the only city in Bulgaria whose population exceeds 1 000 000 people (Table 1). The concentration of a major part of the demographic potential (over 1/7 of the country's population) in an area occupying about 1% of national territory (1348.9 sq. km) has been and will continue to be crucial where the development of both city and country are concerned. The remaining eight large cities in Bulgaria have populations well below that of Sofia—Plovdiv (341 000 people, 2001 census data), Varna (314 000), Bourgas (193 000), Rousse (162 000), Stara Zagora (144 000), Pleven (122 000), Sliven (100 000) and Dobrich (100 000). In its demographic potential, Sofia is comparable with some capitals in the Eastern European states (Figure1), and is amongst the smaller cities of over one million people on the Balkan Peninsula.

Table 1. Sofia population in the structure of Bulgaria

Indicators	1990		1995		2000		2004	
	Number ('000)	Share in the country (%)	Number ('000)	Share in the country (%)	Number ('000)	Share in the country (%)	Number ('000)	Share in the country (%)
Population								
Sofia-Municipality	1202.9	13.4	1189.0	14.2	1222.2	15.0	1221.1	15.7
Sofia-City	1141.1	12.7	1112.8	13.3	1133.2	13.9	1127.6*	14.4*
Population of working age	705.2	14.1	722.3	15.2	764.8	16.1	788.4*	16.6*
Labour force	n/a	n/a	543.7**	15.3**	570.0***	17.4***	593.3	17.9
Employed	580.0	14.2	515.4	15.7	523.5***	19.1***	533.9	18.3

* 2003; ** October 1995; *** December 2000;
Source: National Statistical Institute

The population of Sofia continued to increase until the mid-1980s, only to commence with a gradual decline after that (Figure 2). As a whole, the rates of population decline are lower than both those in the other cities and the national average. Therefore, the role of Sofia within the urban settlement network is growing, and its share in the country's total population is also rising (Table 2). Besides, Sofia is remarkable for the highest population density in the country—873.7 people /km^2 (cf. the average national density of 71.1 /km^2—2001 census data).

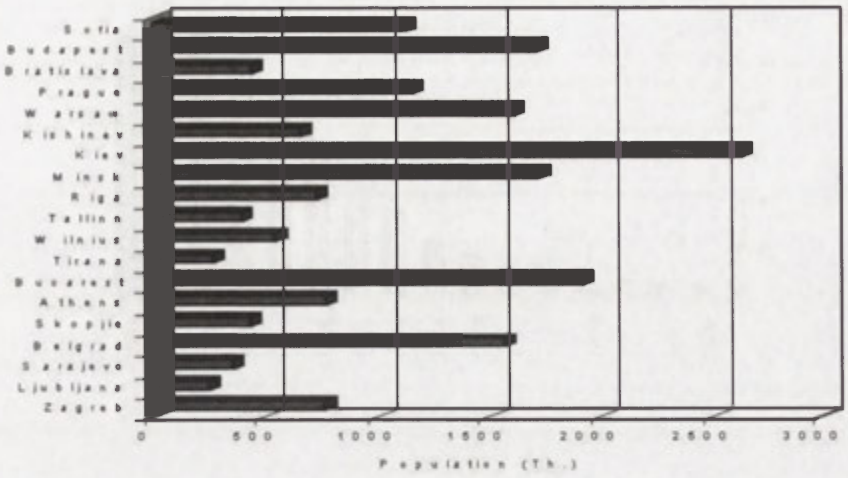


Figure 1. Sofia among the capitals of Central and Eastern European countries

The population decrease in Sofia post 1985 resulted from unfavourable demographic processes and intensive emigration. The changes in the population's natural increase are characterized by lower birth rates and higher death rates. As a consequence, since 1991 the natural increase has consistently assumed negative values (Figure 3). On the one hand, this trend should be ascribed to economic difficulties lasting longer than in the other Central European states in transition, while on the other it may be said to reflect

Table 2. Sofia in the urban system of Bulgaria*

	Urban settlements (total)	Large cities**	Sofia
1985			
Number of urban settlements	237	10	1120.9
Population ('000)	5811.3	2730.0	19.3
Share of urban population	100.0	47.0	—
1992			
Number of urban settlements	238	9	1114.9
Population ('000)	5704.6	2622.2	19.5
Share of urban population	100.0	45.9	—
2001			
Number of urban settlements	240	9	1096.4
Population ('000)	5500.7	2574.2	19.9
Share of urban population	100.0	46.8	—

*Author's calculation based on data from censuses of population in Bulgaria
** Under the Act on Territorial and Settlement Construction (1995), large cities in Bulgaria are of over 100,000 inhabitants.

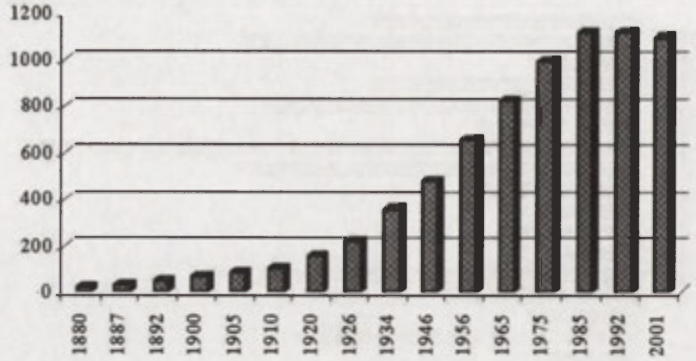


Figure 2. Population of Sofia-city by census

the degraded age structure of the population, the improvement in levels of educational attainment, the large share of working women, the decreasing crude marriage rate, the increasing number of instances of extramarital relations on a consensual basis, delayed marriages, the acceptance of new patterns of reproductive behaviour, massive emigration, etc. In spite of all this, the demographic situation in Sofia actually enjoys more favourable characteristics than those averaged for the country as a whole.

Sofia, like everywhere else in the country, has witnessed ageing of the population and a deterioration in age structure over recent decades. The share of the population below working age has been declining, while the share beyond working age has grown more slowly than in the country as a whole, remaining lower to date. One family or household is of limited size. As for the population sex structure, in recent years the number of females per 1000 males has been higher than the national average (figures of 1110 and 1056 respectively in 2002) and continues to grow at accelerated rates. A typical feature is

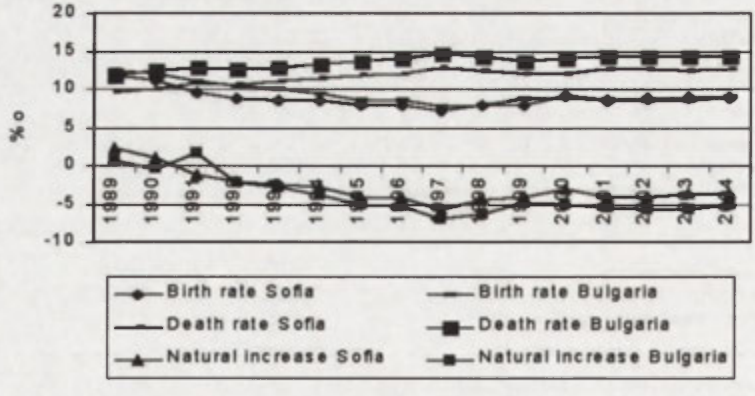


Figure 3. Natural increase (decrease) of the population in Sofia and Bulgaria

the higher educational level and the greater share of people with a university education (230% of those aged 7 or more)—about 2.5 times as high as the national average—factors that continue to promote the development of the economy. .

Sofia has always been attractive to new settlers. Since 1990, the increase in migration rates in it, reflecting internal migration movements, has reached and sustained peak values as compared with the remaining regions. In 2002 it was calculated to vary about 17 60(people—Sofia attracted 22% of the total number of migrants, while the out-migrants corstituted 8%. The desire to settle in Sofia manifested during the transition period shcuild be associated with better job opportunities afforded by the capital, the greater expectations for quick prosperity, the abolition of restrictions on such moves (which existed until 1990), the concentration of institutions of higher education, etc. A reverse trend has become noticeable recently, whereby fewer people wish to make Sofia their place of residence on account of the economic difficulties, higher prices of flats and living costs in the capital city, which ultimately weaken population mobility. Some of the out-migrants are pensioners returning to their smaller native towns and villages. A typical feature of the quantitative changes affecting Sofia's population is the emigration of young, mainly well-educated people. This emigration wave, very strong at the beginning of the transition period, has continued up to the present time. It is difficult to say how many people are involved in the emigration movement since statistical data on migration at national level are frequently lacking.

A survey carried out by Dimitrov and Mladenov (1999) suggests that the demographic tendencies and conditions characterising Sofia in recent decades are similar to those in other capital cities of Eastern European countries, like Bucharest, Budapest, Prague and Warsaw. However, the acceleration of adverse demographic processes in Sofia is likely to increase the differences.

ECONOMIC DEVELOPMENT

In terms of share of national GDP (estimated at 26–29%, and 29.2 % in 2002), number in employment within the national economy, Sofia takes first place in the country and is still the biggest economic centre.

By the end of the 1980s, industry had become the primary economic sector in the capital city. Most of the capacity dated back to the years after the Second World War, with a typical Eastern Bloc branch structure and specialization involving power generation and labour-intensive production (ferrous metallurgy, printing and publishing, manufacture of cellulose, paper and paper products, engineering, electrics and electronics, production of electricity and thermal energy, etc.). This had great bearing upon the restructuring and employment changes ongoing in industry in the 1990s (Table 3). Also typically, the service sector had lagged behind, while agriculture played only an insignificant role in the overall economic structure (Figure 4).

Emerging as very important for the transformations in the economy were the processes of privatization and de-industrialization. Profound changes in the nature of ownership reflected the previous predominance of state ownership over several decades (from the

Table 3. Share taken by Sofia in the industry of Bulgaria (numbers employed in industry, %)

1960	1970	1980	1985	1990	1995	2000	2002
18.5	14.9	12.2	12.4	12.1	11.3	14.3*	12.8*

* only manufacturing
Sources: Popov, 1986; Ilieva, 1986; author's calculations on the data of NSI

1950s to the 1980s). The analyses show that the process of privatization in Sofia was slower than could have been wished, especially during the first half of the 1990s. By the end of 1999, 69% of state enterprises had been privatized. As a whole, the foreign direct investments in the country are viewed as insufficient. They were also very largely attracted by the capital city—which accounted for more than 80 % of the FDI in non-financial institutions throughout the country at the beginning of the 1990s (Figure 5), and 52.6 % in 2003 (Figure 6). The corelation between Sofia and the South-West planning region is similar—Sofia is the location of a predominant part of the FDI in this region (Figure 6). Among the greatest investors were Austria, Germany, Greece, the UK, Cyprus, the USA, etc.

Various state enterprises from different sectors were privatized—the manufacture of food, beverages and tobacco, metallurgy, machine building, light industry, etc.; large hotels, department stores, etc. Over 94% of municipal property also became private by means of the so called 'small privatization' (1992–2003). More than half of the investments were directed to the services sector, which was most attractive for foreign investors. The private sector was steadily gaining in importance and is today prevalent. As a consequence of privatization and de-concentration, and of the establishment of private small and medium-sized enterprises, the number of economic entities increased dramatically. The c. 44,000 enterprises from the non-financial sector located in Sofia represent

Figure 4. Structure of Sofia's economy by sectors

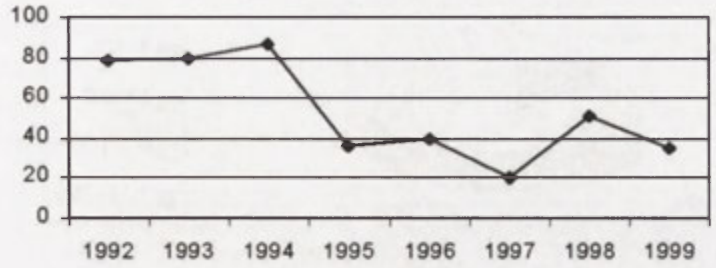


Figure 5. Share taken by Sofia in FDI in Bulgaria

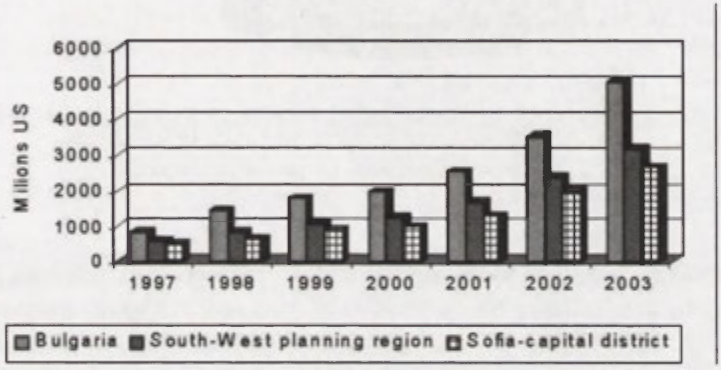


Figure 6. FDI in non-financial enterprises

almost 20% of then national total, a fact confirming the heavy concentration of production capacities and services in the capital. More the 65% of these are in the group of small enterprises (in terms of the numbers employed) (Figure 7). The highest shares within the breakdown of small and medium-sized enterprises by type are taken by trade, repair activities and real estate, renting and business activities (Figure 8).

Structural changes considered specific to the economy of Sofia during the transition period are the declining share of industry and growing role of the service sector, especially at the beginning of the 1990s. De-industrialization has been resulting from the shutdown of certain technological lines or restriction of industrial output, itself a reflection of the decline in output from large enterprises and the expansion of the service sector. De-industrialization, as accompanied by restructuring in line with the demands of the market economy and the development of the service sector, are all characteristic features of the transformation processes in the capital cities of other nations in transition, e.g. Warsaw, Budapest and Prague (Węclawowicz 1998). We would nevertheless maintain that the economic results of the processes ongoing in the aforementioned capitals have been much better than those to be noted in Sofia, as evidenced by overall levels of social and economic development.

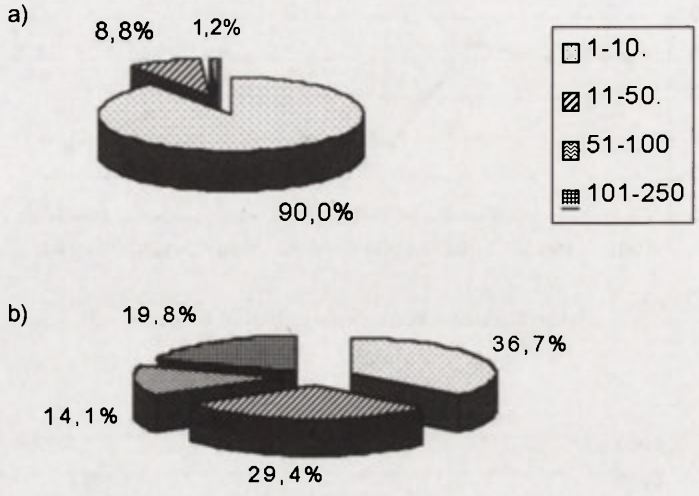


Figure 7. Small—and medium-sized enterprises in Sofia by size,
a—number of enterprises, b—number of employed

The economic transformations in Sofia and the country as a whole have led to a decline in production. Industry has been affected most severely, to the point where many obstacles to its further progress and restructuring have been put in place. The decline in traditional industries post 1990 has also been accompanied by shrinkage in the role science-based and high-technology branches (electronics, machine-building, etc.) play in overall industrial structure. It is the manufacture of food, beverages and tobacco, the printing and publishing industry, chemicals and oil-processing (confidential branches excluded) that have been responsible for the highest share. Thus, the structure to industry in Sofia continues to look unfavourable. The capital in fact accounts for 75% of output in ferrous metallurgy, and 50% of the printing and publishing, cf. a 15% contribution to output in electrotechnical industry, electronics output, etc. The lower rates of production drop at the beginning of the transition period. as well as the gradual increase in production volumes are nevertheless exerting a more favourable effect on the capital city's development.

While Sofia provides the widest spectrum of services when set against other Bulgarian cities, its service functions are still seen to be underdeveloped when compared with Western European ones. Very important for the economy of the city are trade and transport, followed by branches such as science, finance, credit and insurance, healthcare, education, culture, etc., whose potential is concentrated primarily in Sofia, as the first rank core in the country.

Sofia is also the country's biggest transport and commercial centre. Its location at the crossroads of important railways and roads, running from West and Central Europe to the Near and Middle East, from northern Europe to the Mediterranean and North Africa and from the Adriatic coast to the Black Sea and Caspian seaside promotes its

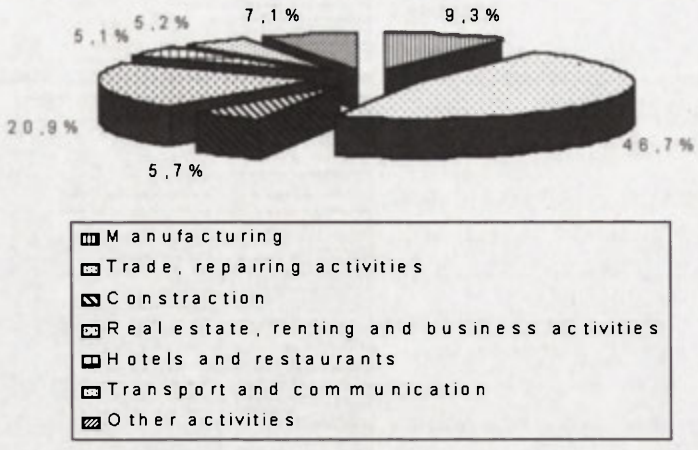


Figure 8. Structure of the small- and medium enterprises in Sofia by subsectors

progress substantially. These transport axes carry three pan-European transport corridors (# 4, 8 and 10), these intersecting with each other in the Sofia Valley itself. Through its airport—again the largest in the country—Sofia provides access to the international transport network. In recent years, attempts have been made to enlarge its capacity and improve transport accessibility to the Bulgarian capital. The role of Sofia as a transit railway junction only serves to attest to its strategic location (*Plan za regionalno* ... 1999). In addition to its great significance in international transport, Sofia also plays a key role in national space. At the same time, changes are occurring as regards the organization of public urban transport, with the first underground railway in the capital city coming into operation in 1988.

A new phenomenon in the development of trade during the transition period has been the encouragement and progress of private initiative. In 1990, ownership in the trade sector changed from almost entirely state-owned (93.8% of the shops in Sofia in 1989) to almost entirely private. In the course of the transformation, different forms of trade have been distinguished—the large state-owned stores were replaced by street stalls and specially-organized markets offering industrial and other articles (with a boom in 1991–1993), and later by well–designed, small private shops, reconstructed or newly-built city markets and modern shopping centres. In this period, trade activities were subject to two opposing trends—deconcentration, which resulted in a more than two-fold increase in the number of shops, and concentration (a building-up of hypermarkets represented by foreign and Bulgarian trade firms). The territorial distribution of the trade network underwent changes, too. The number and density of shops, catering establishments, etc. grew in the residential districts, while most of the hypermarkets and the wholesale warehouses and shops were situated in the suburban area near the busiest inlet and outlet motorways, and near the Sofia ring road. However, by comparing Sofia with the remain-

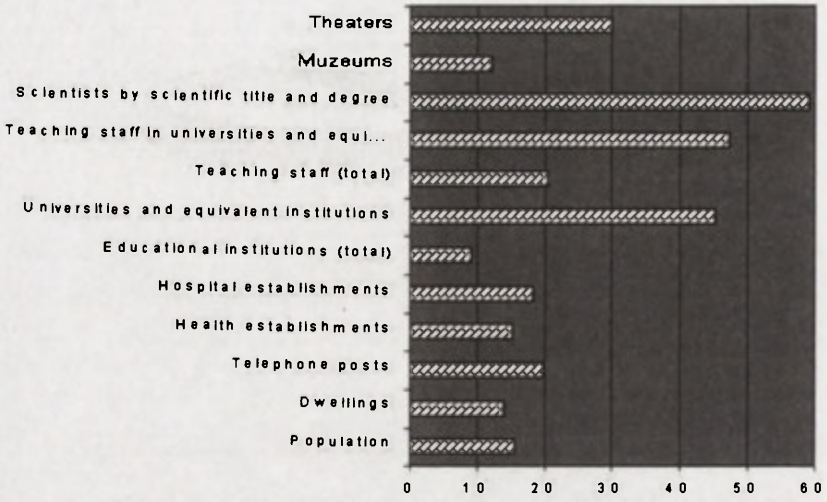


Figure 9. Sofia against the background of the country

ing capital cities or large towns in the Central European states in transition (i.e. Warsaw, Prague, Leipzig, Brno, etc.) it becomes obvious that the construction of the trade network in the city suburbs continues to lag behind.

Sofia is the major scientific and cultural centre in Bulgaria. Of national importance are the institutions of the Bulgarian Academy of Sciences, the Academy of Medicine, etc. Sofia is remarkable for its highest concentration of higher education institutions, including universities (Figure 9). A new trend is the foundation of private universities, colleges and secondary schools. Sofia is among the European capital cities with a well-developed network of cultural institutions (*Plan za regionalno...* 1999). It is in Sofia that almost one-third of the theatres in the country are located, some being of national importance (like the National Theatre, the National Opera House, etc.), as well as the National Palace of Culture, and many art galleries, museums, etc. The available infrastructure and organization of important national and international cultural events can turn Sofia into a centre of cultural tourism (Hadzhinikolov 2001).

A characteristic feature of the transformation process in Sofia has been the development of servicing branches and activities that often have supra-regional significance, e.g. where finance, insurance, consultancy and advertisement are concerned, as well as information and computer services, services of private publishing houses, private mass media, etc. Better business services are encouraged either by the construction of new offices, or by changes in the use of already-existing ones, by setting up trading centres and exhibitions, by the further extension of transport and telecommunications links, by updating previously-built gotels and constructing new ones, by improving city transport, etc.

The transformation processes ongoing in the economic sector have led to significant changes in employment. An analysis of the 1989–2004 figures indicates a drop in the

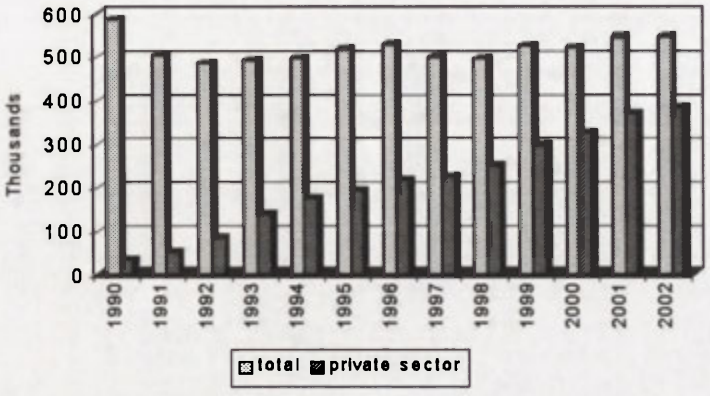


Figure 10. Employment in the capital-city economy

numbers employed (Table 1), if a smaller one than in the country, as well as fundamental changes in employment structure. Unlike the public sector, the private has witnessed increasing numbers and shares of those employed (Figure 10). As a whole, Sofia accounts for a share of those employed in the private sector that is lower than the national average, on account of the greater role played by the governmental administration, educational and health services, etc. What is worth mentioning is that the share of those employed who work in the service sector is growing substantially, while that in industry is decreasing. A comparison of the changes in employment in the industrial sector of Sofia and throughout the country (1989–1999) points to a more rapid de-industrialization of the capital city's economy. At present, the highest share in the employment structure is accounted for by trade and repair activities (19.5%, 2002), followed by manufacturing industry (16.3%), real estate, renting and business activities (13,2%), transport and communications (10.9%), etc.

The fact that Sofia has slower rates of decline in employment than are observed on average nationally is due to the lower level of unemployment there (Figure 11). The number unemployed and unemployment level increased rapidly at the beginning of the transition period, when there was a marked drop in output and dismissal of workers. Equally, in recent years these have remained low. Proceeding from the investigations, 'the comparison with other regional structural characteristics confirms that there is a reverse dependence between the unemployment level and the level of investment activity' (*Ikonomikata na...* 1999, p. 156). The share of unemployed young people up to the age of 29 and of unemployed people with a long-duration job search (almost twice) is also smaller than that at national and regional level. This should be attributed to the economic development of the capital city, to the better job opportunities it affords and to the higher educational and qualification levels of the labour force.

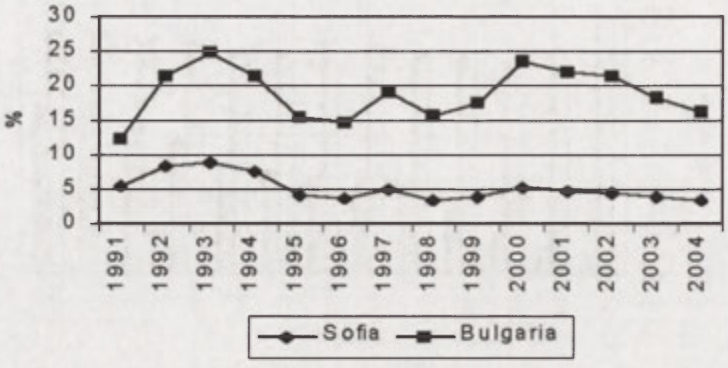


Figure 11. Level of unemployment in Sofia and Bulgaria

POLARIZATION OF THE SOCIAL AND SPATIAL STRUCTURE IN SOFIA

The employment changes, the emergence and expansion of unemployment, economic hardships and a number of additional factors have had a negative impact on the polarization of society. As far as Sofia is concerned, this is a process still poorly studied at regional and local level.

The early stage of the transition, brought a drastic decline in income levels, which later began to rise slowly once again. Investigations conducted by the National Statistical Institute indicate that, during the period 1992–1998, the total per capita income of a household in Sofia was lower than that throughout the country, in spite of higher earnings. At the same time, the living costs in Sofia considerably exceed those in the other towns and cities, as well as the average for the country. In Sofia, the primary source of income continues to comprise salaries and pensions, which are much lower than those in the Central European nations in transition. The small share of income due to entrepreneurship (4–5% on the national scale) can be assumed to be an indirect indicator, implying that the reforms in Bulgaria have not brought very good results. Simultaneously, it has been possible to observe a clear differentiation of incomes, the appearance of a small group of well-to-do people (about 5% at national level) and the impoverishment of the population en masse. As a matter of fact, the transition period has been characterized, not only by substantial impoverishment, but also by a 'thinner stratum' of moderately affluent people (Stoilova 2001). The formation of a middle class remains something to crave. These processes are closely related to the economic and employment changes, and the ensuing restriction of incomes, as well as to the aggravating age structure of the population.

Differences in living conditions are among indicators of polarization. The smaller amount of floor space per capita (17.2 m^2 in Sofia against 19.1 m^2 for the country, 2002) and shortage of flats are problems, common to both Sofia and other larger cities in Bulgaria. This is a consequence of the previous city development up to the end of the 1980s, when the rate of population growth outstripped the increase in the availability of residen-

tial buildings. After 1990, the number of newly-built homes in Sofia was smaller than in former years, with some premises being transformed to other purposes. Many flats in the city centre, especially on lower floors, are preferred for offices of various agencies, shops, etc. The greatest floor space per capita has been recorded in the heart of the city (districts of Sredetz, Oborishte), in Lozenetz (with may offer some of the best living conditions), etc. Considerably less floor space per capita is available in the biggest housing estates, called 'dormitories' (like 'Mladost', 'Liulin', 'Obelia', etc.), these having been built in the 1970s and 1980s in Sofia's suburbs.

The construction and repair of residential and public buildings, of infrastructural facilities, etc., have changed the aspect (and to a certain extent the spatial structure) of the city. In the 1990s, new flats were being built in the city's central parts, where the old residential buildings were destroyed, as well as at the foot of Vitosha Mountain—where new residential districts have taken shape in the place of former villages (Vladaia, Boyana, Simeonovo, Bistritza), etc. Predominant in the modern construction are blocks of a limited number of flats or one-family houses. The price of 1 m^2 floor space is very high, much higher than that in the other big cities, and is almost commensurate with prices in the 'advanced countries'. The high prices and inability of the majority of people to buy a flat result in a surplus of residential buildings.

A characteristic feature of conditions in Bulgaria is the private ownership of flats (93,6%). The high percentage of private homes reflects mobility of the population and blurs the distinction between the poorer and richer parts in a city's structure. Other causes such as the low share of well-to-do people and the lack of a distinctly outlined middle class also contribute in this respect. Although there are no apparent differences in the city structure today, it seems that some of the city residential districts provide better living conditions and blocks of flats of a higher standard ('Lozenetz', 'Iztok', etc.), while in some housing estates ('Druzhba-1', 'Metalurg', etc),—built mainly to meet the requirements of workers employed in the industrial enterprises nearby—the conditions are worse. Recently, the number of newly-built one-family houses of affluent people in Boyana, Dragalevtzi, Simeonovo, etc., has grown. In addition, there are districts in which the concentration of gypsies is greater. At present, the inhabitants in most of the housing estates are highly diverse in profile—richer and poorer, of higher and lower educational levels, with more weighty or ordinary professions, wit younger and older living together.

The conclusion is that, in the course of polarization of Sofia's social and spatial structure, there are peculiarities associated with the specific phenomena and processes to socio-economic development. Simultaneously, some similarities can be observed in the way this process is continuing in Sofia and in the capital cities of other states in transition, obzerved for example in Warsaw and other Polish cities and towns (Węclawowicz 1998, 2004).

VISIONS OF SOFIA'S FUTURE DEVELOPMENT

In the available classifications of European cities, Sofia is defined as: a core agglomeration of moderate size—over 1 million people (Hebrard and Treuners 1992); a city of potential international importance (*Europaisches Stadtenets...* 1994); and a city of interna-

tional importance, located in the peripheral (third) zone of the European cities' network (Dematteis 1996). Sofia is a core of Bulgaria's biggest agglomeration. Considering the concept of central localities and the description of the methodological principles underlying the investigations, undertaken in the central places of Central and Eastern Europe (Grimm *et al.* 1997), Sofia can be defined as a capital city of international functions like Bucharest, Budapest, Prague, Warsaw, etc.

In the next decades, Sofia will maintain its dominance over all urban settlements in Bulgaria, through its demographic potential and functions. The realistic version of the population forecast suggests that, until 2005, the population size is likely to stagnate as a result of the positive migration increase, counterbalancing the negative natural increase (*Prognoza za demografskoto...* 1999). Nevertheless, Sofia will remain the largest city in the country, with a population several times greater than that of the other major urban centres. As Bulgaria's capital, it will continue to stand out against the background of the urban settlements in terms of the nature of its functions. During the next stage of development, Sofia will again be the only Bulgarian city approaching the criteria for a metropolitan centre. The service sector will expand spatially even though, according to Grigorov (1994), it is even now spread over an extensive area (within a radius of more than 100 km).

In the approved National Plan for Regional Development over the Period 2000–2006, Sofia is supposed to form one of the seven regions of growth in the country, with a leading role in the national economy (National plan... 1999). It will be one of the most rapidly-developing structures in the south-western planning region.

The specific features of Sofia's former socio-economic development predetermine its economic perspectives. The rates of any future economic progress will be slowed by the more retarded reforms in Bulgaria as compared with the other Central and Eastern European nations in transition. At the same time, the preconditions for further economic success place the capital city in a much more favourable position than Bulgaria's remaining urban areas. With an orientation towards a market economy, Sofia will gradually turn into a key centre of market infrastructure and institutions.

In Sofia, the share of people employed in the service sector will continue to increase, in line with the trends observed in the economically-advanced states. The elaborated prognoses indicate that the share of the service sector in employment structure will reach 75% in 2020 (*Prognozi za trudovata...* 1999). Then the employment structure will be similar to the contemporary one in some European countries—80–82% in London, Paris, Stockholm, Oslo, Rome, etc. Sofia will continue to be the biggest centre of healthcare establishments of national and regional importance, of educational infrastructure (especially in the field of higher education), of culture, sport, etc. Sofia will also gain in importance as a trade and tourist centre.

Over the next few years, attempts will be made to solve problems, e.g. in relation to the further development and restructuring of industry. The current industrial specialization does not adequately correspond to the functions of Sofia as a capital city, and so will undergo substantial changes.

Alongside the transformations to the sectoral and branch structure of the economy, the territorial changes already in progress will proceed. In compliance with the Plan for

Regional Development (2000–2006), some of the production capacities should be relocated outside Sofia. As a result, the capital city will be relieved of non-specific activities and functions, thus promoting the development of a service sector. In future, these spatial changes will also be associated with the relocation of services along the main transport corridors. The reorientation of housing construction and the concentration of warehouses, shops, catering establishments, servicing and production functions beyond the capital city limits on the one hand, and the territorial expansion of the adjacent settlements on the other, will shorten the distance between them. This will favourably affect the development of the Sofia agglomeration. The trend towards the building of spacious warehouses, large wholesale trade and small production enterprises in the suburban area (in south-eastern, western and north-eastern directions, near the ring road, etc.) will persist in the coming years, too.

The ongoing reforms and progress with the Bulgarian economy are likely to increase the attractiveness of the capital city to foreign investors. Most of the direct foreign investments in the south-western region will continue to flow into Sofia. Owing to the European integration of the country, the number of foreign agencies in it will grow.

The better transport access to Sofia, the development of communications and the conversion of the city into a chief centre of the information and infrastructural network might somehow mitigate the adverse effects of remoteness of the capital city from the large West European centres and axes of business and advanced technologies. In the next few years its transport advantages and beneficial geostrategic location (where three transport corridors of European importance intersect) should be more efficiently used. These corridors—as well as the development of adequate infrastructure—will afford splendid opportunities to turn Sofia into an international communications and transport centre. At a national level, the city of Sofia will continue to be the first-rank transport centre.

The project proposals as regards the town development plan for Sofia have demanded two scenarios (*Strategia za...* 2001). Of these, the basic one is considered the one that accentuates the development of the city as a compact unit, and the target-oriented management of the suburban region and the zone of Sofia's active influence. The projects, proposed within the framework of the Urban Development Plan for the Sofia-city region, will facilitate the achievement of its strategic goal, and will promote the prosperity of the capital city.

REFERENCES

Clava, P. (2000), The European system of capital cities, *GeoJournal*, 51, 1–2.

Dematteis, G. (1996), *Toward a unified metropolitan urban system in Europe: Core centrality versus network. Distributed centrality,* in Rumain, D. and Saint-Julien, T. (ed.) *Urban Network in Europe,* INED, John Libbey, Paris.

Dimitrov, E. and Mladenov, Ch. (1999), Demografskoto razvitie na Sofia na fona na drugi stolitzi ot Tzentralna i Iztochna Evropa [Demographic development of Sofia compared with that of the other capitals in Central and Eastern Europe], *Problemi na geografiata*, Institute of Geography, Bulgarian Academy of Sciences, 3–4.

Dimov, N., Kolev, B., and Bojadziev, V. (2000), *Geografsko i geopolitichesko polozhenie* [Geografical and geopolitical situation], in *Sofia 120 godini stolitza* [Sofia 120 years capital], Sofia.

Dimov, N., Bojadziev, V. and Ilieva, M. (2000), *Stopanstvo: savremenno sastojanie i prostranstvena struktura* [Economy: contemporary state and apatial structure], in *Sofia 120 godini stolitza* [Sofia 120 years capital], Sofia.

Enyedi, G. (1998), *Transformation in Central European post-socialist cities* in *Social Change and Urban Resructuring in Central Europe*, Budapest.

Europaisches Stadtenetz. Raumordnungspolitiken im europaischen Kontext, 1994, Bundesministerium Fur Raumordnung, Baumwesen und Stadtebau, Bonn.

Fassmann, H. (1997), *Regionale Transformationsforschung. Theoretische Begrundung und empirische Beispiele* in *Regionale Transformationnsprozesse in Europa*. Beitrage zur Regionalen Geographie, 44, Leipzig.

Gawryszewski, A., Nowosielska, E., and Ksiezak, J. (1996), *Ocena pozycji Warszawy wśród innych stolic-wielkich miast europejskich na podstawie autorskiej analizy danych demograficznych, społecznych i gospodarczych (lata 1970, 1980, 1990)* [Evaluation of Warsaw position among other capitals-cities on the base of author's analyses of demographic and socio-economic data 1970s, 1980s, 1990s], (1994), Urban Networks in Europe, EUREG 1.

Geshev, G., Iliev, I., and Bojadziev, V. (2000), *Administrativni i politicheski funktzii* [Administrative and political functions], in *Sofia 120 godini stolitza* [Sofia 120 years capital], Sofia.

Geshev, G. (1999), Uslovia i problemi za funktzionirane na teritorialnoto samoupravlenie v Sofia [Conditions and problems associated with the territorial self-government in Sofia], *Problemi na geografiata*, 3–4.

Grigorov, N. (1994), *Teritorialnoto I selishtnoto ustrojstvo na Republika Bulgaria do 2010 godina I sled neja* [The territorial and settlements construction of Republic of Bulgaria till 2010 and after this], in *Strategia za teritorialno razvitie na Republika Bulgaria* [Strategy for regional development of Republic of Bulgaria], Sofia.

Grimm, F.-D., (Hrsg.), (1996), *Stadte und Stadtesysteme in Mittel- und Sudosteuropa*,—Beitrage zur Regionalen Geographie, Leipzig.

Grimm, F.-D., Friedlein, G., and Mueller, E. (1997), *Zentrensysteme in Mittel- und SudostEuropa*. Atlas Ost- und SudostEuropa. Osterreichsches Ost- und SudostEuropa-Institut, Wien.

Hadjinikolov, H. (2001), Bulgarskijat mejdunaroden turizam—nadejden valutnoprihoden otrasal (Bulgarian international tourism—promising currency-income branch), *Nauka*, 4.

Hebrard, J. and Treuner, P. (Hrsg.), (1992), *Perspektiven einer europaischen Raumordnung*, Hannover—Paris.

Hristov, E. (2000), *Demografsko razvitie* [Demographic development], in *Sofia 120 godini stolitza* [Sofia 120 years capital], Sofia.

Ikonomikata na Bulgaria do 2001 i otvad do 2010 godina [Economy of Bulgaria till 2001 and till 2010], (1999), Fondation 'Friedrich Ebert', Sofia.

Iliev, I. (2001), *Transformation of Pleven Agglomeration in the period of Transition*, in Kitowski J. (ed.) *Spatial dimension of Socio-Economic Transformation Processes in Central and Eastern Europe on the turn of the 20-th century*, Rzeszów.

Iliev, I. (2003), Narastvanei i struktura na tetitoriata na grad Sofia [Crowth and structure of the Sofia city territory], *Obuchenieto po geografia*, 4.

Ilieva, M. (1986), Izmenenie na teritirialnata struktura na promishlenostta na grad Sofia [Changes

of spatial structure of industry in Sofia], *Problemi na georafiata*, Institute of Geography, Bulgarian Academy of Sciences, 4.

Ilieva, M., Stefanova, D., Roukova, P., Petrova, R. (2000), Grad Sofia i Stolichnata obshtina na granitzata na dve stoletia [The city of Sofia and the metropolitan municipapity on a verge of two centures], *Problemi na geografiata*, Institute of Geography, Bulgarian Academy of Sciences, 1–4.

Iliew, I. (1996), Umweltgeographische Probleme der Grossstaedte in Bulgarien, *Suedeuropa Aktuell 22*, Munchen.

Jałowiecki, B. (1999), Współczesne przekształcenia struktury osadniczej i przestrzeni miejskiej [Contemporary changes of settlement structure and city territory], in Cywilizacja informacyjna a przekształcenia przestrzeni. Zmiany strukturalne metropolii polskich, *Biuletyn KPZK*, 186.

Korcelli, P. (1997), Warszawa i aglomeracja Warszawska: tendencje, perspektywy, zagrożenia rozwoju [Warsaw and Warsaw Agglomeration: trends, prospects, risks of development], *Zeszyty IGiPZ PAN*, 43.

Korcelli, P. (2000), Europejski system miast [European urban settlements system], *Przegląd Geogaficzny*, 72, 4.

Lappo, G.M. (1998), *Goroda—tochki rosta v territorialnoj strukture Rossii* [Urban settlements—points of growth in Russia spatial structure], in *Poljusa i tzentri rosta v regionalnom razvitii*, Moskva.

Naselenie 2002 [Population 2002], 2001, Sofia.

Natzionalen plan za regionalno razvitie 2000–2006 [National plan for regional development 2000–2006], 1999, <www.bulgaria.govrn.bg/official_docs>

Plan za regionalno razvitie na oblast Sofia [Plan for regional development of Sofia district], 1999, Sofia.

Popov, P. (1986), Razvitie i otraslova struktura na promishlenostta v grad Sofia [The development and sectoral structure of dustry in Sofia], *Problemi na georafiata*, Institute of Geography, Bulgarian Academy of Sciences, 3.

Popov, P., Kiradjiev, S. (1986), Teritorialno razvitie na grad Sofia [Spatial development of Sofia], *Problemi na georafiata*, Institute of Geography, Bulgarian Academy of Sciences, 2.

Prognoza za demografskoto razvitie [Prognosis for demographic development], 1999, Obsht gradoustrojstven plan na Sofia, faza 'Predvaritelen proekt', Sofia (manuscript).

Prognozi za trudovata zaetost na nasdelenieto i strukturata na dohodite i razhodite na domakinstwata v Stolichnata obshtina [Prognosis for employment of population and structure of household incomes and expenditures in Sofia municipality], 1999, Obsht gradoustrojstven plan na Sofia, faza 'Predvaritelen proekt', Sofia, (manuscript).

Ranga Warszawy w Europejskiej sieci miast w świetle współczesnych klasyfikacji i typologii międzynarodowych [Rank of Warsaw in European urban settlement net in the light of contemporary international classifications and typologies], Warszawa.

Statisticheski Sbornik na grad Sofia 1977 [Statistical Yearbook of Sofia 1977], (1977), Teritorialen Informatsionen center, Sofia.

Statisticheski Sbornik na grad Sofia 1981 [Statistical Yearbook of Sofia 1981], (1981), Teritorialen Informatsionen center, Sofia.

Statisticheski Sbornik Sofia' 93 [Statistical Yearbook of Sofia'93], (1994), Natsionalen Statisticheski Institut, Sofia.

Statisticheski Sbornik Sofia-grad' 1996 [Statistical Yearbook of Sofia' 1996], (1997), Natsionalen

Strategia za razwitie na Sofia [Strategy for the development of Sofia], 2001, <www.sofia.bg/stratbg.asp>

Świat w liczbach 2005–2006, (2005), WSiP, Warszawa.

Węclawowicz, G. (1998), *Social Polarization in Postsocialist Cities: Budapest, Prague and Warsaw,* in *Social Change and Urban Restructuring in Central Europe*. Budapest.

Węclawowicz, G. (2004), *Where the Grass is Greener in Poland: Regional and Intra-urban Inequalities*, in Lee, R. and Smith, D. (ed.) *Geographies and Moralities. International Perspektives on Development, Justice and Place*, Blackwell Publishing, London, p. 62–77.

EUROPA XXI
2006, 14: 113–127

OPEN SPACE AND HOUSING STOCK QUALITY AS URBAN REDEVELOPMENT RESOURCES

ISOLDE ROCH and JULIANE BANSE

Leibniz-Institut für ökologische Raumentwicklung e.V.
(Leibniz-Institute of Ecological and Regional Development e. V.)
Weberplatz 1, D-01217 Dresden, Germany
e-mail: i.roch@ioer.de, j.banse@ioer.de

Abstract: A successful urban redevelopment needs the attention of small-scale conditions of housing stocks and open spaces and the consideration of demand of the inhabitants. It is the aim of a research project at the IÖR to provide some fundamental knowledge needed for the planning of ecologically-oriented and appropriately-dimensioned redevelopment processes in cities and urban areas. Group-specific needs concerning housing and open space use were ascertained through polling the populations according to age group, family status and occupation. Polling showed that people have preferences for housing in urban areas and that all put a high value on open spaces. A targeted networking of open spaces would benefit their ecological function and encourage their use.

Key words: Open space quality, housing stock quality, green spaces, urban area, potential of stability, residential satisfaction, preferences for housing

PROBLEM STATEMENT

Changes in the structure of urban populations, their increasing age, and an oversupply of housing are leading to changes in urban uses and present urban development planning with new tasks. The need is for new strategies and approaches to urban development which aim at stabilisation and a demand-sensitive ecological restructuring while taking advantage of those resources of particular areas which make them attractive locations, whether for industrial development or for the quality of life. Particularly where urban

redevelopment is concerned, the quality of open spaces and housing stock resources can be secured, developed and exploited. However, this requires fundamental knowledge of their effects and their availability.

It is the aim of a research project at the IOR to provide some fundamental knowledge about open spaces and housing stock resources needed for the planning of ecologically-oriented and appropriately-dimensioned redevelopment processes in cities and urban areas. It includes Bonn, as an example of a flourishing city, and Dresden as a representative of a static city. Dresden, with a present population of approximately 485,000, is an east German city where the population has been declining for years, and which has, since 1999, showed little change, with only a slight population increase. In each year between 1990 and 1998, the city's population shrank by approximately 1%; because there were fewer births than deaths, and because of losses caused by migration. It is expected that by 2020 the population will increase slightly (approximately 2%). Bonn, with a population of about 314,000, is a city where the population remained stable during the nineties, and has been increasing since 2000; the population is expected to increase by approximately 3% by 2020. Since the beginning of the nineties there have been more births than deaths in Bonn. Migration remained almost in balance, in spite of the government having moved to Berlin. In both cities the age structure has changed, allowing predictions based on the numbers of families and older people to be made for the coming years. Dresden shows clear signs of demographic aging (City of Dresden 2004). The lower numbers of children and young people registered during the nineties signals the future absence of a fundamental resource for establishing families. The percentage of the population over 60 years old increased from 20% to 27%. It is expected that by 2020 the number of over-75s in particular will increase (Figure 1). In Bonn it is predicted that there will be a slight decline among the under-18s and the 19 to 39s, and only a slight increase of over-75s (Statistic national offices 2002).

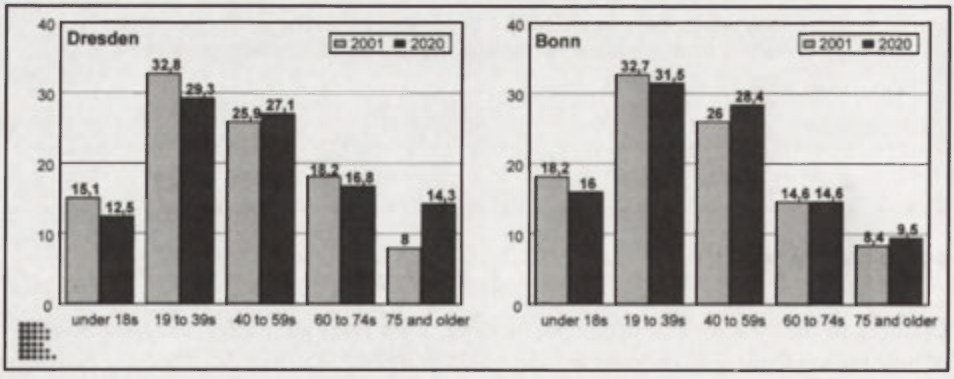


Figure 1. Change of age distribution in Dresden and Bonn until 2020

Source/Authority: Statistic national offices, IOER e. V., Dresden

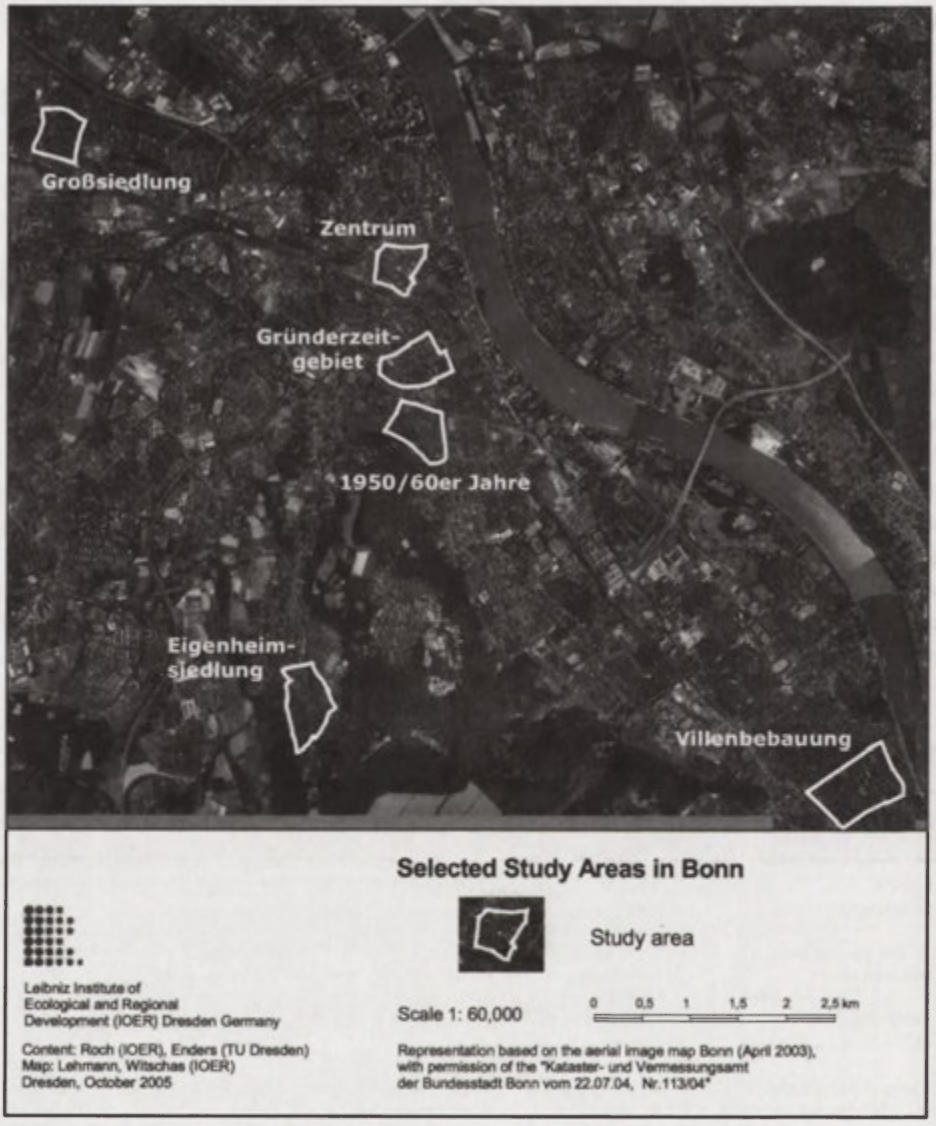
METHODOLOGICAL APPROACH

It was decided to take a case study approach for the surveys involving typical constellations. Using the characteristics of structural changes to the urban populations and different areas of economic activity in Dresden and Bonn, the aim was to secure information about the extent of future demands on urban development. This involved the selection of seven types of urban area which are characteristic of the make-up of the two cities in different proportions. The differences between the areas show specific use and development characteristics which correspond to the age of their buildings and the ethos of period, in which they were developed (Table 1). In coordination with the town planning offices, seven urban areas in Dresden and six in Bonn were surveyed (Maps 1 and 2). The data were evaluated and on-site inspections made to assess the common characteristics of the housing developments, open spaces, and the infrastructure resources of the sample areas. Urban rebuilding-related group-specific needs as they concern housing and open space use needs were ascertained through polling the populations according to age group, family status and occupation. In addition to the direct results of the polling, the assessment took account of the family backgrounds of those polled. The households of those polled were typified according to life stages taking account of the age and number of household members—including children. Information derived from the inspections and polling is one of the sources for the assessments of the stock.

Table 1. Summary of the areas and short description

Area	Short description
Centre (Zentrum)	Core area; buildings from different periods; residential, businesses, culture, shops
Wilhelminian style (Gründerzeit)	Urban area; buildings from 1870 to 1918; block structure with perimeter buildings, partially enclosed blocks with later building in the gaps,
1950s and 60s (1950/60er Jahre)	Urban area, buildings in rows from the 1950s and 60s, mostly three to six storeys.
Large development (Großsiedlung)	Urban outskirts; buildings from 1970 to 89, mainly six storeys, prefabricated systems.
1980s (1980er Jahre)	Urban outskirts; buildings from 1980 to 89, six storeys, prefabricated systems.
Villa area (Villenbebauung)	Urban outskirts, buildings from 1890 to 1930, infilling with new buildings; mainly two-storey detached houses (villas).
Area with owner occupation (Eigenheimsiedlung)	Urban outskirts, mixed age structure, one and two storey terrace, semi-detached and detached houses; some small blocks of flats with multiple occupation.

Source: Survey 2003/2004, IÖR e. V., Dresden

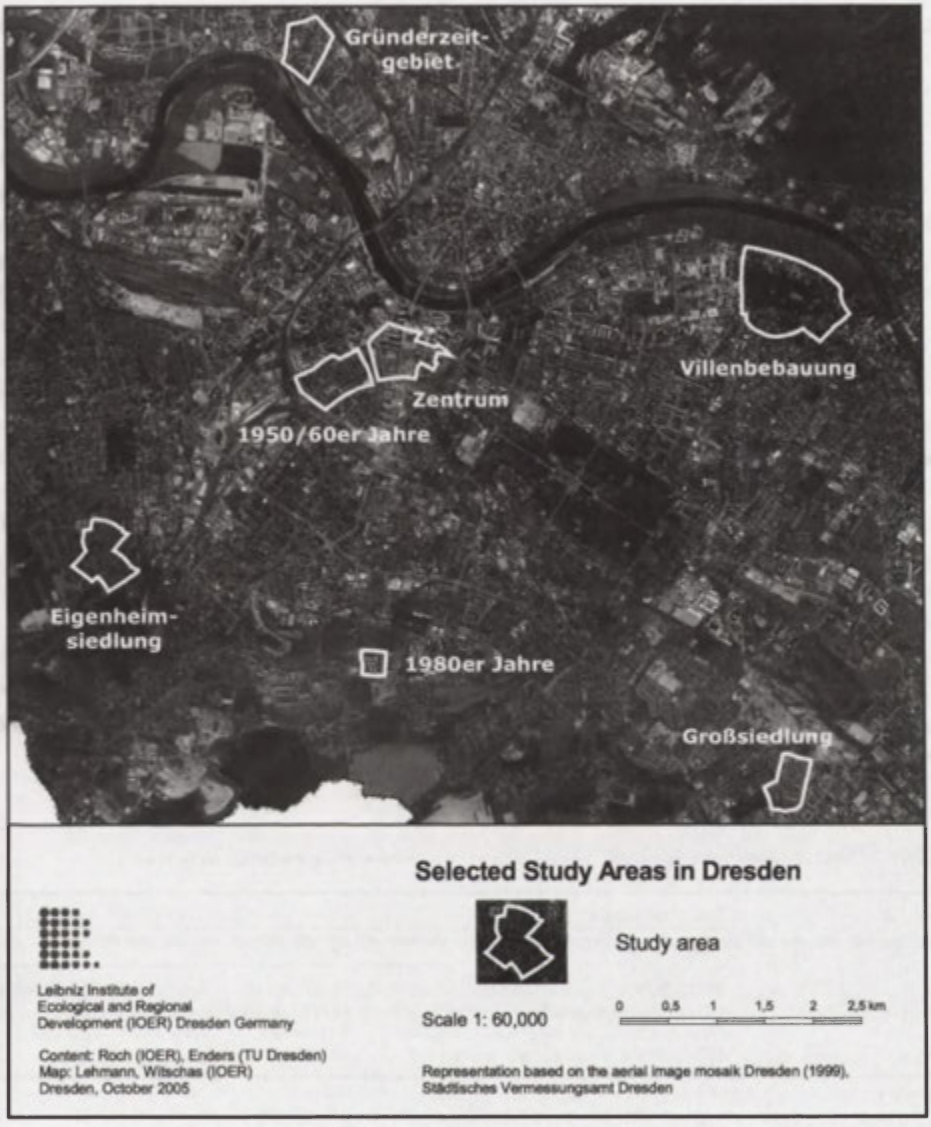


Map 1. Selected study areas in Bonn

THE HOUSING STOCK RESOURCE

PEOPLE'S HOUSING PREFERENCES

Polling showed that people have preferences for housing in urban areas. The first approach is through the present pattern of occupation. In both cities young households tend to live in the central urban area and in Wilhelminian style areas. Polling showed that families live in all areas, but particularly in large developments. In addition, in Dresden,



Map 2. Selected study areas in Dresden

they live in the Wilhelminian style and owner-occupied areas, while in Bonn, families prefer areas built during the 1950s and 60s and the villa area. In Dresden, older people live predominantly in the central area and the area built during the 1950s and 60s, while in Bonn they live predominantly in the villa area and the owner-occupied area. To some extent differences can be explained by reference to the time when the areas were developed, but the differences also reflect the personal preferences of those polled. In both cities they expressed comparable priorities concerning the importance they attach

to particular aspects of their housing situation. There are dependencies concerning age and family background, as there are to the type of occupation, whether as a tenant or an owner-occupier. Relationships to education and occupation are often much less apparent. For households with younger children, not only the quality of housing but that of the immediate neighbourhood is felt to be particularly important. As children become older, the emphasis shifts; the nature of the immediate neighbourhood is seen as less important, and housing-related aspects are assigned more importance among households with children over 18 years old. For pensioners and single parents high-quality housing is very important. They are, however, limited to their immediate neighbourhood as they are often less mobile.

Further information concerning preferences is elicited by asking about the type of area people would, apart from their actual needs, like to live in, and which they would never like to live in. They choice was between 'would very much like', 'would like', 'it depends', 'would not like', and 'never'. Those questioned usually preferred the type of area where they already live (Table 2). All those questioned expressed a preference for villa areas. There was comparatively little enthusiasm for large developments and the closed Wilhelminian style block structure. Young households were well able to see themselves living in open Wilhelminian style block structure areas (in Bonn, also in closed Wilhelminian style blocks), and in the centre. For family households, the owner-occupier areas are more important, but this type of area's appeal declines as the children become older. The preferences of over-60s in the two cities are very different; in Dresden they are more likely to be satisfied with the city centre and housing built in the 1950s and 60s, while in Bonn the preference is for areas with open or closed Wilhelminian style block structure areas.

Table 2. Type of housing area people would like to live (Share of households in percent)

	Weighting in percent					
	Dresden			Bonn		
Type of housing area	Households in type of area Very much like/ like	Households total Very much like/ like	Households total Not like/ never	Households in type of area Very much like/ like	Households total Very much like/ like	Households total Not like/ never
Centre	83	28	58	84	31	43
Wilhelminian style (closed type)	48	13	67	64	54	27
Wilhelminian style (open type)	65	45	26	69	67	17
1950s and 60s	72	23	46	31	9	63
Large development	12	3	85	42	12	60
1980s	46	17	62	—	17	51
Villa area	97	72	14	98	66	16
Area with owner occupation	73	51	33	56	42	36

Source: Survey 2003/2004, IÖR e. V., Dresden

ASSESSMENT OF THE HOUSING STOCK

On average, the structural condition of housing in the areas involved is similar in both cities. Altogether, almost two-thirds of the buildings are in a good state; only about 5% are in poor condition. In both cities occupied housing is well-equipped; about four fifths of all housing is very well-equipped or well-equipped. Polling showed that good housing stock quality is reflected in a corresponding satisfaction with a person's home. In both cities the figures for the level of satisfaction with their homes that people express are broadly comparable. In Dresden 80%, and in Bonn, 75%, of those polled stated that they were either 'very satisfied' or 'satisfied' with their housing (Table 3). Satisfaction with the immediate neighbourhood is frequently less, particularly in the central area of Dresden, its Wilhelminian style area, and its large development, and in Bonn only in the large development. This demonstrates the need for work to improve some urban areas, particularly in the immediate neighbourhood of housing.

Table 3. Satisfaction with homes and with the immediate neighbourhood and propensity to stay in urban areas (Share of households in percent)

	Satisfied with homes		Satisfied with immediate neighbourhood		Propensity to stay	
Area	Dresden	Bonn	Dresden	Bonn	Dresden	Bonn
Summary	80	76	66	74	48	47
Centre	72	79	51	69	31	40
Wilhelminian style	80	87	52	84	32	56
1950s and 60s	85	67	79	79	62	38
Large development	69	54	50	31	33	16
Villa area	86	93	87	94	67	76
Area with owner occupation	93	81	89	92	76	65

Satisfied = very satisfied and satisfied
Propensity to stay: Satisfaction with homes and with immediate neighbourhood and no wish of removal
Source: Survey 2003/2004, IOR e. V., Dresden

There are different approaches to improving the quality of urban areas or requirement-related rebuilding. In Bonn, where there is a high level of owner-occupation, the quality of housing is most often improved through individual measures. In the centre of Dresden, as new buildings are constructed, further concentration as well as improvement in the quality of the stock can be expected. The large amount of low-rent housing in both areas attracts tenants for whom low rents are an important priority, and who will be satisfied with simply-equipped housing. In the centre young households and flat shares predominate. Further structural improvements accompanied by increasing rents can lead to the present populations moving away. In both Dresden and Bonn more than 80% of those living in the central areas expressed positive feelings on living in the core area; far fewer of those living in other areas expressed a wish to live there.

In spite of the large amount of rebuilding work already done in Dresden's Wilhelminian style area, there is still a great need for renovation of the housing stock where there is—typically for east Germany—a high level of unoccupied housing. Those polled were very critical of the immediate neighbourhood; from the perspective of a steadily aging population its improvement and reshaping will be a decisive factor bearing on its future use, the emphasis being not so much on infrastructural facilities and services, but ecological redevelopment.

For the large development areas in both cities polling showed that there is a need to improve both the state and the equipment of housing stock. However, the immediate neighbourhood was also judged very negatively by those living there. Of all areas, it is in these areas that the proportion of buildings in a poor state was highest, where satisfaction with housing and the immediate neighbourhood, and the propensity to stay (people expressing satisfaction with their homes and the immediate neighbourhood, and not wanting to move away) was lowest; in Bonn it was significantly lower than in Dresden. Necessary changes in large developments should always be considered in relation to the income of the households. The low rents in the large development in Bonn are very important for most of the households; it is here that most of those for whom rent represents a large proportion of their income live. For more than one third of the households the total rent represents at least half the household net income.

In the areas built during the 1950s to 60s the situation was typical for Germany, whether east or west. Neither area is densely built. The area in Dresden was, unlike that in Bonn, completely renovated in 1990 while occupied. The area, near the centre of the city, offers relatively peaceful open surroundings and good services with a wide range of infrastructure facilities nearby. It is preferred by older people; people living there expressed a high level of satisfaction. This differs from Bonn, where assessments mainly concerned the area's structural shortcomings. Obviously, rebuilding needs centre on the layout and dimensioning of the dwellings and room size. The polling showed that, for conditions in Bonn at large, one third are families and the dwellings are too small for the families occupying them. While there is a correspondingly low level of satisfaction with the housing; the immediate neighbourhood is more favourably assessed.

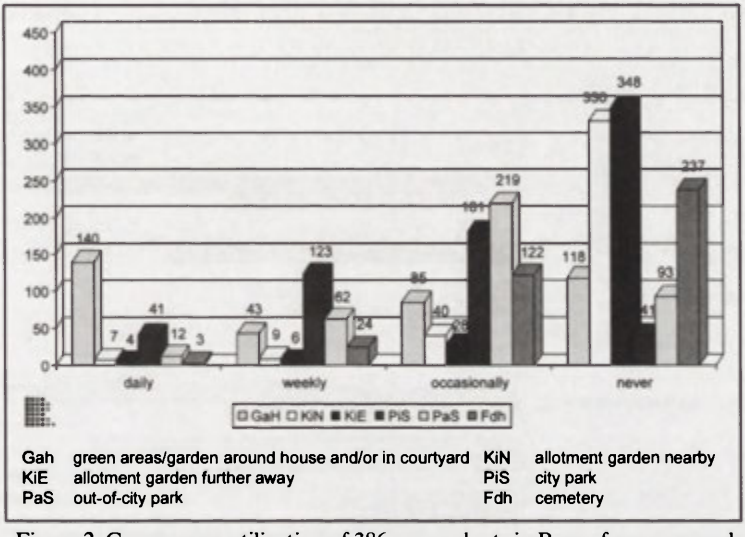
The villa areas and owner-occupied areas are assessed positively. Apparently these areas are preferred by many of those polled not only because of the quality of the housing, and the advantages of owner-occupation, but also because of the open surroundings. The need for rebuilding in these areas is related not so much to the condition of the housing, but to traffic-quietening measures, and supply, care, and leisure facilities. These needs are particularly clear in the Bonn owner-occupier area, developed after the second world war which now has a high proportion of old people.

THE OPEN SPACE RESOURCE

DIFFERENT USES OPEN SPACE

To ascertain information on use frequency patterns, the following categories of open space in Bonn and Dresden: green areas / garden around house or in courtyard, allotment

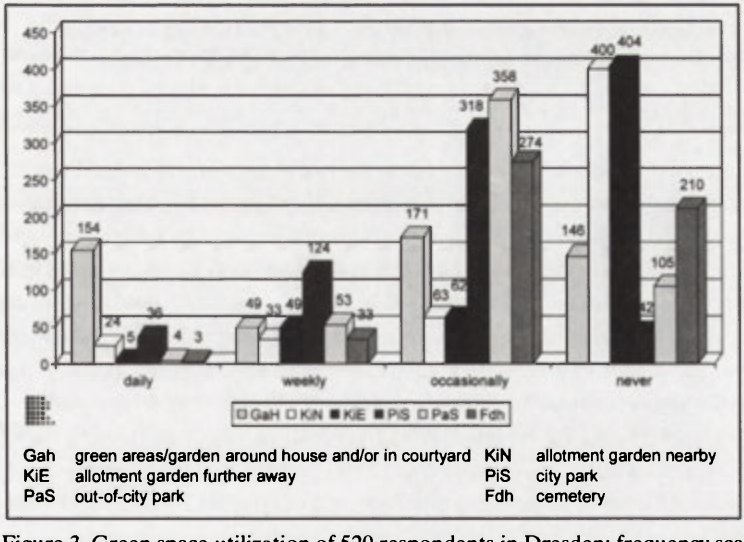
garden nearby / further away, city park / out-of-city park, and cemetery were examined as examples of resources which are not usually exploited every day, although theoretically they could be. The results show this supposition of differing use intensity to have been correct in both Bonn and Dresden (Figure 2 and 3). Depending on the weather, open spaces—parks in particular—are used occasionally, as shown by the close correlation. This applies to smaller urban parks such as the Rosengarten on the Elbe embankment in Dresden and to the Hofewiese and the Kaiserplatz in Bonn (see photographs) which



Gah	green areas/garden around house and/or in courtyard	KiN	allotment garden nearby
KiE	allotment garden further away	PiS	city park
PaS	out-of-city park	Fdh	cemetery

Figure 2. Green space utilization of 386 respondents in Bonn; frequency scale

Source/Authority: survey 2003/2004, Nguyen Xuan Thinh, IOER e. V., Dresden



Gah	green areas/garden around house and/or in courtyard	KiN	allotment garden nearby
KiE	allotment garden further away	PiS	city park
PaS	out-of-city park	Fdh	cemetery

Figure 3. Green space utilization of 520 respondents in Dresden; frequency scale

Source/Authority: survey 2003/2004, Nguyen Xuan Thinh, IOER e. V., Dresden

are popular among all sections of the population. For example, students like to sunbathe, play, or dance on the lawns during breaks and after lectures. Other people like to sit on the park seats or take a morning or evening stroll in the park. The avenues through the parks are popular with strollers, cyclists (see photograph of Stübelallee), and with people on their way to work. Parks on the outskirts or near the city such as the Rheinauenpark or Saxony's Switzerland with its attraction of Konigstein Castle are particularly well-visited on long summer evenings and at weekends.

All sections of the population value an open residential area and access to open areas or a park within walking distance (Figure 4); it is clear that the actual conditions in the

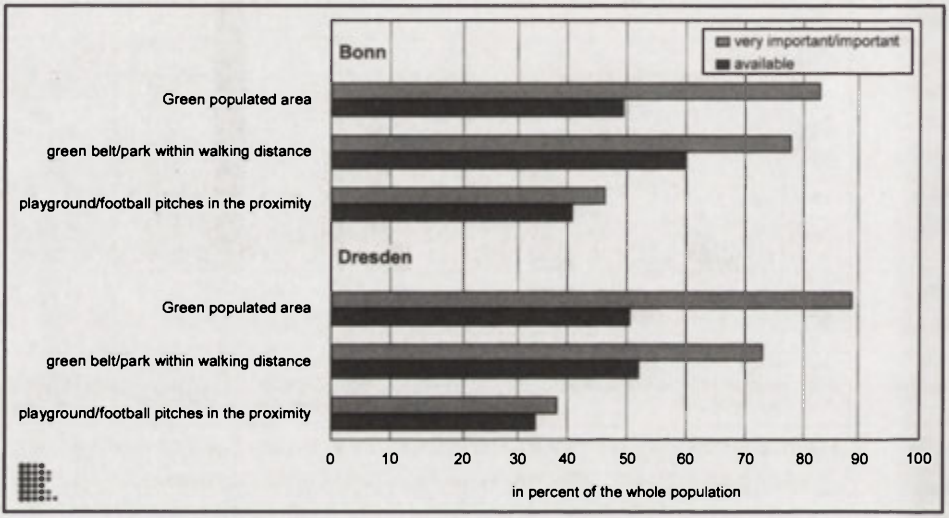


Figure 4. Importance of green space—survey in Bonn and Dresden

Source/Authority: survey 2003/2004, M. Möbius, IÖR e. V., Dresden

urban areas do not meet their expectations, and so demonstrate a need for action The low level of appreciation accorded to playgrounds and areas for kick-about corresponds to the limited need for such areas which is restricted to families with young and growing children. The questions asked on the actual use or usefulness of open spaces in relation to age or stage of life are shown in Figure 5 (Table 4, types of household). At all ages, walks in parks are seen as important; next in importance is being able to see something green. Older people put a particularly high value on living in green areas; as do, to a somewhat lesser extent, economically active households. Even when people do not daily take advantage of these open spaces for walks, sport or recreation, they could, were they fit, do so. Get-togethers in parks after work, like sport and recreation, depend on the specific situation of families with small or growing children and of couples with adult children.

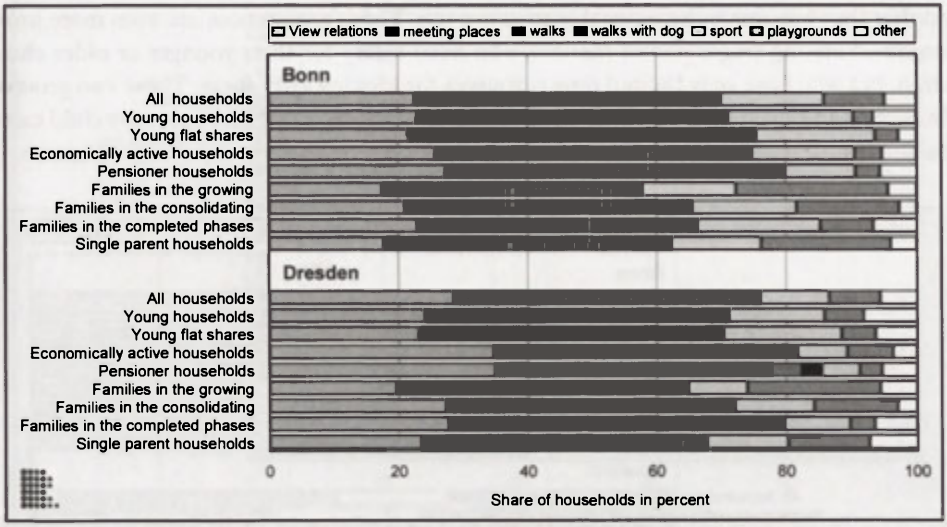


Figure 5. Reasons for importance of green spaces for types of households—survey in Bonn and Dresden

Source/Authority: survey 2003/2004, M. Möbius, IÖR e. V., Dresden

Table 4. Types of household and short description (Source: Survey 2003/2004, IÖR e. V., Dresden)

Types of household	Short description
Young households	All adult household members below 35 years old, no children
Young flat shares	More than two adult household members below 35 years old
Economically active households	All household members between 35 and 60 years old, no children
Pensioner households	All household members above 60 years old, no children
Families in the growing	Households with child(ren) below 6 years
Families in the consolidating	Households with child(ren) from 6 to 17 years
Families in the completed phases	Households with all children 18 years and older
Single parent households	One adult household member and children

PREFERENCES FOR A CONTINUING NEED-RELATED DEVELOPMENT OF OPEN SPACES

Figure 6 shows the changes to the open spaces around housing that people desire, associated with the different periods of life. Pensioner households show little desire for changes. It can be assumed that present conditions generally meet their needs. When the children have moved out of the parental home, the parents usually move into a new home in an area that seems suited for the coming period of their lives. Unlike older people, families with young children, which are in the expansion phase, where requirements change in rapid succession, have a range of preferences which focus on the reshaping of open spaces

so that they become more amenable to active use. These preferences are even more pronounced among single parent families who need safety for their younger or older children, but who have only limited time resources for looking after them. These two groups in Bonn and Berlin showed differences. It is safe to assume that there are more child care facilities in Dresden than in Bonn.

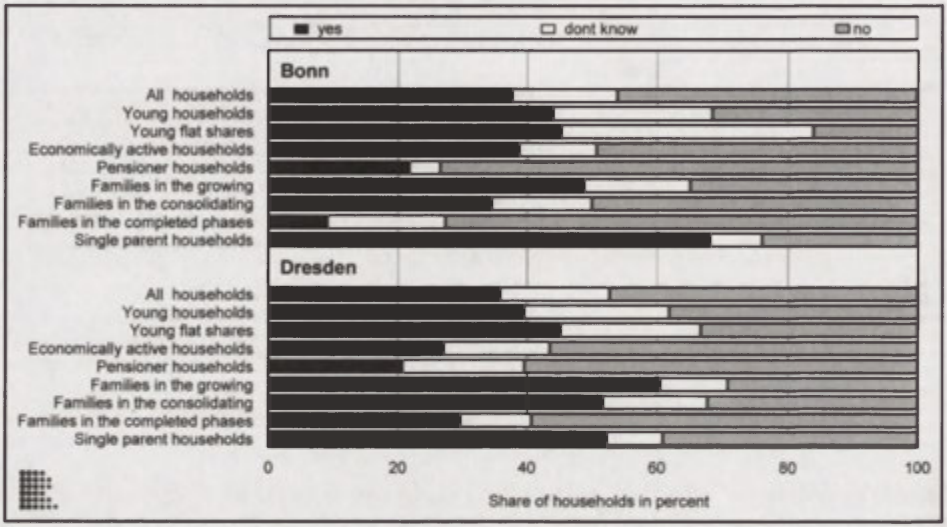


Figure 6. Would you change the green spaces at your home? (types of households)—survey in Bonn and Dresden

Source/Authority: survey 2003/2004, M. Möbius, IÖR e. V., Dresden

These differences in using open spaces and the corresponding shortcomings in the facilities as they relate to people's situations also depend on the type of urban area and its particular structure. Figure 7 depicts the preference for changes to the green areas around housing with the type of urban area surveyed. Preferences for changes were most commonly registered in Bonn in the large development, and in Dresden in the core area, in the Wilhelminian style area, and in the developments built during the 1980s. They included the desire for more facilities in the open spaces and, more specifically, for more ways of taking advantage of them. This was to some extent particularly pronounced because of the special population structure and its associated accumulation of special needs.

There is a relatively high level of satisfaction with open spaces in the villa areas of both cities and the owner-occupier areas. The villa areas are well-endowed with open spaces, wooded areas, and parks. In the single family housing areas it is easier for owners and tenants to adapt their homes and their surroundings to their changing situation, and so there is a higher level of satisfaction. In Dresden, people living in the buildings in rows built during the 1950s and 1960s assessed them, and their ecological performance, very positively. People from this area take full advantage of being close (within walking distance) to the city's parks and urban open spaces.

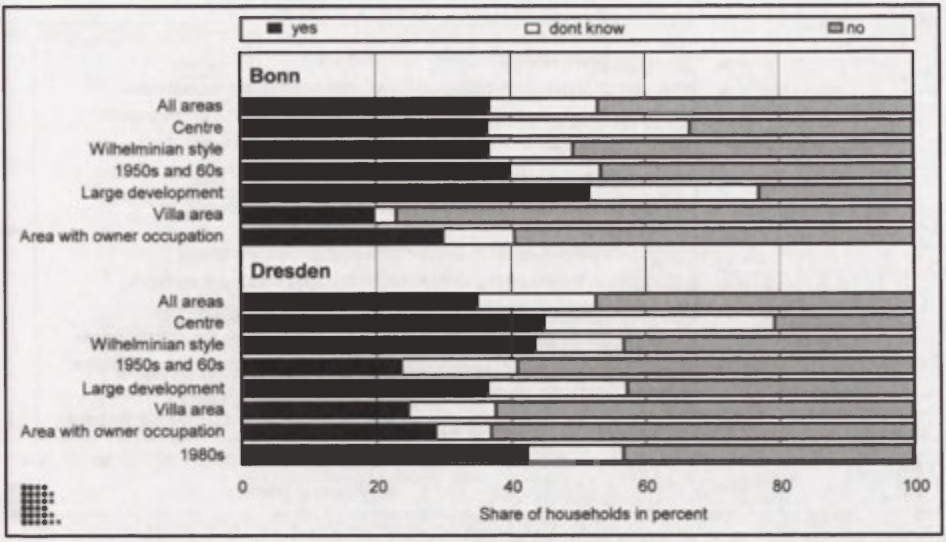


Figure 7. Would you change the green spaces at your home? (types of urban areas)—survey in Bonn and Dresden

Source/Authority: survey 2003/2004, M. Möbius, IÖR e. V., Dresden

STARTING POINTS FOR URBAN DEVELOPMENT

The surveys show that all sections of the population put a high value on open spaces. Green cities and green residential areas have a positive image, and are seen as representing a particular quality of life. Advantage should be taken of this resource of open space in ongoing urban development, particularly where urban areas have high levels of unoccupied housing or where people, businesses and services are moving away. The needs of the different sections of the population point to ways of continuing development of green areas, and should be taken seriously. It is safe to assume that where there is a housing surplus, homeseekers will first decide on the area they want to live in, before beginning to look for a suitable home. This means that urban planning should take a close interest in population developments and in the fluctuations of sections of the population so that requirements for housing and the use of open spaces can be met and shaped appropriately.

Based on the urban area type and people's requirements, concrete starting points for the development of open spaces can be identified (Figure 8). The largest differences between strong support for green areas and the existing situation were found in the central and Wilhelminian style areas of both cities, Dresden's Wilhelminian style area showing the greatest backlog of demand. There is a need, more pronounced in Bonn, for improvements to the usability of green areas in the large developments of both cities. Villa areas and owner-occupier areas showed that expectations and the actual situation were relatively well in balance (see above). As mentioned earlier, this high degree of differentiation of the spatial structures in plot size, the area assigned to roads and paths, and access to park areas can be exploited as a special feature by developing a closer network of all the green

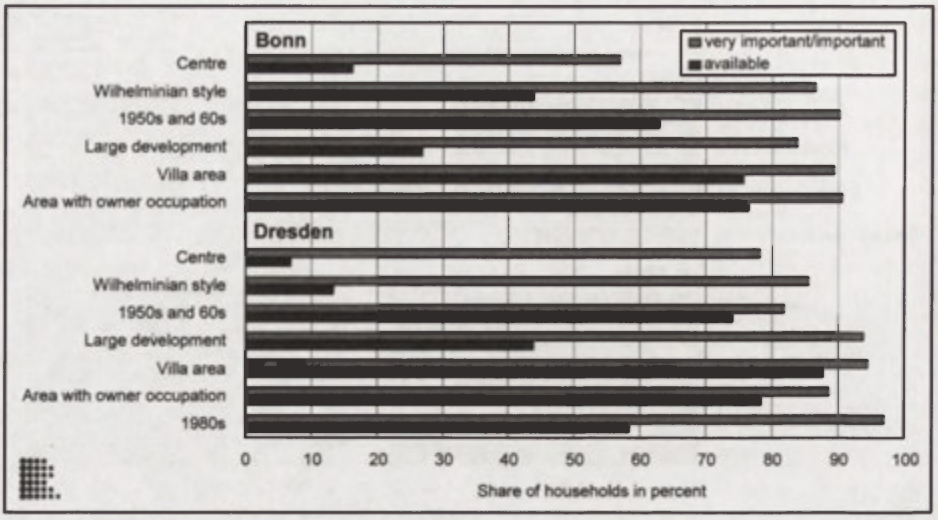


Figure 8. Importance of green spaces in urban areas—survey in Bonn and Dresden
Source/Authority: survey 2003/2004, M. Möbius, IÖR e. V., Dresden

areas to benefit the urban population. Different qualities of the resource of open space could be made available, and should be accessible to all sections of the population.

SUMMING UP

Efforts to improve housing quality in the cities should be directed at developing existing resources in the different urban area types, exploiting their strengths and ameliorating their shortcomings. It is clear that the resources available for redevelopment can only be identified at the urban area type level. Useful pointers can be found by utilising urban areas typified according to their buildings and functional characteristics. The surveys have shown the quality of the housing stock can mainly be assessed positively, so far as it relates to the structural state of the buildings and the equipment of occupied housing. Assessments of the structure and facilities of the areas and the immediate neighbourhoods differed. The structure and facilities of the open spaces offer a number of starting points for improving the quality of life and the location itself, the latter by recognising businesses as a soft location factor. For the immediate neighbourhood, differences in equipment, development options, and the population's need structures result in preference being given to differing approaches which support the profile-raising trend. The high level of affirmation given to urban open spaces by all sections of the population confirm that it is a valuable urban quality of life resource, and suggest starting points for integrating the green spaces around housing with avenues, paths, and cycle paths as transitional areas. A targeted networking of open spaces would benefit their ecological function and would surely encourage their use by families with young children and by older people.

REFERENCES

City of Dresden: Landeshauptstadt Dresden (2004), Wohnungsmarktbericht, Stadtplanungsamt, Abt. Stadtentwicklungsplanung.

Statistic national offices (2002), Vorausberechnung der Bevölkerung 2002 bis 2020, Statistisches Landesamt Nordrhein-Westfalen.

EUROPA XXI
2006, 14: 129–142

COMMUNICATION OF THE ELDERLY AND REQUIREMENTS TO URBAN RECONSTRUCTION IN GERMANY—COMPARATIVE IN BONN AND DRESDEN

CAROLA SILVIA ROCH

Zum Turmberg 33
01328 Dresden, Germany
e-mail: carola.roch@gmx.de

Abstract: Today, sustainable urban reconstruction under shrinking conditions constitutes the central challenge of urban development in Germany. Thereby, the qualitative and quantitative demographic change is discussed as a crucial basic framework of urban reconstruction. Hence, it should be paid more attention to the needs of certain population groups, especially those of the elderly as the relatively strongest growing group. In connection with the demographic change the communication within and between population groups gains importance. For the urban development, the residential surrounding is identified as the important starting point to realize the demand-orientated and efficient urban reconstruction supporting communication. The article refers to a study (2005) about patterns of communication of the elderly in their residential surroundings.

Key words: urban reconstruction, demographic change, patterns of communication of the elderly, open space use, residential surrounding, area-inhabitant-profiles

BASIC FRAMEWORK AND EXPECTATIONS OF THE RECENT URBAN DEVELOPMENT IN GERMANY

In Germany the urban reconstruction constitutes a central challenge for urban development. In the newly created federal states this question is raised in a more emphasized way. For nearly a decade, shrinking conditions are determining the tasks and room for action of the urban development. It is to cope with the serious consequences of the economic upheaval, with the effects of misguided politics on the housing market and with the consequences of the demographic change. In the former system of federal states the de-

mographic change is increasingly being discussed as the basic framework of recent urban development. The demographic change is of and gains central importance for the urban development in Germany and Europe. The German federal programs 'Stadtumbau Ost' (a) and 'Stadtumbau West' (b) are reactions to this explosive issue. The reasons for the demographic change are rooted in the interaction of the natural population development and migration. The consequences of change express themselves qualitatively and quantitatively in a spatially strongly differentiated way. Especially the qualitative consequences of demographic change demand the necessity to deal with the needs and patterns of behaviour of certain groups of population and hence have them being mirrored in the aims of the urban restructuring process. The relatively growing group of the elderly is considered as a tendency of population development and requires special attention of the urban development to this group of population. Knowledge about the needs and patterns of behaviour of the elderly is essential for a demand-orientated and efficient urban restructuring.

In connection with the demographic change, the communication within and between population groups, increasingly gains importance for urban development. As a consequence of migration and the natural population development, established patterns of coexistence of generations are largely interrupted. The 'multi-located more-generation-families' (Borchers 1997) are a result of growing intervals between generations (c) and the spatial flexibility demanded of the younger. They are discussed as the contemporary family structure. For the every day needs of the elderly new social network structures are increasingly emerging. Changes regarding network partners and patterns of communication are indicated. Communication thereby constitutes an aspect of personal well-being in terms of the satisfaction of elementary needs of self-respect and social integration. On the other hand, when functioning as a means of assistance and a source of information, communication is a precondition for a self-dependent lifestyle. The Second Report about the Elderly of the German Federal Government (d) postulates this individual goal of senior citizens as the overarching socio-political motif of autonomy and self-determination during the 'golden years'. This goal, though, can only be turned into reality, if the urban development reacts to the individual and group specific needs, and enhances them target-orientated in the course of urban reconstruction.

For the advancement of demand-orientated conditions for communication, the residential surrounding is of major importance. In regard to its spatial perception and its employment during the different life periods the residential surrounding is flexible. The design of the residential surrounding can be understood as an aspect of quality of life. In terms of the sustainability in urban development (e), the specific spatial and social potentials of the residential surroundings are to be used and strengthened efficiently in the process of urban reconstruction. Investigations of Banse and Effenberger (2005) reveal deficits in the satisfaction of residents with their residential surrounding. It seems worthwhile to detect potentials in the residential surrounding which are appropriate to increase the quality of life. In developing the residential surrounding, the municipal urban development seizes the chance to stick out as an attractive living space.

The fact that the potentials of open space have not yet been related to the needs of the elderly is a deficit in practice and theory of urban reconstruction. The specific potentials of the residential quarters (open space and building structure, social potentials) have not

yet been taken into consideration during the process of formulating demand-orientated aims of urban reconstruction. Moreover, the communication patterns of the elderly in open spaces are still unknown.

AIM AND METHODS OF STUDY

From these aforementioned deficits of knowledge and the requirements for a demand-orientated urban reconstruction with special attention to the population group of the elderly, the aim of the underlying study (Roch 2005) arose. It was to gain basic knowledge of the communication patterns of the elderly inside their residential surrounding, and to formulate derivatives for a demand-oriented and efficient urban reconstruction. The study was based upon the following four hypotheses:

Hypothesis 1: The spatial limits of the residential surrounding are fluent. The residents do not perceive structural and functional characteristics of residential quarters as limits of their residential surrounding. The residential surrounding is defined by the use of different urban spaces in relation to the different periods of life. Thereby, the perception varies according to personal attributes like education, family status and income.

Hypothesis 2: People with similar concepts of life and comparable life situations come together in residential quarters characterized by specific site conditions, buildings and open space structures. The common values and preferences of the residents are mirrored in specific patterns of behaviour and patterns of use of open space. It is possible to formulate area-inhabitant-profiles.

Hypothesis 3: In comparison to the elderly of today and those of tomorrow, a displacement of communication partners to new partners of social networks is supposed. That means that contacts to family-external friends and neighbours gain importance to compensate the loss of contacts inside the family and the work environment (to former colleagues). Socializing is increasingly organized about spare time activities, hobbies, honorary activities, etc.

Hypothesis 4: The patterns of communication and the patterns of behaviour respectively in the residential surrounding of the 'younger elderly', the 'older elderly' and 'exceedingly old' differentiate from each other. Distinguished according to the age, it is possible to describe among the elderly these three user groups. General suggestions for the demand-orientated development of the residential surrounding can be derived.

The results of the study base upon the critical discussion of scientific literature (f) and the statistical evaluation of the inquiry 'Potenziale Freiraum und Wohnen' ('Open Space and Living Potentials') for the population group of the elderly (respondents older than 54 years). The standardized inquiry was performed by the Institute for Ecological Spatial Development, Dresden, in 2004 in the German medium-sized towns of Dresden and Bonn. In regard to the aim of the study, the survey was evaluated for every single residential quarter out of six investigated with the biggest group of senior citizens. In Bonn it was the quarter Ippendorf, a suburban area of detached houses (Figure 1 and 5). In Dresden it was the quarter Seevorstadt which represents a typical residential area built up in 1950s to 60s and is located right next to the city centre (Figure 2 and 6).

Figure 1. Location of the investigated residential quarter Ippendorf in Bonn

Figure 2. Location of the investigated residential quarter Seevorstadt in Dresden

SELECTED EMPIRICAL RESULTS

In the following part, selected empirical results of the study concerning the questions spatial perception of the residential surrounding, communication in the residential surrounding as well as area-inhabitant-profiles in Bonn-Ippendorf and Dresden-Seevorstadt are presented.

SPATIAL PERCEPTION OF THE RESIDENTIAL SURROUNDING

In the planning practice of the improvement of the residential surrounding during the last decades, the relevant planning space, that means the spatial dimension of residential surroundings, were above all defined by means of the structural and functional characteristics of the buildings of the quarters. In literature there is little information about the spatial perception of the residential surrounding and, where applicable, the radius used in planning often contradicts to empirical results (g). Important information is offered by the branch of the ecological gerontology correlating to the use of residential surroundings to the radius of movement changing during the different periods of life (Friedrichs 1990). Hence, answering the question of the spatial perception of residential surrounding through the residents in Bonn-Ippendorf and Dresden-Seevorstadt was of great importance for the study. The respondents were asked to name green spaces *within* their quarters which are important to them. The Figures 3 and 4 show the answers of the younger and the elderly in their quarters. Three important pieces of information result from these answers.

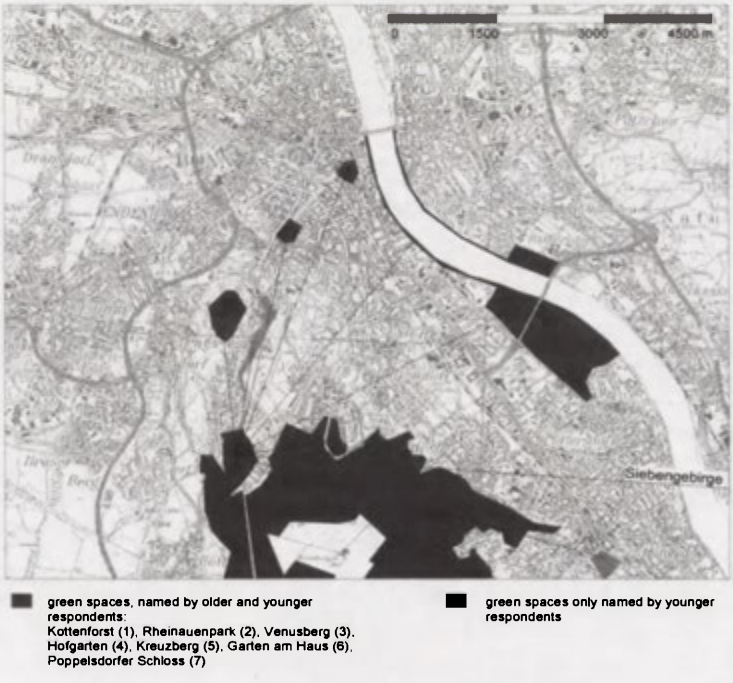


Figure 3. Important green spaces in the residential quarter, older and younger respondents in Bonn-Ippendorf (by Roch, based on TK50 NRW)

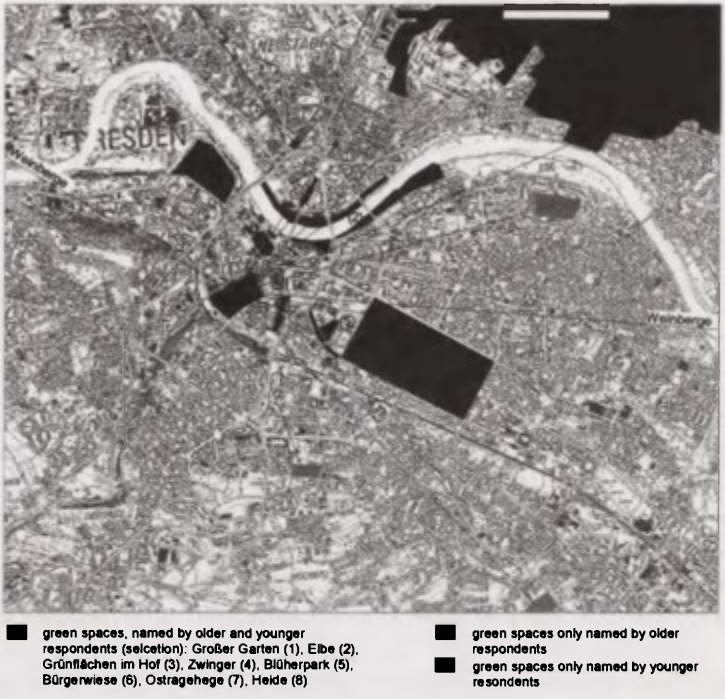


Figure 4. Important green spaces in the residential quarter, older and younger respondents in Dresden-Seevorstadt (by Roch, based on TK50 Sachsen)

The green spaces and open spaces respectively in the residential surrounding important to the residents are widely shared throughout the urban area. The residents do not perceive structural and functional characteristics of their quarters as limits for their everyday use of the residential surrounding. The thesis regarding the flexible perception of the residential surrounding is confirmed.

The named open spaces are characterized by a large spectrum of designs, sites in the urban area and using options. In the study, they are investigated and distinguished in green spaces nearby the house, inner-city parks and recreation areas outside the city, urban open spaces like squares and streets, cemeteries and allotment gardens.

The congruence of the answers of the younger and older respondents is high. Especially inner-city open spaces (parks, recreation areas) are often named by both groups of population. The use of urban open spaces (squares, promenades, streets) by the elderly in Dresden-Seevorstadt is remarkable.

To develop a more flexible spatial understanding of the residential surrounding is an important requirement for the planning practice of urban development. The mobility should be understood and developed as an important precondition for the use of the residential surrounding.

COMMUNICATION WITHIN THE RESIDENTIAL SURROUNDING WITH FOCUS ON OPEN SPACES

The question of patterns of communication in the residential surrounding is not discussed in scientific literature. Only the author Scherzer (2004) mentions the importance of so called every-day-spaces nearby the house for communication. Every-day-spaces are open spaces and closed rooms, for example laundry places, waste disposals, entrances of homes, bus stops and super markets. Investigations from social psychology (Forgas 1999) confirm the useful effect of periodical meetings for communication. The routine of a meeting seems to be more important for communication and friendship than sympathies for the person. Regarding the older and their employment of their residential surrounding, a shift of usage intentions can be supposed. Obviously, the elderly develop a growing interest in passive non-verbal and active verbal communication (h) which they tie to their daily purchases and open space use. Hence, the open spaces of the close residential surrounding constitute a special milieu for communication (Figure 5 and 6). The daily meeting with neighbours effects the dropping of the inhibition to talk or ask somebody in case of opportunity or need. In comparison to inner-city parks and urban open spaces the threshold between nonverbal and verbal communication seems to less high. In general, open spaces can be considered as potential spaces for communication, although communication is only a marginal effect of open space usage. In fact, walking and observing are the favourite activities for open space usage of the younger and older residents alike (Figure 7 and 8). Further results of the study reveal that especially the inner-city parks, the urban open spaces and the green spaces nearby the house are the most relevant open spaces for structuring everyday life of younger and older people (comp. Figure 3 and 4).

Figure 5. Open space in Bonn-Ippendorf, Turmfalkweg (by Chang 2005)

As a consequence, the urban development should preserve and develop the differentiated spectrum of open spaces for every group of population. It constitutes an argument for the quality of urban life and the possibility of social participation. Especially the inner-city parks and urban open spaces should be understood as the important meeting points of all generations and citizens of a town; they should be developed in this way. In regard to the communication within and between groups of population they are crucial. The close residential surrounding with its special milieu for communication should be developed. Regarding the growing group of the elderly its demand-orientated development gains new and far-reaching importance.

Figure 6. Open space in Dresden-Seevorstadt (by Roch 2005)

AREA-INHABITANT-PROFILES OF BONN-IPPENDORF AND DRESDEN-SEEVORSTADT

One important result of the study concerns the verification of area-inhabitant-profiles. Hypothesis two postulates: people with similar concepts of life and comparable life situations come together in residential quarters characterized by specific site conditions, building and open space structures. Historically authenticated, the 'urban sociology' states the differentiated distribution of socio-economic different groups of population in the urban area. Since this effect was negatively reffered as 'residential segregation', modern urban developers have reacted to this with the motif of 'Equality'. The following verifications of the specific preferences in Ippendorf and Seevorstadt regarding the development of these quarters as well as the verification of specific patterns of open space usage are taken as expressions of the different concepts of life of the respective residents. Figure 9 shows the preferences of the older respondents in Bonn-Ippendorf and Dresden-Seevorstadt regarding the development of their residential quarters.

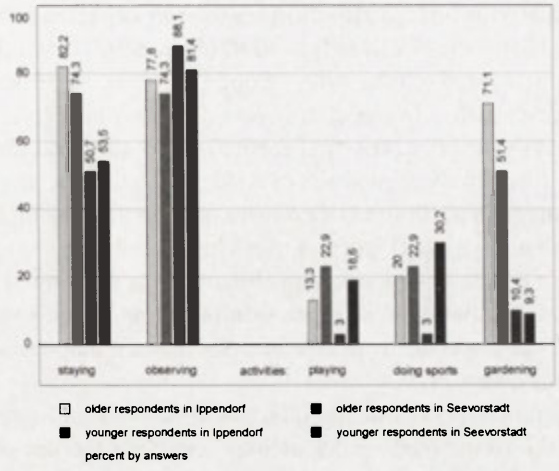


Figure 7. Open space activities in green spaces nearby the house, older and younger respondents in Bonn-Ippendorf and Dresden-Seevorstadt

Compared to the respondents in Dresden, the elderly in Bonn-Ippendorf are characterized by their great appreciation of private gardens nearby, a green quarter and a little environmental impact caused by traffic (Figure 9). From Figure 7 arises, that they pursue (especially) gardening and sports. In conclusion, it seems that among the residents in Ippendorf an active lifestyle strongly related to open space usage is predominant. Thereby, gardening and caring for pets are activities committing to being outdoors periodically. In

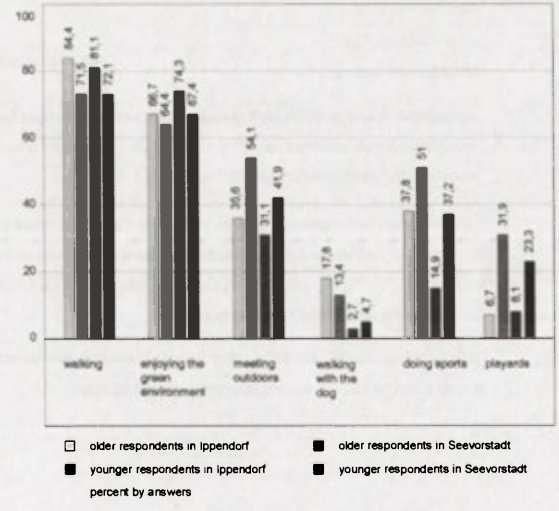


Figure 8. Aspects of the use of open spaces, older and younger respondents in Bonn-Ippendorf and Dresden-Seevorstadt

comparison, the variety, the buzz of activity in the quarter as well as cultural offers nearby seem to be dispensable for the elderly in Ippendorf (Figure 9). These urban qualities rank behind the great appreciation of the quality of open space (i). Regarding the preferences of the elderly in Seevorstadt it becomes apparent, that they appreciate much the urban qualities culture and the buzz of activity (Figure 9). Also, they visit the city centre more often. In regard to the open space qualities of residential quarters, they appreciate above all qualities which they can profit from in a passive manner, like the high amount of green and little environmental impact (Figure 9). Activities committing to using open spaces, like caring for pets (Figure 8) or gardening (Figure 7), are definitely less appreciated. Hence, these facts are understood as expression of the preferred specific urban, independent lifestyle of the respondents in Dresden-Seevorstadt emphasizing especially the urban qualities of the quarter (j).

These aforementioned results in the quarters Ippendorf and Seevorstadt are only some examples of the study. Further evaluations regarding the use of open space and the patterns of communication of the respondents support the idea of specific concepts of life. Hypothesis two about area-inhabitant-profiles is confirmed, which the following arguments support:

The differences between the preferences and the patterns of behaviour of the respondents in the respective residential quarters are characteristic (k).

The preferences and patterns of behaviour of the younger and elderly are very similar in the respective residential quarters.

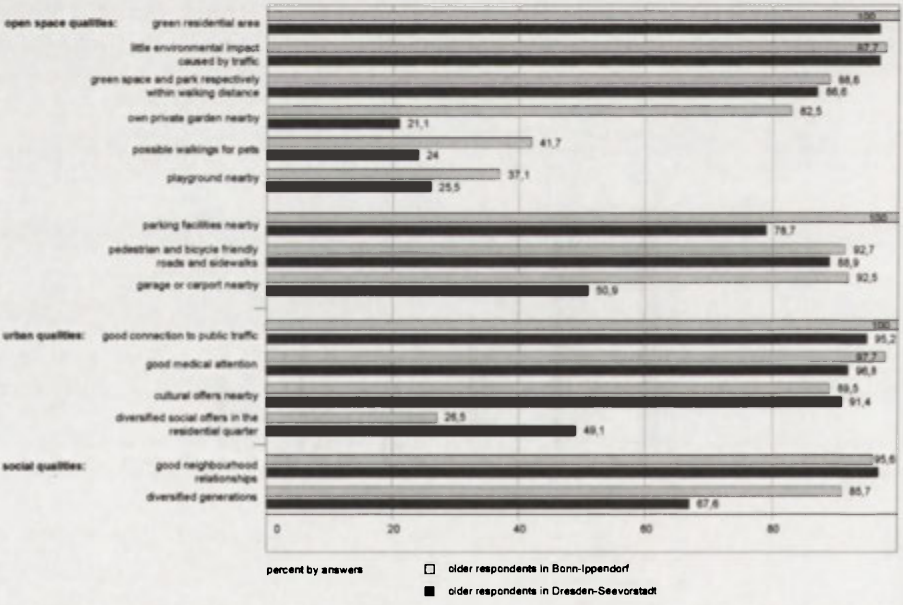


Figure 9. Preferences regarding the development of the residential quarter, older respondents in Bonn-Ippendorf and Dresden-Seevorstadt

According to their concepts of life, the residents could and can choose freely their living place, although this choice is understood as a process of thorough consideration (l).

The great satisfaction of the respondents in Bonn-Ippendorf and Dresden-Seevorstadt stands for a convincing congruence between the qualities of the respective quarter and the specific concepts of life of the residents.

SELECTED RECOMMENDATIONS FOR DEMAND-ORIENTATED URBAN RECONSTRUCTION

Based upon the theoretical knowledge and empirical results of the study, two general recommendations can be formulated for urban reconstruction.

On the one hand, it seems advisable to the municipal urban planning to implement an urban development which differentiates and develops quarters on a small-scale level. Guided by the thesis of area-inhabitant-profiles, it seems that this differentiating concept meets in a good way the high demands of urban reconstruction preserving and developing the quality of life due to demand-orientated and efficient development. It is to detect the specific endogenous potentials of quarters regarding their building structure and open spaces and to develop these according to the area-inhabitant-profiles in the respective quarters. The heightened orientation on the specific demands and patterns of behaviour seeks to increase tremendously the quality of life of all residents. Especially for the population group of the elderly this demand-orientated development of the residential quarters constitutes the precondition for the self-determination during the 'golden years' without denying the concepts of life. The differentiated residential quarters of a town offer rich possibilities to turn different concepts of life into reality. Hence, such a town sticks out as an attractive living space and ensures the quality of the location. Thereby, the connection of the differentiated quarters throughout the town is essential. It ensures to all inhabitants an equal basic quality of urban life (comp. second recommendation).

The differentiating (small scaled) concept meets the claim for sustainability and justifies its implementation, if a subsequent moving of people with corresponding concepts of life into the respective differentiated quarters can be reached. Especially in regard to the elderly, mobility should be supported. The attachment of the elderly to their familiar flat is known (comp. Saup 1993 among others), however little the willingness to move shortly before or after retirement (Kremer-Preiß, Stolarz 2003). This willingness should be used by 'old' and new measures of the moving management facilitating to more elderly to find a residence according to their concepts of life and hence coming up against the threatening supply bottleneck in the care of the elderly.

The differentiating and demand-orientated concept of urban development could be incorporated in a good way in the current German processes of the Integrierte Stadtentwicklungsplanung (Integrated Urban Development Planning) (Roch 2005, S.184). On the level of quarters it seems worthwhile to profit from the first experiences with Integrierten Wohngebietskonzepten (Integrated Residential Area Concepst) (Kremer-Preiß, Stolarz 2003 among others) to reach a demand-orientated and comprehending development of residential quarters.

The second recommendation for demand-orientated urban development elaborates upon the first one. It is advisable to the municipal urban planning to carry on developing open space systems spanning the whole urban area. These open space systems should be understood as an integrated part of the concept of differentiating (small scaled) urban development. Designed corridors should connect the important inner-city open spaces like parks and promenades with each other and with the individual residential quarters. Thereby, the open space system bears the pivotal mediating and balancing effects on the differentiated qualities of the residential urban quarters. Provided that the accessibility of the open space system is permanently ensured to every group of population, the aforementioned qualities of the residential quarters are (can be) the important benefit for every citizen. By means of the open space system spanning the urban area, the basic quality of urban life as a claim of the urbanites according to the principle of equivalence can and should be ensured and enhanced. Furthermore, the open systems hold the potential to advance the communication among the urbanites, the exchange between the different quarters. Therefore, the general transit in the open space systems should be implemented purposefully and a spectrum of numerous means of transport should be offered in the connecting corridors. The communication in form of cross-quarter exchange is reflected, for example, in day trips by bike on the weekend, skater and rickshaw tours. On the other hand, the open spaces themselves constitute spaces for social participation in form of passive and active communication. Hence, attractive offers for activity and events, oriented on the common as well as on group-specific interests and preferences, could motivate the use of open space and enhance the inner-city open spaces as meeting points of the urbanites. Altogether, in many respects the open space systems are important for the aims of the urban development. On the one hand, they act internally on the satisfaction and town-relatedness of the inhabitants, and on the other hand, they act externally as image on the attractiveness of the town.

NOTES

(a) [Urban Reconstruction East]

(b) [Urban Reconstruction West]

(c) In the GDR the interval between two generations was smaller (about 22 years) than in the BRD (about 30 years). The population structure in the newly created federal states is adapting to those in the old system of federal states.

(d) cited in : Großhans, H. (2001)

(e) Baugesetzbuch (Runkel 2004) and Raumordnungsgesetz (Hildebrand 1997)

(f) discussion about the subject demographic change, especially in Bonn and Dresden; characterization of the period of life „golden years' and description of patterns of communication in chronological, spatial and social dimension; discussion about the notion „residential surrounding'

(g) among others Coers (1994), Friedrich (2001), Richter (1981), Saup (1993)

(h) Passive and nonverbal communication respectively is defined as the perception of a person. The active and verbal communication respectively means conversations between two persons at least.

(i) In regard to the social characteristics of the residential quarter, the respondents in Bonn-Ippendorf appreciate the cohabitation of diversified generations very much (Figure 9). This fact aligns with the structure of residents in Ipppendorf which is characterized by a great amount of well-off families and a great part of older couples.

(j) In regard to the social characteristics of the quarter Dresden-Seevorstadt, it is remarkable that the respondents are very little interested in the cohabitation of diversified generations (Figure 9). This fact aligns with the structure of residents in Seevorstadt characterized by a very great part of older singles. Since 2000, the part of younger singles without children increases.

(k) algorithm of comparison—see Roch 2005, s. 78

(l) The choice of the living place is always a process of thorough consideration and customisation which is also especially influenced by the financial possibilities of the individual. However, in the respective price segments of the housing market it is possible to choose consciously and free according to the individual preferences.

REFERENCES

Banse, J., Effenberger, K. (2005), *Interner Bericht „Potenziale städtischer Freiräume und Wohnungsbestände für den ökologischen Umbau ausgewählter ost- und westdeutscher Groß- und Mittelstädte'*,IÖR, Dresden.

Borchers, A. (1997), *Die Sandwich-Generation: ihre zeitlichen und finanziellen Leistungen und Belastungen,* Frankfurt a.M., Campus-Verlag.

Coers, H. (1994), *Aktiv leben im Alter- Planungs- und Entscheidungsvoraussetzungen für eine ökologische Erneuerung der urbanen-baulichen Kultur*, Habilitation, Technische Universität, Fakultät Bauingenieurwesen, Dresden.

Forgas, J. P. (1999), *Soziale Interaktion und Kommunikation*, Beltz Psychologie Verlags Union, Weinheim.

Friedrich, K. (2001), *Alte Menschen außerhalb ihrer Wohnung: Sichtweise der Sozialgeographie*, in Wahl, Mollenkopf, Oswald, *Alte Menschen in ihrer Umwelt. Beiträge zur ökologischen Gerontologie*, Westdeutscher Verlag, Opalden.

Friedrichs, J. (1990), *Aktionsräume von Stadtbewohnern verschiedener Lebensphasen*, in Bertels, L. and Herlyn, U., Lebenslauf und Raumerfahrung, Leske+Budrich, Opalden.

Großhans, H. (2001), *Wohnumfeld und Quartiersgestaltung für das Wohnen im Generationenverbund*, Stuttgart, Frauenhofer IRB Verlag.

Hildebrand, I. (1997), *Raumordnungsgesetz*, Verlag Deutsches Heimstättenwerk, Bonn.

Kremer-Preiß, U. and Stolarz, H. (2003), *Leben und Wohnen im Alter- Neue Wohnkonzepte für das Alter und praktische Erfahrungen bei der Umsetzung- eine Bestandsanalyse*, Gütersloh/, Bertelsmann Köln.

Richter, G. (1981), *Handbuch Stadtgrün: Landschaftsarchitektur im städtischen Freiraum*, BVL Verlagsgesellschaft, München.

Roch, C. (2005), *Städtische Wohnquartiere im Umbruch und Kommunikation älterer Menschen. Vergleiche Untersuchung zur Nutzung von Freiräumen in ausgewählten Stadtquartieren von Bonn und Dresden*, Unpublished diploma, Technische Universität Dresden, Fakultät Architektur, Institut für Landschaftsarchitektur.

Runkel, P., Kolenda, R. (2004), *Baugesetzbuch 2004*, Bundesanzeiger-Verlag, Köln.

Saup, W. (1993), *Alter und Umwelt. Eine Einführung in die ökologische Gerontologie*, Kohlhammer, Stuttgart.

Scherzer, U. (2004), 'Hertha, ich geh' mal eben meine Runde'—Freiräume für ältere Menschen, *Wohnbund Informationen*, 4: 18–24.

EUROPA XXI
2006, 14: 143–151

THE SYSTEM OF LOCAL CORRIDORS IN TOURIST AREAS

ANNA PAPRZYCKA

Wroclaw University
Institute of Geography and Regional Development
Wroclaw, ul. Kuźnicza 49/55, tel. 71 3752 791
e-mail: papann@poczta.onet.pl

Abstract: The topic is connected with the issue green and open area development referring to the theory of 'corridors' and taking into consideration foundations of the conception. The theme of analysis looks into the issue of environment preservation and the balanced development of areas connected with a communication network. Attention was paid to the subject of forming a system of green open areas, recreation space, shaping along the communication axis. The green areas have a special significance in the functioning of the natural environment. Besides its climatic function (windscreen, influence on composition, temperature and humidity of the air) it acts as a protector: as an isolator from noise, smoke and toxic substations. Corridors could be classified from the point of view of their functional meaning (intra-regional, regional and local), but also the intensity of flow and the movement. Type of development in the corridor depends on the role of the green and open spaces in the spatial connections. The main objective is to introduce the classification of the corridors according to green and open area development division.

Key words: sustainable development, belt system, corridors

DEFINITION OF CORRIDORS IN TOWN AND COUNTRY PLANNING

The concept of corridors in town and country planning is transparent. The basic purpose of corridors is to facilitate the flow of persons, goods and combining various functions within the reach of strip systems. The significance of interregional connections (development corridors) is constantly increasing on the territory of the European Community.

The contemporary INTERREG IIc project, the initiative of the European Union, discovers the significance of the international dynamic development in a series of corridors in Europe (North-West Metropolitan Area of Europe) (Chapman et. al. 2001).

The main assumption of the concept of corridors is that they are transportation, economic growth, urban and organization development. The infrastructure and organization connections are a basis for economic growth and improvement in the quality of life for local communities. One of the concepts introduced by Roberts in 1999, making an expansion of the corridors' theory, is based on the model defined as 'armature'. 'Armature' in English describes a structure consisting of wires, supporting a sculpture. According to this theory, 'armature' defines a multi-layer and multi-dimensional nature of corridors. The infrastructure and organization flow are presented as a flexible structure, unrestricted by the linear system. By means of the 'armature model' it is easier to define the interactions occurring in the infrastructural and organization system between various interchange points. In addition, this concept explains the correlations occurring at the local level with international connections taken into account. The 'armature' concept also makes possible to include in the model the connections proceeding in a non-linear way, for instance: air connections, telecommunication network. A multi-layer model is assumed to be established, based on the structure of international mega-corridors and establishing the structures corresponding to the 'development corridors' on a national, regional and subregional scale (Chapman et. al. 2001).

The expansion limits of the cities are being constantly changed as a result of incorporating new suburban areas. The range of the 'urban unit' increases as a result of a constant demand for residential buildings in the suburban area. Outside the city limits the division between the urban development areas and rural areas becomes more and more erased. Decentralization of 'compact' (densely built-up) city connected by the communication infrastructure and balanced development with respected needs of the natural environment makes its way towards shaping city-regions.

One of the duties of regional planners should be studies of the regional development model, in which analyses of landscape values, increasing demand for recreation areas and, above all, the development proceeding in accordance with respect for the natural environment. Transportation system is the main development-stimulating factor and, therefore, its positive aspects, such as economic and cultural activation of regions should be utilized while its negative aspects such as pollutants, nuisances related to heavy traffic, should be minimized. ESDP (Commission of the European Communities) set forth the political options of the European Union which were presented, among others, as 'Equilibrium', 'Development', 'Protection' and decentralized development was accepted as one of the priorities. This development may take place, among others, by creating a network of corridors fulfilling various functions (Chapman et. al. 2001). It is the dynamic expansion consistent with the needs of the natural environment which is of fundamental significance in areas to be intensely developed. One of the assumptions existing in the theory of corridors is shaping various functions within the area of a given corridor and introducing differences in needs for long-distance and local connections. This creates chances for forming different patterns of developing open spaces depending on supraregional and local conditions. The belt-shaped model mentioned above is based on the 'backbone' of a spatial connection

network (communication, river network), constant belt system (system of bike, pedestrian routes—rows shaped along the communication axes connected by a greenbelt system) and 'dynamic development' sections. Analyses were focused on presenting a model of 'local corridors' involved mainly in the development of tourist-attractive areas.

The subject of the report deals with the development of open spaces according to the theory of corridors. The subject of analyses is related to the problems of nature protection and well-balanced development of the areas occurring along the communication lines. The report makes an attempt of classifying the corridors with regard to their functional importance (supraregional, regional and local corridors) but also because of the role of open spaces in the spatial connections network. On of the type of corridors of local significance are river valleys. In case of developing the river valleys a traditional concept of dividing into communities and working out separate studies of development trends for individual communities seems to be an out-of-date tactics here. The valley makes a belt—in the concept of contemporary town and country planning, a living organism which should be treated in an exceptional way. The report also presents the main problems involved in belt-type development of river valleys.

AN OUTLINE HISTORY OF SHAPING THE CONCEPT OF CORRIDORS IN TOWN AND COUNTRY PLANNING

In the history of town & country planning the belt-shaped model has a long-time tradition and strong relations with the contemporary theory of corridors. Just as in the contemporary concept of corridors the vision of belt-type development derived from the Garnier's concept was driving at decentralizing the developing urban centres. Garnier suggested separating the areas of various functions and their drawing aside on the basis of the transportation system (Malisz 1966).

The first utopian concept of belt-type development appeared in the Soria y Mata project in 1882. The idea was coming into existence a linear belt-type city running along the main communication axis from Madrid to Kamchatka (Malisz 1966). A transportation route would ensure easy access to the residential areas and jobs. The buildings with adjacent farmlands have been erected on both sides of the road. Only the suburban districts of Madrid have been completed. The belt-type model of Sorya y Mata fascinated the town planners in the twenties of the XXth century his look on the idea of development on the basis of communication belts was presented by Milutnin. Parallel belts of various functions had to be erected along the communication axis. Industrial buildings had to be located between the river and the railway line residential buildings belt occupied the area between the railway line and the expressway. Recreation areas were located behind the communication system (Malisz 1966). Milutlin's model was many times modified by visionaries of the future settlement networks. An interest in belt-type systems resulted in founding an association of architects and town planners: Association Internationale des Cites Lineares under Benoit-Levy.

Formation of the belt-type system on the basis of communication lines has rich traditions. One of the examples may be the development plan for London made out in 1942

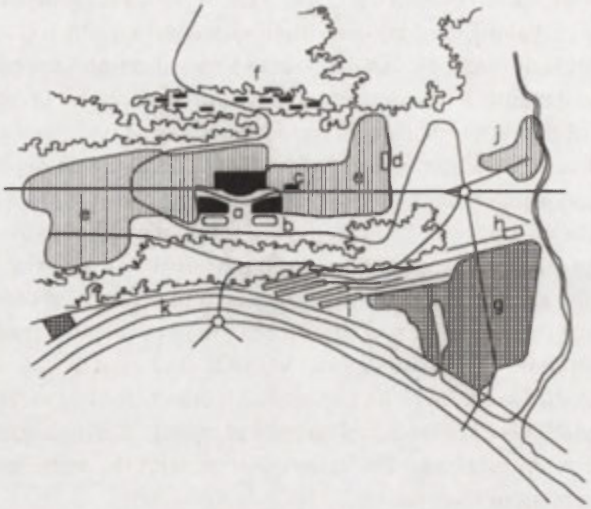


Figure 1. Outline of Garnier's industrial city of 1904, a—service centre, b-sports grounds, c—school, d- vocational schools, e—residential buildings, f- health centres, g—industrial areas, h—railway station, i—goods station, j-old town, k—river, according to Malisz (1966)

which provided for running 16 development belts along the communication axes in the city centre and west of Port of London. Recreation areas stretched out between development belts connected by the communication ring. Another example is the project of a new linear town Caersws designed for 3000 residents to be erected along the main communication line. The main communication route had to cross local roads running parallel through the network of intersections. The communication axis was defined as the 'corridor of balanced development' (Chapman et. al. 2001).

History of the belt-type development in Poland has a tradition reaching the thirties of the XX-th century. In 1934 Chmielewski and Syrkus presented a concept for developing Warsaw entitled 'Functional Warsaw'. The project is based on the principle of deconcentrating the urban centre along 'dynamic belts' shaped on the basis of the communication system and Vistula (Malisz 1966). The concept of a settlement network based on river belts (linear development concept—LSC) was presented for the first time by Hansen in his paper 'LSC—continuous linear system' published in 1970 (Hansen). In his opinion settlement development should be concentrated along the main rivers and should intersect their tributaries. The basic principle is creating a flexible continuous system connecting the areas located far away one from another. The LSC system consists of three belts: residential and service belt, settlement belt with agricultural farms and forests and extractive industry and harmful industry belt. A transversely shaped communication network runs through the LSC system. The concept of a linear system resulted in creating a multibelt concentric system. The system consists of belts crossing each other in one centre.

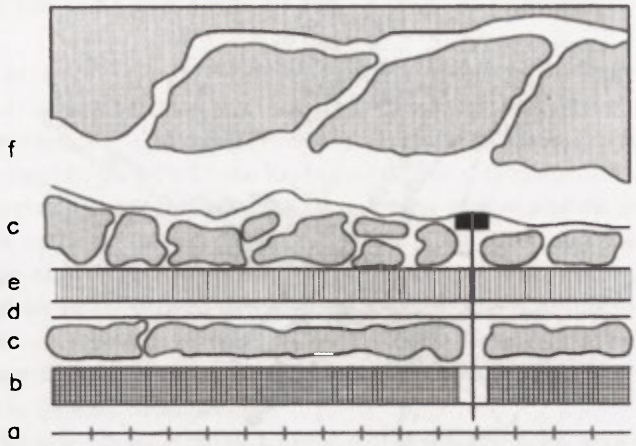


Figure 2. Belt -type system according to Milutin's concept, a—railway line, b—industrial areas, c—park, d—roads, f—Volga river, according to Malisz (1966)

The belt-type system might have fascinated the 20th century town planners by its simplicity resulting from assuming a linear system and by its functionality manifested in a collision-free (separated) delineation of the pedestrian traffic to the recreation, industrial, service and residential areas. Previous concentric systems ceased to meet their tasks in view of a dynamically increasing number of residents. Particular belt system centres might have specialized in specific functions, thus contributing additionally to the decentralization of the spatial network. However, such a way of thinking did not take into account the functional, landscape and cultural diversity of the areas to be designed. Interesting concepts of belt-type development, from the research point of view, had mainly an Utopian nature, the conclusions drawn from analyses had frequently radical overtones.

At present the attention of spatial planners is focused on the spatial systems of balanced development, in particular on the 'compact city' concept. From the late eighties the idea of 'pedestrian pockets' concerning the site planning process of the suburban areas has been developed. This idea was initiated in the USA. In this concept settlement units linked by pedestrian streets are connected by a high-quality efficient transportation system, consisting, among others, of access roads, high intensity roads servicing building development, a so-called 'Main Road' fulfilling a number of functions, light railway system. Another concept, inspired by the Garnier's theory is the concept of a 21st century garden-city, introduced by Hall and Ward in 1998. Hall and Ward suggested the system of garden cities, closely related to the regional infrastructure, among others, by railway lines and a light railway system. According to their concept, a belt-type system shall be created in the future (city regions—the city of Mercia, England, Kent (Chapman et. al. 2001).

Figure 3. Concept of 'dynamical belts' in the Chmielewski's and Syrkus model of 1934. This model is a prototype of the city-region, black rectangles—units of potential development, according to Malisz (1966)

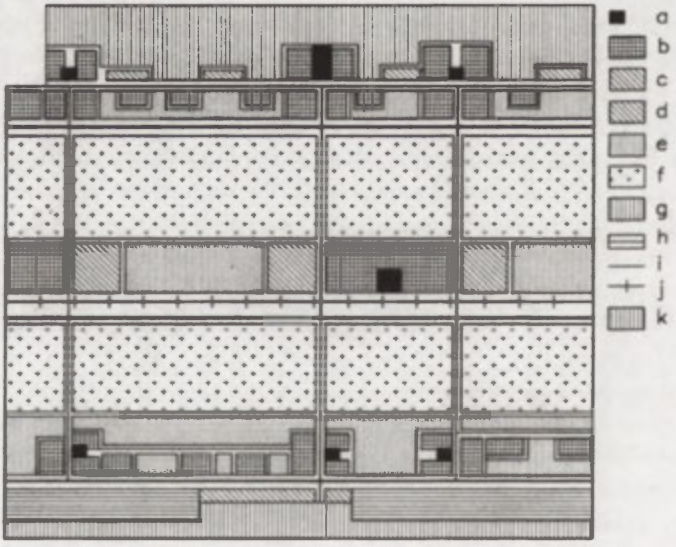


Figure 4. Belt-type system for Warsaw in the Chmielewski's and Syrkus model of 1934, a—service centres, b—residential areas, c—farm settlements, d—industrial and storage areas, e—open-space areas, f—forests, g—agricultural areas, h—main communication routes, I –railway line, k—recreational areas, according to Malisz (1966).

THE RULES OF THE CLASSIFICATION OF THE SYSTEM OF CORRIDORS

The subject of analyses applies to the problems of environmental protection and balanced development of the areas related to the communication network. Attention was paid to shaping the open space system being developed along the communication lines.

Corridors could be classified from the point of view of their functional meaning (intra-regional, regional and local), but also the intensity of flow and the movement. Type of development in the corridor depends on the role of the green and open spaces in the spatial connections. The main objective is to introduce the classification of the corridors according to green and open area development division. The principle of such partitioning depends on intensification of man's needs to manage the terrain and of a regional and economical possibility of development. Of greater importance is the influence of dynamic expansion on the balance in nature.

The purpose is to create a balanced model of green and open area development in agreement with development needs, which will organise space along the communication axis. The subject of analysis takes into account the foundations of dynamic expansion along the corridors. One of the establishments of the above-mentioned theory is to provide differentiation of spatial function and introducing differentiation between the needs of long-distance linkages and more local connections. That creates possibilities to form various spatial schemes of green and open areas adapted to the regional and local conditions.

The analysis referring to the conception of elastic ribbons is focused among other things on the issues connected with the model of the belt development formed along the transport movement axis. The above mentioned belt scheme is composed of the 'framework' (the communication, river and road networks), the constant belt system (tourist, pedestrian and bicycle route systems, etc. formed parallel to the communication axis, united by verdure) and the stretches of dynamic development. That type of analysis concerns the introduction of the model of the 'local' corridors mostly connected with development in the tourist area.

THE MODEL OF THE BELT DEVELOPMENT—THE SYSTEM OF LOCAL CORRIDORS

In the instance of development in areas with considerable scenic values, which also take in a lot of naturally formed systems, the basic question refers to the conceptual choice between corridor (a ribbon) and concentration of development at a dense network of points. The answer to this question could be in the type of corridor defined as 'the model of the belt development', The basic idea of the model, which is a continuation of the theory of corridors is that areas of urban expansion will join in belts, established from settlement, recreation, natural parks, forests and agriculture terrain. The backbone (a framework) of each belt is composed of communication, river and road networks. The constant belt system includes: tourist, pedestrian and bicycle route systems, formed parallel to the communication axis, united by verdure, which penetrate freely into the dwelling areas. The settlement areas are located not in node system of points, but its congestion depends on

absorptiveness of natural environment and saturation of tourist attractions. The system is based on elastic belts, including various length stretches of development joined by communication network The theory of the elastic belts refers to geographical analysis conducted by Uhorczak (1931), who marked the range of exemplary stretches, whose extents depended on access of the terrain by the local inhabitants. The management is based on the dynamic areas of development (stretches) mainly localised in the neighbourhood of tourist cities and villages joined by the system of pedestrian and road communications. The extent of the stretches is the result of compromise between possibilities of pedestrian penetration of the terrain and an agglomeration of tourist attractions. An exception composes a management of tourist scenic roads, created mainly for motorised tourists, where a service development is followed in a different, steadier manner.

In the model of the belt development the communication is not the linear axis, but a vivid structure. Its task is not only to enable the transport movement through the corridor, but also to stimulate travelling persons to stop. In case of local connections—'local corridors', where a communication network runs through areas of attractive landscape and high quality regions the main transportation network would join with the natural environment following the example of 'the park and way system'. A fundamental issue is to maintain here the proportions between man's investments in terrain and natural forms of the environment such as sanctuaries, national parks and landscape parks. A system of parking should be provided as a less destructive to the environment.

The term 'communication' in the model of the belt development defines the network of road transport, but also in the concept a fundamental role in arranging spatial connections is played by a river. Shaping of the verdure system based on the belt scheme connected with the riverside terrain including green areas, boulevard, promenades, plazas and recreation spaces has a positive influence on environmental protection, but also on the visual perception of valleys. The green zones formed parallel to the river create enclaves united by the pedestrian and bicycle communication. The river organises the space in villages and cities. Similar to the case of urban solutions in city areas, during an expansion into the valleys a division for public, partly restricted and private space will be introduced. The private stretch is formed in the settlement zone situated near the riverside. Here waterside terraces and plazas would be located. In cases where there is a mix of privately owned and public areas, arranging the space would lead to the forming of landscape interiors of housing estates, hamlets and green area complexes, which would join with the system of green belt areas along the river. Formation of the verdure belt constitutes a natural prolongation of the system of city green areas.

The vision of belt-type development based on the river network, road and railway communication network, seems to be the only logical principle in shaping tourist regions of considerable landscape values. A number of contemporary scientists emphasize the cultural significance of developing historical trade routes. Communication routes and river belts are treated by the geographer Yi-Fu-Tuan (Yi-Fu-Tuan 1987) 'not only as the element of natural area and order (natural environment), economic area and order place of work and trade) but also as an integral part of the basic area and cultural area, saturated with symbolic values'. The concept of belt-type development on the basis of the communication and river network is strongly set up in economy. One should emphasize

here the essential role of transportation routes in shaping and fixing the existing spatial structures (the concept of 'communication lines and economic development', 'concept of the development axis'). In such a belt zone provided with suitable means of transportation, potential conditions for creating and developing regional systems.

REFERENCES

Castells, M. (2000), *The rise of the Network Society,* Blackwell, Oxford.

Chapman, D., Pratt, D., Larkham, P., Dickins, I. (2001), Concepts and definitions of corridors: evidence from England's Midlands, *Journal of Transport Geography.*

Hansen, O. (1970), LSC—Linearny System Ciągły [LSC—Continuous Linear System], *Architektura,* 4, 5.

Hall, P., Ward, C. (1998), *Sociable Cities*, Wiley, Chicester.

Roberts, M., Lloyd-Jones, T., Erickso, B., Nice, S. (1999), Place and Space in the Networked City: Conceptualizing the Integrated Metropolis, *Journal of Urban Design*, 4, 1.

Malisz, B. (1966), *Zarys teorii kształtowania układów osadniczych* [Outline theory regarding the formation of the pattern of settlement], Arkady, Warszawa.

Uhorczak, F.(1931), *Z metodyki badań nad osadnictwem* [The method of research on the pattern of settlement], Międzynarodowy Kongres Geograficzny w Paryżu,16-24. 09. 1931 r., *Czasopismo Geograficzne,* 10.

Yi-Fu-Tuan (1987), *Przestrzeń i miejsce* [Space and place], PIW, Warszawa.

EUROPA XXI
2006, 14: 153–163

COUNTIES OR REGIONS? SOME REMARKS TO THE QUESTION OF REGIONAL DEVELOPMENT IN HUNGARY AND POLAND

ANDREA SCHMIDT

University of Pecs
Faculty of Arts Dept. of Political Studies
Pecs, Ifjusag u. 6 H-7624
e-mail: schmidta@btk.pte.hu

Abstract: Poland and Hungary are two countries with strong connection in the past with similar experiences and historical background with a lot of similarities; the development of the regional self-consciousness in Poland and the lack of the same impression in Hungary. 1999 in Poland a great reform took place which described the administrative map of Poland. The three-level administrative structure was introduced. The introduction of such a system was a result of a long-lasting political debate which waits to Hungary too. By the comparison of the Polish results and the possibilities and the forthcoming results is the description of the opportunities and the tasks that are before Hungary and the possible screenplays from which Hungary has to choose. In Poland the regional identity is relatively strong in Hungary instead of historical regions the role of the counties is significant. Joining the European Union Hungary has to come to the end of the long lasting debate; county or regions, geographical or historical regions or statistical regions. Finding the applied solution the correct planning of the institutional background with the several tasks and the solutions of their functioning is also important. Hungary also has to answer in the very close future to these questions. The comparison of the Polish results and experiences is good focusing point for Hungary to work out the structural reforms after joining the EU.

Key words: regional policy, history of regional consciousness, national regional development

The question of regional identity is a very popular issue in the European continent. The two centuries of the nation states that had caused the two world wars had essential importance in the creation of modern societies, the execution of the modernisation. Beside and contrary to the nation states two other power and identification levels appear; the

European level that means the level *over* the nations embodied in the European Union, and the regional level, the level *under* the nation states. Both of them have the meaning of a counterbalance and control of the overbalance of the nation states and a kind of guarantee of the democratic balance. It is a kind of the institutional frame of the compatibility of globalisation a locality. (Illés 2002) In treating regions as bounded a number of issues are raised concerning, first, the very definition of Europe's regions and second the importance of seeing regions as relational, open spaces, bounded only by the translocal practices that engage sites across space. The establishment of regional cohesion has difficulties in the 'socialisation' in region—building concept, regionalism is a great challenge for Central Europe, the inhabitants' task is to consider the advantages and the disadvantages of regions, as regional identity cannot be created from above. As Kiss (Kiss Gy. 2004) says, region cannot be a result of a decision, it is usually a result of an organic historical development and referring to its political role it is the stimulator subsidiarity, mediator of the local interest.

The process of regional definition in Europe has at least two different types of interpretation. The first issue concerns the process of regional definition in Europe. The regional breakdown applied in the European Union is a five-level hierarchical classification. Its highest level is either the whole of a country or lager regions within that, depending on the decision of each Member State, while the second level—of an utmost importance—is that of actual regions, to which level the whole regulation of support in the frame of the Structural Funds, the related criteria as well as the conditions of applications for support (programmes, projects) are linked. The third level is more or less equal to the area of a county. The two additional levels are considered local levels in the Union. Creation of the fourth level depends on the decision of each Member State. The fifth level is uniformly that of settlements, thus forming the basis of the most detailed geographical information system (for both maps and data).[1]

Because of the definition and demarcation of NUTS II regions is used for the disbursement of EU Structural Fund assistance, it is not surprising that the definition of the regional units required for assessing regional economic performance is highly politicized. More recently in East-Central Europe, where Structural Fund assistance is likely to provide a key mechanism for new investments in relatively poor regional economies, it is also clear that the definition of NUTS II regions—in particular that of the capital city regions—has affected measures of relative regional performance. Decisions concerning regional boundaries were made in some ECE applicant states on his basis of maximizing potent ional Structural Fund disbursements (Smith 2004 and Rajcak 2002). Paasi calling it 'pre-scientific view'—implies that region is a practical choice, a given spatial unit (statistical area, municipality or locality), which is needed for collecting/representing data, but which has no particular conceptual role... the current 'Europe of regions' provides a particularly tempting grid of regions (and data) that are often taken for granted. (Smith 2004 and Paasi 2002) The 'region' here is rendered as a bounded space, a form of governmentality in which economic 'performance' is measured, mapped and compared as a basis for the distribution of EU funding.

[1] Kovács: Regions in Hungary In: The Region (Regional development, policy, administration and e-government) ed: Gy.Enyedi, I.Tózsa, Akadémiai Kiadó, Budapest, 2004, 37–38).

The question of regional identity and the meaning of regions had different role in the history of Western and Central Europe. In contrast with Western European states the feudal structure of the state was created almost 5 centuries later than in the West-European countries and from the beginning the royal power played dominant part. In Hungary for example each attempts of the Hungarian aristocracy to built its structure remained for transitional period therefore the gentry looked for the contribution with the ruler sometimes just against of the attempts of the aristocracy. In most of the Central-European countries after the invasion coming from the greater empires (such as in the Balkan peninsula or partly in the Russian Empire) results the collapse of the old national aristocracy right before its possibility of creation of stable territory of ruling. After the collapse of the empires from these places it was doubtless, that the emergence of the new nation-states was begun. (On one hand it is a characteristic feature and consequence of the collapse of the Habsburg Empire, the Austro-Hungarian Monarchy.)

The 'classic' doctrine of regional policy contains a deeply rooted belief in the necessity of equalising naturally arising interregional differences. This doctrine, which is as old as regional policy itself, is inherently connected with the concept of an intervening state, a welfare state, a state with an economy based on Keynesian economic tenets. On the other hand since the middle of the 1970s an opposite model of the regional policy has also been taken into consideration. According to this point of view interregional differences are a natural result of development, and their increase—in the short and medium term—is fully admissible (Gorzelak 1998). The breaking out of the era of Cold War after 1948 and the division of Europe into two camps froze the question of the ethnic division in Europe. The most important element in the two parts of Europe was the question of unity against the 'enemy' which became embodied in the birth of the military (NATO and Warsaw Pact) and economical organisations (the roots of the European Union, the European Economic Community and the COMECON). In the divided Europe different processes of regional development took part that time. In the Western European countries there were some efforts to solve the ethnic tension with the help of the facing up with the historical heritage. (EG: German and French reconciliation) Thanks to the economical integration there were some institutions and organisations developed over the nations and the it caused the strengthening of the regional cohesion instead of the national state in the Western European countries. That time the situation in the post-communist countries were slightly opposite with the closed national economy that was characteristic that time in these countries. Due to the state owned economy and the central planning system there was no possibility of the formation of the international integration. The same situation was characteristic according to the question of the regional integration within the borders. Besides Hungary in most post- communist countries there were several changes in the organisation of the administrative system. There was no reason to speak about well functioning administrative and local governmental system as they were only the instruments of the state administration and the redistribution of the annual budget. The possibility of ethnic and economical conflicts among the socialist states was excluded as they were forced to create bilateral agreements with the Soviet Union and could create any kind of agreement exclusively through the Soviet Union (Enyedi 1996) The change of the regime changed entirely this situation. Many borders were removed, new states emerged

and the post-communist countries began to organise the regional and interregional connections by themselves. In the year of 2004 eight post-communist countries became the parts of the European Union. Three of them belonged to the Soviet Union, one was the part of the formal Yugoslavia and the two parts of the formal Czechoslovakia also entered the European Union with a lot of unsolved economical and administrative problems.

The two compared countries, Poland and Hungary had strong connections in the past as well as in the recent years. They had almost same historical background and experiences, and the joining the European Union also made the bounds of these states stronger. However there is an essential difference in the development of the two countries, the question of regional identity in Poland and the lack of the same impression in Hungary. The changes of the territories of the two countries, the treaty of Trianon and Paris at the end of the two world wars results the loss of the greater part of the territory and inhabitants of Hungary, while Poland also found itself in similar situation loosing a greater part of territory and inhabitants at the end of the II world war. After the resolution of Potsdam conference Poland obtained a quite homogeneous territory and inhabitants from the former Germany—the process of unification of that caused several difficulties inside the state and in the international and transborder issues.

In the course of its history Poland went through different changes according to the creation of several territorial and administrative units. In the times of the Piast Dynasty Poland was divided into provinces consisting *okręgi grodowe*. The Jagiellonians created voivodships usually based on the traditional provincial division system. The name voivode at first meant the one who leads the warriors. The greater provinces became established in the second half of the 16th century (Little Poland, Greater Poland, and Lithuania)—as 3 parts of new political quality—Polish-Lithuanian Republic. Provinces became divided into voivodships and—sometimes—lands (ziemia), which were divided into districts (powiat). This division system remained until the loss of Republic's independence in the late 18th century. During the era of Napoleon, the Duchy of Warsaw (Księstwo Warszawskie) the French departments' model was invented. The Polish Kingdom (subjected to Russia) was divided first into 8 voivodships, turned in 1837 into guberniyas. The lands belonging to Prussia were divided into provinces, regencies, districts and communities while the lands belonging to Austria were divided into districts, towns separated from districts, communities (gmina) and manors (obszary dworskie). In 1918 Poland regained its independence, the March constitution of 1921 (after the treaty of Riga, when Poland could obtain part of former Russian Empire) the territory of the country is divided in voivodships, districts, and urban and rural communities. Between the two world wars there existed 16 voivodships and the capital city of Warsaw, while the Silesian voivodship was autonomous. From the end of WW2 until 1950 the Polish territory was divided into 14, than into 17 voivodships and 5 towns with voivodship status. In the year of 1975 Poland was divided into 49 voivodships and—according to the scheme in the communist countries the country became more centralised. On the 1st of January 1999, 16 self-governmental voivodships, divided into self-governmental poviats, were established.

The situation in Hungary was different. As a relative great state, part of the Austro-Hungarian Monarchy Hungary had natural-landscape characteristics territory, that became restricted to the plains of the Carpathian Basin after 1920, which determined

by its plains and hilly regions. Hungary lost the historical regions, such as Felvidék (Upper Hungary—now it is Slovakia, Transssilvania (Erdély), that belongs to Romania, and together almost 66% of its territory. The changes concerning the territorial division of the state had a great influence in the future of the regional development, its institutions. The 1100 year-old Hungarian State has significant tradition of spatial administration. King Stephen, Hungary's first king, laid the foundation for the boundaries of the distribution of regional power still valid to this day. Despite the relatively permanent nature of regional setting the inner structure, number of administrative units and geographical borders changed numerous times.

These units, the so-called counties, the units of Hungarian spatial administration, have been for centuries, since the founding of the state, committals and the nation's units of military defence. Since the 13th century they can be considered to be the regional county (then approximately 75 in numbers), that is to say, socially speaking defensive, representative units of local government. Through the course of historical development they fluctuated between being representatives of central, regional and of local authority. The first important theoretical work after the 1867 compromise was a proposal to the counties to think over the possibilities of transforming the role of the county system. After the lost war with the peace treaty of Trianon in 1920 a new wave of reform efforts emerged, in the 1920s, statistics divided the country into 28 economic units based on 28 regions of agricultural production. Parallely with this solution a great Hungarian geographer Gyula Princz made another proposal to the Ministry of Interior planning 14 counties related to 162 districts. In the years before the war also remarkable plans were made for the Hungarian government, but the execution of them failed because of the breakout of the war. Before the Stalinist era in Hungary, right after the II World War on the behalf of the National Peasants' Party Ferenc Erdei and István Bibó a new concept was composed. According to their concept instead of county-system a totally new, 'city-county' system should have been introduced. Instead of 19 counties 75–80 city-counties would have been introduced. Approximately 30 years later Bibó himself rethought his proposal and elaborated a further plan based on city-districts of 80–110 units. Although during the Rákosi era in the first half of 1950s, Rákosi, the formal Secretary General of the Communist Party was on the reformation of county system and the introduction of 12 counties instead of the 19 county-system. Finally, the breakout of the 1956 revolution prevented his efforts. During the 20th century the role of local governments was significantly depressed, they principally were limited to being the representatives of central authority like in the other states of the socialist block.[2]

Before 1945 the status and the role of local governments varied, depending on size, in function from that of small settlements without administrative body or notary public to that of large cities practising county level law. District played the role of intermediary between settlements and counties, which consisted of a city and its greater outlying area. Such as in Poland, the regional local government model was replaced by the Soviet Council system in 1950. Changes were made to the content of spatial administration and not to the actual size of the local government. In the council system counties (numbering 25

[2] Regional development in Hungary, ed. Nora Hörcher, Ministry of Agriculture and Regional Development, Budapest, 1998, 11–28.

following the Trianon treaty that became limited to 19 in 1949) served as an enforcement of central power in the distribution of developmental and operational funds among settlements and in the area of practising administrative rights. Local, district and county and councils were formed. The aim of this top down process was to provide a state presence in every community as close to the citizens as possible. The main task of this system was the equalisation, the remove of the cultural, economical, historical etc. differences such as in the other totalitarian countries in ECE that was the era of the so called standardisation. Conditions for the development of regional identities were unfavourable in the last 50 years. The states of Central and Eastern Europe were centrally planned economies, where all powers were concentrated in the centre. The units of the intermediate level had—in principle—their own councils, but in fact they were the executors of central orders. As far as they had powers of their own—and they had—it meant the deliberate redistribution of resources among cities and villages within their jurisdiction. The principle of the system was the servile execution of higher orders and arbitrariness towards the lower levels of administration (Illés 2001)

According to the opinion of several professionals regional policy is nowadays raised in the form whether the development of regional units in Hungary should be realised in parallel with the existence of, or instead of, counties. There are several facts that can support of launch the invention of the regional system in Hungary. The first very important question is the reason of introduction of regions in Hungary, whether it is necessary or not. In fact, Hungary is a unitary, homogeneous nation state. Taking into consideration these facts, it is obvious, that regionalisation on ethnic, linguistic, cultural or historical foundations cannot be realistic since there are no regions or territories distinguishable on these bases. Furthermore there is no possibility for regionalisation based uniquely on geographical factors, due to lack of islands, high mountains etc.—as the consequences of the changes in the territory of the Hungarian state after the I World War. The only distinguishable point in the question of regionalisation are the regional differences including the ones between the centre and the periphery as most significant factors of regionalisation could serve as a basis of regionalisation in Hungary (Temesi 2004) The most questionable standpoint according to the invention of the NUTS system in Hungary was the debate among the supporters of the regions (regionalists) and the supporters of the county-breakdown. The system of NUTS, units of regional development on local and regional level were to be formed before the negotiations with the European Union membership according to the regional policy of the European Union. Hungary had to create—besides the already existing NUTS 3 (county level) and NUTS 5 (local level) and the national level the NUTS 2 and NUTS 4. Taking into consideration the geographical and other factors of the country the formulation of the great regions at the level of NUTS 1 did not seem reasonable due to the dimension of the country, although the possibility to create three groups of region was already brought up.[3] It is necessary to add, that neither

[3] Taking into consideration the fact, that the after the accessing to the European Union this problem became vivid even in Brussels, we must not give up the possibilities of creating such 'great regions', however after the changes in the borders and territory of Hungary it is rather difficult to find the exact cleavages among the great regions in Hungary, besides the river Danube there are no such geographical points along with them it could be possible.

the Act on Territorial Development and Country Planning, nor the National Concept on Country Planning takes into consideration the NUTS 1 level. According to the word of the Law the unit NUTS 1 is to represent the whole country as an entity.

Considering that units of NUTS 2 have high priority in the programmes of the regional planning elaborated on certain levels the structure of NUTS the Section 5 of the Act. No. XXI (1996) on Regional Development and Regional Planning determines that planning-statistical (great) regions are the adjoining planning and statistical territorial units covering the territory of several counties.[4] It also determined that statistical regions shall cover the territory of several counties. It is remarkable that there was no suggestion according to the changes of the borders of the counties however as it has already mentioned, that after the changes in the territory of Hungary the new borders of the counties became drawn from above. As the result of the resolution of the Parliament on the National Conception of Country Planning (March, 20, 1998) regions became established, the units of NUTS 2 became established in Hungary.

1. Western Transdanubia
2. Middle Transdanubia
3. Southern Transdanubia
4. Central Hungary
5. Northern Hungary
6. Northern Great Plain
7. Southern Great Plain[5]

The average territory of the regions reached approximately 13,000 km^2, an average population reached 1.5 million (EU average: 15,700 km^2 and 1.8 million). Disregarding the region of Central Hungary involving the capital each region is constituted of three counties. There are no large differences between the regions considering the GDP per capita, but it is common, that none of the Hungarian regions has an average as high as the 75% of that of the EU average and neither Northern Hungary nor Northern Great Plain reach the 75% of the average of the Hungarian GDP per capita. However, in respect of the countryside, the development gap and the distribution have increased, that is, the state of development in the countryside is now more balanced than 20 years ago (Nemes Nagy 1998). This change represents a strong hierarchisation of settlements. Standing near the top of this hierarchy, where Budapest can be found, are the larger provincial cities, where the venture activity growth is visible, the unemployment remained below 10% and the real value of income deflated less. This was strongly connected with the fact, that institutions of the non-profit sphere (educational, health services, administrative) are mostly located in cities played an important role.

The former—reviewing data and practice of the 15 Member States of the European Union—expressed the view, that the size of Hungarian counties does not reach the most important NUTS 2 level of the European Union. It was proposed that the territorial breakdown of Hungary was necessary, while counties perfectly comply with the require-

[4] Region—planning, statistical (big) region: a territorial unit covering several counties (or the capital) defined for planning and statistical purposes, the borders of which are marked by the administrative borders of the counties involved

[5] see the enclosed map

ments of level NUTS 3. The origin of the debate is the question what role to give to the hand of the counties. It is a basic requirement that the NUTS 2 level regional breakdown, acceptable by the European Union, should meet the criteria of *stability*—and consequently—regular data supply as well as the criterion of covering the whole country without overlaps. As it was mentioned above, the counties were the old. Since the change of regime the question of regionalisation, the necessity of the division of the territory of the state into region was the question of political debates in some East European countries, such as in Hungary. The roots of the failure of the invention of regions instead of counties must be examined in two ways:

- The tradition of the counties is too old and the adherence to the county system is to strong
- The invention of the regional system in Hungary was interwoven with the question of sovereignty E.G. after the collapse of the Turkish hegemony in the late 17th century, the Habsburg plans for centralisation of the administrative system of the empire, such as it was made in the late 18th century by Joseph II and after the collapse of the war of independence in 1849 or during the Rákosi regime in the 50s of the last century. As a historical phenomenon the county in Hungary always was strongly connected with the question of national sovereignty.[6]

The change of the regime awaked the question of the survival of the counties again. The long-lasting counties resisted again the attacks of the idea of regionalising reforms now operating as territorial self-governments. Lacking organic roots, the regions had little chance to survive the political debates. It can be declared that regionalisation or regionalisation based on administrative tradition do not have roots in Hungary (Temesi 2004).

The final written version of the region was included with the definition 'planning statistical' region and the National Development Concept that was to be adopted by the Parliament seemed to be the best solution. The professional debates still went on and there existed two half-official versions—according the size and the exact territory of the regions. The substantial difference between the two versions was the definition of a *central region*. Contrary to Poland, in Hungary it was evidence that there would not be changes in the present borders of the counties and approximately 3 counties could create on planning-statistical region. After a long series of discussion on the 10th March 1998 session of the Hungarian Parliament the seven Region Concept was accepted as the parts of the National Regional Development Concept. Parliament adopted this regional breakdown in the Act XCII of 1999, declaring that the 7 planning-statistical regions are in compliance with Point 5.2 in Chapter II of Parliamentary on the National Regional Development Concept. The round held on 30th July 2002 closing Chapter 'Regional Policy' of the series of accession negotiations declared this regional classification final and compliant with the requirements of the Union (population requirement: 800,000—to 3,000,000). After the adoption of the Act the debates continued. At least 15 versions of new ideas or recommendations were remarkable and readable from time to time by politicians, professionals and newsmen. Most of them did not meet the requirements of the regulation in force in the European Union, where the member states can for a relatively long time establish

[6] Illes Ivan: Kozep—es Delkelet-Europa az ezredfordulon (Central- and Southeast—Europe in the turn of the millennium) Dialog Campus, Budapest, 2002, 109–110.

their territorial division (the NUTS classification) the basic principles are the question of *stability and hierarchy* only. It is a story of a long debate in Hungary how to solve the question that both the regions and the counties are needed in the country in the NUTS nomenclature and the two levels should not be confronted with each other. The other vivid issue is the question of the necessity of creation of administrative regions and the problem, what kind of responsibilities to add them. That issue can also be examined through the question, if Hungary needs regional units of public administration of self-government. If the answer is 'yes', than another question is rise up the problem of the existence or the ignorance of the counties. This problem is strongly connected with the question of the necessity of high grade of political autonomy the existence of which is questionable in Hungary as the problem of regionalisation was and is bounded with political debates. The other important question is the division of tasks and sources at several levels of self governance. The future function of the regions can be solved upon three paths:

• The need of development of the territorial development councils (the number of them is seven according to the seven statistical regions) regional administration under central subordination strengthened in this way would serve as a basis for the regional, but voluntarily organised organs of territorial development, then the self-governments of these regions would be set up as a final step of this process. This concept would held the system of counties into consideration presuming the parallel functioning of two tiers of territorial administration

• The seven regions would be formed according to the principle of self-government and direct elections, and most of their functions would be delegated by the central government in a process of decentralisation.

• According to the third type of solution it is necessary to be mentioned that regionalisation is not based on the seven development regions mentioned earlier which already functioning. It takes the upholding and correction of the system of counties into consideration, but the middle-tier administration would have only one level consisting of counties. This concept reckons with the creation of 13 or 14 so-called large counties formed by the voluntary integration of the current smaller and larger counties.[7] Larger Hungarian counties are already capable—as this concept says—of becoming the regions, while special professional associations of territorial development formed by the smaller ones would be developed further by integration of county self-governments, which means the unification of the counties themselves. The self-government of these large counties should perform the regional administrative functions. (However there are no efforts in Hungary to cut the borders of the counties such as it had happened in Poland and it is still questionable how counties and the representatives of the institutions could be convinced in the necessity of unification).

• There is another concept that completely refuses the establishment of regions, and is in favour of upholding the actual system of counties. According to this solution the

[7] This concept presumes that county development councils would be integrated into the organisation of county self-governments as a first step, meaning the transfer of functions related territorial development to the country -governments. Then the self-governments of neighbouring counties of smaller size would associate with each other creating special associations for purposes of territorial development. E. G. Szabolcs-Szatmár-Bereg county, Bács-Kiskun, Borsod-Abauj-Zemplén and the capital city (Temesi).

functions of public administration in the territorial level have to be performed by the associations of the self-governments of counties and by county self-governments more powerful than the currently existing ones.

Talking about the final solution of this problem it is still questionable which direction of development will be followed in Hungary. There is no doubt that the Hungarian local government system constituted in 1990 is one of the most democratic ones in Europe (Temesi 2004). However the necessity of the revision of this structure is obvious. Its effectiveness should be improved as it was stated on the basis of the experiences of more than a decade. But the ways of the revision of the local governmental structure are completely different on the basis of political issues such as among the scientists dealing with regional studies. It is commonly accepted that the functions and the financial support of the regions nave not been solved yet such as the borders and the institutions of the regions. As it is written in the Assumptions to the National Concept of Regional Development for Hungary in the summer of 2005, the competitiveness of Hungary can be effective by the help of decentralized structure and the co-ordination among the different levels of the territorial units. Decentralisation, with subsidiarity and effectiveness can strengthen the competency of the regions on the field of regional development. The process of creating own operative programs can help on the process of occurring of the regional identity and in order to built out new networks, the process of regional partnership. The above mentioned elements belong to the elements of the short term program, while the long term program contains the creation of political (administrative) regions and parallel the strengthening of the NUTS IV level. The deadline of making such measures are quite close; it is 2008–2010 to make decisions concerning the creation of regional administration and 2014–2020 the beginning of the functioning of these units. In order to make these steps easier it is essential to take into consideration the functioning of such institutions in the new member states of the European Union. Concluding the above mentioned problems and taking into consideration the common historical background of the new EU 8 states (as it is commonly used for the new EU member, former Socialist countries) had similar experiences in the last 50 years. They belonged to the group of Socialist states with the overbalance of the state and the state bureaucracy. As Regulski remarks (Regulski 1998), the result of governmental reforms had at least multifunctional effect—the end of the monopolies of the state in five levels:

POLITICAL—with the introduction of free and democratic elections

PUBLIC AUTHORITY—as the appearance of local authorities, appearance of civil society and the end of the unitarian state

PUBLIC PROPERTY—instead of local property which usually meant the lack of responsibility of the single inhabitants

PUBLIC FINANCE—with the introduction of local taxes

PUBLIC ADMINISTRATION

As everything is still fluid—thanks to the lack of the time such experience and there is a relatively big contradiction among the politicians and the citizens that can predetermine the existence of the political will and social consent for transformation of the country. Even there is a great contradiction in the way of thinking of the citizens of different settlements with different size of inhabitants. Cities are in better position from the

point of view of faster economic and social transformation, while it is easier to introduce the process of monitoring in a smaller settlement than in a bigger town. Last, but not least, the development of local government was strictly connected with the growth of civil society. After the collapse of the old regime people sought various ways to organize by themselves, it is their natural interest to participate in decision making processes—as in elections, and plebiscites in order to demonstrate the conviction that their attendance can influence the decision makers.

REFERENCES

Enyedi, G. (1996), Regionális folyamatok Magyarországon [Regional processes in Hungary], Budapest.

Gorzelak, G. (1998), Regional and local potentional for transformation of Poland, Warsaw, EUROREG

Illés, I. (2001), Central- and Southeast Europe in the turn of the millennium, in: Role of the Regions in the Enlarging European Union (2001), (ed. Gál, Z.), Centre for Regional Studies of Hungarian Academy of Sciences, Discussion Papers Special, Pecs

Illés, I. (2002), Kozép- és Délkelet-Európa az ezredfordulón [Central- and Southeast Europe in the turn of the millennium], Dialog Campus, Budapest.

Kiss Gy. C. (2004), Nemzetté válás és regionalizmus Közép-Európában [Nation-making and regionalization in Central Europe], *Szín*, .09. 2004, Budapest.

Nemes-Nagy, J., Hörcher, N. (1998), *Regional development in Hungary*, Minisitry of Agriculture and Regional Development, Budapest

Paasi, A. (2002), Place and Region: Regional Worlds and Words, in *Progress in Human Geography* 26 (6).

Péteri, G. (2003), A region erőforrásai [Resources of the regions], IDEA program Hungarian publications, <http://web.b-m.hu/proba/elemz.nsf>

Pocket-book of Hungarian regions, (2000), (2003), Hungarian Central Statistical Office, Budapest.

Rajcak, M (2002): Nastroj na učinny rozvoj regiónov: alternatívy kategorizácie územno-statistickych jednotiek NUTS2, in *Časopis 5*, <www.civil.gov.sk.CASOPIS>

Regional development in Hungary, (1998), Hörcher N. (ed.), Ministry of Agriculture and regional Development, Budapest.

Regulski, J., Building democracy in Poland, the state reform of 1998 (1999), [Local Government and Public Service Reform Initiative], *Discussion Papers, 9,* Open Society Institute, Budapest.

Regulski, J. (2003), *Local government reform in Poland: an insider's story*, Open Society Institute, Budapest.

Role of the Regions in the Enlarging European Union (2001), Gál, Zoltán (ed.), *Discussion Papers Special*, Centre for Regional Studies of Hungarian Academy of Sciences, Pecs.

Smith, A., (2004), Regions, spaces of economic practice and diverse economies in the 'New Europe', *European Urban and Regional Studies*.

Temesi, I., The history, present and future of regionalisation in Hungary, 2004, in Enyedi, Gy., Tózsa, I. (eds.) *The region (Regional development, policy, administration, and e-government)*, Akadémiai Kiadó, Budapest, 227–243.

EUROPA XXI
2006, 14: 165–169

RECENT CHANGES IN ADMINISTRATIVE-TERRITORIAL DIVISION OF POST-SOVIET AREA

SERGEY TARKHOV

Institute of Geography, Russian Academy of Sciences
Staromonetnyi per. 29, Moscow 119017
e-mail: Tram-tarkhov@mtu-net.ru

Abstract: This paper presents the main tendencies of the changes in administrative-territorial division at the post-soviet area (15 countries) and show where the changes are most significant and where was the increase or decrease of administrative units. The changes of units name has been also taken into account

Key words: administrative-territorial division, post-soviet area, region, changes

The big changes of administrative-territorial division took place in the post-soviet area in 1992–2005. The main tendencies of these changes are: 1) the size enlargement of old regions; 2) splitting the old regions into smaller size; 3) the arrangement of the big regional units of the highest level (regions) instead old system with the only rayon system.

The most significant changes have occurred in: Georgia (its area has been divided into 9 regions), Armenia (10 regions were implemented instead the former soviet rayons), Lithuania (former soviet rayons were united into 10 districts or apskritis), Kazakhstan (19 regions were regrouped into 14), Kyrgyzstan (4 new regions were established), Turkmenistan (new 5 regions called 'welayat' were established in 1992), Moldova (former soviet rayons were abolished and united into 10 districts in 1998; then a new communist government has returned to the old system of soviet rayons). The remaining post-soviet states didn't change its administrative-territorial division seriously (Belarus', Latvia, Estonia, Uzbekistan, Tajikistan), but Russia, Azerbaijan and Ukraine had little changes only. Now we shall observe how the administrative-territorial division changed in each post-soviet country.

Armenia. Area has been divided in November 1995 into 10 new big regions 'Marz': Aragazotn, Ararat, Armavir, Vayodzor, Gegarkunik, Kotayk, Lori, Syunik, Tavush, Shirak and Yerevan (municipality). The old Soviet system of 37 rayons has been abolished. De-facto the Nagorno-Karabakh Republic is a part of Armenia.

Azerbaijan. The Nagorno-Karabakh Republic has been organized. It has separated from Azerbaijan in 1991 and extended its area during the Armenian-Azerbaijan War in 1991–1994, annexed eastern and western areas of Azerbaijan. Administrative-territorial division of the rest Azerbaijan didn't change. It consists of 59 rayons and Nakhichevan Republic, 7 municipalities, including Baku. In 1990 it had 61 rayons, Nakhichevan republic and Nagorno-Karabakh republic. There is a project to arrange the big regions instead the old rayon system.

Belarus. The administrative-territorial division didn't change after 1991. The area is divided into 6 regions (oblasts'): Brestskaya, Grodnenskaya, Minskaya, Gomel'skaya, Mogilyovskaya, Vitebskaya. The number of rayon didn't change (118).

Estonia. The rayons renamed in 1991 as 'maakond'. The system didn't changed. The area is divided into the same 15 units (maakond).

Georgia. The area of Georgia has been divided into 9 new regions and two republics (Ajara and Abkhazia) by the new constitution of 1995. These new regions are: Kakheti, Kvemo-Kartli, Shida-Kartli, Mtskheta-Tianeti, Samtskhe-Javakheti, Imereti, Racha-Lechkhumi and Kvemo-Svaneti, Samegrelo and Zemo-Svaneti, Guria. Each region of Georgia consists of old soviet rayons. The number of rayons changed from 65 in 1990 to 66 in 2004. The former autonomous region Southern Ossetia was abolished in 1990. This region has declared its independence from Georgia in 1990 as Republic of South Ossetia. The republic of Abkhazia declared its independency from Georgia in 1993.

Kazakhstan. Many regions (oblast') have been renamed in 1992–96: Aktyubinskaya → Aktobe, Gur'yevskaya → Atyrau, Ural'skaya → Western Kazakhstan, Tselinogradskaya → Akmola, Chimkentskaya → Southern Kazakhstan, Dzambul'skaya → Zhambyl, Dzhezkazganskaya → Zhezkazgan, Kokchetavskaya → Kokshetau, Kustanayskaya → Kostanay, Kzyl-Ordinskaya → Kyzyl-Orda. Administrative-territorial reform has been realized in 1997. The number of regions decreased from 19 to 14, its size enlarged; 5 regions were abolished (Zhezkazgan, Kokshetau, Semipalatinsk, Taldy-Korgan, Turgay). The capital from Almaty has been moved to Akmola, which renamed into Astana ('capital'). The number of rayons has been reduced from 222 to 160. The administrative centres of two regions (oblast') were removed from new and old capitals to smaller cities in 1999–2000: in Almaty region—from Almaty to Taldy-Korgan; in Akmola region—from Astana to Kokshetau.

There are next regions (oblast') in Kazakhstan: 1) Akmola (centre—Kokshetau), 2) Aqtobe (centre—the former Aktyubinsk), 3) Almaty (centre—Taldy-Korgan), 4) Atyrau (centre—Atyrau), 5) Eastern Kazakhstan (centre—Oskemen), 6) Zhambyl (centre—Taraz), 7) Western Kazakhstan (centre—Oral), 8) Qaragandy (centre—Qaragandy), 9) Kyzyl-Orda (centre—Kyzyl-Orda), 10) Kostanay (centre—Kostanay), 11) Mangistau (centre—Aktau), 12) Pavlodar (centre—Pavlodar), 13) Northern Kazakstan (centre—Petropavlovsk), 14) Southern Kazakhstan (centre—Shymkent). Capitals are Astana and Almaty now.

Kyrgyzstan. New regions were established in 1991: Chu oblast' and Dzhalal-Abad oblast'. Regions (oblast') Naryn and Talas were rehabilitated in 1991. Region Issyk-Kul' has been reduced in 1991, and its centre moved from Rybach'ye (Balykchi) to Przheval'sk, which renamed into Karakol. New region Batken has been organized at south-western corner of the country in 1999. City Osh in Southern Kyrgyzstan has named as the second capital of the country. The number of rayons (40) didn't change. The capital Bishkek has got special status as capital municipality. There are 7 regions in Kyrgyzstan now.

Latvia. Administrative-territorial division didn't change since 1991. The area is divided into the same 26 rayons and 7 municipalities as in Soviet time.

Lithuania. 44 old Soviet rayons were united into 10 regions 'apskrite' in 1995. Rayons kept and 12 municipalities inside the new regions.

Moldova. The left-bank part of Moldova has been separated from the main part of Moldova Republic in 1990 and declared its independence as Transdniestr Moldova Republic (Pridnestrovskaya Moldavskaya Respublika) with a capital in Tiraspol. Another autonomous republic Gagauz Yeri has been established in 1991 in the south of Moldova Republic with capital in Comrat. Gagauz Yeri was incorporated into Republic of Moldova in 1994.

The main part of Moldova has been divided in November 1998 into 10 judeţ and autonomy Gagauz-Yeri, and old soviet rayons were abolished. There were next judeţ in 1999: Edinet, Soroca, Balti, Orhei, Ungheni, Lapuşna, Chişinau, Tighina, Cahul, Taraclia. The left-bank of river Dniestr has not been covered by this division reform and had its own division into 5 rayons.

The new system of judet has been abolished in December 2001 by the new communist government. They returned the old system of Soviet rayon again. The main part of Republic Moldova consists of 32 rayons, Gagauz-Yeri autonomy, and two municipalities Chişinau and Balţi. Transdniestr Moldova Republic has 5 rayons and 2 municipalities of Tiraspol and Bendery.

Russia. New republic Ingushetiya has been established in 1992, which separated off Chechnya Republic with the capital Magas. Some republics changed its names in 1991–93: Mariyskaya → Mariy El, Tatarskaya → Tatarstan, Bashkiriya → Bashkortostan, Severnaya Ossetia → Severnaya Ossetia—Alania, Yakutiya → Sakha, Tuva → Tyva, Khanty-Mansiyskiy autonomous district → Khanty-Mansiyskiy district—Yugra.

The area of Russian Federation has been divided in 2000 into 7 huge Federal Districts: Central, North-Western, Southern, Volga (Privolzhskiy), Urals, Siberian, Far-Eastern. All regions and republics are subordinated to Federal District.

The new changes are under way in 2005–2007: some autonomous districts of the Far North and Far East will be joined to the big regions (oblast') and transformed into new kray: Komi-Permyatskiy district joined to Permskaya oblast and arranges new Permskiy kray; Evenkiyskiy and Taimyrskiy district would be incorporated into Krasnoyarskiy kray with proposed new name as Eniseyskiy kray; Ust'-Ordynskiy Buryatskiy district—into Irkutskaya oblast' to create new Baykal'skiy kray; Koryakskiy district into Kamchatskaya oblast' to create a new Kamchatskiy kray.

Tadjikistan. Khatlon region has been divided into Kulyab and Kurgan-Tyube regions in 1991, but reunited again into Khatlon region in 1992. The draft of new region of Karotegin was offered in 1991, but not implemented. The rayons of this area are subordinated

to the central government with a centre in Dushanbe. The region Leninabad has been renamed into Sogd in 1999.

There are regions Sogd (centre—Khudzhand) and Khatlon (centre—Kurgan-Tyube), autonomous region Gorno-Badakhshan (centre—Khorog); the rest area is subordinated to the central government. The number of rayons increased from 45 to 62. The capital Dushanbe has 4 administrative regions.

Turkmenistan. New Balkan region has been arranged in the western part of the area in 1991. The names of some regions were changed in April 1992: Tashauz → Dashovuz, Chardzhou → Chardzev.

The new reform of administrative-territorial division has been realized in June 1992. Regions were renamed into 'Welayat', rayons—into 'Etrap'. New welayat Akhal (area around Ashgabat) was established; Chardzev welayat renamed into Lebap. The names of new 5 welayats are: Akhal (centre—Annau), Balkan (Balkanabat, former Nebitdag), Dashovuz (Dashovuz, former Tashauz), Lebap (Turkmenabat, former Chardzhev), Mary (Mary). The number of rayons (etrap) increased from 44 to 46. The capital Ashgabat has special status of capital municipality.

The Ukraine. Crimea region has been transformed into Crimean autonomous soviet republic in February 1991, and into Autonomous Republic of Crimea in 1992. The administrative-territorial division didn't change since 1991. The number of rayons increased from 480 to 490 in 1990–2004. There are 24 regions and 1 autonomous republic now.

The draft of new administrative-territorial division is under discussion since April 2005. The new territorial unit 'hromada' would be introduced, and old soviet rayons will be united into bigger rayons-hromada. The cities will be divided into two categories: city-region (with population more than 700.000 inhabitants) and city-rayon (lesser). The number of rayon-hromada would be decreased in one region in 2–3 times.

Another draft of union of old soviet regions into 9 big districts (kray) has been proposed. These krays were offered as Carpathian, Podill'ya, Polissya, Kyyiv, Pridniprov'ya, Prichornomorrya, Donetchyna, Slobozhanshchyna, the Crimea. This draft has been rejected.

Uzbekistan. The regions of Dzhizak and Navoyi were reestablished in 1992. The Karakalpalskskaya autonomous republic has been renamed into Republic of Karakalpakstan in 1992. The administrative-territorial division didn't change after 1991 radically. The number of rayons increased from 155 to 161. The number of regions is 13 now.

CONCLUSIONS

The main tendencies of the changes in administrative-territorial division at the post-soviet area are: 1)the enlargement of some old regions (Kazakhstan); 2)splitting old ones into smaller size (Kyrgyzstan); 3)the arrangement of the big units of the highest level (regions) instead old system with the only rayon system (Armenia, Georgia, Lithuania).

The number of the units of the highest hierarchy level increased between 1987 (Soviet time) and now (2004) by 30 new ones (due to arrangement of the new regions in Armenia, Georgia, Lithuania, Kyrgyzstan).

4 new republics appeared in the post-soviet area after the dissolution of the USSR in 1991, which have self-declared their independence, but not recognized by international law (Transdniester republic, Abkhazia, Southern Ossetiya, Nagornyi Karabakh). They exists *de-facto*, but not *de-jure*.

The number of units of the second level of hierarchy (Table 1) decreased from 3225 to 3189. It means the enlargement of some rayons in some post-soviet countries.

Table 1. The change of the number of administrative-territorial units in post-soviet countries in 1987–2005

Country	Number of units, 1st level, 1987	Number of units, 1st level, 2004	Number of units, 2nd level, 1987	Number of units, 2nd level, 1987	Name of unit, 2nd level, 2004
Armenia	—	10+1	37	—	—
Azerbaijan	2 autonomies	1 autonomy	61	59	rayon
Belarus'	6	6	117	118	rayon
Estonia	—	—	15	15	maakond
Georgia	3 autonomies	12	65	66	rayon
Kazakhstan	19	14	222	160	rayon
Kyrgyzstan	4	7	40	40	rayon
Latvia	—	—	26	26	rayon
Lithuania	—	10	44	43	rayon
Moldova	—	2 autonomies	40	32+5	rayon
Russia	86+2	87+2	1834	1866	rayon
Tajikistan	4	4	45	62	rayon
Turkmenistan	5	5	44	46	etrap
Ukraine	25	25	480	490	rayon
Uzbekistan	13	13	155	161	rayon
TOTALLY	167	196	3225	3189	—

EUROPA XXI
2006, 14: 171–189

ESDP APPLICATION IN ITALIAN SPATIAL POLICIES

GIANCARLO COTELLA

Politecnico di Torino
Corso Indipendenza 46,
10086 Rivarolo Canavese (Torino), Italy
e-mail: quancarlos@wp.pl

Abstract: The text illustrates how European Spatial Planning, through the application (but not only due to it) of the European Spatial Development Perspective, has affected Italian urban and territorial policies.
The research method has been based on the analysis of spatial planning policy documents and focused on the innovation of the Italian Spatial Planning system.
Explicit application of the ESDP in the Italian context appears to be rather scarce. Nevertheless, important changes occurred in Italian planning practices in the last decade are strictly connected to the role of the European Union as an emerging actor for what concern territorial and urban matters.

Key words: European Spatial Planning, ESDP, Italy, polycentricity, networking, decentralization, planning instruments

INTRODUCTION

As the debate on European Spatial Planning is obtaining growing attention in the recent years, it is probably worth to try to shed some light on the different ways the interaction between European Union territorial policies and national spatial planning systems of the different Member States influences and modifies the latter.

In this perspective, the present article tries to illustrate how European Spatial Planning, through the (explicit or implicit) application (but not only due to it) of the European Spatial Development Perspective (ESDP), has affected Italian urban and territorial policies in the last decade.

The research method has been mainly based on the analysis of spatial planning policy documents and focused on investigating which were, and how, the administrative level influenced by European Spatial Planning, the main policy sectors in which this influence is taking place, the degree and focus of application, which aims and concepts are used, etc...

After a brief introduction on the European Spatial Planning debate, the text proceeds trying to give a short description of the Italian spatial structure and planning environment. The core of the article is focused on the application of the ESDP in the Italian context: it describes the differences between institutional levels, explains impacts and effects, and defines which has the main concepts of the document taken into consideration and the main features of their application process.

Reading the text it will be presented that explicit application of the ESDP in the Italian context appears to be rather scarce. Nevertheless, it will be clearly shown that important changes that have occurred in Italian planning practices in the last decade are strictly connected to the role of the European Union as an emerging actor for what concern territorial and urban matters.

It will be shown how the historical polycentric structure of Italy has been brought into worth by the growing importance of the debate on European Spatial Planning, especially due to the clearness by which the ESDP define the strategic territorial issue of polycentrism itself, that fostered, in the last decade, institutional reforms towards a more federal government structure and spatial policies inspired by concepts of polycentrism and networking.

Although there is currently a good deal of uncertainty surrounding the prospect of the 1999 ESDP document being revised to produce a ESDP2 or ESDP+ (Tewdr-Jones 2003; Faludi 2005; Janin Rivolin 2005), this does not diminish the importance of evaluating the impact of the existing document. Recognising this, the Terms of Reference for the project launched in 2004 under the EU funded European Spatial Planning observation Network (ESPON) to investigate the 'Application and Effects of the ESDP in Member States', note that 'Now, five years after the presentation of the final version of the ESDP, it is relevant to asses the effects of the ESDP at EU level and in each Member State in order to identify the potential of the ESDP and to find best examples of its application and implementation at European, transnational, national and regional/local level' (ESPON Coordination Unit, 2004). Evaluating the influence of the existing ESDP is an important task as it will provide invaluable input into the debate on the need for a revised version of the ESDP—or perhaps a European Territorial Cohesion Strategy (Faludi 2005), to address the territorial aspects of cohesion policy and to provide a link between 'Community cohesion strategy and the functioning of national planning system' (Janin Rivolin 2005).

This match with the main goal of this article, the analysis of the application of the ESDP in the Italian context, underlining the features, this process assumed until now.

EUROPEAN SPATIAL PLANNING: A WORK-IN-PROGRESS FIELD

A clear definition of European Spatial Planning still doesn't exist. Nevertheless, after more than a decade since the step-in of the European Union on the stage as an important institutional subject to deal with, several evidence can show that European Spatial Plan-

ning exist as something tangible, that generate (or inspire, stimulate...) on international and intranational scale a broad set of practices and reflections. Still, even if is by this time clear that the European Union influence somehow the spatial development of his territory, no evident technically and institutionally shared definition of European Spatial Planning exist.

One of the main reasons of this uncertain situation is the lack of formal territorial planning at European level. Anyway 'European Spatial Planning indicate, with different shadings of interpretation (Williams 1996; Faludi 2002; Janin Rivolin 2004), the array of political decision processes, of operative practices, of technical experimentations that, starting from the '90es, has been produced in response of the direct intervention of the European Union, despite his lack of competences, in the field of territorial development control' (Janin Rivolin 2005).

Going further in the analysis, it can be observed that there is only one institutional reason that can be seen as 'legitimating' any way of declination of European Spatial Planning: the presence of Cohesion objective in Communitarian treaties that started the process of European Integration.

Although the Cohesion has been labelled 'social and economical' in the Title XVII of the EU treaty, stating that is a Community's goal to reduce the unbalance of development between different regions, the unavoidable territorial aspect of the Cohesion objective has became clear during a decade of European Spatial Planning practices, and has recently been included in the Treaty of European Constitution (currently under a rowdy process of ratification).

'The proudest achievement' of European Spatial Planning registered till now (Faludi 2001) can surely be considered the redaction and publication of the European Spatial Development Perspective (ESDP), as a result of a long and complex process of technical and political elaboration/collaboration started in 1989 in Nantes and continued with a step-by-step process until the approval of the final version of the document in Potsdam in 1999 (for further information see also: Faludi and Waterhout 2002).

The final document (European Spatial Development Perspective—Towards Balanced and Sustainable Development of the Territory of the European Union, EC 1999) is supposed to represent the territorial strategy of the European Commission and, although policies defined by the ESDP are not binging for Member States, differently than previous studies is a political document that express a shared vision of the European Territory, and a synthesis scheme for policies and practices.

Both positively analyzed for the intrinsic valour of his institutional acknowledgment, and criticized under a technical profile as a 'naive document' (Kunzmann 1998) or a 'collection of good proposals' (Taulelle 2000), the ESDP drafting process and his application in the Member States represent a milestone for the evolution of the European Spatial Planning.

But what are the ESDP objectives, so 'desirable, but vague and largely undefined' (Bengs 1999)?

In the first pages, before going into specific objectives, the ESDP affirm the centrality of the territory as a new dimension of European policy, and present a triangle of main political goals, to reach through policy options defined in the document:

- economical and social cohesion;
- protection of natural resources and cultural heritage;
- more balanced competitiveness of the European space.

Reading two of the main recommendations of the document, 'in order to obtain a more balanced development of the territory this goals must be pursued simultaneously in every region of Europe, taking into account relation between them' (EC, 1999), and 'objectives of the document must be taken into account by both European institutions, national governmental authorities and national, regional and local institutions', some of the basic concepts of the new European spatial strategy appear clear: a cohesion policy able to reduce existing unbalances between regions holding in the polycentric development his main applicative model, in order to re-equilibrate the European Space and valorise the underused potentials of peripheral regions.

Although actions to favour the application of those concepts, has been defined in a specific document approved in 1999, the Tampere Action Programme, the application of the ESDP has not been uniform (Faludi 2005). Nevertheless it is important to analyze which features the process of application of the ESDP assumed in the different Member states, in order to monitor the effect that the interaction between the Community document and the planning system of a Nation has over the institutional structure, planning instruments and planning practices at the different levels, and in order to detect good practices of application in different contexts.

ITALIAN SPATIAL CONTEXT, AN 'OLD TRADITION' POLYCENTRIC URBAN SYSTEM

In order to exhaustively analyze the process of application of the ESDP in Italy, it is necessary to spend few words on specific features of the Italian territory (pointing the attention of the spatial structure of the Italian urban network) and of the Italian spatial planning system and competences on this field at different levels. This short introduction is necessary to clarify the starting condition of the field (territorial and institutional) in which, in the last fifteen years, several changes occurred in parallel with the slowly affirmation of the EU as an actor in the spatial planning stage.

Italy is one of the European countries most structured around urban networks, particularly dense in northern and central Italy. The polycentric structure of the Italian urban system is the result of a mix of historical factors (as the pre-unification period, the existence of several states and their capitals) and of a transport network policy. It also reflects the morphological conditions that «favour linear coastal development and hinder cross-peninsula and cross-border connections and links with the Islands» (Dematteis 1999: 145).

The Italian economic development is based on a territorial backbone of medium-sized cities. If this urban system appear to be well established in some regions, for example in the northern and central areas of the peninsula, infrastructural and economical links became weaker moving from North to South, and especially in the so-called Mezzogiorno. Several results of different empirical studies on the structure of the Italian urban system (Dematteis 1999) witness the existence not only of more extensive, dynamic, and open

systems (in terms of specialisation and range of international functions), as the former 'industrial triangle' Torino—Milano—Genova, but also dynamic and specialised systems of medium-sized cities. This system are concentrated or more numerous in northern-central regions, particularly in the so-called Third Italy (i.e. Veneto, Emilia-Romagna, Toscana, and Marche). It can be pointed out that the Italian spatial, economical and social organisation is evidently characterised by strong differences between the North and the South, where the number of urban systems decreases and the links between them become weaker (Salone 2005). In the Northern part of the country the regional structure is highly complex, and besides the more significant presence of extensive, dynamic, open systems, which are identified with the large metropolitan areas of Milan, Turin, Genoa, Verona, and Venice, several typologies of urban structures are characterised by the openness of their economic bases. This openness, in terms of internationalisation of established activities, is still significant in North-centre regions—with Bologna, Florence and, obviously, Rome as gateway nodes—but it clearly decreases according to a North-South axis (Figure 1).

This is a quite stereotyped view of the Italian territory, but it is sufficiently grounded in the conceptual frame of planning professionals and policy makers. In reality, the image of urban Italy that is now emerging is more complex and highlights a variety of elements and characteristics to be exploited in order to improve the cohesion of the national urban network and to promote its integration into the European urban context (Clementi et al. 1996; Bonavero et al. 1999).

Figure 1. The spatial structure of the Italian urban system (*Source*: Dematteis, 1999)

THE INSTITUTIONAL CONTEXT

The Italian planning system is still based on Law n° 1150 of 1942. At the centre of the system is the local land use plan—(*PRG—piano regolatore generale*), the basic planning instrument. It is based on the concept of zoning and allocates particular uses and characteristics to all areas of land that it covers. It is comprehensive in its proposal and prescriptions. An important step towards the current situation was made during the 1970s, when Regions were created, and there was a corresponding decentralization of responsibilities (particularly with regard to urban planning). However, central government has never issued any framework legislation on urban planning. A new instrument of planning, the renewal plan (*piano di recupero*), was introduced with Law n°457 of 1978, in order to address the management of the transformation of built-up areas, as a reaction against uncontrolled urban growth and change. During the 1980s the legislative framework was amended with the approval of new laws regarding the safeguard of the environment: Law n° 431 of 1985 introduced the landscape plans (*piani paesistici*), and Law n° 183 of 1989 regarded the protection and management of water basins (*piani di bacino*).

Spatial planning in Italy has basically been based on a typical approach of urban and physical land use planning. The concept of economic planning has been present almost only in debate so far, and not yet effective in legislation practice. Attempts of urban reforms based on a close relation between economic programming and sectoral policies, has usually been unsuccessful. The Italian system, therefore, appears to have a substantial separation between decision-making and the implementation of sectoral policies on one hand (each one autonomous and dependent from a Ministry) and urban planning instruments, particularly those at municipal level, on the other. This leads to a situation in which each sectoral policy area, even if approved from the central government, also has to be verified both with the regional and municipal authority chiefly as regards location details and urban and environmental impact on the territory.

The competences of the land-use planning system are assigned to different levels of government institutions (State—NUTS 1, Regions—NUTS 2 , Provinces—NUTS 3, Municipalities NUTS 5), that have the task to define different planning acts, and are organized mostly in a hierarchical way. The subject of planning is constitutionally attributed to the regional institution that is required to make indicative laws within the limits of the principles laid down by the laws of the State, nowadays changed in a more enhanced federal perspective. The State's departments, organized in ministries or included inside a ministry, contribute to issue framework laws. Real planning acts are solely competences of Regions and Provinces that are supposed to define orientation for territorial transformation of their respective territories, and of the Municipalities, which prepare a more detailed planning act, the PRG.

In the Italian planning system the State (NUTS 1) is responsible for guidance and coordination. It has the task of defining the general guidelines for planning activity, including economic planning and specify land-use guidelines through deliberative acts for which there are no corresponding planning instruments of direct relevance. It both leads the process of providing incentives, including financing, and the strategy for preventing paralysis of land-use planning activities in presence of multiple level of competencies.

The national planning instruments can be divided in three areas:

- sectoral plans: infrastructural scheme, hydro-geological management of fluvial areas, port plans and electric power generating plans, etc.;
- specific sectors financing instruments, as the ten year plan for public housing;
- programme or plans for experimental actions (urban and territorial regeneration initiatives as PRU, PRUSST, Neighbourhood Contracts I and II).

Except for territorial programmes, which have their own timetables, planning policies dos not have a fixed duration and their validity may be indefinite.

The regional level (NUTS 2) is the first government level with planning competencies. All regional instruments are prepared and approved by the regional governments, which have the constitutional power of planning legislation.

There are two types of instruments:

- the Territorial Co-ordination Plan—*(PTC—Piano Territoriale di Coordinamento, or other titles accordino to the regional laws)*;
- the Territorial Landscape Plan—PTP (Piano Territoriale Paesistico).

The PTC contains prescriptions and indications on land-use effective for lower authorities (Provinces, Municipalities) and planning instruments (provincial plans, land use urban plans).

It defines areas with specific purposes, areas to be subjected to specific restrictions or limitations by law, areas to be selected for new urban development, areas of special characteristics and importance, the principal existing or planned routes for roads, railways, power lines and navigation. Lower tier authorities, in preparation of their own planning instruments, may respect plan contents as a guidance and a regulation. Regional plan contents are not legally binding, except environmental safeguard indications.

The PTP is a landscape plan containing indications, prescriptions and restrictions relating to protection and exploitation of area with particular landscape and environmental values. It defines environmental and landscape implications of possible, physical or land use transformations and provides guidelines for construction of new landscapes.

The PTP is a regional level plan, but can also be used by the authority to whom the region entrusts responsibilities for environmental protection. The plan formation procedures and the technical contents are laid down by regional law. It can cover the whole territory or part of it and has no fixed duration. Its contents are effective in relation to private sector and lower tier authorities and their planning instruments.

Neither in the PTC procedure nor in PTP procedure monitoring is envisaged at formal level.

At the provincial level (NUTS 3), the Territorial Plan of Provincial Co-ordination (*PTCP—Piano territoriale di coordinamento provinciale*) contains prescriptions and indications on land-use which local authorities must conform to in the exercise of their respective competences. It determines guidelines for the different zoning according to the predominant use. It defines also the sites for major infrastructure and lines of communication, the areas for erosion prevention and water flow control, and the areas of nature reserves or parks. The plan may cover all the provincial territory. It has no time limits. Lower authorities (Municipalities), in preparation of their own planning instruments, may respect plan contents as a guidance and a regulation.

The plan-making procedure is determined by regional law and the region must value and approve the plan to be adopted by the province, after observations from local authorities.

The main instrument at the local level (NUTS5) is the local land use plan (*PRG—Piano Regolatore Generale*). It defines land-use for the area of the municipality. Usually it requires an executive plan for implementation. However, PRGs often provide for the possibility of direct implementation by owners through building permits.

The PRG zoning plan must cover the whole territory of the municipality. The PRG is effective with no time limit and its provisions therefore do not expire until replaced by another plan. Regional regulation usually requires municipalities to submit the plan to periodic reviews.

The plan, whose monitoring is not formally envisaged, regulates land use and indicates the main communication routes, public areas, areas for public buildings, protection for the environment and landscape, etc., and prescribes, through regulations for implementation of the plan, the physical or functional status of the individual parts or zones of the territory.

The plan-making procedure is determined by regional law and the region (or the province acting on its behalf, depending on the different regional laws) approve the plan. Some regions (e.g. Emilia Romagna and Toscana) recently elaborated a legislation reform of PRG and land use management. It has been divided in two different plans: the first one contains the future scenario as strategic vision of the territory, with spatial development strategies based on structural characteristics of the territory as peculiar invariants; the second plan contains the land use indications that pursue the contents of strategic plan.

ITALIAN CONTRIBUTION TO THE MAKING OF THE ESDP AND ITS MARKETING PROCESS: A WASTED CHANCE

According to Faludi and Waterhout (Faludi and Waterhout 2002), Italy makes its appearance at a very early stage of the ESDP making process, hosting the Turin meeting in 1990 (the second after Nantes in 1989, when the process began) during its six-month European Presidency. They also comment the event affirming that, because of 'the urbanism tradition', in Italy the 'emphasis is placed on local planning and design', so that it is possible to conclude that 'Italy has no national spatial planning', and they alert the reader to the fact that, as spatial planning is 'not a priority' in Italy, during the entire ESDP process the 'attitude of the Italian CSD (Committee on Spatial Development) delegation would continue to be fluid'.

If it is legitimate not to agree with the affirmation of a total lack of spatial planning at the national level (Janin Rivolin 2003) the traditional lack of interest of national politicians and policy-makers for planning policies is one of the main reasons explaining events like the uncertain participation of Italy to the ESDP process.

The point here is that up to 1998, and thus only months before its approval at Potsdam, the ESDP was kept apart from national spatial planning responsibilities. Initially raised as an 'informal' topic, half related both to Community regional policy and to national foreign affairs (Faludi and Waterhout 2002), ESDP responsibilities were eventually shifted

but not without some difficulty from the Department for Community Policy Coordination of the Presidency of the Council of Ministers.

With the growing prestige of the ESDP and of spatial planning within the EU policies (with the related political complications) (Faludi and Waterhout 2002) at national level, too, a defensive attitude regarding these responsibilities against external attacks became stronger over the years (Faludi 2003). So, the 'fluid' position of the Italian CSD delegation is perhaps more understandable in the light of internal struggles against which Italy's strategies concerning individual decisions need to be seen.

However, what is important here is that, paradoxically, for a long time spatial planners has been kept far from the ESDP. This provides further explanation (and some cause for regret) for the minor role played by Italy during the drafting of the ESDP.

Under Romano Prodi's government, Paolo Costa, a professor in urban economics, was appointed Minister of Public Works in late 1996. In just a few months he came to an agreement with the Department for Community Policy Coordination to shift responsibility for European spatial planning away from the Presidency; the senior official and the expert formerly responsible came to be located physically within the Minister's cabinet in 1997. In the meantime, the Minister nominated another fellow professor of urban economics, Roberto Camagni, as Chief of the Department for Urban Areas and the Minister asked him to focus on European issues.

The difficulties might appear to have been overcome, but the delay proved to be serious.

Nevertheless, for the first time since Nantes, in June 1998 Italy was represented at the Glasgow meeting by its Minister actually responsible for spatial planning. Furthermore, European spatial planning issues slowly began penetrating the academic debate.

A new shift occurred following the downfall of the Prodi government in October 1998. The new Minister of Public Works did not confirm Professor Camagni's responsibility for Urban Areas and handed the European spatial planning portfolio over to the DICOTER (Directorate-General of Territorial Coordination).

Once within the DICOTER, however, and just in time for its final approval, in Italy as elsewhere, the ESDP seemed to have found its proper institutional framework. Yet the DICOTER soon began to interpret its new responsibilities as implying a removal of any 'external' influence on it: so the manifest intention to bring European spatial planning finally 'into the cradle of the public administration' rather resulted in an increase of the existing problems of lack of publicity and participation.

Practical evidence shows that effecting substantive change continues to be difficult to achieve, and the decision making process concerning the ESDP and its future remains a sort of 'black box' which only a few privileged national and regional officials are able to prise open (Janin Rivolin 2003).

Janin Rivolin defined the ESDP in Italy 'a toy for few' (Janin Rivolin 2003). In fact this label is not too pessimistic, but rather reflects the results of the inconsistent way of marketing of the documents within professional and academic planning experts.

The rather ineffective way in which Italy participates to the ESDP drafting process end up with projecting his shadow over a good spreading of the document, mining the basis a good shared knowledge of the document itself within the professionals at all the different levels.

The result is that the ESDP still appear as an *esoteric object*, that often seal between the politic lack of interest and the low consideration of the professional planners.

More articulated reflections about the ESDP, and more generally, about the European Spatial Planning as a whole, emerged only in the last few year, nevertheless this reflections obtained only a marginal role in the national planning debate.

As a general statement, in Italy the production of scientific contributions on Community spatial policies and, particularly, the ESDP and its application is rather recent and due to narrow groups of scholars participating to international research networks. Many of these texts are published in English, whilst domestic literatures do not configure proper arenas of public debate, but rather narrow and specialised fields of planning studies.

The main ways of marketing of the ESDP concepts (much more for what concern his planning approach than for the document as a whole) were the Community initiatives of transnational cooperation (Interreg).

Especially thanks to the Interreg Community Initiative and despite some initial difficulties in implementing its transnational strand, the need to elaborate joint programmes between various national administrations, starting by drawing up rules valid in different and not always compatible legal contexts, seems to have triggered practices of 'forced learning' by state and regional bureaucracies in inter-institutional negotiation. The acknowledgement that, under community initiatives, the absence of mutual agreement simply prevents co-financing is quickly producing its effects.

FIFTTEEN YEARS OF INSTITUTIONAL REFORMS AND SPATIAL PLANNING INNOVATIONS

Despite the lack of knowledge on the ESDP document described in the paragraph above, a movement towards a progressive decentralisation of administrative and political action is taking place in the country, and it is possible to state that this reform process is inspired by the 'key principles' of the EU policy approach: local authorities autonomy, subsidiarity, responsibility, appropriateness of the public structures to the carrying out of the responsibilities assigned to them, flexibility in inter-institutional relationships, citizen participation in collective choices, and streamlining the bureaucracy (Janin Rivolin 2002, 2003).

The relevance of these changes must obviously be verified in practice, in order to ascertain whether, and if so how, they are destined to influence behaviour and the public administration styles of governing. However, there is no doubt that some innovations have been introduced, seeming to recognize and validate the role of actors, behaviours and resources traditionally excluded from decision-making processes, and resulting in an overall redefinition of political and administrative action. According to Bobbio (2002), these innovations seem to influence more the general framework of centre-periphery relations (i.e. the introduction of public-private partnerships or inter-institutional relationships) more than they influence the real quotas of power transferred to local authorities. In effect, the centrality assumed by local authorities in a very wide range of policies and the confirmation and consolidation of a number of regulatory institutions are intended

to simplify and streamline the work shared by public authorities at various levels and, eventually, to define a contractual model for interaction between public and private actors (Governa and Salone 2004).

Overall, the provisions adopted took the form of an attempt to modify the institutional system radically, reforming the monitoring process and the division of competencies and powers between the state and local authorities in a search for simplification of administrative action and recovery of efficiency in public administration (Governa and Salone 2004).

Constitutional and legislative changes in the last 15 years brought to simplification of intervention modes of the public subject, to central level reorganisation, more and more directed towards addressing policies, to the redefinition of competencies among central and local levels, and to cooperative modes among public subjects (vertically and horizontally) and between public administrations and private subjects.

The main provisions leading to a reorganisation of the functions and competencies of the State, regions, and local bodies are (Governa and Salone 2004):

- L. 8 June, 1990, n. 142: Organisation of local autonomies: dictates the principles of organisation for Municipalities and Provinces and determines their functions (in particular, assigns new roles as part of the territorial planning for Provinces); institutes 'metropolitan cities'.
- L. 25 March, 1993, n. 81: Direct election of the mayor, of the province president, of the municipal and provincial council (now amended and integrated by L. 30 April, 1999, n. 120).
- L. 23 December, 1996, n. 662: Measures of rationalisation of public finance, introducing by the other the Intesa istituzionale di programma, a special form of agreement between central and regional authorities in order to plan economic and spatial programmes; and the Accordo di programma quadro, a form of agreement concerning private subjects, local authorities and other public institutions as to carry out implementation plans.
- L. 15 March 1997, n. 59: Government delegates for the assignment of functions and competencies to the regions and local bodies and for administrative simplification: assigns all the functions and administrative tasks relative to the consideration of interests and the promotion of development of respective communities to the regions and well as local bodies, as well as all the functions and administrative tasks that can be localised in respective territories.
- L. 15 March 1997, n. 127: Urgent measures for the streamlining of administrative activities and decision-making and control procedures and Legislative Decree of May 31, 1998, n. 112: Assigning of functions and administrative tasks of the State to the regions and local bodies (the so-called Bassanini reform, after the Public Functions Minister of the then Mr. Prodi government): redesigning of the powers and functions between the State, Regions, and local bodies.
- L. 3 August 1999, n. 265 Regulations for autonomy and organisation of local bodes, and amendments to L. 8 June 1990, n. 142: development, rationalisation, and modification of the general outline of the 142, taking into consideration the difficulties of actuation found—especially regarding the metropolitan cities (never actually instituted if not partially in Bologna)—and novelties that intervened.

If we consider the changes underway in programs for intervention in the city and in the territory, the most evident aspects are the multiplication of instruments and/or the new use of more traditional instruments. Such instruments prefigure interactive and contractual action-procedures, in close relationship to the territory and to local actors, and also take the form of an explicit search for dialogue among the various intervention sectors (Governa and Salone 2004). In a necessarily schematic fashion, and inevitably simplifying the details, two broad and distinct types of programs may be identified, as a function of the various administrations that have promoted their implementation.

The first kind of instrument consists of the 'complex urban programs' promoted by the Ministry of Public Works on the basis of a number of contracted urban-planning experiences conducted in several regional contexts during the preceding years (MLP, 1999). This kind of program—PRU—*Programmi di recupero urbano* (Urban Recovery Programs), PRIU—*Programmi di Riqualificazione Urbana* (Urban Regeneration Programs), *Contratti di quartiere* (Neighbourhood Contracts) and PRUSST—*Programmi di Riqualificazione Urbana e di Sviluppo Sostenibile del Territorio* (Urban-Regeneration and Sustainable Territory-Development Programs)—are culturally and technically comparable to traditional instruments used to intervene in urban and territorial organisations, but differ from them because of the systematic recourse to derogatory mechanisms in order to render the implementation procedures more rapid. Overall, the guiding principle adopted is that of *integration*, stated in terms of *intervention-sector multidimensionality* (functions, economy, local societies), of *co-ordination among various institutional levels*, and of *co-operation between public and private actors*.

There are, however, significant differences among the various instruments of this kind. It is possible to identify a progressive evolution towards the explicit adoption of a contractual approach, as well as towards the concrete integration of various forms of action, particularly among infrastructure and territorial policies. In fact, the principal of integration is often translated, in Italy, into residential-type urban regeneration interventions, while interventions in services and infrastructures have traditionally been planned and managed in a strongly sectoral framework. A similar situation seems to have been avoided, at least as far as intentions are concerned, by the PRUSST, the most recent of the new instruments for intervention in the city and on the territory, within the framework of local development and of sustainability. In this case, the infrastructure interventions are assumed to be occasions for the creation and promotion of development strategies intended to respond actively to current demands for efficiency and competitiveness in urban and territorial systems. In addition, the decree establishing the PRUSST provides for the setting up of coalitions and partnerships among the actors involved in the processes activated, requires both strong integration of public and private capital and direct participation of private actors in the financing of interventions, for a share equal to at least one-third of the overall cost of the program.

The second kind of program, promoted by the Ministry of the Treasury, of the Budget and of Economic Planning during the 1990s, consists of the so-called *programmazione negoziata* (negotiated programming). From the theoretical point of view, the origin of this type of program lies in the process of an overall rethinking of the instruments and forms of public intervention in the economy, particularly with respect to the promotion

of economic development in the weaker areas of the country, in particular in the Southern Italian regions. After the end of the extraordinary intervention sanctioned at the beginning of the 1990s (following cultural and political criticism of the perverse effects of traditional intervention models) (Trigilia 1992), negotiated programming was devised in order to promote development in southern Italy. It then became the methodology applicable to the promotion of development throughout the country, thus facilitating Italian instrumentation of requests from EU institutions.

The institutional setting up of negotiated programming is contained in L. 1996/662 and then in the CIPE (Inter-ministerial Committee for Economic Programming) resolution of 21 March 1997, which identifies five different intervention instruments: the *intesa istituzionale di programma* (institutional program agreement), the *accordo di programma quadro* (framework-program agreement), the *contratto di programma* (program contract), the *contratto d'area* (area contract) and the *patto territoriale* (territorial pact). The differences among the various instruments are not only nominal but determine the participation of various actors, including in relationship to the various objectives for which they are intended. In particolar:

- the intesa istituzionale di programma is an agreement between the state and the regions for implementing forms of effective decentralisation of decision-making and for supplying a core program-framework for regional territory interventions;
- the accordo di programma quadro is an agreement between the state, the regions and local entities (or other public and private actors) for the definition of an executive program of interventions of common interest;
- the contratto di programma, activated by a preceding resolution, establishes a procedure that regulates the relationships between the public actor and large businesses, or consortia of small and medium-sized businesses, for the implementation of industrial-development interventions in depressed areas (according to Community Structural Funds objectives);
- the contratto d'area is an agreement among local administrations, employers'- and union representatives for the implementation of actions intended to accelerate development and to create new jobs in circumscribed territories characterised by serious employment crises;
- the patto territoriale, similar to territorial pact for employment promote by the EU, establishes an agreement between public and private actors concerning the setting in place of a program of interventions intended to promote local development.

The fundamental, guiding idea underlying the establishment of these instruments is the negotiation and joint planning of economic development, among the various actors, public and private. The territorial pacts, in particular, are a joint-planning methodology that provides for the action of various local actors—companies, local authorities, employers associations, trade unions, etc.—with the objective of initiating integrated and shared development processes. Such processes are intended to be able to maximise individual territories' endogenous resources by means of the setting up of initiatives for industry, agriculture, tourism and the infrastructure apparatus.

Further interesting elements can be found in the PIT (*Programmi Integrati Territoriali*—Territorial Integrated Programmes), operational tools introduced in 1999 by the

national legislation in the general frame of new governmental regulations for European structural funds devoted to less favoured regions (Cipe decision of the 14/5/99, 'Linee guida su programmazione e valutazione ex ante'—Guidelines on planning and ex ante evaluation, and the Cipe decision of the 6/8/99, which includes the PIT within the 'Programma di Sviluppo del Mezzogiorno'—Southern Developing Program) (Governa and Borrelli, 2004). PIT aims to promote territorial development by intersectoral actions, playing the ambitious role of connection and co-ordination among different instruments intended to promote local development, particularly between Italian and European programs (from one hand, the programs composing the negotiated planning or the PRUSST; from the other, the Leader program launched by the EU), to increase the integration of goals, strategies, subjects and funding (Colaizzo 2000; Cremaschi 2001).

In brief, these instruments vary as to subject, objective, actors involved, territorial context and interventions scale. What they have in common is their explicit 'contractual' content. As Bobbio maintains, the public choice takes the form of an explicit agreement, prepared in writing, in which the parties publicly declare their approval of a project or a line of intervention, or publicly make reciprocal commitments, putting their own resources (not necessarily financial) at the disposal of a common action the timeframe and procedures of which they agree upon (Bobbio 2000).

FUTURE PERSPECTIVES—TOWARDS A NATIONAL STRATEGIC REFERENCE FRAMEWORK?

The last innovation introduced into the Italian spatial planning policies field is a national programme denominated *Progetto Pilota—Complessita Territoriali e Aree Sottoutilizzate.* This programme, prepared by the Ministry of infrastructure and transportations, is a completely new tool that aims to address the development of the Italian territory following an overall scheme that take into consideration the territory itself as a whole.

As stated by Salone (Salone 1999), in Italy, despite the traditional state intervention in the economy, there has always been a lack of government reflection on the dynamics of territorial development and on the possible measures to direct them towards forms of re-equilibrium.

Actually, as exceptional deviations from traditional locally-oriented spatial planning, only an experiences deserve to be mentioned, the so-called territorial projections of the *Progetto '80*, published at the end of the 1960s as the spatial policy complement to the central economic planning document published by the Ministry of the Treasure, the Budget and Economic Planning (MBPE 1971). This report detected the main structural reasons of the unbalanced development of the country not only in the macro-regional economic divide between the industrialised North and the underdeveloped South (the vision was strongly indebted to a dualistic model), but also in the disequilibrium between metropolis and small and medium-sized cities, urbanised areas and countryside, hierarchical metropolitan systems and polycentric ones (Salone 1999);

The *Progetto Pilota* can be seen as a new attempt to analyze and act on the territory of the country as a whole within a comprehensive framework.

The inspiration to the Communitarian planning documents appear clear since the beginning, as in the objectives of the programme are present several quotation and explicit references to the ESDP, especially for what concern the polycentric development of the country according to the forecasted completion of the transeuropean infrastructural networks.

Going into details, the methodology adopted by the project consist in the identification of several target contexts in which starting territorial development processes in order to strengthen the polycentric structure of the country.

The selection of target contexts has been performed by an integrated analysis of the existing and forecasted infrastructural system, taking into account TEN corridors and national transportation plan, and by a multi-criteria analysis utilizing specific indicators referring to the following themes:

- synergy between territorial systems and infrastructural network;
- dynamicity of development in terms of competitiveness and research and development;
- administrative efficiency based on the skills showed during the implementation of complex programmes.

The territorial system individuated in this way has successively been divided into three categories:

- first level system (Urban system of European importance, in which possible actions were excluded, in order to avoid risks of overlapping results);
- second level system (selected as target contexts);
- third level system (in which action were excluded because of risks of inefficacy).

In the 18 second level systems selected as target contexts (Figure 2), specific actions were defined in order to improve their attraction ability strengthening the overall competitiveness (by stronger relation between urban systems and their respective territory and better connection within the system and with networks and system of superior level) and favouring territorial cohesion (by creating new horizontal and vertical partnerships even with crossborder characteristics).

In order to define the specific actions necessary to reach the aims of the programme, a first individuation of programme-ideas has been performed. Ideas has been structured around three different territorial levels (system level, context level and local level), and grouped under four different thematic axis of intervention.

As The European Commission has recently proposed a new planning system structure which is of considerable significance for the territorial cohesion agenda that foresees a set of Community Strategic Guidelines, agreed by the Council, and National Strategic Reference Frameworks governing the delivery of individual operational programmes,

The *Progetto Pilota* might hopefully be the future foundation for the elaboration of the Italian National Strategic Reference Framework.

CONCLUSIONS

As a conclusion of the analysis, it can be affirmed that processes of changing of the Italian spatial planning system described above are the outcome of an 'original' evolution of concepts and tools of territorial action, but at the same time they witness a sort of connection

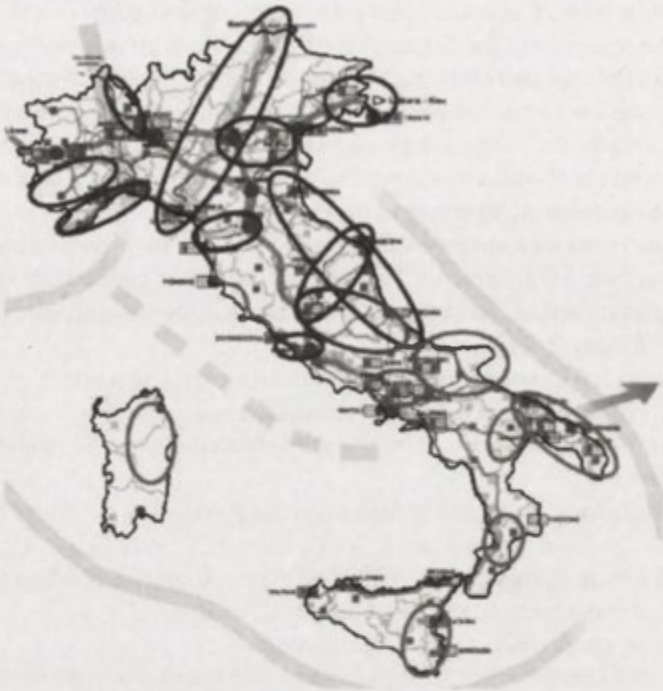


Figure 2. Progetto Pilota—Individuated target contexts (*Source*: MIT, 2005)

between this innovative practices and the dissemination by ESDP and others EU official documents on territorial matter.

In all these different territorial policies innovative and traditional aspects coexist. The most apparent innovative elements can be summarized in the following points:

- the recognition of the role of networks of actors in the structure of social relationships, in the designing of public policies and in the promotion of local economic initiatives.
- the procedures for finding the financial resources for the design and implementation of projects and for meeting deadlines; the 'contractual' logic used in the assigning of resources tends to favour those projects with a greater probability of success, introducing selection criteria, based on merit, which should involve the local management level in non-rhetorical ways;
- the territorial definition of the areas subject to intervention established as a function of the interested parties process of aggregation; the perimetration of the territory subject to development action does not predate the latter but is defined on the basis of the actors' issues of concern and interests. The perimeter of the 'community of interests' tends to become, in the most successful cases, the perimeter of a policy community, within which the stakeholders concerned are all individual or collective subjects having homogeneous goals in a decision-making process and are oriented towards interacting and exchanging resources with each other.

We can conclude that the importance of the ESDP in the Italian experiences mainly derives from the clearness by which it defines strategic territorial issues (as polycentrism, sustainability, and so on) and actions, and the importance that it attributes to cooperation and integration among different policies, i.e. intersectoral actions and inter-institutional co-operation and partnership. The reform of public sector administration, which reinforces the vertical subsidiarity among central government, the regions and local authorities, plays a positive role in strengthening territorial cohesion and polycentrism. The transfer of powers to regional government has helped to increase the competitiveness of the territorial and urban systems. It is also behind the development of new forms of regional partnership and contractualization involving private and public sector players and increasing the efficiency of regional and local government.

Both a central government effort in planning and inter-municipal collaboration are present in many Italian practices described above. They are based on a strong attitude to inter-communal co-operation, in which networking has become the most usual way of interaction. These networks produce social capital which can be exploited also for other forms of collective action. However, this co-operative aptitude between local authorities for designing development programmes does not exclude a hard competitive bidding for funding among the different networks of actors and urban nodes. Local collaboration, public-private partnerships and so on are the most innovative features in sector traditionally dominated by an authoritative and comprehensive view of planning activities. This aspect seems to be explicitly referred to in the concept of polycentric spatial development as defined in the ESDP (EC 1999)

On the other hand, explicit references to the concepts of polycentric development are extremely rare in official documents such as territorial plans by Regions, with very few exceptions.

As it has been recently affirmed, 'it is generally agreed that within the EU system of multi-level governance, the joint programming and implementation of the 'partnership' principle have empowered sub-national actors and social partners in network-creation and institution building' (Getimis 2003).

This lead to the impression of a widespread process of 'Europeanization' of planning culture, even if not yet completely, and not yet everywhere applied in planning practices.

Relating to this, an intensive process of institutional reforms during the last 15 years modified the political and administrative structure of the country. This phenomenon is occurring in parallel with the consolidation of a European planning culture (Giannakourou 1996, 2005), but it would be hard to affirm a causal nexus about the two aspects. However, it is undeniable that many interactions are operating between them; these can be seen as one of the many aspects assumed by the global-local dialectic, where the widespread dissemination of common concepts regarding spatial planning is accompanied by a number of regional and local responses which reflect different cultural traditions.

Thus, we are witnessing an apparent dismantling of the national states in favour of European institutional levels of governments and of empowered regions. Someone even describes such phenomenon as a process of construction of a kind of 'post-national state', where 'a polymorphic geometrical configuration that is likewise being turned simultaneously inside-out and outside-in—inside out insofar as it attempts to promote the global

competitiveness of its cities and regions; and outside in insofar as supranational agencies such as the EU, the IMF and the World Bank have come to play even more direct roles in the regulation and restructuring of its internal territorial spaces' (Brenner 1999).

Still, it must be said that in Italy a latent conflict can be detected between the state, which would intend to maintain a strategic role in spatial policies, and the regions, which work actively on ESDP issues (Janin Rivolin and Salone 2000, 2002).

REFERENCES

Bengs, Ch., (1999), How to build bridges: Esdp—planning between politics and science, in Bohme K., Bengs Ch. (a cura di), *From trends to vision: the European spatial development perspective*, Nordregio, Stockolm, 5–12.

Bobbio, L. (2000), Produzione di politiche a mezzo di contratti nella pubblica amministrazione italiana, *Stato e Mercato*, 58: 111–141.

Bobbio, L. (2002) *I governi locali nelle democrazie contemporanee*, Laterza, Roma-Bari.

Bonavero, P., Dematteis G., Sforzi F. (eds.) (1999), *The Italian Urban System. Towards European Integration*, Ashgate, Aldershot.

Borrelli, N. and Governa, F. (2004), Territory and territoriality in the Italian Mezzogiorno new policies. The local agency of development *Città del Fare*, paper delivered at the Aesop Conference, Grenoble, France, 1–4 July.

MIT (Ministero delle Infrastrutture e dei Trasporti—Direzione generale del coordinamento territoriale) (2005), *Progetto Pilota—Complessità Territoriali e Aree Sottoutilizzate.*

Brenner, N. (1999), Globalisation as reterritorialisation: the re-scaling of urban governance in the European Union, *Urban Studies*, 36: 431–451.

Clementi, A., Dematteis, G., Palermo, P. C. (eds.) (1996), *Le forme del territorio italiano*, 2 vols., Laterza, Roma-Bari.

Colaizzo, R. (ed.) (2000), *La progettazione integrata territoriale. Il quadro economico e programmatico*, Donzelli Editore, Roma.

Cremaschi, M. (2001), *I programmi integrati territoriali*, Donzelli, Roma.

Dematteis, G. (1999), Regional cohesion and global networks, in Bonavero, P., Dematteis, G. and Sforzi, F. (eds.), *The Italian Urban System. Towards European Integration*, Aldershot, Ashgate, 133–160.

EC (1999), *European Spatial Development Perspective. Towards Balanced and Sustainable Development of the Territory of the EU.* Potsdam.

ESPON Coordination Unit (2004), *Terms of References ESPON Project 2.3.1—Application and Effects of the ESDP in Member States (2004–2006)*, ESPON CU, Luxembourg.

Faludi, A., (2001), European spatial planning: a contested field, *Built Environment*, 27, 4: 245.252.

Faludi, A. (ed.) (2002), *European Spatial Planning*, Cambridge, Mass., Lincoln Institute of Land Policy

Faludi, A. (2003), The Application of the European Spatial Development Perspective: Introduction to the Special Issue, *Town Planning Review,* 74, 1: 1–9.

Faludi, A. (2005), Policentric Territorial Cohesion Policy, *Town Planning Review,* 76, 1: 107–118.

Faludi, A. and Waterhout B. (2002), *The Making of the European Spatial Development Perspective. No Masterplan*, Routledge, London and New York.

Getimis, P. (2003), Improving European Union regional policy by learning from the past in view of enlargement, *European Planning Studies*, 11,1: 77–87.

Giannakourou, G. (1996), Towards a European Spatial Planning Policy: Theoretical Dilemmas and Institutional Implications, *European Planning Studies*, 4, 5: 595–613.

Giannakourou, G. (2005), Transforming spatial planning policies in Mediterranean countries: Europeanization and domestic change', in Janin Rivolin U. and Faludi A. (eds.), Southern Perspectives on European Spatial Planning, special issue, *European Planning Studies*, 13, 2, forthcoming.

Governa, F. and Salone, C. (2004), Territories in action, territories for action: the territorial dimension of Italian local development policies, *International Journal of Urban and Regional Research*, 28, 4: 796–818.

Janin Rivolin, U. (ed.) (2002), L'innovazione comunitaria/Community innovation, *Urbanistica*, 119: 25–55, (Special Issue).

Janin Rivolin, U. (2003), Shaping European spatial planning: how Italy's experience can contribute, *Town Planning Review*, 74, 1: 51–76.

Janin Rivolin, U. (2004), *European Spatial Planning*, Franco Angeli, Milano.

Janin Rivolin, U. (2005), Cohesion And Subsidiarity: Towards good territorial governance in Europe, *Town Planning Review*, 76, 1: 93–106.

Janin Rivolin, U. and Salone C. (2000), *Dopo lo Schema di sviluppo dello spazio europeo: dinamiche territoriali, traiettorie politiche*, in *Associazione italiana di scienze regionali, XXI Conferenza Italiana di Scienze Regionali. Palermo 20–22 settembre*, Ipiget-Cnr, Napoli (Cd-Rom).

Janin Rivolin, U., and Salone, C. (2002), Tra ragioni istituzionali e complessità territoriali: una proposta operativa e un esempio applicativo, in Fondazione Aldo Della Rocca (ed.), Schema di sviluppo dello spazio europeo: verso uno sviluppo territoriale equilibrato e sostenibile dell'Unione europea, *Studi urbanistici*, Giannini, Napoli, 97–108.

Kunzmann, K. R., (1998), Lo Schema di sviluppo dello spazio europeo: molto rumore per nulla?, *Urbanistica*, 111: 53–55.

MBPE (Ministero del Bilancio e della Programmazione Economica) (1971), Progetto '80—Proiezioni territoriali, *Urbanistica*, 57: 1–60.

MLP (Ministero dei Lavori Pubblici (1999), *Rapporto interinale tavolo settore città*, DiCoTer—General Direction of Territorial Coordination, Rome.

Salone, C. (1999), Towards European integration, in Dematteis G., Bonavero P. and Sforzi F, (eds.), *The Italian urban system towards European integration*, Ashgate, Aldershot, 161–178.

Salone, C. (2005), The role of scale: polycentricity in Italian spatial policies, *Built Environment*, forthcoming.

Taulelle, E.,(2000), Le SDEC instrument de l´aménagement du territoire européen?, *Territoires 2020*, 1: 80–91.

Tewdwr-Jones, M. (2003), Complexity and Interindipendency in a Kaleidoscopic Spatial Planning Landscape for Europe, in Albrechts L., Alden J., & da Rosa Pires, *The Changing Institutional Landscape of Planning*, 8–33.

Trigilia, C. (1992), *Sviluppo senza autonomia*, Il Mulino, Bologna.

Williams, R. H. (1996), *European Union Spatial Policy and Planning*, Chapman, London.

EUROPA XXI
2006, 14: 191–205

STRATEGIES AND PRIORITIES FOR CORES AND PERIPHERIES IN THE BALTIC SEA REGION: TERRITORIAL COHESION AND POLYCENTRICITY

LISA VAN WELL, CAMILA CORTÉS BALLERINO and MATS JOHANSSON

Division of Urban Studies,
KTH, Royal Institute of Technology
Drottning Kristinas vag 30
SE-100 44 Stockholm, Sweden
e-mail: Lisavw@infra.kth.se

Abstract: In this study we explore these core-periphery patterns in the Baltic Sea Region (BSR) and discuss the potentials and challenges of the BSR for achieving the goal of *territorial cohesion* and by means of the policy instruments of *polycentric urban development* and *accessibility*. The focus of the study is on the connecting potentials of transport accessibility and transnational cooperation. We build upon the visions and strategies for the BSR produced by *VASAB 2010+* and other Interreg projects and take the *ESPON* (European Spatial Planning Observation Network) programme methodology as a point of departure.

Key words: accessibility, core-periphery, polycentricity, territorial cohesion, potentials, regional specialisation

INTRODUCTION

The Baltic Sea Region (BSR) is a heterogeneous macro-regional area in the periphery of Europe. However while peripheral in the European context, the BSR is replete with its own core-periphery patterns of nodes, functional areas, and hinderlands, which in turn colour the territorial cohesion of the region at all levels. In this study we explore these core-periphery patterns in the BSR and discuss the potentials and challenges of the BSR for achieving of the goal of *territorial cohesion* and by means of the policy instruments of *polycentric urban development* and *accessibility*.

This report highlights the challenges and possibilities for further spatial and regional development in the Baltic Sea Region (BSR) with a focus on the connecting the potentials

of core and the peripheral areas. It builds upon the visions and strategies for the BSR produced by *VASAB 2010+* (Visions and Strategies around the Baltic Sea), *Tallinn Report* and *USUN* (Urban Systems and Urban Networking in the Baltic Sea Region) by taking the *ESPON* (European Spatial Planning Observation Network) programme and the Interreg III B project *Medium Sized Cities in Dialogue Around the Baltic Sea* (MECIBS) research as a basis for the methodology.

The ESPON research on polycentricity as a means to reach territorial cohesion has shown that scale matters. Policies and measures carried out to evoke polycentric development on a European level, i.e. by stimulating zones of economic development beyond the Pentagon, may increase polycentricity of the European territory in the sense of developing *FUAs (Functional Urban Areas)* and *MEGAs (Metropolitan European Growth Area)* outside of the Pentagon. Such a strategy would stimulate further growth in the BSR metropolis such as Stockholm, Riga or Tallinn, boosting their importance in terms of central place. With such an EU or BSR strategy it could be that by connecting the potentials of the MEGAs with efficient accessibility a *Baltic Integration Zone* could be possible.

Although large cities and capital areas are the engines of growth, territorial cohesion will not be achieved without a complementary focus on the more peripheral *small and medium sized cities in the BSR*. It is vital that the role of these types of cities be further researched and considered in transnational forums. Strategies for small and medium sized cities include specialisation and clustering, but there is a need for more capacity building on the transnational sphere in order to exchange practices and experiences. In order to address the specific needs of cities and their hinterlands in the BSR, this report presents a sketch of an accessibility/polycentricity typology, which could be a starting point in analysing the connectivity potentials of the BSR, both for the central nodes and the peripheral areas.

TERRITORIAL COHESION AND POLYCENTRIC DEVELOPMENT IN THE CORE AND PERIPHERY

Territorial cohesion is the umbrella concept and an integrated part of the cohesion process covering the territorial aspects of economic and social cohesion and the EU objectives of balanced and sustainable development. It can be argued that territorial cohesion underlines the fact that the transnational territorial dimension possesses a potentially large added value for effective development policies (*ESPON 3.1.* 2005).

The concept of territorial cohesion is vital within Europe as while the disparities *between* EU Member States are gradually decreasing, the disparities *within* Member States are on the rise (Sapir 2003). This is particularly true within the BSR, which exhibits a great degree of regional polarisation, being home to both some of the wealthiest regions (Stockholm, Helsinki), as well as poorest regions in the European Union. Of the 100 NUTS 3 regions with the lowest GDP per capita in 2002, 56 of these are located within the BSR (Hanell et al. 2005). Although the disparities in per capita income in the BSR are among the highest in the world, with the largest economic gap presumably on the border between Finland and Russia, many of the regions in the BSR are growing rapidly.

Poland, Estonia, Latvia and Lithuania all show increasing growth rates between 1995 and 2000, although these appear to be confined to the capital city regions. Thus territorial cohesion in both the core and periphery remains a vital goal in the BSR.

Polycentricity is conceptualised as both an ongoing process and as a goal to be achieved and is alleged to help in reducing regional disparities and in increasing competitiveness for integration. Yet it is important to bear in mind that polycentricity at heart a *political* concept. While polycentricity is the main research object of ESPON, the verdict is still out if it can reduce economic and social disparities and lead to balanced competitiveness and sustainable development in *all* regions in the European territory.

Achieving polycentricity at all levels may have inherent contradictions built in. As ESPON project 1.1.3 found, carte blanche policy interventions to achieve polycentricity may lead to conflicts between the goals of competitiveness, cohesion and sustainability at various levels (*ESPON 1.1.3* 2005, p. 21). Prioritizing polycentricity at European level could lead to strengthening the role and function of capital cities in the BSR and may well be the quickest road to economic growth for the region, but this focus will prove unsustainable in the long-run when the needs of regions outside of the large metropolitan areas become apparent.

If, for instance at the EU level, the goal is to strengthen major urban centres outside the 'Pentagon', this will increase spatial disparities between the already too dominant capital cities in countries in Baltic states. However, if the promotion of balanced urban systems in these countries is a common goal, more Structural Funds and transport infrastructure would have to go into the peripheral regions of the new member states, and this would go at the expense of their capitals' (*ESPON 1.1.3* 2005, p. 20).

Just as is the concept of polycentricity depends on a delineation of a certain analytical level in order to be applicable, so do the concepts of core and periphery. The core-periphery dichotomy is largely a social construction that has been reinforced at the political level and 'used to characterise asymmetrical relationships and the disparities of regional systems' (Eskelinen and Snickars 1995) with its emphasis on distance, difference and socio-economic dependency. Like many concepts or models used to give a spatial sense of the world, what is a core or what is a periphery is largely dependent on which spatial scale lens one is looking through. Each peripheral area has its own core and periphery patterns of functional urban areas and hinterlands. On a European scale the BSR is quite peripheral in terms of geography, morphology of functional urban areas and patterns of accessibility. At a national level, for instance, the FUA of Stockholm is relatively central in relation to the rest of the country. The city of Malmö, lying at the extreme south point of the country is peripheral to much of the rest of the country, but much more central on a European scale, both in terms of morphology and in particular with regard to European economic function as part of the Öresund region, a functional urban region comprising Copenhagen and environs as well as the Malmö area.

Core-periphery models can be geographic, functional, economic, political, social or cultural. Notwithstanding the plethora of conceptualisations of core-periphery, at the heart is the normative notion of the greater developmental potential of the core relative to the peripheral area. In this study we do not see the core-periphery gap as a barrier to territorial cohesion. Rather we choose a rather neutral position that sees the periphery

not as something to be overcome, but as regions that simply have different pre-conditions and potentials than the central areas. Thus our study emphasises core-periphery in both morphological terms, as the distribution of FUAs in the BSR, and as the functional potentials to integration via transport accessibility.

Likewise we do not see the core-periphery conceptualisation as being at odds with the concept of polycentric development. Since we use neither of these concepts as spatial 'models', the polycentricity paradigm does not replace traditional core-periphery concepts (such as the 'blue banana') (Meijers et al. 2005). Rather the two conceptualisations live side by side one another. Polycentric areas on any scale still contain geographic centres and hinterlands. And a peripheral area may in fact be quite polycentric on a local scale.

Processes of globalisation and European integration both erode and bring to the forefront ideas of polycentric development and the centre-hinterland dichotomy with a focus on territorial networks and transnational and cross-border cooperation. The key theme in the ESDP and the ESPON Programme is that territorial cohesion can be achieved through polycentric development processes and promoting global economic integration zones outside of the 'pentagon' (Faludi 2005). Although these zones are largely due to long-term processes of specialisation and economies of scale, they can be facilitated by policy actions aimed at polycentric development and by more intensified cooperation.

A POLYCENTRIC BALTIC SEA INTEGRATION ZONE?

Demographic developments in the BSR determine to a large degree the patterns of human settlements and economic power of regions. An important element of territorial cohesion is that not only the metropolitan areas experience a positive rate of population change, but that second and third tier cities, as well as rural areas are able to halt the current depopulation movement that characterises these areas in most of the European territory. Within the European Pentagon there are signs of a polycentric development with regard to migratory movements. Outside the Pentagon—and especially in the Nordic periphery and the Baltic States the opposite is valid- here the dominating trends are monocentric character. The metropolitan areas and the big cities tend to grow at the expenses of the small and middle-sized ones and especially in the most peripheral rural areas.

This reinforces an already discernable pattern. In much of the BSR the urban structure is already mostly characterized by a dominant position of capitals at the national level and unclear goals for spatial national, regional and local levels. Cities have different roles in relation to the urban system and capital cities top the hierarchy of the urban systems.

All in all, there are 1039 cities in the BSR with more than 10,000 inhabitants. Of the 75 million urban inhabitants in the BSR, 63 million live in cities with more than 10,000 inhabitants. (*VASAB 2010 +*). There is a high share of small cities and dominant capital cities mainly due to concentration of population and business centres. This is the situation in Latvia, Estonia, Denmark, Russia (BRS) and the metropolises in Germany. The upper regions of Belarus also suffer from this phenomenon. Lithuania, Poland, Sweden, Norway and Finland have dominant cities to a lesser degree. It is often the case that the capital cities offer better conditions than the smaller ones and in many cases having favourable

concentration of Direct Foreign Investment (FDI) and R&D. Capital cities may differ in size and functional endowment but they share similar tasks and contain the main function of the state.

A Functional Urban Area (FUA) consists of an urban core and the area around it that is economically integrated with a centre[1]. ESPON has identified seven functions of FUAs that taken together provide an initial indication of certain role in Europe: population, transport, tourism, manufacturing, knowledge and decision-making in private and public sector. For the BSR area there are 256 cities that are classified as FUAs according to the ESPON definition. The 76 European FUAs with the highest scores have been labeled Metropolitan European Growth Areas (MEGAs) by ESPON and 22 of these MEGAs are located in the BSR. These MEGAs were further categorised by considering the population size, economy size, connectivity and percentages of people with higher education and the share of the employed working with R&D. This resulted in 4 categories (*ESPON 1.1.1*, 2004, p. 11).

As shown from the maps below, the BSR contains no Global nodes (the only two in Europe being Paris and London). However the MEGA typology in the BSR is thus:

- Category 1 MEGA—4 cities (Hamburg, Berlin, Copenhagen, Stockholm)
- Category 2 MEGA—3 cities (Oslo, Göteborg, Helsinki)
- Category 3 MEGA—4 cities (Malmo, Aarhus, Bergen, Warsaw)
- Category 4 MEGA—11 cities (Tallinn, Katowice, Vilnius, Kraków, Riga, Łódź, Poznań, Szczecin, Gdańsk, Wroclaw, Turku).

Of the total 76 European MEGAs according to the ESPON classification, 22 or 29% are located in the BSR space, while only 18 are located in the 'Pentagon'. Granted the MEGAs of the 'Pentagon' are primarily Category 1 and 2 MEGAs, while those of the BSR are mainly Category 3 and 4 MEGAs (primarily in Poland), but still this points to the great possibilities of the BSR in terms of a *potential Baltic Integration Zone* that, while not pretending to rival the 'Pentagon', could at least be a formidable globally competitive complement. Perhaps while not able to compete fully on global markets, a Baltic Integration Zone, would be fully capable of participating fully in the wider European economy. Moreover such an integration zone could boost economic competitiveness in the European territory and foster economic cohesion of the BSR, particularly within the cores or the region.

POTENTIALS IN THE PERIPHERY: SPECIALISATION AND CAPACITY

The USUN project has found that, '... any strategy concerning integration of the BSR must rely on the involvement of the metropolises' and '... the commitment of the capitals to the development of the BSR is crucial' (Groth 2001). Yet one of the findings of the USUN project was that all of the capital or largest cities in the BSR had GDP and employment shares that were higher than the proportionate shares of the national population. The MECIBS project also reiterated this observation: 'Thus, the large BSR cities take the lion's share of national economic development' (Groth et al. 2005).

[1] http://www.espon.lu/online/documentation/projects/thematic/1873/fr-1.1.1-part-1.pdf

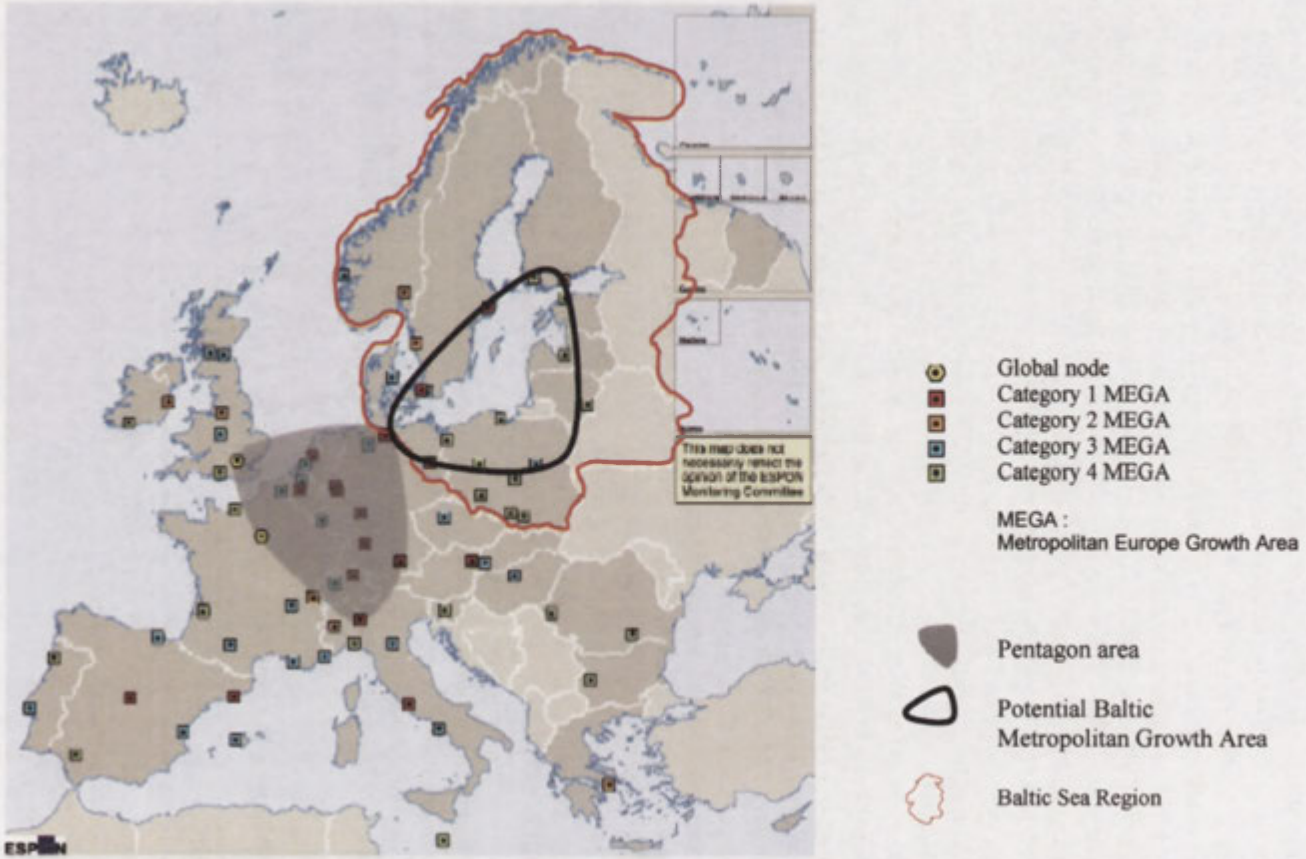


Figure 1. MEGAs categories and FUAs in Europe, highlighting the Baltic Sea Region
(Adapted from ESPON 1.1.1 part 3, page 35, map 3.5 and ESPON 1.1.1 part 3, pag 5, map 4.1)

The *MECIBS* project takes up the plight of smaller, peripheral cities of the BSR that are undergoing processes of structural change and consequently loosing population and employment opportunities. A finding of the project is that medium and small cities are often economically dependent on special competencies and local and regional clusters for their future development (*Medium...* 2005). VASAB has also stated that specialisation could be a promising approach for secondary urban regions to gain a share in economic growth (VASAB 2010+). ESPON 1.1.1 as well considers 'functional specialisation as an important dimension of polycentricity as it is these functions that make cities different from each other and produce flows necessary for economic and political integration' (*ESPON 1.1.1* 2004).

Due to their smaller size and accessibility potentials, economic specialisation as a strategy for peripheral cities is dependent upon cooperation and connections with other cities outside of the metropolises. The ESPON 1.1.3 has found in its study of spatial autocorrelation, that 'the more a region is surrounded by regions with positive dynamics, the higher is its own growth rate' (*ESPON 1.1.3* 2005). Geographical proximity and the inherent cooperation possibilities is no guarantee for economic growth, but it may provide cities with a better opportunity for functional integration (*ESPON 1.1.1* 2004).

While specialisation may certainly be a way to deal with restructuring of an economic base in cities and has successfully been employed in peripheral MECIBS cities such as Lappeenranta, FI (wood production), Salo, FI (electronics, primarily Nokia), Kokkola, FI (chemistry branch), Randers, DK (food processing) and Sillamäe, EE (rare metals) it may also mean a degree of long-term vulnerability. Yet these cities experience vulnerability to various degrees with regard to how integrated the cities are to larger labour markets. On the one hand, Salo and Randers, which lie in the shadow of Helsinki and Århus respectively are much less vulnerable than Sillamäe or Kokkola, which are further from the larger labour markets and thus specialization is more of a risky strategy (Johansson 2005). Thus cities in the periphery of the BSR would be smart to consider complements to specialization and clustering, such as some diversity of the economic base or increased knowledge or competencies (*Medium...* 2005).

Several small and medium sized cities in the BSR, as studied by MECIBS, have been able to foster the capacity needed for strategic development in an environment characterised by lack of national polycentricity. An outstanding example a municipality that has been able to foster and export capacity for specialisation and development is the 'Baltic Sea Solutions' project of Nakskov, a small city in the periphery of Denmark. The *Baltic Sea Solutions* initiative launched by Nakskov in cooperation with the inter-municipal network in Lolland-Falster is a cross-border network throughout the Baltic Sea Region with the goal of boosting sustainable growth and transnational cooperation between public administration systems. Dealing with globalization and outsourcing as opportunities to be grasped, rather than as a problem is an important part of the philosophy, which mirrors that of Nakskov. The Lolland-Falster region to attract new businesses to the Baltic Sea area and encourage the establishment of similar centres throughout the region has created an Operational Knowledge Centre for knowledge dissemination. *Baltic Sea Solutions* not only builds institutional capacity in the Baltic States; it is paramount for Nakskov's development opportunities as it strengthens Nakskov's position not only among neigh-

bouring municipalities, but also throughout the Baltic Sea region. It also works internally as a platform for Nakskov's own programmes and brings an added dimension of credibility to the programmes and ideas that are 'exported' further (Anderberg et al. 2005).

Integrative interventions for promoting regional and development of peripheral areas and by specialisation, on the one hand, or transnational project, on the other hand, are highly dependent upon planning and land-use functions. However, as indicated in this study economic prosperity and specialisation do not always go hand in hand. Therefore some reasonable caution is needed in regional and local plans for clustering and specialisation.

Local and regional specialisation could be approached in the transnational context through exchange of practices illuminating the possibilities and challenges of a specialisation strategy. This could include seminars and workshops on instigating local clusters, technology parks and centres of competencies based on local assets. Transnational cooperation in the BSR could aid in providing a forum for the exchange of experiences as in the case of the *Baltic Sea Solutions* project.

If the goal is to develop a Baltic Integration Zone in the BSR, if cannot be stated often enough that a main focus must be on the role of medium-sized and small cities in the periphery, in addition to the metropolitan areas. While large metropolitan areas primarily do generate the majority of wealth in the BSR and are the engines that make the region competitive on a European and even global basis, there is little evidence that this wealth sufficiently 'spills over' to the hinterlands. Territorial cohesion can only be achieved by a specific focus on the speical circumstances of small peripheral cities and towns throughout the territory.

Thus there is a need in the BSR to improve the functions of second-rank cities in order to achieve territorial cohesion in the cores, but especially in the peripheries of the BSR. To avoid the national dimension of polycentricity is to even further exasperate socio-economic differences within countries in the BSR- discontinuities that are rapidly expanding. National programs for regional development could achieve this with an emphasis on the functional growth of these areas, along with the necessary transport infrastructure to increase accessibility of smaller FUAs.

The goal of boosting polycentric development and increasing social and economic cohesion of the region could also be worked at by encouraging more transnational projects and key themes dealing specifically with supporting the functional position small and medium sized towns. A good example of one such effort is MECIBS project. There is a great need for more Interreg III B projects like MECIBS, perhaps with thematic focuses, such as 'shrinking cities', environmental or sustainability concerns, becoming a logistics hub or instigating further education initiatives.

ACCESSIBILITY AND POLYCENTRICITY IN THE BSR: POTENTIALS FOR FLOWS

Connectivity and accessibility are two of the most important factors that influence the development of cities' functionality and specialisation. In this study we have integrated indicators of accessibility and polycentricity (based on the ESPON 1.1.1 results) in the attempt to analyse the connectivity potential of regions in the BSR. As such an emphasis

is put on infrastructure for potential flows of goods in the BSR, as transport nodes are one of the important indicators of centrality in terms of accessibility and can enhance the attractiveness of a place. The resulting embryo of a typology can help to distinguish interesting transregional and intraregional core-periphery patterns.

As a first step (Figure 2), we consider the Polycentricity Index for measuring polycentricity in national urban systems is based on the size, connectivity and locational indicators (equally weighted), which thus results in high, medium and low categories for national polycentricity[2]. The second step is to consider the FUAs from ESPON 1.1.1. The number of FUAs for the BSR area is 256 (there are 337 but not all had measurable data and neither all secondary nor third-tier cities were included in the analysis). The third step is to weigh in the transport function, as determined by ESPON 1.1.1 (Final report, Part III, Chapter 4) to be traffic levels at airports and volumes handled at major container harbours. The transport function is already weighted as in as one of seven indicators in the FUA definition, but we highlight this again in this typology as a way to focus on accessibility and possibilities for regional specialisation and clustering competencies. Thus transport is classified by the type of network where local/regional networks = good accessibility, national networks = medium accessibility and international networks = high accessibility, regarding the potential for transnational cooperation. The resulting types visualise various connecting potentials in the BSR.

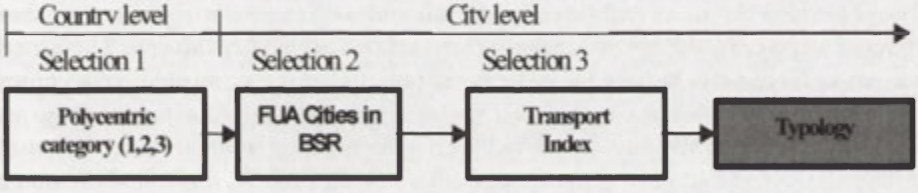


Figure 2. Polycentric category and typology
(*Source*: FUAs and accessibility index from 3 Interim Report, 1.1.1, annex 1–10)

This method, which assimilates national polycentricity with the morphology of FUAs and the (mainly goods) transport function, illustrates interesting patterns of core-periphery relations. First we can see in Figure 3 that countries with generally low polycentricity at the national level (Finland, Estonia, Latvia, Lithuania and Norway) still have quite high (international) transport accessibility in the capital and port cities, although these transport nodes are located obviously at the border areas within each country (such as Pori in Finland, Klaipeda in Lithuania or Trondheim in Norway). While these nodes tend to be in the periphery in a national perspective, considering the BSR as a whole they show an important centrality, especially in terms of international shipping. Local transport

[2] http://www.espon.lu/online/documentation/projects/thematic/1873/fr-1.1.1_revised.pdf

nodes are quite evenly dispersed, which is a good prerequisite to linking the hinterlands in a transport network.

In countries with medium national polycentricity (Sweden and Denmark and Germany), transport nodes of international importance (high accessibility for flows of goods) are relatively few and in Sweden, located at the periphery of the country (the Oresund region) and in Stockholm. Local transport nodes are fairly well dispersed, but it is interesting that there are no nodes ranking as important at the national level. This is perhaps indicative of the strong emphasis in these countries on international trade, which while increasing opportunities for growth in the country as a whole, may not necessarily spill over into the more peripheral areas unless accompanied by strong regional redistribution policies.

In Poland, the only country in the BSR that is considered to be highly polycentric at a national level, the international transport nodes (with the exception of Warsaw) are also located in the Baltic Sea periphery of the country, although there are important national nodes in the core areas closer to the centre of Europe.

From our assimilated maps of accessibility, FUAs and polycentricity produced from ESPON indicators we find patterns reinforcing the possibilities for greater BSR integration in terms of regional and transregional specialisation and international trade. Most of the major transport nodes align in the centre of the BSR at major port cities. Although the 'core' of the BSR geography consists of the Baltic Sea, we see that historically and in modern times, this important waterway plays a vital connecting factor in the region.

Countries in the western part of the BSR have been successful in coordinating waterways for long distances and linking with rail and road modes of transport for short distances while central eastern countries these centres are widely missing. The experience and best practices gains of the former could be of enormous contribution to improving the Baltic Sea transport coordination modes to transport, coordination of cargo and transloading services and facilities as well as developing international security controls mechanisms. An exchange of experience could also help with the functional division of cities and ports regarding specialisation features. Ports such as Malmo, Stockholm, Oslo, Helsinki, Turku, Gdansk-Gdynia, Kaliningrad, St. Petersburg, Riga, Tallinn have already began partnerships. Secondary ports are encourage to do the same such as Karlskrona, Liepaja, Klaipeda, Parnu, Szczecin, Pori, Kotka and Barents Region to mention a few (*Tallinn Report* 1994).

STRATEGIES AND POTENTIALS FOR THE CORE AND PERIPHERY IN THE BSR

In accordance with the research presented in this study, we find that within the BSR there is scope for a more institutionalized response to the challenges of achieving territorial cohesion in both the centre and periphery of the BSR. Naturally transnational and cross-border cooperation is one key method to achieve this from the *bottom-up*, but the case could also be made that the global nature of many of the challenges could also demand greater guidance from the BSR institutions as a whole.

While there are several policy documents in the BSR with visions of how the region could develop and political priorities, specifically the Wismar Declaration and VASAB

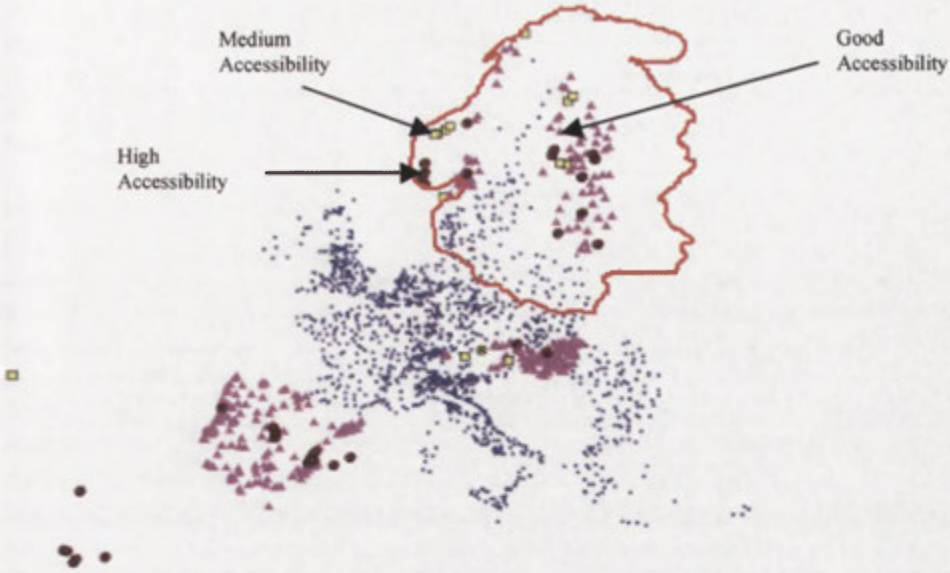


Figure 3. Countries with Low Polycentricity—
cities with good (triangle), medium (square), high (red round) accessibility
Note: small dots (blue) correspond to FUAs of countries with other polycentrism category

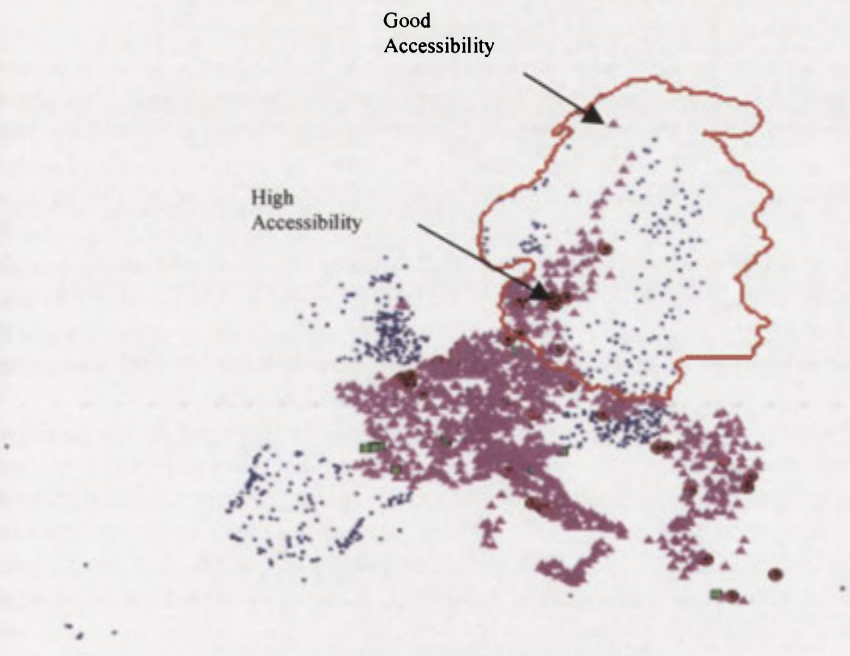


Figure 4. Countries with Medium Polycentricity—
cities with good (triangle), medium (square), high (red round) accessibility
Note: small dots (blue) correspond to FUAs of countries with other polycentrism category

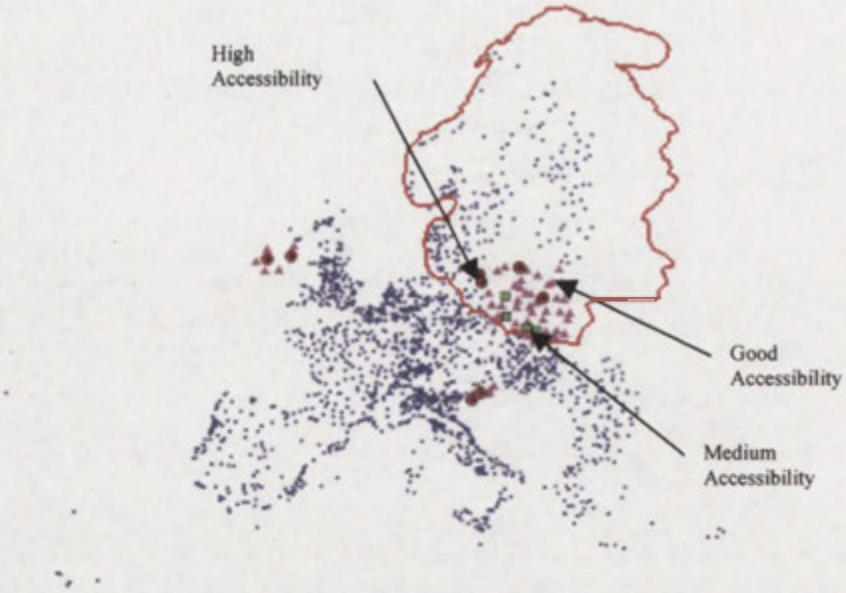


Figure 5. Countries with High Polycentricity – cities with good (triangle), medium (square), high (red round) accessibility

Note: small dots (blue) correspond to FUAs of countries with other polycentrism category

2010 + Spatial Development Action Programme and the Tallinn Report 'Towards a framework for Spatial Development in the BSR', there is still scope for guidelines that deal more specifically with territorial cohesion of the Baltic Sea area, if this indeed proves to be as important a political goal for the region as this document stresses. The focus of such a strategy would be normative, since spatial planning is still primarily the realm of the local, regional and national levels. Even the European Union, while wielding considerable influence over spatial issues in the form of the Cohesion and Structural Funds, still does not enjoy competence in the area of spatial planning, which in many aspects is subject to the principle of subsidiarity. Strategies and potentials for the BSR would thus rely on the generation of common norms, much like the ESDP does.

We assert, as VASAB also indicates, that the norms active in the BSR with regard to spatial planning should be territorial cohesion with polycentric development of the urban tissue and accessibility as the sub-norms, which may (or may not in some cases) make it possible to achieve territorial cohesion in both the core and periphery areas. These priorities are necessary in order to deal with social-economic global trends. Increased social cohesion and reduced socio-economic polarisation are important areas for transnational cooperation.

Transnational cooperation could allow more integration of sparsely populated peripheral areas, providing more job opportunities and diminishing out-migration. Examples that could be a motive of replication are some of the projects in Interreg III B programs.

Also, increasing the position of small and medium size cities at the global arena and making the living environment more attractive will contribute to diminish the out-migration that has characterised many cities in the BSR. The links with education and research are also very important for the people and the perspectives of job opportunities, competition is based in the human capacity that could activate new clusters and business opportunities.

POLYCENTRIC URBAN STRUCTURE

One of the most lucent results of the ESPON research on polycentricity is that scale matters. Policies and measures carried out to evoke polycentric development on a European level, i.e. by stimulating zones of economic development beyond the Pentagon, may increase polycentricity of the European territory in the sense of developing FUAs (Functional Urban Areas) and MEGAs (Metropolitan European Growth Area) outside of the Pentagon that may have the potential to even one day rival the Pentagon. A strategy such as this would focus EU and national policy interventions to the capital city regions of, for instance the BSR, with the goal to stimulate further growth in cities such as Stockholm, Riga or Tallinn. But this should not be at the cost of the economic and social development of more peripheral cities that also have the potential to development in a polycentric direction.

With such an EU or BSR strategy it could be that by connecting the potentials of the MEGAs a Baltic Integration Zone could be possible. Yet while a strategy such as this is vital to make Europe the most competitive region on the globe, it only acerbates efforts to combat national monocentricity and existing core-periphery patterns. Thus unless complementary measures to strengthen the placement of second-order or small and medium sized towns are also implemented, true territorial cohesion will not be achieved. Most importantly policymakers in the BSR must make the conscious normative decision that polycentricity at the lower levels and in the periphery are at least as important as realising a Baltic Integration Zone.

ACCESSIBILITY AND CONNECTIVITY

Accessibility is interpreted as quality of transport infrastructure in terms of capacity, connectivity, travel time and cost, etc. It determines a competitive advantage of location relative to other cities and regions. The ESDP stresses the need for an integrated approach for improved transport links, making reference to the polycentric development model, highlighting the efficient and sustainable use of infrastructure and referring to the importance of the diffusion of innovation and knowledge

Connecting potentials are largely dependent upon the effectiveness of transport systems and communication infrastructures. Connectivity of cities (FUAs) constitutes one of the central factors of polycentricity and one of the crucial factors in the achievement of territorial cohesion; any share of exchange such as economy, knowledge needs to be accompanied by efficient transport infrastructure and accessibility. Accessibility is even more important in the hinterlands. It is interesting that all of the transport infrastructure policies examined by ESPON projects 1.1.3 and 2.1.1 (except for transport pricing scenarios) are likely to accelerate a decline in polycentricity of national urban systems because they tend to be directed at primarily connecting large urban cities at EU-level

(ESPON 1.1.3 2005). Thus it is important in the BSR that political decisions be made at a high level to intensely support development of regional highway and railway networks with a focus on the major regional cities and with particular emphasis on the East-West corridors, and to develop local transport accessibility, especially to more peripheral areas via major ports.

The 'Connecting Potentials' draft produced for the Sixth Ministerial Conference of the Ministers Responsible for Spatial Planning and Development of the Baltic Sea States (November 2005) discusses the importance of accessibility in terms of the connecting potentials that transport serves for public and private actors. This access from central and peripheral regions is thus the essence of cohesion policy (*Connecting Potentials* 2005). Currently transport accessibility is unevenly distributed throughout the BSR and accessibility is a key theme for integrating the eastern part of the BSR more thoroughly into the EU.

Core and peripheral areas in the Baltic Sea Region have differing needs to be addressed and varying potentials to be developed. A one-sided focus on transport accessibility in the 'core' of the BSR would wield effects on the major centres and strengthen the potential 'Baltic Sea Integration Zone' vis-à-vis the 'Pentagon' and other integration zones on the continent, but would do little to improve the situation in the peripheries. Transport accessibility is even more crucial for peripheries in order to adopt policies that could facilitate regional specialisation and hopefully boost their potential in terms of European competitiveness. An adjacent effect could be increasing the polycentric development patterns between the cores and peripheries in the BSR, leading the way to more effective territorial cohesion.

ACKNOWLEDGEMENT

This study takes as its point of departure a report that the authors prepared for the Swedish Ministry of Industry, Employment and Communications. The authors would like to acknowledge the financial support of the Ministry and to thank Eva-Maria Forsberg, Olle Lundgren and Ulf Savbäck at the Ministry for their helpful discussions on this topic. We are also like to thank Jacek Zaucha of the VASAB Secretariat for his detailed comments and considerations of an earlier draft of the report.

REFERENCES

Anderberg, S., Van Well, L. and Ruotsalainen, A. (2005), *Sustainable Development: Lessons from MECIBS cities*, MECIBS brochure.

Connecting Potentials, (2005), Sixth Ministerial Conference of the Ministers Responsible for Spatial Planning and Development of the Baltic Sea States, Draft after DG in Kiel and e-mail session. Chapter 2.2, paragraph [24].

Eskelinen, H., Snickars, F. (1995), *Competitive European Peripheries? An Introduction*, in Eskelinen and Snickars (1995) in Competitive European Peripheries. Springer:Verlag, Berlin, Heidelberg, New York.

ESPON 1.1.1 (2004), Potential for polycentric development in Europe, Final Report, March 2005.

ESPON 1.1.3. (2005), Particular effects of enlargement of the EU and beyond' Third Interim Report, August 2004.

ESPON 3.1 (2005), Integrated tools for European Spatial Development (2002–2004) Final Report, Part C, June 2005-revised

Faludi, A. (2005), Polycentric territorial cohesion policy, *Town Planning Review*, 76, 1.

Hanell, T. Neubauer, J and Tornberg, P. (2005), *Cities of the Baltic Sea Region at a Glance (Draft). Medium Sized Cities in Dialogue Around the Baltic Sea,* MECIBS brochure.

Groth, N.B (ed) (2001), *Cities and Networking: the Baltic Sea Region: A report on the Interreg II C project Urban Systems and Urban Networking in the Baltic Sea Area*. Danish Ministry of Environment and Energy/Danish Forest and Landscape Research Institute.

Groth, N. B, Smidt-Jensen, S., Kanninen, V., Van Well, L. (eds) (2005), *Profiles of Medium Sized Cities in the Baltic Region*, Danish Centre for Forest, Landscape and Planning, Frederiksberg.

Johansson, M. (2005), *Regional Enlargement; Lessons from the Baltic Sea Region. A brief presentation of a case-study of the Interreg III B project Medium Sized Cities in Dialogue around the Baltic Sea.* Danish Centre for Forest, Landscape and Planning, Frederiksberg.

Medium Sized Cities in Dialogue around the Baltic Sea Final Report (2005), Draft prepared for the 6th MECIBS Conference, Nykoping, Sweden 13–14 June.

Meijers, E. Waterhout, B. and Zonneveld, W. (2005), Polycentric Development Policies in European Countries. *An Introduction in Built Environment*, 31, 2.

Sapir, A. (2003), *An Agenda for a Growing Europe: Making the EU Economic System Deliver.* Report of an Independent High-Level Study Group established on the Initiative of the President of the European Commission, July.

Tallinn Report (1994), Towards a Framework for Spatial Development in the BSR.

VASAB 2010+ Spatial development Action Programme, <http://vasab.leontief.net/vasab2010/key5_1.htm>

EUROPA XXI
2006, 14: 207–217

NORDIC CROSS-BORDER COOPERATION—ARE EXPERIENCES TRANSFERABLE TO EAST CENTRAL EUROPE?

BJØRN MOEN and SIGRID SKÅLNES

Norwegian Institute for Urban and Regional Research
P.O. Box 44 Blindern
N-0313 Oslo, Norway
e-mail: Bjorn.moen@nibr.no
Sigrid.skalnes@nibr.no

Abstract: The Nordic cross-border cooperation has long traditions, and do mostly stem from below. Different voluntary associations did take the first step to cooperate and make the cross-border cooperation work. Today nine organisations are funded partly from the Nordic Council of Ministers., aiming at eliminating the negative of the national borders dividing the Nordic areas into eight countries and territories, and at developing the cross-border regions. The Nordic cross-border programme regions differ widely from one another and are faced with very different cross-border obstacles and challenges. There are essentially two types of cross-border regions: we find examples of small, compact and relatively densely populated regions and of large geographical regions that are rather thinly populated. Despite of this, they all conclude in a positive way; cross-border cooperation do have an extra value and do add some extra to the regional or nation work.

Key words: cross-border cooperation—Nordic countries—development initiatives

INTRODUCTION

The Nordic countries are European trailblazers in the field of cross-border co-operation. This has given our countries a significant advantage and has managed to compensate for the small size of the individual countries and the normally more limited power of attraction that small countries have. Cross-border co-operation has made the countries larger.

Nordic co-operation antedates current European integration. The Nordic countries could demonstrate concrete progress before the European Union in this area, which has

now become the object of more pan-European solutions. In certain respects, this makes it possible to say 'mission accomplished'—now EU co-operation takes over.

This is only part of the truth. It is also true; however, that co-operation in border regions now faces new challenges, which the EU alone cannot handle.

One such challenge has to do with European co-operation as such. While the EU means increased co-operation, it also means increased competition, and when the competition gets stiffer, this is the time for smaller countries and regions especially to take advantage of common experiences and opportunities.

Nordic co-operation provides various examples that such co-operation can also yield significantly positive results. The capacity of the Øresund Region to attract companies and individuals is

greater than either the Copenhagen region or Skåne individually. The border region between Sweden and Norway; to the south from Varmland, is given a new stimulus for growth once we wipe out the national boundary in our minds. The same applies to the Haparanda-Tornea region in the north. The EU can naturally contribute economically to the development of these regions. But the result cannot be effectively maintained without close co-operation between individuals and authorities on both sides of the border.

Within the Nordic countries, much has been done through the years to improve the developmental potential of border regions, but this work is by no means finished. That the situation remains as it is, is at least partly, caused by a lack of vision on the part of the national authorities. It almost seems as if they do not really visualise what the border regions have to contribute, not only for themselves but also for the countries. In other words, if the five Nordic nations are to become larger, it is not sufficient to place all the responsibility for accomplishing this on local action.

The continuing significance of intra-Nordic relations has gained a new dimension through the EU membership of Poland, Estonia, Latvia and Lithuania. New border regions have been added to those with which we are already familiar, border regions with completely different circumstances than the intra-Nordic ones.

Our Nordic experiences can be of good use in establishing these new border regions. This experience includes a good measure of pragmatism and practical and skilful dealing to over-come both major and minor obstacles to exchange and common endeavour. Here the Nordic attitude has something to share.

The Nordic Council of Ministers and Nordregio are two of the initiators in a large border project encompassing the Baltic States and Russia/Belarus that, hopefully, will be initiated with EU financing this autumn. Over 30 partners will be working together to link up adjacent areas on the EU's new external border.

As mentioned, there is plenty of experience in the Nordic countries of this sort of work which we can pass on. At the same time, it should be emphasised that the Nordic countries, too, can learn from others. There is often a vitality and entrepreneurial spirit in the new EU countries that can enrich the Nordic environment and Nordic conceptions as well.

The involvement of the NCM in cross-border co-operation outside the Nordic countries should also be viewed in a wider European perspective. As a new and larger EU seeks new ways of working, co-operation within smaller groups of countries within the

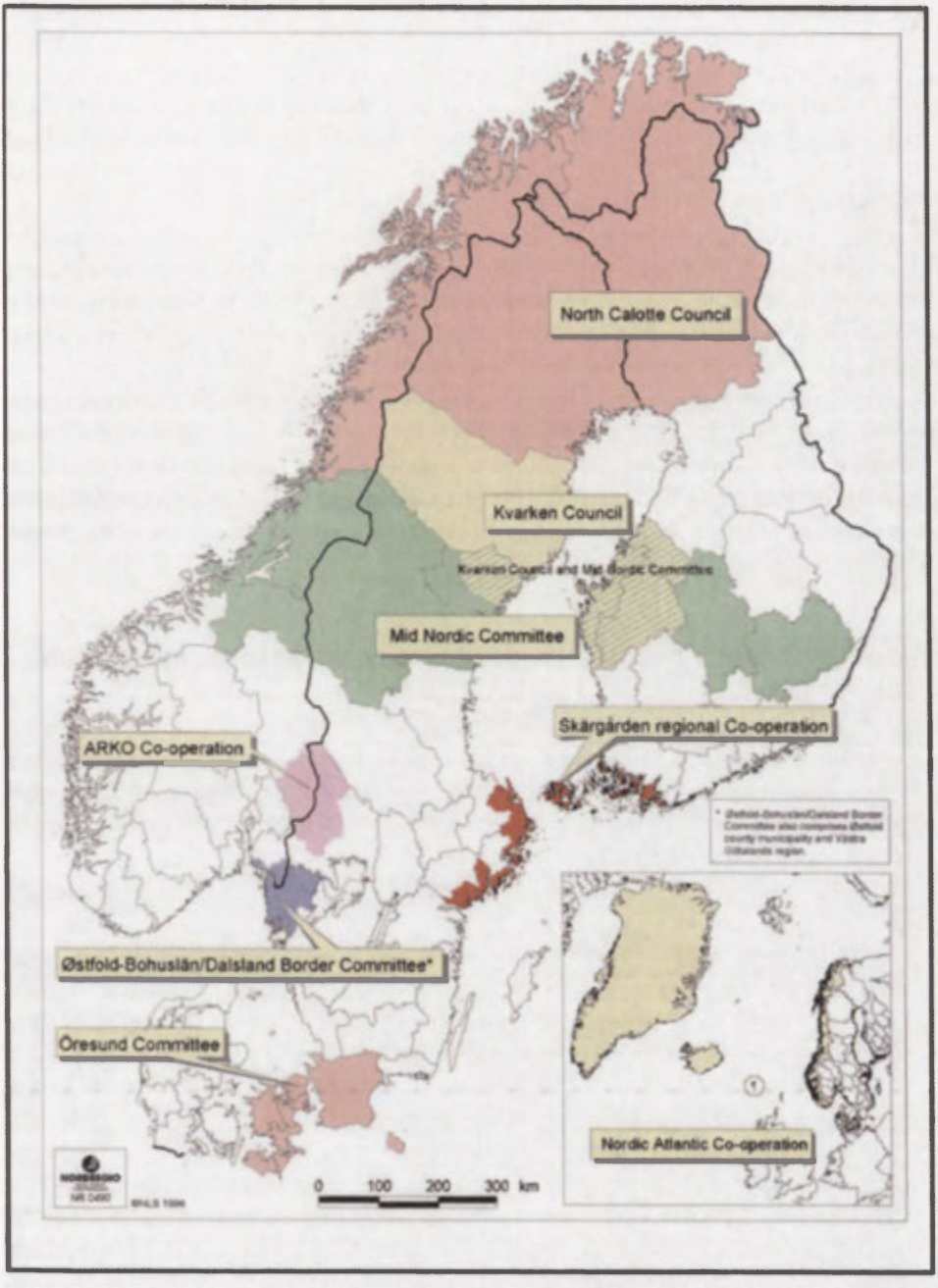


Figure 1. Nordic cross-border programme regions

framework of the wider community becomes more common. Sharing best practices is part of such co-operation.

Cross-border work on the far side of the Baltic can be viewed as the beginning of a wider exchange of experience within the EU of ways for co-operation between EU countries and the countries on the Union's external borders. In this work, both the NCM and Nordregio and the border region committees should make their expertise as widely available as possible.

If we succeed in doing so, we have not only contributed to an important advance for others and to the EU's possibilities of functioning rationally and effectively. We have also enhanced the reputation of our own region as an exciting trailblazer. In the final analysis this is exactly what is required to make Northern Europe stand out as sufficiently attractive for people and enter-prises to make their future here.

Our main impression is that regional cross-border co-operation in the Nordic countries is conducted in a variety of ways, which is quite natural given the different conditions found within the Nordic area. Overall, we also feel we have a sound basis for characterizing the initiative shown as generally being good and that it is suited to gaining useful experience of practical and pragmatic regional cross-border co-operation—'the Nordic way'.

THE NORDIC COUNCIL OF MINISTERS' REGIONAL CROSS-BORDER COOPERATION ORGANISATIONS

In the spring of 2004, the Control Committee of the Nordic Council polled a representative sample of par-ties in order to investigate the work of the Nordic cross-border programme regions—or 'cross-border regions' for short—over the last three or four years, by inviting them to answer a number of questions:

I. Have the organisations contributed to identifying and removing cross-border obstacles in the region?

II. Is it appropriate to receive Interreg and Nordic funds at the same time?

III. Are the existing regions 'natural'? Should they be extended or reduced?

IV. The organisations' role and cooperation with other parties in the region. Is there any overlapping and is there sufficient coordination?

V. Do the political priorities of the Nordic Council and the Nordic Council of Ministers impact on the action plans of the organisations?

VI. Do the organisations generate Nordic benefit/Nordic added value?

VII. How good are the organisations' contacts at a regional and national level?

The confines of space here prevent us from answering all seven questions equally thoroughly. We will instead concentrate on questions I), III), V) and VI), but would like to mention briefly that the cross-border regions agree about the importance of Interreg, and that we found little—if any—evidence of any overlapping: co-ordination would appear to be good. The cross-border regions' contact with and channels to regional 'centres of power' vary. It appears that the 'Big Four' have easiest access to central, national authorities.

CROSS-BORDER REGIONS—LOCATIONS, PARTNERS AND FRAMEWORK CONDITIONS

The Nordic cross-border programme regions differ widely from one another and are also faced with very different cross-border obstacles and challenges. There are essentially two types of cross-border regions: we find examples of small, compact and relatively densely populated regions and of large geographical regions that are rather thinly populated. This is both strength and a weakness as regards regional cross-border co-operation. On the one hand, it is demanding for NCM/NARP to coordinate its cross-border work to ensure optimal utilisation of such a complex experience base. On the other hand, such a constellation does produce a very broad experience base.

The table above illustrates the wide range of diversity as regards the size, number of inhabitants and density of population of the cross-border regions. The Skärgården Regional Co-operation covers the smallest area, at just over 1,5oo square kilometres, while the North Atlantic Co-operation (NORA) covers an area just over four times the total area of all the seven other cross-border region: In terms of size, the North Calotte Council and the Mid-Nordic Committee are the two next largest cross-border regions, while the others are all smaller in size; not only Skärgården but also ARKO and the Øresund region.

As regards population figures, Øresund is by far the region with the greatest number of inhabitants, with a population of just under 3.6 million and a population density of almost 172 inhabitants per square kilometre. None of the other cross-border regions come dose to this figure; the cross-border region that comes nearest—the Østfold-Bohuslan/Dalsland Border Committee—has a population density of just below 44 inhabitants per square kilometre. The figures for the other six cross-border regions are all below 20 inhabitants per square kilometre, while NORA is the lowest, with a population density of one inhabitant per square kilometre.

Of the 14 Interreg programmes covering Nordic territory, nine of these concern cooperative programmes along the outer border of the Nordic countries, while five are intra-Nordic cross-border programme regions. Eleven of the programmes are Interreg III A initiatives, three are B programmes, one of which, the Northern Periphery programme, is the Interreg programme for the North Atlantic Cooperation (NORA), in addition to the northern parts of Finland, Sweden and Scotland.

Sweden is involved in the largest number of cross-border programmes regions (seven out of eight), while Denmark only participates in one cross-border programme region. The same also applies to Iceland, Greenland, the Faeroes and Åland, while Norway is involved in five cross-border cooperative organisations and Finland in four.

THE CONTROL COMMITTEE'S QUESTIONS—FOUR RESPONSES

The cross-border regions struggle with two types of cross-border obstacles—neither of which is more important than the others are (I)

There are two types of cross-border obstacles preventing people and goods from passing national borders in the Nordic countries more freely and easily:

Table 1. Demography and geography of the Nordic cross-border regions

Cross- Border Cooperative Organisations—participating countries and regions	Population (thousand) 1.1.2004	Land area (sq. km.)	Inhabitants per sq. km.
The North Calotte Council	902.686	298.617	3,0
Finland (Objective 1 region: Lapplands county)	186.917	93.044	2,0
Sweden (Objective 1 region: Norrbottens county)	252.874	98.245	2,6
Norway (3 counties: Nordland, Troms, Finnmark) Norge (3 fylker)	462.895	107.328	4,3
Russia (3 regions (oblasts/autonomous district): Murmansk, Arkangelsk, Nenets	n/a	n/a	n/a
The Kvarken Council	748.555	88.030	8,5
Finland (Osterbotten)	437.649	26.419	16,6
Sweden (Västerbotten og Ornskoldsvik)	310.906	61.611	5,0
The Mid-Nordic Committee	1.565.432	161495	9,7
Finland (Osterbotten, Sodra Osterbotten,	795.443	51.852	15,3
Mellersta Finland, Sodra Savolax landskapskommuner) Sverige (Jamtland og Vasternorrland) Norge (Nord/ Sør-Trøndelag)	371.750	71.027	5,2
In sum	398.239	38.616	10,3
The Archipelago Regional Co-operation (Skargården)	68.178	1.527	17,0
Finland (Egentliga Finland, Nyland)	28.276	n/a	n/a
Åland	26.008	n/a	n/a
Sverige (part of Stockholms county, deler av Uppsalas lån)	138,94	n/a	n/a
The ARKO Co-operation	115.467	12.971	8,9
Norge (Eidskog, Grue, Kongsvinger, Nord-Odal, Sør-Odal, Våler, Åsnes) Sverige (Arvika, Eda, Sunne, Torsby)	53.606 61.861	4.982 7.989	10,8 7,7
Østfold-Bohuslan/Dalsland Border Committee	352.675	8.090	43,6
Norge (Østfold, 8 municipalities)	199.750	1.854	107,7
Sverige (Vestra Gøtaland, 11 municipalities)	152.925	6.236	24,5
The Øresund Committee	1.583.403	21.203	171,7
Danmark (Lolland, Falster, Bornholm,	2.430706	9.834	247.2
Sjælland =more than 100 municipalities) Sverige (Skåne = 33 municipalitiesr)	152.697	11.369	104,5
The Nordic Atlantic Co-operation (NORA)	2.435.196	2.430.820	1,0
Færøyene	47.704	1.399	34,1
Island	290.570	102.806	2,8
Grønland	56.854	2.116.086	0,02
Norge	2.310.334	217.221	9,7

Type A barriers: Obstructions of the kind that relate to the Schlüter process[1]: formal details, national rules and procedures, administrative practices etc., where it is extremely important to bring about effective and wide-sweeping changes.

Type B barriers: Hindrances that relate to long distances, deficient or lacking communication links, especially east—west connections, and expensive, time-consuming transportation.

All eight cross-border regions have worked actively, and continue to do so—albeit in different ways and with different effects—in an attempt to remove cross-border barriers. The reduction of type A cross-border barriers is of greatest importance and relevance for cross-border regions that one could call 'neighbouring regions', i.e. the Øresund Committee, the ARKO Cooperation and the Østfold-Bohuslan/Dalsland Border Committee. Cross-border regions that predominantly experience type A problems will benefit most from completion of the Schlüter process and the introduction of sound, practical solutions. In this respect, the cross-border regions have played a certain role in identifying practical cross-border obstacles. In particular, the work of the Øresund Committee has had a sharp focus on such efforts.

In many ways, cross-border regions that predominantly experience type B problems have faced, and continue to face, a more difficult task. Here an active effort is required over a longer period of time, particularly in respect of national authorities and the financing of both costly investments and the operation of new and improved forms of communication. Efforts designed to alleviate the impact of type B cross-border obstacles are of greatest importance and relevance for cross-border regions with a stronger character of 'transnational cooperation': NORA, the North Calotte Council, the Mid Nordic Committee, the Kvarken Council and the Skärgården Regional Cooperation.

The question of Nordic (regional cross-border) benefit and added value should not only be linked to the 'limited' definition of regional cross-border initiatives in order to reduce formal, administrative cross-border barriers ('the Schlüter process')—even though this is very important in itself, and is unanimously welcomed by the cross-border regions. This question can only be answered in a broader perspective. We do not share the view that the cross-border regions are doing too little about such 'administrative' cross-border barriers. Such a conclusion is only 'correct' if one defines the removal of barriers relating to customs formalities, tax issues, social security and pension benefits and other obstacles relevant to the labour market etc. as the only 'type of regional cross-border problems'. Equally important—and in many cross-border regions even more important—is the combating of cross-border obstacles of a physical nature or relating to communications, e.g. vast distances, the removal of flights and ferry links, and linguistic barriers etc. We feel it is necessary to discuss the principles of the NC-/NCM systems and/or to clarify whether 'regional cross-border success' shall only be measured on the basis of whether one succeeds in pointing out or contributing to reducing national, formal and administrative cross-border barriers, or whether one should adopt a broader perspective in this respect. In our opinion, both of these perspectives should be considered.

[1] The former Danish prime minister; Poul Schlüter is engaged by the NCM as a special advisor/negotiator in an enhanced effort to overcome the diverse obstacles to the free and unhindered movement, working, studying and staying in the Nordic countries.

The existing cross-border regions are voluntary organisations and there is room for extensions and reductions (III)

It is not possible to give one, clear-cut answer to the question of whether the existing regions are natural or not. The answer to this question cannot—or should not at least—come from the outside or from above. All the cross-border regions—with the possible exception of NORA—are grassroots grown, by dint of the fact that someone in each region once realised the value of cooperating over national borders. The cross-border regions are also membership organisations, they are voluntary organisations and they receive financial support from their members—in many cases funding that is equal to, or bigger than, the annual grant they receive from the NCM.

It would appear there are two interests or forces that drive the cross-border regions' voluntary initiatives:

- A genuine interest in, a belief in the benefit of and a joy in being involved in Nordic cooperation
- The experience and feeling that things do work, that it is possible to co-operate with one's neighbours on the other side of the border, and that more can be achieved when working as a team.

Some of the cross-border regions have adjusted their 'geographical boundaries' based on their own evaluations of what was correct and appropriate. The most recent instance of this was when the Østfold-Bohuslan/Dalsland Border Committee included the Dalsland region among its 'list of members' several years ago.

Like most voluntary organisations, the cross-border regions must bear in mind that co-operation of this type in general—and probably to an even greater extent in cross-border cooperative organisations, Where both the barriers of distance and language create major obstacles to cooperation—has to follow the pace of the smallest of partners. This creates a need for almost continuous motivational efforts, since cooperation must be forged under the old adage 'a chain is only as strong as its weakest link' This 'systemic coercion' means that one prefers tried and trusted methods rather than experimenting with territorial adjustments that may produce unexpected results and consequences.

Political priorities in the Nordic Council and the Nordic Council of Ministers can be communicated to the cross-border regions in a clearer and better way (V)

The cross-border regions do not consider NARP to be a particularly "demanding principal'. They regard the NCM regime as a far softer and considerably more flexible system than, say, the Interreg regime. Admittedly, some of the cross-border regions do state that they feel 'thoroughly evaluated', but this probably also has something to do with the fact that most of them have been subjected to all three periodical and mandatory Interreg evaluations—ex- ante, mid-term and ex-post—in some way or another.

- Our general impression is that NARP—if we disregard the relatively clear signals written into the current programme of action—has in its 'ongoing' management of the regional sector and the cross-border regions sent out few strong management signals. For example, we have not noted that NÄRP/NCMS have communicated clearly to the cross-border regions any changes in priorities with a basis in the changing leadership programmes.

Having said this, however, it should be added that the cross-border regions themselves state quite clearly that are willing to 'listen to' NARP, but that it is not always that easy

to understand if—and if so what—the NARP wishes to change during the action plan period.

The cross-border regions feel that neither they nor the activities in which they are involved, are particularly well known in other parts of the NC and the NCM systems. Nor do they have many good contacts with other sectors in the NCM system. In the opinion of some, this situation is unfortunate, but the time and resources available to each cross-border region provide little room for seeking out and making contacts, since the benefits of such activities are uncertain.

It is not only the cross-border regions whose understanding of the terms Nordic benefit/ Nordic added value is unclear (VI)

The terms Nordic benefit and Nordic added value appear to be relatively new in respect of the NC and NCM. It would also appear that the terms currently function more as a 'mantra' than as clear requirements or operational performance indicators.

As regards operationalisation of what constitutes 'Nordic cross-border regional benefit or added value', different levels of ambition may be found. Level I, which is the lowest level, can be defined in line with the EU's former level of ambition in Interreg A programmes: the requirement that each project or measure, must be dearly linked to border issues, involve partners from both/all sides of the border and, first and foremost, be an instrument for creating a sense of regional solidarity and cooperation. Measured in these terms, there is no doubt in our minds that most of the work carried out by the cross-border regions under their own direction, or as a co-financer in other parties' projects, would clearly score high marks in respect of regional cross-border benefit/added value.

One question begs an answer; however, is this a satisfactory level of ambition for NCM's cross-border programme regions? In our opinion, the answer to this question is no. Our reasoning for answering this way lies in the long traditions this form of cooperation has, and the vast range of experience that NCM and NARP have gleaned, or should have gleaned. In most cases, NCM's cross-border regions had already gained a great deal of experience as practitioners of concrete, cross-border co-operation when the EU made its first, fumbling attempts to achieve the same thing in the early 1990S. We feel that the efforts of the NCM in respect of regional cross-border cooperation should be measured against a yardstick that can be formulated or operationalised in this way:

Border region (name)	Participating countries land	Participating regions, administrative units etc.	Languages spoken
The North Calotte Committee	Finland Sweden Norway	Lappland—1 county and 21 municipalities Norrbotten—1 county and 12 municipalities Finnmark, Troms og Nordland – 3 counties and 89 municipalities	Finnish Swedish Norwegian Sami Tornedals-Finnish
The Kvarken Council	Finland Sweden	Osterbotten -1 county and 16 municipalities Vasterbotten and Ørnskoldsvik municipality—1 county and 57 municipalities	Finnish, Swedish

The Mid-Nordic Committee	Finland Sweden Norway	4 counties in Finland, 2 counties in Sverige and 2 counties in Norway	Finnish, Swedish, Norwegian
The Skargården Cooperation	Finland Åland Sweden	1 county in Finland, Åland, 3 counties in Sweden	Finnish, Swedish
The Border Committee of Østfold-Bohuslan/ Dalsland	Sweden Norway	1 county in Sweden, 1 county and 8 municipalities in Norway	Swedish, Norwegian
The ARKO Cooperation	Sweden Norway	4 municipalities in Sweden, 7 municipalities in Norway	Swedish, Norwegian
The Øresund Committee	Sweden Denmark	133 municipalities and 1 county in Sweden; 100 municipalities and the Metropolitan Region in Denmark (3 municipalities and 3 counties)	Swedish, Danish
NORA	The Faeroes Greenland Iceland Norway	The Faroe Island, Island and Grønland, 9 counties in Norway (Western and Northern Norway)	Danish, Faroese, Icelandic Iuit language Norwegian, Sami

'Nordic regional cross-border benefit, or the production of Nordic added value, occur when something that is of value to the inhabitants or the environment of the Nordic countries is created through common solutions based on, or supporting, regional cross-border solidarity. This effort would not be possible without a certain amount of support from the Nordic Council/Nordic Council of Ministers.'

Although it is not perfect, this definition largely corresponds with the official definition used by the Nordic Council/Nordic Council of Ministers in respect of their general operations. Measuring the cross-border regions against this yardstick, it is our opinion that they actually achieve good results, even though it can hardly be claimed that they themselves have any clear idea of how the terms should be operationalised. The cross-border regions appear to be in 'good company' here, however, since it is our firm impression that the same applies to most—if not all—of the other parts of or players within the NC and NCM systems.

IV: FOUR RECOMMENDATIONS—POTENTIAL FOR IMPROVEMENT AT A REGIONAL AND CENTRAL LEVEL

NÅRP can improve its control of the activities in *the cross-border regions*

NÅRP should consider adjusting its own organisation and its 'management' of the cross-border regions. There are certain deficiencies in the way the NC and NCM com-

municate their strategies Id overarching objectives downwards and out to the regional sector. It is necessary to secure a better link between the activities operated in the cross-border regions and the policies that overarching and professional bodies in the rest of the NCM system stand for. Operations need to be more goal-oriented. NÅRP and the NCMS should work to include as a routine that the annual leadership programmes for the regional sector are communicated quickly and clearly to the cross-border regions.

The 'Mid-term evaluation' of the cross-border regions in 2003 failed to reap the full learning potential

Work on the so-called self-evaluation—'Self-evaluation report 2003'—which NÄRP took the initiative in introducing took the form of a one-way interview. This survey method can hardly be said to have triggered the learning potential that such a mid-term evaluation can and should provide. There is little to indicate that the cross-border regions have since become more aware of the importance of publishing the Nordic results achieved by their operations. One important task for NÅRP—in collaboration with the cross-border regions—is to pave the way for more awareness and a firmer grip on what type of operational content one should include in the performance targets.

The cross-border region fail to make known the results and value of their work in an optimal way

There were deficiencies in the way the cross-border regions reported on their activities in last year's status reports. It emerges that it is difficult to describe in a brief and concise manner the professional and political results achieved. Some of the cross-border regions at the initiative of NÄRP have begun work on producing measurable indicators, but NÄRP has made no attempt to standardise this work, so individual cross-border regions have tried to produce their own performance indicators. As far as co-ordination and comparison across the cross-border regions is concerned, this is not the right way to go about things. NÄRP should focus on requirements relating to material content and clear, precise language rather than efforts to 'refine' quantitative performance indicators.

NÄRP and the cross-border regions must work together to systematise the unique experiences they possess in the field of practical cross-border cooperation

The cross-border regions have a potential for improvement in several areas. With the aid of NÄRP and NCMS; they must make a sustained effort to gather, gain an overview of and systematise the knowledge and experiences that each of the cross-border regions have acquired over the years in respect of practical and pragmatic cooperation in cross-border projects. In sum, this comprises a formidable cache of knowledge—a database of experiences—which is currently not operative, and which cannot therefore be utilised to its full extent neither in respect of the EU system in general or in respect of the Nordic Council of Ministers' regional strategy.

Source: Skålnes S. and Moen B. (2004), *Nordisk grenseregionalt samarbeid—gamle utfordringer og nye muligheter.* Anbefalinger og dokumentasjon til kontrollkomiteen i Nordisk Råd. NIBR Notat 2004: 122, Oslo.

EUROPA XXI
2006, 14: 219–231

CONSPACE REGION—A COUNTER BALANCE TO SPATIAL POLARIZATION IN THE EUROPEAN UNION

SIMON KUŠAR

University of Ljubljana, Faculty of Arts, Department of Geography
Askerceva 2, SI – 1000 Ljubljana, Slovenia
e-mail: simon.kusar@ff.uni-lj.si

Abstract: The CONSPACE project was launched in 2003 as a part of the Interreg IIIB Cadses Operational Program with an ambition to create a macro region that could act as a counter balance to spatial polarization in the European Union. The project aims are improving the harmonisation of spatial planning, better mutual knowledge of planning principles and strategies, the elaboration of common strategies for spatial development and the preparation of implementation of actions. The paper presents selected spatial planning issues on the regional (CONSPACE) and subregional (project partners) level. At the end some future challenges and opportunities are discussed.

Key words: Regional development, spatial planning, spatial polarization, interregional cooperation, Interreg IIIB Cadses, European Union, CONSPACE

SPATIAL POLARIZATION IN THE EUROPEAN UNION

To become the most competitive economy based on knowledge on the world and to increase economic and regional cohesion is a key development paradigm of the European Union (EU). But the analysis of economic, social and spatial data somehow reveals a different picture. Spatial development is faster and higher in only a small number of regions. The development core with highly developed area of the supranational association is more or less limited to Germany and Switzerland and part of the Atlantic Europe (south-eastern United Kingdom, northern part of France, Luxemburg, Belgium, Netherlands). This kind of spatial structure was well described as the Blue Banana, which is stretching from

southeast United Kingdom, across western part of Germany and through Switzerland to north of Italy. The European Spatial Planning Observation Network (ESPON) uses the term 'Pentagon' to describe the core area between London, Paris, Munich, Milan and Hamburg, where 40% of the population lives that create 50% of GDP on only 20% of the territory of the European Union with well developed infrastructure, while the rest of the European Union is referred to as a periphery. Promotion of territorial balanced and polycentric development is therefore an essential precondition for achieving territorial cohesion and balanced development for a competitive, innovative and sustainable Europe.

Further economic development of the European Union can lead to an even more unbalanced regional/spatial development. Thereby, there is a need for common action of different institutions on the macro and micro regional level (European... 1999) to reorient existing spatial trends in the European Union toward a more balanced regional/spatial development. This tendency is not new in the European praxis. Regional planning has already strongly contributed to a more balanced regional development in nations already in the 50s of the 20th century. Common approach for solving problems connected with uneven development has been important in the European Union and its prior forms, too. But new conditions connected with globalization, enlargement of the European Union and sustainable development are calling for a somehow different kind of actions oriented toward assuring an economic and social welfare and safe environment for citizens in all European regions.

What makes Europe and particularly the European Union so special and comparatively better than rivalry forces of Asian countries and United States of America are their richness in natural, cultural and spatial amenities. This geographical fact could and should be activated as a potential for the increased or even new development in areas lagging behind. CONSPACE project which was launched in 2003 as a form of interregional cooperation in the southern fringe of the European Union is an example of the action how once more or less peripheral regions can become a new grape 'in a desirable future for Europe' (Dühr 2003) illustrated through the European Green Grapes context.

CONSPACE PROJECT REGION: FROM PERIPHERY TO NEW GROWTH POLE

THE INTERREG III B CADSES PROJECT

The project CONSPACE (Common Strategy Network for Spatial Development and Implementation) was launched in 2003 and it deals with topics of integrated regional planning and sustainable regional development. It aims at improving the harmonization of spatial planning, better mutual knowledge of planning principles and strategies the elaboration of common strategies for spatial development and the preparation of implementation of actions. It is realized as part of the INTERREG III B CADSES Operational Programme, which aims at achieving a higher territorial and economic integration within the co-operating area, promoting a more balanced and harmonious development of the European territory.

CONSPACE project partners are spatial planning authorities representing ten regions in five nations: Carinthia (A), Styria (A), Veneto (I), Friuli-Venezia Giulia (I),

Gorizia (I), Slovenia (Sl), Croatia (HR), Primorsko-Goranska (HR), Istria (HR) and South Transdanubian regional development agency (Baranya, Somogy and Tolna, HU), (Figure 1). The territory covered by the partner regions forms a European macro-region at the intersection of Alpine, Adriatic and Danubian space. Four big European cultures (Romanic, Germanic, Slavic and Finno-Ugric), different social and administrative systems, different planning systems and professional traditions challenge the process of European integration in the partner area, which might serve as a showcase for the rich variety of cultural and natural heritage in Europe (<www.conspace.info>).

The CONSPACE project is carried out in the EU Future Region. A majority of the partner regions of the Future Region takes part in the project CONSPACE. The EU future region emerged on the political level initiated by the industry interest group. The EU Future Region is an interregional co-operation that aims at contributing towards the establishment of better conditions for the social and economic unity and the creation of better competitive conditions for the joint economic area that encompasses more than 17 million inhabitants, making use of the existing opportunities. It was founded in 2002. Objective is the development of coherent neighbourhood policies and measures in particular in connection with the EU extension (Bory and Puchinger 2005).

There has already been a tradition of interregional cooperation within the region within the framework of the ALPE-ADRIA. The previous period of INTERREG has also been used to intensify this process of exchange. However, these processes never

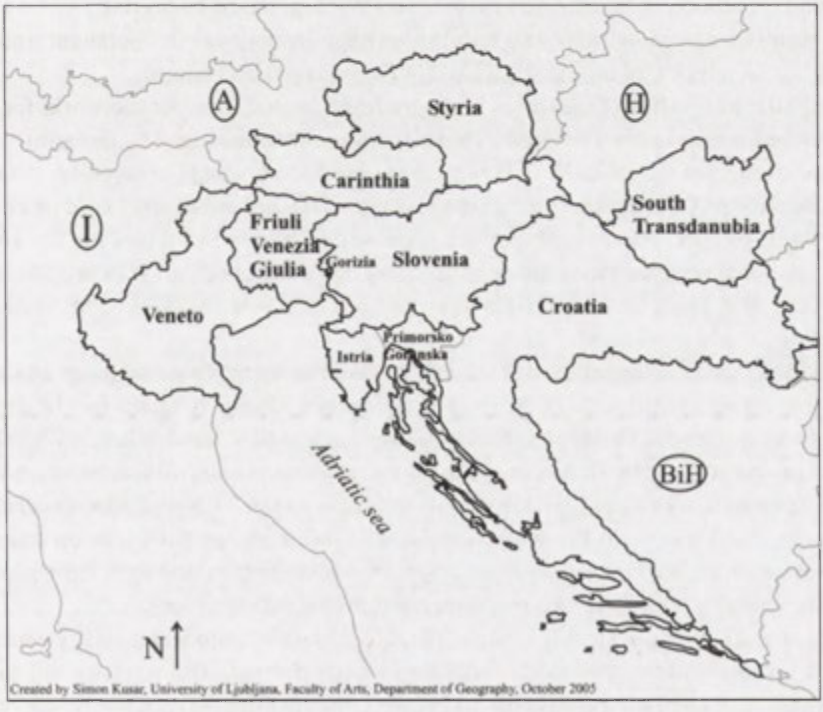


Figure 1. Partners in the CONSPACE project

reached the level of joint cohesive action, nor were consistent basics produced or common regional development strategies for mutual benefits developed. But most importantly, are the still existing quite different administrative structures, planning systems, planning philosophies and systems of basic information needed for regional development issues (Community... 2003).

The project is organized into 6 work packages (WPs) whereof the first comprises the project management. The central objective is to get acceptance of a transnational regional development strategy that shows the way to advance and improve existing spatial structures and to reduce regional disparities. This common transnational strategy referring to physical/spatial planning will be oriented at the triangle of objectives of the European Spatial Development Perspective (ESDP) and based on already existing experiences of the project partners. It is based on 4 thematic approaches, which are relevant to the administrative, socio-economic, natural and cultural context of the region (Bory and Puchinger 2005).

The 4 thematic approaches are elaborated in the WPs 2, 3, 4 and 5 (Bory and Puchinger 2005):

- Enhancement of the cohesion of planning tools and procedures, of the compatibility of existing planning databases and information instruments and of planning attitudes (WP2 managed by Slovenia).
- Development of a common understanding of the logical framework, the content and the elements of balanced spatial development planning of polycentric spatial structures and promotion of innovative instruments (WP3 managed by Styria).
- Maintenance of cultural and natural heritage in regional development and their integration in physical planning strategies (WP4 managed by Veneto).
- Spatial integration of measures for upgrading regional transport networks for a better interconnection to the TEN and TINA corridors (WP5 managed by Gorizia).

Expectations of the CONSPACE project are connected with (Community... 2003):

- formation of a consistent set of core planning data and indicators based on compatible systems of GIS. These databases are supposed to be used as a tool for the analysis of transnational regional development indicators, for the identification of mutual impact of the accession process on both sides as well as for actions in the field of environmental protection;
- analysis and documentation of the existing development plans and programs as well as the underlying planning procedures and approaches. Useful elements for the development of a transnational development strategy were expected to be identified with a specific focus on the polycentric structure of the region, its natural and cultural heritage and on the interconnection of its regional transport networks to the TEN and TINA corridors;
- creation of the 'to-do-list' which indicates desirable and useful follow up actions on different administrative or legal levels to secure a sustainable consistent framework for common action in the future and recommendations for policy actions;
- preparation of a draft of a transnational regional development strategy which will be used for political acceptance procedures by each partner. The strategy will include the detailed and communicable goals and visions, the identification of the resources and stake holders, the definition of development chances with special emphasis on innovation

and structural change, a general time schedule for actions and a set of strategic measures of implementation.

The CONSPACE project is trying to contribute to the process of territorial cohesion and reduction of regional disparities and to eliminate the resulting strategic inconsistencies which have a negative impact on a more balanced development of the region in order to position the region as a well known, integrated and highly appreciated business and wellness region in Europe (www.conspace.info/html/project_goals.html). The CONSPACE region is supposed to become a new growth pole on the southern fringe of the European Union that could act as a counter balance to spatial polarization in the European Union.

SOME GEOGRAPHICAL CHARACTERISTICS OF THE CONSPACE PROJECT REGION THAT CAN SERVE AS POTENTIALS FOR NEW GROWTH

The CONSPACE project region is stretching from the Italian coastal plane in Veneto region with famous Venezia, western part of South Alps, Dinaric plateau of Slovenia and Croatia and through hilly vineyards of eastern Slovenia and Styria to the southwest of the vast Pannonian plane. The region is therefore characterized by highly diverse types of landscape and physical structure including alpine and coastal zones, in which lies a vast natural and cultural heritage (Figure 2).

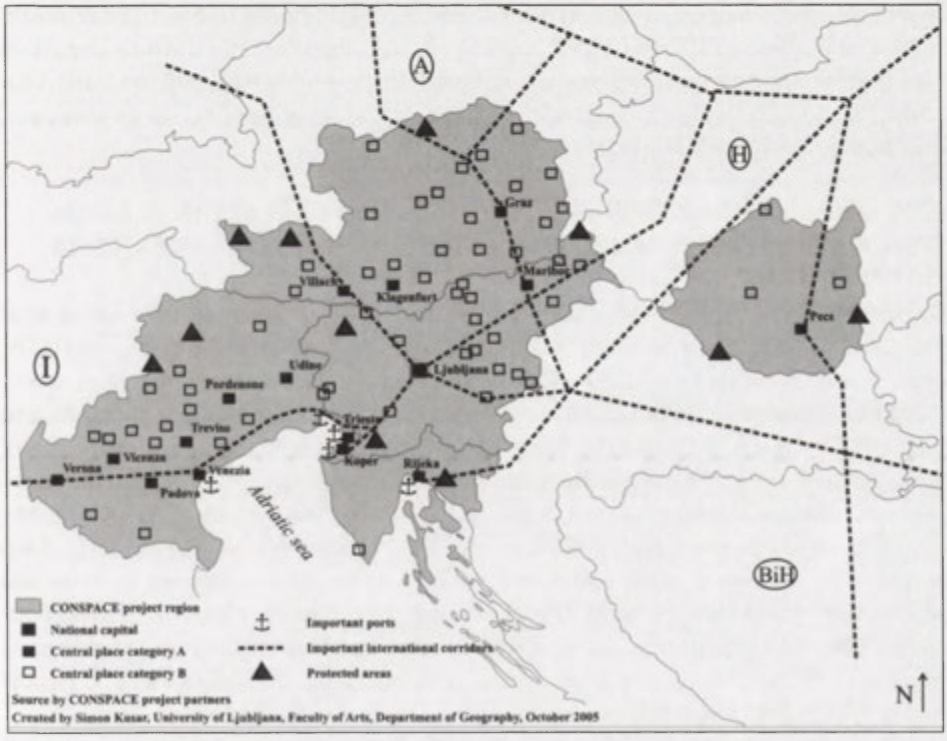


Figure 2: Spatial structure of the CONSPACE project region

CONSPACE region has more than 137,000 km² and almost 15 million inhabitants. The CONSPACE project region is a region where different cultures, languages and religions meet: Romanic, Germanic, Slavic and Finno-Ugric/Hungarian. The region was characterized also by different political systems in the past. Italy and Austria were democratic countries, Hungary belonged to the Soviet block, while Yugoslavia was a socialist country, too, but with a different system of governance than Hungary. In the last part of the 20th century a major political shift was occurred which enabled better interregional cooperation in the economic, environmental and spatial planning sphere.

The common feature of the region's urban structure is the lack of European metropolis within the region. CONSPACE region is organized in a very polycentric way through the system of central places which build the backbone of the settlement structure without a dominating agglomeration. The most important settlement is Ljubljana, which is the only national capital in the region (Zagreb is not included here, because Croatia does not fully cooperate in the project). The region lies in between the 'European engines' Vienna and Milan and the 'potential MEGAs' of Budapest and Bologna as they are described in the ESPON categorization. The network of research institutions is well developed (Bory and Puchinger 2005).

The CONSPACE project region has an important traffic position. It is situated in the most northern inflow of Mediterranean basin. At the Adriatic Sea shore there are many ports (Rijeka, Koper, Trieste, Monfalcone, Venice) which are important nodes for the freight shipped from Asian and African countries. Additionally, the net of the north/south and east/west TEN and TINA corridors in this region creates a strong impact on the improved transnational and mutual multimodal accessibility (sea, rail, road, air), economic location development, economic exchange and future prosperity (<www.conspace.info/html/project_goals.html>).

GEOGRAPHICAL CONTRIBUTION TO THE PROJECT: ANALYSIS OF SPATIAL PLANNING SYSTEM, INDICATORS FOR MONITORING SPATIAL DEVELOPMENT AND MEASURING SPATIAL POTENTIALS

Regional/national planning administration bodies are key partners in the CONSPACE project, nevertheless, it is possible for individual academic institutions to be engaged in the process of implementation of the project work as external contracted co-operators, too.

Slovenia is represented through the Ministry of environment and spatial planning in the CONSPACE project. Since the Work package 2 is strongly methodologically oriented, public invitation for tenders was launched in which a team of experts in spatial and regional planning/development of the Department of Geography Faculty of Arts University of Ljubljana was chosen (prof. Andrej Cerne, Ph.D., Simon Kusar, M.Sc.). This group prepared the analysis of goals, indicators and data of spatial development in states and regions included in the CONSPACE project, a proposal for the enlistment of ideal/optimal indicators for monitoring spatial development and it also proposed a set of indicators which could be used for determining development potentials of the CONSPACE project region. Methodology sheets were prepared for all mentioned indicators.

The analysis of spatial planning legislation and systems in all CONSPACE partners shows, that despite some fundamental differences in spatial planning procedures there

are also some important similarities, which can serve as a basis for future common handling with development challenges and opportunities. The whole spatial planning system is highly influenced by the national spatial/regional policy. In all CONSPACE partners there are different territorial levels with different competences and responsibilities in the field of spatial planning. Subsidiarity is becoming stronger and stronger with municipal and supramunicipal level receiving more obligations and rights. All partners have similar key planning principles aiming at even economic, social and cultural development, environmental protection, coordination and cooperation, public participation and decentralization of decision making. The system of spatial planning is strongly influenced by sectoral plans, except in the case of Hungary, where mutual cooperation between various sectors and regional authorities is the praxis. Validity of planning documents is in all CONSPACE partners the subject of time limitation, revision or changes, except in Veneto region where there are no fixed deadlines for the plans. There are some differences between CONSPACE partners according to the power for coordination at different levels and according to the adoption and implementation of spatial acts, nevertheless, cooperation and coordination between different levels is very important. Horizontal and vertical concordance of plans is more or less compulsory. The principle of mutual consideration and framework control is of high importance, too. Environmental impact assessment is a legally prescribed planning practice in contrast with the strategic impact assessment which is not yet introduced but in the phase of discussion. Information on public-private partnership is rare, so it is very hard to make clear and firm statements. It is important to set out that spatial policy and regional policy are strongly intertwined (erne and Kušar 2004).

The following common problems of spatial planning can be pointed out (erne and Kušar 2004):

- the planning process is still being built up in most of partners, because there were important changes in the national and regional spatial policy in the 1990s;
- a lack of coordination between different levels of spatial management;
- spatial planning documents are lagging behind needs;
- spatial planning is rigid and complicated.

All CONSPACE partners have many spatial (regional) planning goals (Table 1), which are connected with sustainable development and assurance of welfare for all citizens. Similar goals are protection of the landscape, development of accessibility and transport managing and welfare of the population. There are many goals that are used in only some CONSPACE partners. Those goals are strengthening regional identity, development of economic and social structure, preservation of (spatial, bio) diversity, protection form natural hazards, protection of the natural environment, preservation of cultural heritage, development of settlement structure, etc. Each CONSPACE partner has some individual regional (spatial, developmental) characteristics which reflect in the spatial policy goals (e.g. Carinthia makes a strong emphasis on the assurance of spatial precondition for the development of tourism) (Černe and Kušar 2004).

The enlistment of ideal indicators for spatial development monitoring in the states and regions included in the CONSPACE project was conducted for various reasons: to analyze the spatial/regional structure and functions of the territory of CONSPACE part-

Table 1. Spatial planning goals in the CONSPACE partners

Number of the spatial planning goal	Spatial planning goal	Number of CONSPACE partners with the selected goal (max = 6)
1.1.	Ensurement of spatial preconditions for an efficient economy	4
1.2.	Strengthening of the regional identity	3
1.3.	Development of economic and social structure	4
1.4.	Strengthening the power of the region	3
2.1.	Preservation of the functioning capacity of ecosystems	1
2.2.	Preservation of (spatial, bio) diversity	3
2.3.	Rehabilitation of excessively polluted environment	2
2.4.	Protection from pollution	4
2.5.	Protection from natural hazards	3
2.6.	Protection of the landscape	5
2.7.	Protection of the natural environment	3
3.1.	Protection and further development of natural resources (water, agriculture land, forests, raw materials)	5
3.2.	Preservation of cultural heritage	3
4.1.	Provision of population with commodities, goods and services	4
4.2.	Development of settlement structure	4
4.3.	Polycentric development of settlement structure	3
4.4.	Development of regional centres	2
5.1.	Development of accessibility and transport managing	6
6.1.	Preservation of spatial preconditions for different usage	3
6.2.	Waste disposal	1
7.1.	Cohesion between central and peripheral areas	5
7.2.	Integration into EU systems	1
7.3.	Cross border cooperation	2
7.4.	Assurance of social tolerance/cohesion/equal opportunities	5
7.5.	Welfare of the population	6
8.1.	Improvement of spatial management	2

Source: Černe and Kusar 2004.

ners, to find out its basic factors of development, to determine, according to the spatial/regional structure and functions, the role of the spatial development in respective regions within the territory of the CONSPACE partners, and to evaluate its spatial structure and functions in relation to the spatial structure of the EU and the selected European regions. 102 indicators were selected on the basis of indicators used in the Comparative analysis of goals, indicators and data of spatial development in the states and regions included

in the CONSPACE project, indicators used for European Spatial Planning Observation Network (ESPON), Monitoring the Alpine Region's Sustainability (MARS) and cohesion objectives achievement (A New Partnership for Cohesion). Indicators were arranged in 10 groups. Each group as well as each indicator within the group is discussed separately. According to the availability of the enlisted ideal indicators in the CONSPACE partners they were arranged into 3 main groups: key, core and research indicators (Černe et al. 2004). For each indicator a methodology sheet was prepared, which serves as an identity card for the indicator, containing important information about its unit, calculation, importance, possible variation, criteria for its selection together with availability of data, connection with CONSPACE goals, argumentation and reference for the indicator (Černe at al. 2005b), (Table 2, 3).

Table 2. The list of groups of proposed indicators for monitoring spatial characteristics of the CONSPACE project region

Groups of indicators	Number of key indicators	Number of core indicators	Number of research indicators	Overall number of indicators
Demographic structure	6	0	4	10
Socio-economic structure	10	0	10	20
Settlement structure	2	1	5	8
Countryside	0	5	5	10
Quality of living	0	1	6	7
Infrastructure	5	5	16	26
Land use	0	5	2	7
Protected areas	1	0	3	4
Degraded areas	0	1	5	6
Endangered areas	0	0	4	4
Total	24	18	60	102

Source: Černe at al. 2004.

Table 3. Information collected for each indicator included in the methodology sheet

Group	Information
Key information	Name, unit, calculation, importance (key, core, research), possible variation
Criteria	Connection with ESDP goals, availability of data, spatial level resolution, comparability of data
Classification	Group, content, connection with CONSPACE goals, connectedness with other indicators
Argumantation	Argumentation, reference, source of data, spatial level, geographical extent, time frame, remarks/comments

Source: Černe et al. 2005b.

Inputs for the elaboration of forecast indicators for measuring development potentials of the CONSPACE project region are results from all PA and WP and some additional scientific sources (Table 4). Indicators are used for measuring existing spatial potentials and for the identification of future (planned, proposed, projected) spatial potentials. They are arranged in 6 groups with altogether 29 indicators. They will serve as a basis for the evaluation of possible future development trends in the CONSPACE project region (Černe et al. 2005a). Methodology sheets were prepared, too (Černe at al. 2005b).

All stages of the project work were presented at the WP meetings on different locations throughout the CONSPACE project region (Klagenfurt, Cortina d'Ampezzo, Pecz, Graz).

Table 4. The list of indicators for measuring (spatial) development potentials of the CONSPACE project region

Group of indicators	No.	Indicators (name)
Transportation networks	1.1.	Transportation connections (existent, planned)
	1.2.	Transportation junctions (existent, planned)
	1.3.	Stations (existent, planned)
	1.4.	Transportation multimodal nodes (existent, planned)
	1.5.	Passenger and freight traffic (existent, planned)
	1.6.	Passenger and freight traffic: multimodal nodes (existent, planned)
Economic zones/ development sites	2.1.	Industrial and service sector share of GDP
	2.2.	Employed in industrial and service sector
	2.3.	Economic zones/development sites (existent, planned)
	2.4.	Commercial zones (existent, planned)
	2.5.	Industrial sites (existent, planned)
	2.6.	Commercial/industrial zones (existent, planned)
	2.7.	Technological and industrial parks (existent, planned)
	2.8.	R&D parks (existent, planned)
	2.9.	Warehouse/storehouse (existent, planned)
	2.10	Other specialized areas (existent, planned)
Urban networks	3.1.	Urban networks (existent, planned)
Infrastructure for tourism and recreation	4.1.	Tourism sector share in GDP
	4.2.	Centres of tourism and recreation (existent, planned)
	4.3.	Areas for tourism and recreation (existent, planned)
	4.4.	Infrastructure for winter and summer tourism and recreation (existent, planned)
Landscape areas and areas of natural and cultural heritage	5.1.	Landscape areas and areas of natural and cultural heritage (existent, planned)
Social infrastructure	6.1.	Universities (existent, planned)
	6.2.	Educational and qualification structure (existent, planned)

Source: Černe at al. 2005a.

The group of experts from the Department of Geography will be engaged also in the creation of the final report of the WP 2 which will contain:

- planning attitudes, planning procedures and legal aspects in the participating countries;
- review of types of data and indicators;
- review of available data, indicators and information systems;
- recommendation for the adaptation of a common terminology and unified set of measurable indicators;
- synergies between different regional pilot projects;
- recommendations for future action;
- final conclusions.

CONSPACE REGION: FUTURE CHALLENGES AND OPPORTUNITIES

The greatest importance of the CONSPACE project lies in the interregional cooperation of planning administration bodies of different regions in the southern fringe of Alps. The spatial structure of the project region could enable better regional development opportunities in the future, but before that some additional research has to be done in order to enable a successful development and interregional cooperation, identification of endogenous potentials and creation of strategies that would stimulate them. That means that after the conclusion of this programming period there is a need for another one.

However, some challenges of the CONSPACE project can be defined which have to be considered now and in the future if the CONSPACE project region really wants to became a counter balance to spatial polarization in the European Union.

One of the biggest challenges is probably the fact, that the CONSPACE project region is not spatially contiguous. The state of Croatia, which officially is a project partner, does not actively participate in the project work. The result of this is that Hungarian planning region South Transdanubia is not spatially connected with the rest of the CONSPACE project region. This fact makes the identification of CONSPACE space as a region a huge obstacle in the theoretical and practical sense.

The next question is connected with the political will of the stakeholders of each CONSPACE partner. Although institutions engaged in the creation of the common transnational and interregional strategy are the official planning bodies, it is not clear, if they have the support of their politicians. Results of all stages of the CONSPACE project should be presented to politicians on the regional level permanently. If support from the highest political level in each partner will be doubtful or even absent, the future development of the whole macro region is jeopardized.

Some pilot actions are strictly local specific and sometimes they are even opposed with plans of other project partners, which can destroy a good interregional cooperation. The preparation of spatial planning documents for the high-speed rail in Carinthia (Austria) connecting Villach and Klagenfurt can be stated as an example. According to the plans in Austria that line is the missing chain between already built or planned high-speed rail in Austria close to the V. European corridor, but bypassing Slovene corridor for high-speed

railway between Trieste (Italy), Ljubljana (Slovenia) and Zagreb (Croatia). European Commission probably won't support the construction of two high-speed railways so close to each other. There are several ports in the Northern Adriatic Sea, which are not working together in attracting flows of goods from Asian countries. Instead of mutual cooperation strong rivalry exist between them, especially between the ports of Rijeka (Croatia), Koper (Slovenia), Trieste and Monfalcone (both in Italy).

The nature of the CONSPACE project is more analytical in its nature, but the proper synthesis with future spatial planning tasks is missing. All pilot actions lack clear connection to the main goals of the project. WP 6 is engaged in the creation of joint strategy, but its task is going to be very difficult.

There is still much work to be done. The GIS system for the whole CONSPACE region has to be introduced. The region has to be analyzed according to the proposed uniform set of indicators for monitoring regional-spatial development and spatial potentials should be evaluated as well. Many additional analyses have to be done, which will show the position of the CONSPACE project region in the system of other European macroregions and to the EU average. After those analyses are done, the most important step is to be followed, namely the real strategy has to be prepared that will define future steps in achieving CONSPACE region as a new growth area in the European Union, where endogenous spatial and regional sources are used in a sustainable way for achieving welfare of population and all subregions.

REFERENCES

Bory, B. and Puchinger, K. (2005), Polycentric development in the CONSPACE region. Recommendation report, 1st draft. CONSPACE—WP 3: Polycentric spatial development.

Community Initiative INTERREG III B (2000–2006),(2003), CADSES Application Form, Revised Version 2, February.

Černe, A. and Kusar, S. (2004), Comparative analysis of goals, indicators and data of spatial development in the states and regions included in the CONSPACE project, CONSPACE—PP5–WP2, Harmonisation of Tools, Data and Procedures and Monitoring of Spatial Development (Gulič, P.), Oddelek za geografijo, Filozofska fakulteta, Univerza v Ljubljani.

Černe, A., Gulič, P. and Kusar, S. (2004), Proposal for the enlistment of ideal/optimal indicators for monitoring spatial development in states and regions included in the CONSPACE project, CONSPACE—PP5–WP2, Harmonisation of Tools, Data and Procedures and Monitoring of Spatial Development (Gulič, P.), Oddelek za geografijo, Filozofska fakulteta, Univerza v Ljubljani.

Černe, A., Gulič, P. and Kusar, S. (2005a), Proposed group of forecast indicators for measuring development potentials of the CONSPACE project region,. CONSPACE—PP5–WP2, Harmonisation of Tools, Data and Procedures and Monitoring of Spatial Development (Gulic, P.), Oddelek za geografijo, Filozofska fakulteta, Univerza v Ljubljani.

Černe, A., Gulič, P., Kusar, S. and Lenarčič, L. (2005b), Methodology sheets of indicators for monitoring regional-spatial development, measuring development potentials and spatial development of the CONSPACE project region, CONSPACE—PP5–WP2, Harmonisation of Tools, Data and Procedures and Monitoring of Spatial Development (Gulic, P.), Oddelek za geografijo,

Filozofska fakulteta, Univerza v Ljubljani.
Dühr, S. (2003), Illustrating Spatial Policies in Europe, European Planning Studies, 11: 929–948.
European Spatial Development Perspective (1999), European Communities.
<www.conspace.info> (19.9.2005).
<www.conspace.info/html/project_goals.html> (17.9.2005).

1998

EUROPA XXI, 1—Sieć komunikacyjna Polski w europejskich procesach integracyjnych.

EUROPA XXI, 2—Przestrzeń Europy Środkowej—przykłady transformacji.

1999

EUROPA XXI, 3—Obszary szczególnej troski i nowych możliwości rozwoju na przykładzie Polski i Ukrainy.

2000

EUROPA XXI, 4—Powiązania handlowe Polski z Europą. Z debaty o przyszłym kształcie zjednoczonej Europy.

EUROPA XXI, 5—Przestrzeń ekologiczna Polski. Dekolektywizacja rolnictwa i sytuacja zdrowotna w Europie Środkowej, Wschodniej i Południowo-Wschodniej.

2001

EUROPA XXI, 6—Integracja europejska—dylematy spójności i konwergencji regionalnej.

2002

EUROPA XXI, 7—Slovakia and Poland. Urban, social and demographic questions. Relation between neighbours.

2003

EUROPA XXI, 8—European space in the face of enlargement. The West to East European Trajectory Project.

EUROPA XXI, 9—Polska i Europa. Kształtowanie przestrzeni wolności.

EUROPA XXI, 10—Society and environment. Towns and settlement in Europe.

2004

EUROPA XXI, 11—Przestrzeń Europy. Przestrzeń Unii Europejskiej.

2005

EUROPA XXI, 12—Central and Eastern Europe: Changing Spatial Patterns of Human Activity.

EUROPA XXI, 13—New Spatial Relations in New Europe

PL – ISSN 1429-7132
INSTITUTE OF GEOGRAPHY AND SPATIAL ORGANIZATION, PAS
WARSZAWA