

EVALUATION OF URBANIZATION CONDITIONS AND THE CREATION OF DEVELOPMENT VISIONS OF THE SLOVAK REPUBLIC

Summary

The results of the work point to:

- A stabilisation of the state of urbanization development against 1990 as regards the rate and degree of urbanization,
- Possibilities for exploiting contacting territory spaces for urbanization development under the influence of the transformation and effect of land rent.

In conclusion it is recommended:

- transformation of the legislation on territorial development to the capitalist conditions of the operation of the market mechanism,
- adoption of a new method of elaborating regional visions,
- targeting managing statutory systems at a deepening and automation of information systems in the territory-.

Introduction

Trends for optimum land arrangement are favoured by all economically developed western countries. These are in particular Germany, France, Italy, Belgium, the Netherlands and the other West European countries. Here land arrangement is understood as an "operationally" suitable lay-out of activities and the arranging of functions within the territory, so as to achieve their best mutual interconnection.

The term "arrangement" (l'aménagement, Ordnung) has been preferred to the term "**territorial planning**". It is more accurate and more complex, embodying the philosophy of the layout of activities within a space; it accepts central and local development functions of the distribution of development management within the territory, including planning, realization of maintenance and primarily the application of the requirement for the balanced participation of all actors within the territory..

"**Sustainable development**" is based on maximizing the possible integration of activities and functions within the territory and their possible synergy effect. It can be interpreted as time without giving preference to one generation over another, as the requirement for a dynamic balance between the activities of people, the natural environment and natural resources, as well as economical, social, environmental, natural and cultural aspects and growth.

During the elaborating of the scientific - technical project "Model of Communication Service of the Territorial - Administrative Unit – Region" a group of European experts were working on the task "VISION PLANET" – Strategy for Integrated Territorial Development in the Central European Area (INTERREG II. c - CADSES) supervised by ESDP (European Spatial Development Perspective), with the aim of the "Acquis communautaire". The first draft of "Strategies for Integrated Spatial Development" was discussed and approved by the Project Advisory Board in 2000.

According to this document the priority task of economic and social policy within all project VISION countries must be the development of transport and the telecommunications infrastructure. Transport and the broader communications systems are a significant component of the land arrangement from the aspects of its sustainable development.

In elaborating the task the following were used as bases: the state of contemporary urbanization of the Slovak Republic and of its individual regions and the prepared land use technical source materials and documents of the regions, for example the Territorial Plans of Large Territorial Entities (LTE), the LTE of the Žilina district, the High Tatras LTE, the Low Tatras LTE, the Kysuce-region LTE, the Martin district LTE and the Žilina-region LTE etc. as well as the Territorial Development Conceptual Plan of Slovakia prepared by the Ministry of

the Environment SR with is to serve as the basic conceptual framework for processing the territorial plans of LTE, and it will be updated on the basis of approved territorial plans of LTE regions up to the end of 2001.

Most approved territorial plans of LTE regions were based on a planning methodology under socialist conditions, without accounting for the significant effect of the laws of a market economy, and therefore also their binding and recommended regulations are manifest in the full extent through the effort of strengthening directive territorial development management primarily from the position of central state bodies and their lower components of state administration. The municipal sphere and citizen of urban and rural areas were involved only to a very small extent during the preparation of these documents. According to the experience of developed capitalist countries there has been a transition to a system of elaborating regional development visions less with measure of obligation, but rather with an outlining of development options, with the continual supplementing of information and updating.

In this task we introduce also theoretical bases which document the causality of hitherto and current urbanization development in the world and in Slovakia.

Present conditions and development theories

In an assessment of the current state of urbanization and in the formation of its development, we are working from the following bases:

- A/ the theory of the composition of principal urbanization functions,**
- B/ the theory of the sectoral distribution of economically active inhabitants,**
- C/ the theory of polarized development.**

ad A/:

From **the theory of the composition of principal urbanization functions** urbanisation is understood as the composition of **three principal urbanization functions** - habitation, employment and services connected by a network of connecting and information systems. The composition of principal urbanization functions is manifested in the territory by mono-functional and poly-functional clusters, which are mutually more fixed or more freely integrated or non-integrated. The mutual ties of principal urbanization functions are close, medium or more distant and there are developed historically and are changing. When the relations of work and habitation were in the manufacturing period very close, they became more distant through the industrial revolution and with the results of the scientific - technological revolution have again been closer.

From the point of view of mutual relations within an area the following relations in particular are emerging:

- work and habitation,
- habitation and education,
- habitation and services,
- work and services.

There is the main urbanization axis of Slovakia in the East - West direction crosses the Žilina region territory east-west.

ad B/:

The theory of the sectoral distribution of economically active inhabitants is based on the works of J.J.H. Fourastiér, where the principal urbanization functions are structured to:

- primary Sector I (agriculture, hunting and forestry, mining and quarrying, fishing),
- secondary Sector II (manufacturing, electricity, gas and water supply, construction),
- tertiary Sector III (trade, repair activities, hotels and restaurants, transport and connections, the financial industry, public administration, education, the healthcare industry and social work, other community, social and personal services activities).

According to this theory within a time sequence through the influence of growth in working productivity, the share of the economically active population declines substantially in the primary and secondary sectors and increases in the tertiary sector.

The decline in the **primary sector** is caused in particular by mechanization, a sharp increase in work productivity and achieving the necessary rate of efficiency and efficient size of agricultural enterprises to such an extent so as to maximize their ability and to increase the living standards of agricultural employees. relations in agriculture are in particular dependent on an efficient and economic size of agricultural enterprises, which are in turn dependent on climatic conditions, territory morphology, pedological conditions, etc.

Through the fall in economically active workers large numbers of workers are freed in this primary sector thus there arises direct or indirect support for urbanization.

With regard to the character our territory, these shifts are manifested in **so called indirect urbanization**, i.e. the population continues to live in the country and commutes daily to work. In rural communities, there is thus mixed the population of all three sectors. Nor have agricultural territories remained homogenous and 45-50 % of economically active inhabitants commute daily from the rural communities for work in urban or other rural communities.

From the point of view of the current state and in the formation of development visions in an agricultural country there may be presumed the existence in particular of large and medium - sized enterprises. From the point of view of the size of enterprises medium - sized enterprises may cause greater dispersion of a settlement.

The vision for next few years assumes a still high rate of unemployment, which causes an expansion of the system of **the population's home-produced groceries** and a continuing of the trends of direct and indirect urbanization (a spreading of small agricultural enterprises or the integration of employment in other sectors). There may be expected trends connecting primary agricultural production with connected processing production, which may be located in the agricultural area, in contact territories as well as in urban settlements.

As regards the current situation and also the trends in the realization of visions in our conditions, we can no longer speak of pure ruralism, neither in the revitalization efforts of the rural area.

In the secondary sector which statistically is comprised of manufacturing, electricity, gas and water supply and construction, worked 34,9 % of economically active inhabitants. This sector to date has substantially the growth of our towns, that is the urbanization process. In world development there occurs a fall in the number of economically active persons their stabilising in the range 25-28 %, this primarily through the influence of the scientific - technological revolution and the marked expansion of information systems and automated methods in the management of manufacturing processes. This development will be influenced by the current demonopolization and subsequent monopolization and globalisation visions. A significant number of small and medium - sized enterprises are being established, working with both larger and large finishing enterprises.

The positioning of these economic activities is in industrial or mixed urban zones, in contact areas of urban settlements, to a lesser extent in rural settlement systems.

In 1996, 55 % of economically active persons were working in the **tertiary sector** in Slovakia. The tertiary sector according to statistics is comprised of: wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods, hotels and restaurants, transport, warehousing and links, the financial industry, real estate trade, renting and commercial services, research and development, public administration and defence, compulsory social security, education, the healthcare industry and social work, other public and social services.

The tertiary is concentrated primarily in settlement structures. It is comprised of production and non-production services (administration). In the past years there has

occurred in development studies a splitting of the tertiary sector into further sectors – the quaternary and quinary.

Within the **quaternary sector**, may be included science and research activities, informatics, and automated communication technologies. Their economic effects are in the most part indirect, having nevertheless a great influence on the economy and its market sphere. Because it is indirectly connected with intellectual potential, it is primarily concentrated in urban structures.

Within the **quinary sector**, are included persons economically active in the field of ecology and environment (creation and protection, waste disposal operations). Its location to a large extent is tied to rural or contact structures. From the point of view of future development vision waste disposal systems will acquire importance.

It is predicted that together with the tertiary sector, the quaternary and quinary will form two-thirds of the national workforce, of which services and trade shall represent 30-40 % of the national workforce. The sectoral system has developed under our present conditions over the past few years as follows:

- a systematic decline in the number of workers in the primary sector and this stabilizing below 10 % (the share employment reaching the level of West European countries),
- a gradual decline in the number of workers in the secondary sector, a restructuring of the secondary sector in favour of high added value production, a raising of competitiveness of production, progressive stabilization below 30 %,
- growth of economic activities in the tertiary sector above 50 % and gradual creation of a quaternary and quinary sector.

Visions of the seventies in Europe assumed a decline in the economically active as a total share of the population (through an extension of school journeys, an extension of daily study in the age group up to 20 years and in the age group 20-25 years, and a growth of post-productive age) At the turn of the twentieth century in Europe, it is expected, that half of young people will attain the level of university education and of all economically active persons and share of economically active persons 20% will be employed in science and research, and that the share of workers in education, culture and healthcare should come to equal the share of persons economically active in industry.

Sectoral composition in Slovakia, 1996:

Population	Primary sector	%	Secondary Sector	%	Tertiary sector	%
5 378 932	213 199	9	763 792	35	1 191 305	55

ad C/:

The theory of polarized development emphasises urbanization development from the aspects of the polarising effects on the area. The influence of the polarized development theory on settlement structures development was elaborated in Slovakia at the end of 60's following the partial atomisation of research by Ferianc, J.; Turčan, P. and Zibrin, P. Some of its urbanization aspects have been published in "Habitation Development Trends" (Zibrin, P., 1968 – Bratislava, Slovak Committee of Technicians).

According to this theory **productive activities in an area have a direct effect on settlement development**. Of these, great importance is placed primarily on "driving production enterprises", which initiate spatial development in all directions. From them come **impulses** to the area, region, country. The impulses affect demand are direct it within the

space. Besides the driving enterprises there are “**driven enterprises**“, which catch impulses from driving enterprises. Impulses in the area operate towards its revitalization, or also its stagnation.

The mutual activity of driving and driven enterprises defines the spatial formations, in which are manifested the integration of economic and extra-economic activities. According to this, all activities within the development space (region) are mutually inter-connected and affect one another. From the mutual inter-operation is influenced the overall arrangement of the area the solution of the connection of the primary urbanisation functions. It may be said that the rate of the efficiency of settlement spatial systems is directly dependent on the degree of their functional integration, which concerns not only economical and productive activities, but all existing activities within the territory (primary, secondary and tertiary sectors).

The dynamic development of settlement spatial systems is supported also by the development of infrastructure, which performs the mutual relations between driving and driven enterprise systems, between the principal urbanization functions and their functional elements. An optimally built infrastructure improves relations of productive – productive, productive - non-productive, and non-productive activities. The infrastructure creates “**advantageous conditions**“ (comparative advantages) in particular for the development of manufacturing activities in the territory. In a well built infrastructure there are emitted impulses towards production activities and vice versa, the infrastructure transfers impulses from production activities into spatial territorial systems – synchronization – resonance effects.

In the theory of polarisation development the **minimum bearing capacity threshold** is of significant importance. A minimum bearing capacity is necessary for the poles' functioning. This may be achieved only through a certain extent of the territory and population number. In the case of large concentrations pole problems grow with distance.

The **viability of poles** must not fall below a minimum rate of bearing capacity vice versa, must not exceed the maximum rate of bearing capacity. Significance is attached also to the drawing of agricultural production into the development dynamics of a polarized territory. This production may issue impulses from production enterprises, which in turn connect to agricultural production, to utilise the infrastructure and release of significant number of persons economically active in the primary sector for economic activities in tertiary sector within the poles.

As far as **rural settlement structures** are concerned, they may be considered, according to the theory of polarized development as:

- **integrated parts of a larger polarized habitation – manufacturing settlement clusters** and their higher territorial influences with the mixed population of all three sectors,
- **an homogeneous agricultural territory with a more diluted settlement without evident centres** and their more evident polarization effects.

According to the abovementioned theories, marked A,B,C, it is possible to group settlement structures into:

- urban communities of various type and size. In our conditions there are towns over 100 000 inhabitants, towns from 50 000 – 100 000 inhabitants, from 20 000 – 50 000 inhabitants, from 10 000 – 20 000 inhabitants and urban settlements of up to 10 000 inhabitants,
- contact urban settlement territories (special settlement structures),
- rural settlement structures,
- settlement structures of a specially important type (top recreation and sports areas),
- specially protected territories (national parks, national natural reservations, natural reservations, protected landscape area).

According to the structure of urbanization functions and sectoral structure of economically active persons the territories of towns may be characterized as follows :

- urban structures:
 - differentiated receipt of habitation, labour and facilities functions,
- contact urban structure territories:
 - privileged receipt of habitation, labour and facilities functions as an influence of land rents (market price of land with regard to its location, the farther from the core, the lower the price against the market price in the core).

Through the urbanisation development of Slovakia to date development urbanisation trends have been fulfilled in particular as regards the population concentration into towns, the stabilization or depopulation of the countryside. As regards further settlement development there may be expected:

- the gradual internal reconstruction of built up areas of urban settlements,
- a greater thrust in the allocation of urban functions into the contact territory,
- in the near time horizon the stabilization or only moderate population decline in other rural settlements outside the contact territory. Unused flats in rural landscape settlement structures following reconstruction may be used as second homes (weekend cottages).

In the current state of economic recession it is not possible within the near future (to 2025) to achieve in Slovakia a sectoral composition according to that in the EU. There can however commence the creation of appropriate allocation conditions and advantages of indirect state influence for effective spatial development in the framework of the social economic market.

In connection to the stated development philosophy, it has to be said that the urbanization process in global terms has been brought about through by great increases in the population, a decrease in infant mortality, and the influence of the industrial revolution, which began to significantly shift the rural population into urban structures. It has not been possible to manage this process in the world and today there are numerous mega-spatial settlement structures in the world, which are operationally unmanageable and cause serious environmental problems.

Slovakia has also been affected by a strengthening of urbanisation, nevertheless in its special conditions, which were influenced by its industrialization especially after 1948, by the territory scale and the extent, by the population distribution, territory morphology and other factors there have not arisen here mega-spatial settlement structures, vast conglomerations or agglomerations, but there have strengthened the numbers of the urban population and the development of so called **indirect urbanization**. The population worked in industry, in services and worked small farming plots working, or worked part-time in agricultural co-operatives.

Historically, urbanization has been completed by the efforts for bringing labour and habitation closer within the area. Relations were dependent on time and distance. Historically magnified, nowadays trends are again bringing them closer. As regards a standard view we say that this relation should be limited to a maximum 45 minutes door-to-door commuting time.

Through dramatic changes and in a shortening of time thanks to the speed of transport facilities there has occurred an enlargement of the area of the direct influence of functional elements in the territory (it may be said that contact territory is enlarging). This is formed by conditions for an improvement of intra-urban transport and the greater use of private cars. There is arising the requirement for the creation of the more appropriate operation of the functioning of urban and suburban systems so that they are suitable for the broadest population classes. For these reasons have been preferred public transport services in our socialist conditions, which are however indirectly paid for by their users in the framework of state subsidies.

In the transformational process there are occurring partial or complete privatisations of

these facilities - structures and thus direct requirements on their profitability. This causes substantial fare increases. Through the influence of this, opinions are changing as to the proportion of collective and individual transport in favour of an increase in individual transport. Our cities have not wholly been prepared for such a development (large demands for static transport areas - parking places).

The operational structures of urban systems have been disabled through the combined use of transport means and town planners not having counted on the sharper growth of private cars, the share of which has recently begun to approach that of West European countries. That is why already at present many of our towns have been reaching shock situations although their size and scale cannot be compared with European or world cities. From this results the need to create a new operational model for the functioning of urban systems.

Market conditions are changing also opinions on the composition of facilities, which in socialist conditions had been founded on the philosophy, that services used daily (distributed) should be concentrated in the settlement set group and district, occasional services in the town quarter or town core. The application of market principles gives a facility operator the possibility of choosing a site according to its capital potential. For these reasons and for the reasons of the effect of land rents, there have been established, for example, large supermarkets on the main outlet roads from the city.

The same requirements affect also the distribution of healthcare establishments, schools, administrative buildings, financial institutions.

Into the centres are arriving primarily services with strong capital potential and a network of special trade facilities and services is expanding here. Land rent laws are beginning to manifest themselves also in habitation, where in city cores land prices are increasing significantly. The population, therefore is more interested in living in contact territories. It may be assumed, that bigger capital potential of the formed middle classes may influence more positively maintenance, repair and reconstruction of core city structures.

Conclusion

Regional development conceptions, which should be elaborated in the framework of economic transformation, should create possibilities for an improvement in the current state. The transformation process should more significantly affect also territorial planning, which is still today composed in terms of its legislation for socialist conditions.

In the process of improving the quality of spatial settlement structure, the solution of regional disparities, in particular the support of less developed regions will be a priority, but at the same time preserving the tempo of the stronger regions, which are in a phase of structural reconstruction, as well as the support of the diversification of regional economic structures in favour of advantaging small and medium - sized enterprises and services.

An important task is also the resolution of problems of peripherality which affects both larger areas as well as contact urban territories (external and internal urban settlement structure peripherality – the so-called territory of close and wider poles influence and their polarization structures). The creation and development of urban structures has been highlighted through the use of priorities, for example within the down – in the renewal of town centres, creating a substantial part of the workplaces of inhabitants and their interest territories, through the humanization of large dwelling units and location restructuring of their facility and professional structures.

Within the framework of an optimal territory arrangement from the point of view of sustainable development emphasis nowadays is placed on:

- improving the quality of the spatial settlement structure, supporting the creation and development of urban agglomerations and urban settlements,
- the transformation of rural territories with the support of a voluntary association and

- municipality,
- development of transportation and telecommunication networks,
 - protection of natural and cultural - historical environment.

Generally, it is expected that the over hierarchical system of towns should be freed up, there should be further developed **multi-functional or polycentric settlement systems with specialization and division of labour between towns and the countryside**, this in individual countries, as well as between countries.

In the transformation of the more dispersed rural territories there is among other things the creation of relations between towns and the countryside between settlement structures in agglomerated systems. In the development strategy it is necessary to count also with the creation of synergy affects, which should be anticipated correctly and co-ordinated and consequently mutually balanced.

Diversification of economic bases of the countryside will bring about structural changes which will be strengthened also by the **process of gradual voluntary association of municipalities into an associated local authority unit**.

In respect of this in the research project "Transportation process modelling in a territory - Case study Žilina-region" - Hollarek, T. - Čorej, J. et al., , University of Žilina, Žilina 2000, there have emerged special **districts**, which could predict the directions of the gradual association of settlements.

The process of small - and middle - sized enterprises operating will concern also rural areas and almost the whole territory of future administrative - regional structures.

The stated transformational effects of activities and functions in the territory will influence the arrangement and development of the territory, including its broader internal and external connection and transportation functions, communication services, with the aim of improving and gradually building a **unified complex pan-European transport network and intra-regional complex transportation and communication services**.

The final aim should be the complete and **unified pan-European transport network**, which would gradually be realized in accordance with the projects TEN and TINA. In connection to this it is necessary to emphasize also multi-modal transport with a network of logistics centres. In planning the elements VISION PLANET TEN and TINA there has been emphasized in the programme a unified approach, taking into account economic, social and environmental influences and their mutual relations.

In all EU programmes there is calculated in an increased mobility of the population, in the short term as well as in the long term. With regard to this it is however necessary also in Slovakia to create suitable conditions.

In the territory arrangement it will be necessary to accept also the **protection requirements of the environment and countryside**, formed particularly by nature reserves, national parks and protected landscape areas. These represent the most important **elements of the ecological stability skeleton**. The **territorial system of ecological stability** represents an ecological network in the countryside, composed of bio-centres, bio-corridors, interacting elements, and the other important ecological segments. Transport systems must systematically take account of, so as to minimize negative (e.g. barrier) consequences and polluting effects on the environment and countryside.

With regard to the **protection of cultural heritage** it is necessary to identify in the territory a number of types of "cultural landscapes". The uniqueness of each separate community should be documented through an increased number of communication "**cultural routes**".

In the framework of the transformation complex also the scientific – technical project "Communication services model of the territorial – administration entity – region" had an importance position. Its aim was:

- to ensure a good-quality communication service,
- to make objective the evaluation of the quality of communications availability,
- to verify models and standards in the case study of the Žilina – region .

In this there was considered also the environmental potential and in the framework of this, for example also questions of **continental climate** and its influences upon functioning and reliability of transport systems (unlike the **Atlantic** climate to the west of our borders).

The material shaping of our towns will also be affected by **the evolution of period-styles culture**. Currently in urbanism there are perceived attempts for the transition from functionalistic to postmodern urbanism. This is influenced in particular by neo-liberal theories, which attempt take an interest in citizens' opinions as to the development of settlements and suppress the central planning development drafts of regions and their settlements.

In conclusion it is necessary to emphasize that territorial development policy of both the national entity as well as of its segments must contribute to **competition, supporting competitiveness, should take account of social cohesion** within countries and their regions, as well as between countries and regions, even when we realise that in the course of the transformation process there also may occur a conflict between the aims of equality and coherence on the one hand and the aims of efficiency and national growth on the other hand.

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