THE SPATIAL CONFIGURATION AND SETTLEMENT NETWORK OF THE REGION OF SOUTH TRANSDANUBIA

by

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1. Introduction

The spatial category of the South–Transdanubian region was defined during the last decades within different territorial frameworks, thus a kind of "pulsation" is observed. Since the 1970's the delimitation with four counties (Baranya, Somogy, Tolna, Zala) and later, in the current regional development and territorial planning procedures the delimitation of three counties was favoured. Both delimitations were bound with central and territorial intentions and interests.

The territory of the Danube–Drava National Park (DDNP) founded in 1996 covers only a smaller part of the Transdanubian region. Yet the national park covers territories, which are not included in the different delimitation of the South–Transdanubian region, since it also integrates minor areas of Bács–Kiskun county.

The Croatian territories beyond the Drava River are in many respects similar to South–Transdanubia. The most similar are physical

geographical features and also the peripheral situation with its negative consequences as compared to the centre.

The idea of the establishment of the Danube–Drava National Park was first raised and later formulated as a cross-border concept covering both banks of the river. Finally, due to the divergent intentions in terms of the utilisation of the Drava River, no protected are was established in the form of a national park on the Croatian side.

The investigated area includes the DDNP and is appropriate to describe the broader territorial interconnections and spatial structural elements. We included the Hungarian counties along the frontier as well as the Croatian medium level administrative units, the zupanijas in the analysis. The selected area enabled us to indicate the extremely special spatial structure position in the peripheral and frontier location of the DDNP, yet one of the potential site of future, high capacity transportation systems.

2. The features of spatial pattern and settlement network in South–Transdanubia and the neighbouring Croatian areas

The Mura–Drava River system divides into two parts and, at the same time, integrates the geographic territory between the Danube–Drava–Sava watershed. A long section of the Drava River served anyway not only as a physical geographical and administrative but also as an ethnographical border.

Besides the long-term impacts of the physical geographic environment the spatial configuration and settlement network of the territory was determined by changing historical processes.

By the 1990's the system of the macro-regional configuration and transportation lines was complete in the region. A decisive feature of these systems is the dominance of the international relationship–structural line between the two capital cities (Budapest and Zagreb).

The Danube has been traditionally the channel of international communication. Therefore, along the Danube (in a sensitive area) another configuration line of potential international importance emerged. Its real relationship character is not defined by bilateral but wider international demands, interests and opportunities. Due to the insecure situation resulting from the Yugoslav war during the 1990's the Danube can be defined as a spatial configuration axis of national importance.

Alongside both sides of the Mura–Drava Rivers an axis of transportation and settlement network emerged. For both countries this axis is of secondary importance as compared with the central configuration directions.

Therefore along both sides of the border similar spatial patterns and settlement networks emerged (table 1.). A common element is that along the Drava River urban zones include small towns or in a functional sense rather incomplete groups of small towns. The economic and servicing centres with higher population are in both countries located further away from the Drava River.

One of the essential features of the common frontier is the fragmented settlement system, yet in the Croatian side the special administrative system of community networks may "hide" this type of fragmented character.

The future economic, social and territorial processes will be significantly influenced by the way of emergence of a kind of matrix configuration between the territories divided by the state border. (A Schengen character will be received following the EU accession of Hungary.) The dense, matrix type configuration can significantly contribute to the economic development of the region while it may be an important risk factor for the DDNP due to the significant growth of traffic intensity.

2.1. Configuration and settlement characteristics of the protected zone of the DDNP

The protected, i.e. strongly protected territory of the Danube–Drava National Park has a disperse structure. The areas selected for protection are located in space isolated from each other along the Danube and Drava Rivers. The protected zone of the DDNP frames and integrates the protected areas with a different deepness and covers totally 3014 km^2. The territory consists of three parts: the areas along the Drava and Danube Rivers and the frontier of the Baranya triangle. The latter includes no protected areas.

In public administrative terms the DDNP covers territories of four counties (Baranya, Bács–Kiskun, Somogy and Tolna), yet in different amounts. The protected zone covers in Baranya county 1108, in Bács–Kiskun 724, in Somogy 715 and finally in Tolna only 468 km^2. The territorial division of the totally 225 thousand inhabitants of the four counties also shows significant differences (Baranya 67, Bács–Kiskun 63, Somogy 36 and Tolna 59 thousand). From among the county seats the territory of Szekszárd is part of the DDNP, while Kaposvár and Pécs are concerned only indirectly in the background and Kecskemét only formally.

2.1.1. Spatial configuration relationships and features

In terms of location the territory of the Danube–Drava National Park is peripheral both within the country, South–Transdanubia and also the certain counties. The location of the DDNP is peripheral not only in a topographical sense but for the economy, supply, gravitation, and also for the development policy of Tolna county.

The territory of the DDNP appears within the national, regional and county configurations not in its internal unity but specified and determined by an external power axis, i.e. as a fragmented territory.

The cross-border transportation links of national importance are concentrated in three areas (Gyékényes – rail, Barcs – road, and the Danube River) within the territory of the DDNP. These rail, road and water linkages are of national importance.

The border crossing points at Berzence, Drávaszabolcs, Udvar and Herczegszántó on road and at Magyarbóly on rail are of regional importance. It is remarkable that along the section between Drávaszabolcs and Barcs neither local, nor regional cross-border relationships were established. This section of the border, i.e. this area of the DDNP is the most intact in terms of transversal relationships.

In the area of Beremend a border crossing point of local importance was established, the opening of which was for years one of the most important demand of the micro-region.

From among the interregional configuration lines and relationships in the territory of the DDNP the South Hungarian interregional relationship between Bátaszék and Baja is the strongest. The rail and road traffic connections between the two South–Hungarian regions are the most intensive along this axis.

2.1.2. Settlements and inter-settlement relationships

The area covers altogether 122 settlements and part of settlements (Drávaszentes, Somogytarnóca is part of – Barcs, Mözs – of Tolna and Révfalu of Drávakeresztúr in administrative terms) shows a variety of settlement and settlement network features. The settlement density of Baranya county is especially high, 6,4 settlements per 100 square kilometres, in Somogy county 4,1, in Tolna county 1,5 while in Bács-Kiskun county only 1,4 settlements per 100 km^2.

Population density in the DDNP is quite different by counties: in the parts belonging to Baranya county 60,8, Bács–Kiskun county 89, Somogy county 50,6 and Tolna county 127 persons per km^2. Therefore the density exceeds the national average only in Tolna county, while in Somogy it remains below the half of the national average.

The average size of settlements in the protected zone of the DDNP – due to the small area and low number of settlements not really appropriate to draw consequences and has only theoretic importance – is 944 in Baranya county, 5700 in Bács–Kiskun county, 1248 in Somogy county and finally 8538 inhabitants per settlement in Tolna county. This indicator implies that the density of the protected zones in Bács–Kiskun and Tolna county is high therefore requires a different treatment than the other two counties.

There are significant differences in terms of territorial division, the functional development level and the proportion of the urban population by counties. In the territory of Baranya county the cities of Siklós and Mohács reach the functionally developed small town level, while Harkány and Villány can be described as small urban centres with in many respects lacking functions. The proportion of the urban population in the protected zone exceeded 50%. Yet the territory in the protected zone belonging to Baranya county is divided into two parts in terms of urban functions: the area to the west from the road between Harkány and Drávaszabolcs is lacking towns and centres.

Sellye, as a small urban centre lacking functions is located beyond the borders of the investigated area and is unable to integrate the gravitation zone relationships of the region. Some settlements within the protected zone gravitate towards Szigetvár and the other part towards Pécs.

In Bács–Kiskun county is the town of Baja with the functional development level of a medium size city from many aspects in a determining position within the protected zone of the DDNP. Baja with over 38.000 inhabitants accommodates more than 61,2% of the population of the entire protected zone, and from functional aspect it is more determining. Baja draws urban relationships to itself and has secondary relationships even in the attraction zone of Mohács and partly Szekszárd.

The two urban areas (the city of Barcs and Csurgó) in the protected zone in Somogy county make up 48,9% of the total population. The functional level of Barcs is higher than that of Csurgó, yet as a result of the lack of a medical centre or a hospital both territories gravitate to Nagyatád. The railroad track Pécs–Nagykanizsa along the Dráva links the major part of the settlements with Barcs and the settlements in the west with Nagykanizsa.

80,3% of the population in the protected zone lives in the two concerned cities of Tolna county (Szekszárd and Tolna). This division of the population implies that the protected activities have to be concentrated to a major extent to the cities, including them into a "protected ring".

The settlement structure of the protected zone of the DDNP is quite complex. Along the Danube there are rather larger settlements with high number of populations and large administrative areas, which are partly located directly at the river. The majority of these settlements is capable of self subsistence and autonomous development. Most of the preconditions of reproduction of the population at place are available, the significance of inter-settlement relationships is rather low although the micro-regional organising and servicing centres of the rural space can be detected here too.

The section between Barcs and Mohács can be characterised rather by smaller settlements with smaller administrative areas. Most of the settlements are not capable of providing for the preconditions of the reproduction of the population, therefore the inter-settlemental relationships in this area are important. At the same time, in the territories of the protected zone to the west from Harkány there is a lack of micro-regional centres, most of the settlements are dependent on territories beyond the protected zone.

3. The development of spatial configuration and settlement network

The development issues of spatial configuration and settlement network can be investigated in two dimensions: a) external (international, national, macro-regional and county level) demands

and development needs; b) development priorities within the protected zone.

External developments concerning the protected zone of the DDNP:

The peripheral topographic feature of the DDNP is determined, there is absolutely no opportunity and actually from the aspect of the DDNP no need to change it. The basic issue of the long-term development of spatial pattern is, whether the development should be continued along already existing lines, whether these should be reinforced or besides these new development lines should be established dividing the migration and loads. In our opinion the improvement of the configuration linkages shall be accompanied by the establishment of new lines.

Three of the Helsinki corridors cross the territory of South-Transdanubia and the DDNP. The Zagreb-Budapest corridor is from every aspect well integrated into the existing space configuration linkages, similarly to the Danube itself. The corridor between Budapest-Ploce is an existing element of spatial pattern and could mean the revaluation of the relationship.

A long-term interest of the DDNP could be the construction of the Transdanubian motor way and its extension across the state borders (at Berement towards Croatia and at Hercegszántó towards Yugoslavia). The improvement of the Mohács-Hercegszántó line could release the Bátaszék-Baja axis and at the same time the most valuable area of the DDNP, Gemenc forest. This is true for the new, planned Danube bridge at Szekszárd. This relationship would establish a new

relationship and its traffic diverting and dividing role could be important for the entire DDNP. (Yet the question can be raised, whether it is appropriate to establish a further transversal axis within the territory of a national park. The establishment of the three new axes at the lower section of the Danube would mean that in addition to Budapest, the most intensive, cross-Danube communication would be exactly within the territory of the DDNP.)

In the Baranya triangle section the opening up of the new border station at Beremend was quite significant from the aspect of local relationships. The improvement of the railroad connections at Magyarbóly is to be supported from the aspect of the DDNP, since it could play traffic diverting and dividing role while avoiding and releasing wetland habitats. It is also advisable to lead the motorway towards Croatia further in this region.

The establishment of new road connections and border station planned in the region of Sellye could be an important improvement in the region's life, yet it would interrupt the longest section without cross-border traffic but at the same time could also relieve Barcs and Drávaszabolcs. The border crossing point could play a role in the arrangement of both local and regional relationships.

The strengthening of the Barcs line and the extension of the border station seems to be unavoidable since this line connects the best utilisable way to the Croatian network. The reconstruction of the Barcs - Virovitica – Kutina route and the strengthening of the motorway connection would contribute to the better diversion of

traffic. At the same time this improvement also involves the highest environmental risk, since Barcs is surrounded by the protected and strongly protected territories. The construction of the new trace of the main road Nr. 6., and its extension to the border station significantly decreased the transit traffic within the city.

The improvement of the border station at Berzence would partly release the Barcs route and would open up new tracks towards the lake Balatzo, and this is actually the most important element of the development.

3.2. Development of configuration and settlement network interrelations within the protected zone

The second major dilemma of the development zone is the development of the relationships within the protected zone.

The protected zone of the DDNP has its own settlements, yet there is no unified organically developed settlement network on its territory. There is no exclusive internal functional centre within the protected zone, since the seat of the Directorate of the DDNP is in Pécs, which is located outside the protected zone.

The protected zone has "striped" divided functional territorial units. The "Danube stripe" is environmentally unified, yet divided into three counties. The cities of the protected zone along the Danube – besides "accepting their competitive situation" – have to realise gradually their common interests and establish a kind of "town and

settlement association of the Lower Danube", essentially for the maintenance and protection of natural values.

Within the Danube region the target should be to maintain and even improve the diversity of horizontal, functional and hierarchical relationships.

Along the border of the "Baranya triangle" the protected zone stands alone, i.e. does not cover any protected areas. Its local settlement network has been developed and the internal relationship system is mainly targeted towards the city of Siklós, yet with no monopolistic character. When Harkány obtained the city status the settlement network became even more organic.

The territory between the cities of Harkány and Barcs can be characterised within the protected territories as the economically and socially most backward region with the highest number of small villages and no internal centre. In the majority of the settlements the economic and social processes of degradation are accelerating. In most of the settlements the number of Gypsy population is growing. This process is important since it represents a group of social-economic-political issues, which require special treatment.

Through the declaration of the city status of Sellye, which is located beyond the territory, its functional and economic development may become one of the decisive elements in the long-term stabilisation of the settlement network.

Within the territory of settlements the protection of the historically developed settlement image and settlement patterns showing archaistic features requires special attention.

The protected zone of the section in Somogy County has the lowest population density within the DDNP. The further concentration of the population is not desirable, the maintenance of the existing and historically developed settlement network and settlement pattern is also important from the aspect of nature conservation.

1. Settlement conflicts

Within the settlement network of the territory a kind of competition and conflicts between settlement had been characteristic even before the establishment of the DDNP therefore the DDNP may only appear as a colouring element in the conflicts of settlement interests. As regards the internal processes of settlements designation of new protected and specially protected areas could at the same time cause new tensions.

The special case of the territorial and settlement conflict treatment was the separation of Dunafalva from Baranya and its joining to Bács-Kiskun county. Since Mohács has no bridge the same could happen in the case of Homorúd. At the same time the construction of the bridge could also trigger opposite processes.

The population and the leadership of the settlements in the protected zone has to set up a clear attitude to the protected areas ant

natural values and according to that it has to define the main targets and directions of settlement development.

The basic element of defining of this value system could be, that the some 225 thousand inhabitants living in the protected zone cannot subsist exclusively on the DDNP, while in their future prospects the fact shall receive a significant role that the regions has natural values of national or even international importance.

In the course of formulating their future prospects the certain settlements should consider the protected areas, and have to find the compromise, which enable them to find their potential and socially accepted development track.

The large infrastructure development demands in the region of the Danube have to be matched to the requirements of nature conservation. The basis of the compromise is in our belief that both the developments in Szekszárd and in Mohács should be feasible since the existence of protected areas may not hinder settlement development.

The logistical centre or centres along the lower Danube should be arranged in a way that their impacts should be environment friendly.

In the region of Barcs there is also a potential settlement-nature conservation conflict situation. The city is surrounded by protected areas, while the future of Barcs can be most probably only secured by its more conscious and more intensive involvement in the international division of labour. Barcs is one of the settlements which

may expect larger economic development in the near future in the direct neighbourhood of the protected an specially protected areas.

The road linkage of the so-called dead end settlements along the protected areas may also lead to conflicts. Naturally from the aspect of the local population this would be an understandable demand, yet it is not desirable to construct a road with intensive traffic across the protected areas.

The public transportation of the dead end settlements can and must be developed besides maintaining the dead end character possibly with the development of an advantageous micro regional and distance tariff policy.

5. Summary

South Transdanubia and the territories along the Croatian frontier are both peripheral within their own countries. This peripheral character is accompanied especially in the territories along the national border with a slower economic development. The economic development of the region therefore needs to be determined by a stable and firm development on both sides of the border as soon as possible. The negative effects and disadvantages of the bordering regions should be turned into utilising its geographical and economic advantages.

Table 1.

Territorial data of South Transdanubian counties and North–Croatian Županija, 1996

Name	*Territory*	*Population*	*Density*	*No. settlements*	*No. tows*
County	Km^2	thousand persons	Person/ Km^2		
Baranya	4430	407	92	294	7
Somogy	6036	336	56	231	12
Tolna	3703	248	67	99	9
Zala	3784	299	79	250	7
South-Transdanubia	17953	1290	72	874	35
Županija					
Koprivničko-križevačka	1783	129	72.9	18	2
Medimurska	730	119	164	17	1
Osiječko-baranjska	3619	331	91.7	30	4
Varasdinska	1238	187	151.3	26	1
Virotvitičko-podravska	2068	104	50.6	14	2
North-Croatia totally	9438	870	92.2	105	10

INTERNATIONAL SOCIAL-ECONOMIC COOPERATION ALONG THE BANKS OF THE RIVER DRAVA

by

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I. General introduction

Croatia and the Croats have played a distinguished role in the history of Hungary over the centuries. For almost eight hundred years, the two countries formed a union in which, the borderline, i.e. River Drava, provided the connection between the two territories. As a result of the First World War a new state border was drawn along the Drava in 1918. Since then the river has been separating both the population and the economies of the two countries.

In 1991, when Croatia declared its independence from Yugoslavia, everybody expected that the revitalisation of this borderland would begin, but unfortunately the political events in Croatia showed that the situation cannot improve in the previously hoped extent. Hungary's economy in the last decade has approached the standards and requirements of the European Union, meanwhile Croatia fell behind in the EU accession process. At the moment Croatia is not a member of