

# BR10965247 STUDY OF FACTORS, CHARACTERISTICS AND DYNAMICS OF DEMOGRAPHIC PROCESSES, MIGRATION, URBANIZATION IN KAZAKHSTAN, DEVELOPMENT OF DIGITAL MAPS AND FORECASTS

## PROGRAM IMPLEMENTATION IN 2021

**Study objective of the first stage (2021)** – identify the main trends in demographic development over 30 years, develop forecasts for the population in Kazakhstan and its regions based on an analysis of the factors and dynamics of demographic processes, migration and urbanization, the political and legal framework intended to govern demographic processes in Kazakhstan.

### TASKS OF THE FIRST STAGE (2021):

- to analyze the population demographic structure, dynamics, demographic processes in Kazakhstan and its regions;
- to study the migration factors, the intensity and quality of internal and external migration flows in Kazakhstan, to analyze the legal, political, social and economic migration factors;
- to consider current trends in the development of urban systems, analyze the urbanization factors, intensity and quality in Kazakhstan;
- to study modeling and forecasting methods and algorithms for the demographic situation, to assess the impact of current population reproduction trends on the future size and composition of the population;
- to conduct a comparative analysis of the political and legal framework intended to govern demographic processes in Kazakhstan and abroad, systematize demographic parameters and compare them with the target parameters of demographic development programs in Kazakhstan.
- to collect material intended to create a demographic data database in the context of regions and cities of the Republic in Kazakhstan with the purpose to develop digital maps.
- to develop a layout, algorithm, program code, program web site.

### RESULTS OF THE FIRST STAGE (2021):

- population reproduction trends in Kazakhstan and in its regions have been revealed; the intensity of demographic changes in the country and its regions has been determined based on the analysis of mortality and birth rates;
- the analysis of the settlement of ethnic groups and ethno-demographic processes in the regions and its impact on the demographic situation in the regions

has been performed; the ethnic and internal migration trends of the urban and rural population and their impact on the prospects for demographic development have been identified;

- the birth decline factors in the order of birth of the first and second child and their influence on the expected demographic situation have been determined; the causal relationships of the birth dynamics in the future as the main factor to predict demographic processes have been revealed;

- an assessment of the current demographic situation in the regions has been given based on the comprehensive analysis performed with the construction of a diagram-map;

- the main trends in the development of external migration processes, incl. its dynamics, intensity and qualitative composition of migrants have been identified; the characteristic of internal migration flows in Kazakhstan, incl. their dynamics, structure, directions, causes and conditions have been given;

- the main socio-economic factors influencing the formation of internal and external migration flows have been identified; the main legal and political migration factors have been found;

- proposals have been made to form a national migration policy model based on the study of foreign experience in migration governance;

- it has been revealed that there has been a change in the role of individual cities, the fading of the role of cities in old industrial urbanized regions, the emergence of new leaders in the evolution course of the cities in Kazakhstan, it has been shown that the urban system in Kazakhstan is evolving towards a model characteristic of developing countries with a high concentration of population in the largest cities with an increase in the tendency for the reduction of the population density in medium and small towns;

- the factors of urbanization have been identified based on an interdisciplinary approach, the classification of the totality of urbanization factors (historical, demographic, geographical and territorial-spatial, economic, social, technical, environmental, natural and climatic, institutional and managerial, geopolitical, global) has been performed;

- three categories of regions with high and moderate rates of urbanization, as well as regions with characteristic deurbanization, have been identified based on the calculated urbanization intensity coefficients, trends in the growth of the urban population occurring due to an increase in the birth rate and migration, the orientation of migration flows to the country's megacities have been identified;

- a comparative analysis of the political and legal framework intended to govern demographic processes in Kazakhstan and abroad have been performed, the main socio-economic factors influencing the formation of internal and external migration flows have been performed; the main legal and political migration factors have been performed; demographic parameters have been systematized, and compared with the target parameters of state programs that affect the natural reproduction process for the population in Kazakhstan.

- the collection and compilation of data in the form of MS Excel tables has been performed for the main sections of demographic statistics, thematic cartographic materials, topographic maps, schematic maps for the subsequent creation of vector thematic layers for the period of 1991-2020;

- a website for the program <https://project.ieconom.kz> has been developed, information about the program and its performers has been posted.

Degree of approbation and implementation. At the first stage (2021) from September to November 2021 6 articles were published in foreign scientific journals, including 1 article the Web of Science database (Core Collection - Emerging Sources Citation Index, IF 0.15, Q4), 3 articles in the international conference proceedings, the researchers had 9 speeches at conferences and round tables.