# Reflection of the Demographic Change in the Spatial Planning of Slovakia

#### ZUZANA LADZIANSKA

The Leibniz Institute of Ecological and Regional Development (IOER) / Dresden Leibniz

Graduate School (DLGS)

Weberplatz 1, 01217 Dresden

Germany
z.ladzianska@dlgs.ioer.de

### **Abstract**

The present state of population in Slovakia is the result of a long-term development under the effect of various factors. The most significant change was caused by the problems ensuing of economic transformation after the fall of the totalitarian regime and the transition to democracy, causing the shift in the personal values across the population. Forthcoming years were characterised by decrease of the natural increase, it means, by decrease of natality. Current development of the demographic behaviour is manifested especially by ageing of population and ongoing problems characterised by the drop in reproduction behaviour.

The main aim of the proposed research is to explain, and to understand the problems; and to generate possible recommendations for planning on different administrational levels to handle the demographic change in Slovakia. The current paper deals with the issues of regional disparities of the demographic change within the decentralised planning system of Slovakia. Deep analysis of relevant existing planning documents on national and regional level is being done with the stress on the demographic issue. The complexity is achieved by selection of relevant studies as well from the horizontal (even spatial distribution within the country) as from the vertical dimensions (different administrative levels of the decentralised planning system of Slovakia). Identification and better understanding of the causal-consecutive relations between the partial indicators towards the adaptation strategy is the focus of the further research.

In the next steps of the research semi-structured interviews with stakeholders will be conducted. Interviews will be based on the planning documents analysis and spatial analysis of the country. The aim of the expert interviews is to gather information on the overall awareness of the demographic change. Finally, an overall synthesis of generated information towards the mutual understanding of the topic within the European framework will be conceived.

**Key words:** Land-use planning, strategic planning, demographic change, spatial distribution

**JEL Classification:** J11, R12, R52

## 1 Introduction

The objective of the article is to give an overview of the first preliminary results of the doctoral thesis topic "Reflection of the demographic change in the spatial planning of Slovakia". The overall research is subdivided into the four main parts of the research. This paper aims to present partial results of the research with the focus on the reflection of the demographic changes in the planning documents available within the framework of the spatial planning system of Slovakia. The hidden hypothesis of the particular research was the idea of differentiated regional approach towards the issue of the demographic change reflected in planning documents. The paper is divided into the three parts, where in the first part a brief introduction on the demographic changes with regard to the regional disparities is given. The second part is dealing with the Slovak spatial planning and its instruments in the form of planning documents. The last part is presenting the result of the particular research. Here, an

analysis and evaluation of the planning documents with regard to the demographic change is presented.

The research on the above mentioned topic was conducted during the process of documents analysis. The aim was to analyse and evaluate available spatial planning documents possibly related with the issue on the demographic change. The idea was to follow the documents and processes starting at the national and finishing at the regional level. Due to the complexity of the spatial planning system of Slovakia, firstly, all documents related to the territorial planning were studied. After preliminary evaluation of these documents further research in the field was necessary. Secondly, wide range of documents related to the strategic planning was studied and evaluated with regard to the demographic changes. Mainly a search for direct (explicit references to the demographic change, see chapter 2) or indirect (references to the related issues or fields influenced or caused by the demographic change) evidence was made.

# 2 Demographic changes in Slovakia

The present state of population in Slovakia is the result of a complicated and long-term development under the effect of various factors. Since the first modern census in 1869 until that in 2001, the population in Slovakia, within 132 years, increased to 216.8%. High natural increase is typical for the whole after-war period as the result of not only high natality, but also low mortality. This period of high natural increase could manifest in a total increase of population. Population growth slowdown in 1980's that continued through the 1990's is related to the decrease of the natural increase, it means, by decrease of natality.

It is estimated that the second demographic revolution reached Slovakia. The decrease of population growth was accelerated by the problems ensuing of economic transition after the fall of the totalitarian regime in 1989 and the establishment of the independent Slovak Republic 1993. Aggravating social uncertainty, growth of unemployment, new life style of young population with stress on the economic self-reliance, new housing policy and other factors projected in nuptiality and natality decrease and eventually in the decrease of population gain. In 2001, for the first time after the First World War the natural decrease of population was recorded in Slovakia [1]. The share of pre-productive age rise from the west to the east, the share of productive age decline in this direction. In terms of natural changes, population in three NUTS 2 regions is decreasing, whereas only East Slovakia has been keeping the natural increase of population.

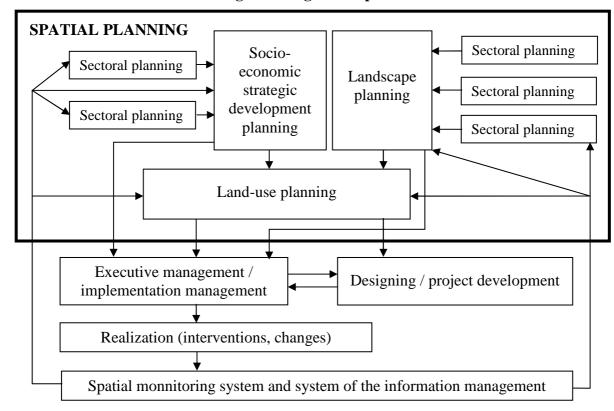
In the year 2002 the Slovak statistical office published the Population prognosis till the year 2025 for the Slovak Republic. Prognosis was published at the time of certain change in demographical trends and therefore an updated version was needed. The new version was created in the year 2007, as an updated prognosis version of the middle scenario. Bleha and Vaňo [2] declare that the following 20 years will be characterized by continual ageing of Slovak population by maintaining relatively stable number of inhabitants. After the year 2025, processes of ageing and population decline will significantly accelerate. It is for sure, that such future trend in number and structure of population will have far reaching impacts on the functionality of the whole society.

Acceleration of natural population change in Slovakia [1], with remarkable spatial differences during last decades, naturally draw attention among scientists (demographers, demogeographers, sociologists, statisticians, forecasters, and others), as well as in decision-making sphere, social affairs, cultural, and religious institutions, etc. Transformation processes and structural problems of urban and rural areas in these countries are of high importance. European integration, globalisation of the market, development of IT technologies and services, open new opportunities to spatial development [3]. The transformation of the economies of the Central and Eastern European states was on the regional level, very

significantly connected with differential tendencies. Regional disparities result from a number of economic, social, geographical, and demographical factors.

In the case of Slovakia, Abrhám [4] is talking about so called double dichotomy: central and peripheral polarization of the central region compared to the rest of the country; and differentiation between the western and eastern regions of the researched states. The dichotomy, centre–periphery, is characterized by the unique dominant position of the capital city and its surroundings, compared to the rest of the country. Big regional difference are, to a significant scale, the result of the changed both external and internal conditions of the regional development.

The complexity of the problems in the context of demographic change requires systematic approach across different sectoral policies. In the same time demographic development takes place within a framework of complex interactions between socio-economic, socio-ecological and socio-cultural dimensions (see Table 1). The platform for the integration of different aspects and different policies relevant for demographic change is present. Demographic development is becoming a critical determinant of sustainable spatial development, territorial cohesion and competitiveness through all the levels from local and regional up to the continental European level.



**Table 1: The Logic of Integrative Spatial Environment** 

Source: Žigrai, F., Finka, M.: Landscape transformation as a multiple challenge for landscape ecology, land-use science and spatial planning [5].

# 3 Spatial Planning in Slovakia

Spatial and territorial planning on the national level in Slovakia has a long tradition. First attempts to coordinate development of build-up areas on this level were visible in the 1960's when an Urbanisation Project of SSR has been created and later in the year 1976 ratified by

the government [6]. Immediately after 1989 there has been an overall change in spatial planning system in Slovakia. Evaluation of planning systems in the context of the market economy processes has started [7], [8], [9]. The system of land-use planning, its legislation and instruments in Czechoslovakia and after 1993 in Slovakia was highly appreciated by the foreign experts, except for the institutional arrangement and low efficiency caused by the centralised management [10].

With regards to the current situation, the spatial development is understood as cross-cutting problem of spatial relevant management activities under which land-use planning, socio-economic development planning and landscape planning dominate. They create three main pillars of the system of complex spatial development management (see Table 1) [7], [8], [9] consisting of Spatial relevant planning activities; Spatial monitoring and information management system; and Spatial management - implementation control system. In accordance with the European charter on spatial planning, planning activities with the spatial relevance have to create a system, which is democratic, complex, functioning, oriented towards long-term goals.

According to the Act of the National Council of the SR No 221/1996 Coll. on Territorial and Administrative Breakdown of the SR with the effect from 24<sup>th</sup> July 1996, regions, divided into districts, have become the administrative units of the SR. Today, there is still in effect the former legislative base in the land-use planning – Act on Territorial Planning and Building Regulation No. 50/1976 and its last Amendment valid from the 2007. The changes can be described as a movement from a centralised (state administration) to decentralised (self-administration) control system by implementing territorial units established on 1<sup>st</sup> January 2004. The whole territory of the SR, consisting of lower levels, represents NUTS 1 level. NUTS 2 is created by 4 aggregations of regions, so called groups of regions NUTS 3 level consists of 8 regions, LAU 1 (former NUTS 4) is represented by 79 districts and the level LAU 2 (former NUTS 5) comprise 2931 municipalities. Administrative functions of districts were abolished but remained as territorial units and units for statistical purposes.

**Table 2: Classification of the Planning Documents** 

<b>Territorial Planning Documents</b>	NUTS *	Strategic Planning Documents	Level
KURS 2001 – Slovak Spatial Development Perspective	NUTS 1	National Strategic Reference Framework 2007-2013	National
	NUTS 2	Regional and Sectoral Operational Programs	D
Regional Plan	NUTS 3	Economic and Social Development Program of the Region	Regional
	LAU 1 (NUTS 4)	(Development Strategies for Micro-regions)	
Local Land-use Plan	LAU 2 (NUTS 5)	Economic and Social Development Program of the Municipality	Local
Regulatory Plan	Zonal		

The Nomenclature of Territorial Units for Statistics according to the EU

Source: elaborated by author.

The main instruments of the territorial planning in the Slovak Republic are the land-use plans (Table 2) and the Slovak Spatial Development Perspective (KURS). It is important to stress

that territorial planning in accordance with Slovak legislation is primarily an instrument of the local government. The so called mandatory regulations of the functional and spatial organization of the territory are binding from the higher level master plan to the lower levels [8], [9]. The main instruments of the strategic planning are clearly listed in the Table 2. National Development Plan (NDP) is a tool on the national level and is used for application of the regional policy of the SR, and including all levels of strategic development. The aim of the strategic documents is to allow gaining financial resources from the European structural funds [11], [12].

# 3 Reflection of the demographic change in the spatial planning

## 3.1 Reflection in the territorial planning documents

Spatial planning documents of Slovakia, as already mentioned, can be divided into two big groups; the first is formed by territorial planning documents. Each document on the different administrative level consists of several parts, textual and graphical (land-use plans). The relevant part for the research is the textual part, specifically the legally binding part, so called regulations of the development. The vertical hierarchy of the planning system is based on the top-down principle, starting at the national and finishing at the local/zonal level. In praxis it means that development regulations at the higher hierarchical level have to be implemented into the territorial planning document on the subordinate administrative level. This process assures continuity throughout the process of aims implementation. Slovak Spatial Development Perspective (KURS), document of the national significance, is the only long-term document in this group (see Table 2). Documents on the lower administrative levels (regional, local) are characterized as middle-term documents. The only short-term document is the zonal plan. All of them must be evaluated and updated on the regular basis. During the evaluation process all relevant bodies (government, ministries, regional parliament, municipalities, etc.) involved in the planning system are asked to participate.

At the regional level (NUTS 3) eight territorial plans (Bratislava region, Trnava region, Nitra region, Trenčín region, Žilina region, Banská Bystrica region, Prešov region, Košice region) are prepared. Every single document has incorporated and deeply detailed mandatory regulations of the national plan SSDP. In the analysis of the documents only textual parts have been considered. The general extension part of the textual part is very similar for every higher territorial unit of Slovakia as they have to follow recommended standardized forms. Each document possesses a chapter on the demographic situation of the region. Mentioned chapters describe past development and future trends in the demography of the NUTS 3 regions. The written form is very factual and descriptive, evaluation of the future development trends in demography of the region is missing and would be of a help for the development aims specification and regulations. Demographic changes, especially ageing and the decrease of the natality are not explicitly mentioned in the text, but the trends are observable from the tables given as attachments.

Legally binding parts of the regional documents, mandatory development regulations, are presented in several categories, following the structure of the general extension part. Out of the eight NUTS 3 territorial documents, only a single one is explicitly mentioning ageing of the population within one of the social infrastructure regulations (e.g. to establish geriatric centers in each municipality of the district according to the development of the morbidity and population aging). Not explicitly but still directly, another four documents state the need for further improvement of existing infrastructure and development of elderly houses and care centers due to the expected change in the population structure and increase of the people in the post-productive age. Further important fields where change of the population structure is

mentioned are as follows: development of social infrastructure, social care services, education, regional development, and economy.

## 3.1 Reflection in the strategic planning documents

The second group of the spatial planning documents of Slovakia consists of strategic documents. This set of documents as well as the already mentioned territorial plans are present at all administrative levels. Strategic documents, especially on the regional level, are even strongly interlinked from the national to the local level (top-down principle). In comparison with the territorial planning, strategic planning does not consist of any legally binding part. In the planning system several guidelines were published, but they are only based on the recommendation principle. Thanks, better said unfortunately, to the existing guidelines the subsequent parts of the documents especially on the regional level are very similar for each of the analysed regions.

The advantage of the strategic documents is their possibility to face specific problems in more focused way. This fact can be seen in the reflection of demographic changes in documents. Problems of aging and changing population structure, as well as with the regard to the marginal groups cause by the social disparities, are expressed more often explicitly, as it was in territorial planning documents. It can be followed mainly in the preparation stage of the documents making, in SWOT analysis. Due to the clear structure of the analysis and logical separation of the individual sectoral categories, problems of each region are expressed in more detailed way. The logical structure and clear addressing of the problems is disappearing in the formulation of concrete aims for further strategic development of the regions.

Structural processes of the country transformation have lead to the change of the society of Slovakia. Those disparities can be seen not only in the technical but in the social infrastructure as well. The current development is based on the deepening of the inter-regional disparities, in the context to the social capital, and leads to the formation of marginal and core regions. Social marginalisation is present in so called problematic regions with a low socio-economic level and at the same time with high unemployment rates. Problems described are very well known and present across the country. All of them are present in some extend, depending on the specific region, in all analysed strategic documents. Even though the situation is logically requiring individual approach in single regions, problems are described very globally in all regions across the country.

Some of the mostly described and discussed problems, depended on the demographic changes, are unemployment, education and problems of the ethnic minorities. All regions facing either some or combination of the above mentioned problems (regions of the south-east part of Slovakia) are aware of the problems. The awareness can be followed in specific strategies that should help to deal with the problem. The weakness of all documents is in a vague formulation of the future goals and missing step-wise aims to approach the aimed goals.

## 3.3 Housing as the common issue of the planning documents

Besides the social issues, housing is an important topic present in all analysed documents. The answer to the question how is the housing linked with the demography and demographic changes is simple. Due to the change in the population structure, different housing structures will be required. One of the aims of the land-use planning is to express this need in the plans and regulations for the new development and redevelopment areas of the regions, as well as the municipalities. Specific housing types, especially social housing for marginal social groups, will be needed. By now, none of the documents follows these specific needs with respect to the specifications of the regions.

Current uneven spread of the population is conditioned by specialty of the historical development, physical-geographical factors, level of the economic development, political organisation and demographic factors, present especially in the regional differentiation of the migration. During the formation of the country all of the mentioned factors were strictly prescribed by the former political situation. Processes of urbanisation in Slovakia have been transformed shortly after the year 1989. This is determined by the concentration of employment opportunities in the town settlements and creation of specific environment in the cities. Within 40 years of urbanisation, concentration of the population in urban areas has raised from 26,2% in 1950 up to 56,1% in 1991. The rapid change caused problems not only in the field of social and technical infrastructure construction, quality of the environment, as well as permanent shortage in the housing stock. Idea of the social equality in the centralised planning system was fulfilled neither qualitatively nor quantitatively.

The lack on the housing market is still, even 20 years after the political change, so big that even regions with unfavourable demographic forecast aims for further housing development. The best complex description of the housing provides the most important planning document the Slovak Spatial Development Perspective (KURS). Housing market at the moment does not have ideal conditions for further development as the demand is much higher than supply possibilities of the market. The problem, if observed on the regional level, is present in every region of the country. The highest shortage on the housing market can be observed especially in the regions with the highest concentration of population and at the same time with the lowest unemployment rates. According to the Slovak Spatial Development Perspective (KURS) obstacles hindering housing development are effective employ of the building stock, dynamics of the construction proceeding, settlements development and interest of the nature protection on the other hand, historical housing stock and cultural monuments very common mainly in historic cores of the towns and the rural regions of the country. In the national strategy it is mentioned that without the systematic solution synergy of the problems it will be very difficult to improve the situation in the regional development and housing stock. Even though the SSDP document does not explicitly refer to the previously mentioned demographic changes, housing itself should reflect and flexibly respond to the demographic changes.

#### 4 Conclusion

This paper gives a brief overview on the first research results. Analysis covered wide range of documents from all areas of Slovakia (horizontal dimension) as well as from different administrative levels (vertical dimension), starting at the national and for the purpose of the study finishing on the regional level. To summarise, the overall reflection of the demographic change, based on the documents analysis, is partial. Strategic planning documents, especially on the regional level, can be seen as the representatives of the decentralised executive power, but without any legally binding base. On the other hand, territorial planning documents and land-use plans supported with the legally binding regulations which give the opportunity for well-structured further development of Slovakia, do not reflect the problems sufficiently. This discrepancy gives space for further improvement of the documents completion.

Evaluation and analysis gained throughout the above described study will be used as feedback information for further research. In the next steps of the research semi-structured interviews with stakeholders will be conducted. The aim of the expert interviews is not only to gather information on the overall awareness of the demographic change in Slovakia, but to gain a better understanding of the causal-consecutive relations between the partial indicators involved in the process. Finally, an overall synthesis of generated information towards the mutual understanding of the topic within the European framework will be conceived. The aim of the doctoral thesis is to gain an overall reflection of the demographic change in spatial

planning in Slovakia, considered under the ongoing changes within the country as well as within the complex framework of related issues.

### References

- [1] MLÁDEK, J.: *Demographic Analysis of Slovakia*. Bratislava: Prírodovedecká fakulta, 2006. ISBN 80-223-2192-3.
- [2] BLEHA, B., VAŇO, B.: *Prognóza vývoja obyvateľstva SR do roku 2025 (aktualizácia)*. Bratislava, Výskumné demografické centrum, Inštitút informatiky a štatistiky, 2007.
- [3] FINKA, M.: Európska dimenzia udržateľného priestorového rozvoja. In: *Životné prostredie*. Vol. 37, No. 3 (2003).
- [4] ABRHÁM, J.: ): The New EU Member States: Current Tendencies in Regional Differentiation. In: *Journal of Economics*. Issue 10 (2007).
- [5] ŽIGRAI, F. FINKA, M.: Landscape transformation as a multiple challenge for landscape ecology, land-use science and spatial planning. In: *European Landscapes in Transformation Challenges for Landscape Ecology and Management*. Workshop 8, Landscape changes as a part of social transformation in Central and Eastern Europe, Salzburg, 2009.
- [6] KALINOVÁ, Ž.: Koncepcia územného rozvoja Slovenska 2001. In: *Urbanismus a územní rozvoj*. Vol. VI., No. 2 (2003).
- [7] FINKA, M. ET AL.: Planungsbegriffe in Europa. Deutsch-Slowakisch-Tschechisches Handbuch der Raumplanungsbegriffe. Bratislava, ARL Hannover, ROAD Bratislava, 1997.
- [8] FINKA, M.: An Overview about the Spatial Planning System in Slovakia. In: *Spatial Development and Planning in European Integration*. Bratislava, SPECTRA FA STU, ROAD Bratislava, 2000.
- [9] FINKA, M.: Planungsbegriffe in Europa. Österreichisch-Slowakisch-Tschechisches Handbuch der Raumplanungsbegriffe. ARL Hannover, 2000.
- [10] PAŠKOVÁ, M.: Land-Use Planning at Local Level. In: *Current Legislation and Standards of Spatial Planning in Social Transformation and European Integration*. Bratislava, SPECTRA FA STU, ROAD Bratislava, 2000.
- [11] KLAMÁR, R.: *Regionálny rozvoj a jeho plánovanie*. Available at (July 2008): <a href="http://naturscience.fhpv.unipo.sk/geografia/trendy/regionalny\_rozvoj.htm">http://naturscience.fhpv.unipo.sk/geografia/trendy/regionalny\_rozvoj.htm</a>
- [12] COPLÁK, J.: Problémy a potenciály vyplývajúce z procesu implementácie strategického plánovania v podmienkach slovenských obcí. In: *Trajektórie územného rozvoja*. Bratislava, SPECTRA FA STU, ROAD Bratislava, 2006.