

## PREPARATION AND REALIZATION OF THE PROJECT: THE POPULATION ATLAS OF SLOVAKIA

Jozef Mládek

---

*Comenius University in Bratislava, Faculty of Natural Sciences, Department of Human Geography and Demogeography, Bratislava, Slovakia*

**Abstract:** In 2003, the research project "Changes of the demographic development of Slovakia" was approved and it includes preparation and publication of The population atlas of Slovakia. Its purpose is the scientific analysis and cartographic interpretation of the demographic situation in Slovakia. The content of The population atlas of Slovakia consists of the following chapters: 1. Development and distribution of population. 2. Natural movement of population. 3. Mechanical movement of population. 4. Population structures. 5. Housing. 6. Population syntheses. 7. Population projections. The basic map will be that of Slovakia at scale 1:750 000. The leading institution of the Project is the Comenius University, particularly its Faculty of Nature Sciences in Bratislava. In total 406 maps and 125 graphs are included into the Atlas. The work schedule applied to The population Atlas of Slovakia anticipates its publication in 2006.

**Key words:** population atlas, natural and mechanical movement, population structures, population projections, distribution of population

In 2003, the research project "Changes of the demographic development of Slovakia" was approved in the framework of the thematic governmental research and development programme "The topical questions of the development of society". Adoption of this Project in the framework of the programmes of the Ministry of Education of the Slovak Republic reflects the necessity of demographic analysis of the changing population phenomena and processes and their cartographic interpretation in the form of atlas.

The first part of the Project will be the detailed analysis of population phenomena and processes in Slovakia, their historical development, spatial differentiation and international comparison of their trends and levels. The text part of will also contain scientific commentaries to the individual map sets of the Atlas, explanation of applied methods and techniques and clarification of the spatial cartographic picture of the studied phenomena.

The second part of the Project includes preparation and publication of The population atlas of Slovakia and its purpose is the scientific analysis and cartographic interpretation of the demographic situation in Slovakia. The Atlas represents a follow-up

to so far released atlases that only contained partial aspects of population phenomena. It is the first comprehensive processing of complete fundamental information on development, distribution, dynamic and prognoses of the population development in Slovakia.

The subject of The population atlas of Slovakia and processing of the changes of the demographic analysis leans on numerous social, scientific and cultural aspects.

The Slovak Republic has experienced twelve years of independent development. Great social changes that are clearly distinguishable in many spheres of life including demography were recorded. Analysis and cartographic interpretation of fundamental phenomena and their development in the period of transition are not only scientifically attractive, but also topical for the present social practice and the future development.

The demographic situation in Slovakia has undergone great changes recently. They concern reproductive processes (decrease of the fertility rate, those of natural increase and the marriage rates, divorce rate increase, and the abortion rate decrease), as well as the population structures – religious, ethnic, age (population ageing) and educational. Multiple population phenomena acquire the developmental features termed "the second demographic transition" in the west European countries.

The important prerequisite for publication of The population atlas of Slovakia is the sound and reliable information basis. In Slovakia, it is represented by the consistent records of population that the processing of population dynamics leans on. An extra valuable information source is the "Census of inhabitants, houses and flats from 2001". Both these information sources are provided by the Statistical Office of the SR in Bratislava and they constitute the basis on which it was possible to build the complete database concerning the population structures and dynamics.

The professional level of the present generations of experts and scientists was another determinant for the successful processing of the Atlas and the exacting tasks it represents. They are highly qualified middle age and young generations of demographers, geographers, and cartographers prepared to process the authored originals of map sets accompanied by competent editors that are prepared to manage the demanding organisational and specialised parts of the task. The existence of institutions with certain experience in creation of original material for printing and the final typographic reproduction of maps is also important.

The content of The population atlas of Slovakia consists of the following chapters:

## **1. Development and distribution of population**

It presents the development of the basic demographic characteristics from the oldest statistical data to the present time. Especially the census data and all accessible data about the reproductive processes were used. The development of spatial distribution of population and its present distribution according to the natural and administrative units is processed at different hierarchic levels (administrative regions, districts, communes and cadastral territories).

## **2. Natural movement of population**

It presents the development of population processes such as natality, fertility, mortality, marriage divorce, abortion and natural increase rates with special stress upon

their changes in the recent developmental period. The spatial differentiation of the process is interpreted at all hierarchic levels of regional units.

### **3. Mechanical movement of population**

It is focused on representation of the main types of the mechanical population movement. It includes commuting to work and schools in their spatial differentiation. Based on the population migration analysis, immigration and emigration regions were identified. The foreign migration and its trends are presented separately.

### **4. Population structures**

The chapter presents the results of population structure analysis broken according to age and sex including the derived information on ageing. Ethnic, religious and educational structure of population and some types of their regional structure are the cultural traits interpreted. The economic and social structure contains the results of analysis of several traits – industrial, sectoral structures, development and differentiation of unemployment.

### **5. Housing**

The results of analysis characterize such features of the housing pool like age and category of flats. The housing quality is demonstrated by amenities and equipment of flats and households with the intention to capture their spatial differentiation.

### **6. Population syntheses**

Synthesized evaluation of the reproductive process – the reproduction rate, and overall movement of population – constitutes the content of this chapter. Several maps are focused on the life quality characteristics: mean life expectancy, structure of death causes, and level of housing and income of population. Regional differences are subjects of the analyses at different levels (town, rural area, district, administrative region), as well as the demographic regionalisation.

### **7. Population projections**

The state and development until 2025 is foreseen including the prognoses at the national and district levels.

The years 1990 – 2003 were chosen as the decisive period of demographic analysis while the principal attention is given to the recent years 2000 – 2003. An effort was made to use the detailed statistical information of the last two population censuses. The temporal data of population processes were adapted to the census years. Many of processes and structures, as well as the development and distribution of population were analysed and they are presented for a longer period

The basic map will be that of Slovakia at scale 1 : 750 000. It presents the detailed information at the level of a set of communes of Slovakia. The Atlas will also contain

more comprehensive and synthesized maps. Maps at scales 1 : 000 000 a 1 : 500 000 were used for the analytical representation of processes and structures at the level of communes. For the presentation of the population phenomena at the level of districts, the maps at scale 1 : 2 000 000 a 1 : 3 000 000 were used. Information overview at the level of administrative regions will be represented at scale 1 : 4 000 000. Comparison of selected demographic characteristics at the level of the European states or the world will be represented at scales 1 : 20 000 000 or 1 : 15 000 000.

The Atlas will be published in three forms – a classic book edition, loose sheets or individual chapters, and on the compact disk.

The leading institution of the Project is the Comenius University, particularly its Faculty of Nature Sciences in Bratislava. It was here where the Project was prepared and where its organization and management is carried out. The task of the Editorial Board of the Atlas is the coordination of the preparation and processing. The operative body for the management of the whole Project is the Executive Board. Infosat and its Demographic Research Centre in Bratislava participate in the Project. The company Esprit s.r.o. in Banská Štiavnica secures the processing of the original maps, their preparation and typography. Additional organisations, such as the Statistical Office of the SR, the Institute of Geography and the Institute of Sociology of the Slovak Academy of Sciences and other participate in the preparation of the database and processing of the original source material.

In total 406 maps and 125 graphs are included into the Atlas. Recently the work related with the all of author originals maps and graphs has been finished. Preparation of the compiler originals is simultaneously carried out and will be ending in 2005.

The work schedule applied to The population Atlas of Slovakia anticipates its publication in 2006. The effort of all those who participate in the Project is to process and edit the work about population of Slovakia at a high scientific, informative and cultural level.

## **Príprava a realizácia projektu: ATLAS OBYVATEĽSTVA SLOVENSKA**

### **Resume**

V roku 2003 bol v rámci tematického štátneho programu vyskumu a vývoja „Aktuálne otázky rozvoja spoločnosti“ prijatý výskumný projekt „Zmeny demografického vývoja Slovenska, Atlas obyvateľstva Slovenska“. Akceptácia tohto projektu v rámci programov MŠ SR odráža potrebu demografickej analýzy meniacich sa populačných javov a procesov a ich kartografickej interpretácie vo forme atlasu.

Prvou súčasťou riešenia projektu bude podrobná analýza populačných javov a procesov Slovenska.

Druhá časť projektu zahŕňa prípravu a vydanie Atlasu obyvateľstva Slovenska a jej účelom je vedecká analýza a kartografická interpretácia demografickej situácie na Slovensku.

Obsahová koncepcia Atlasu obyvateľstva Slovenska zahŕňa nasledujúcich 7 kapitol:

1. Vývoj a rozmiestnenie obyvateľstva,
2. Prirodzený pohyb obyvateľstva,
3. Mechanický pohyb obyvateľstva,
4. Štruktúry obyvateľstva
5. Bývanie,

6. Populačné syntézy,
7. Populačné projekcie.

Základnou a najpodrobnejšou mierkou máp bude mapa Slovenska v mierke 1 : 750 000. V nej sú zobrazené detailné informácie na úrovni súboru obcí Slovenska a zároveň ide o komplexnejšie, syntetické mapy. Pre analytické zobrazenie jednotlivých procesov a štruktúr na úrovni obcí sú použité i mapy mierok 1 : 1 000 000 a 1 : 1 500 000. Na prezentáciu populačných javov na úrovni okresu sú použité mapy mierok 1 : 2 000 000 a 1 : 3 000 000

Vydanie atlasu obyvateľstva sa realizuje v 3 formách: 1. klasická knižná publikácia, 2. voľný klad listov, príp. jednotlivých kapitol, 3. na kompaktnom disku (CD).

Riešiteľom štátneho programu výzkumu a vývoja je Univerzita Komenského a jej Prírodovedecká fakulta v Bratislave. Spoluriešiteľskými organizáciami sú Infostat a jeho Výskumné demografické centrum v Bratislave. A Esprit s.r.o. v Banskej Štiavnici

Do projektu Atlasu obyvateľstva SR bolo spolu zaradených 406 máp a 125 grafov. V súčasnosti boli ukončené práce na autorských origináloch máp a grafov a do konca roku 2005 budú pripravené zostaviteľské originály všetkých listov atlasu. Vydanie atlasu a publikovanie demografickej analýzy sa predpokladá v polovici roku 2006.