## == LABOR AND EMPLOYMENT =

## Forecast of Qualitative and Quantitative Characteristics of External Labor Migration in Russia Using Foresight

## M. A. Pitukhina

Center for Budget Monitoring, Petrozavodsk State University
e-mail: pitukhina@petrsu.ru
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**Abstract**—This paper provides a long-term forecast of the qualitative and quantitative characteristics of the external labor migration in Russia up to 2050. The author appeals to the unique experience of the United Kingdom in migration forecasting using foresight. The author has proposed a mini-foresight methodology, which made it possible to identify global trends that affect migration policy in the future, and has systematized peer reviews of the future migration background in Russia up to 2050.

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The implementation of an optimal migration policy requires timely assessments of the situation and forecast of migration processes. Existing methods of qualitative forecasting can be divided into three groups [1], i.e., morphological analysis, analogy method, and peer reviews [1].

Used in this study, the method of the qualitative forecasting of migration flows, *foresight*, belongs to the group of peer review methods. This method is gaining in popularity in the social sciences (education foresight), while in the technical sciences, it proved to be popular long time ago (technology foresight, etc.). Experience in Europe (the European Union, Switzerland, Norway, and the United Kingdom) confirms the significance of foresight. It is believed that France has the longest experience of using foresight in business. However, although the United Kingdom has a shorter history of using foresight, was able to adapt this method to construct various future scenarios. In the British scientific literature, the foresight method is only actively used to study migration flows.

In 2007, the European Foresight Monitoring Network, which is funded by the European Commission, released the Mapping Foresight guide. This guide specifies that "foresight is a process that involves three fundamental elements: perspective overview, planning (policy-making, goal-setting), and the participation of actors (main customers/stakeholders and the use of different sources of information)" [2].

To analyze possible ways to change the qualitative and quantitative characteristics of migration flows through 2050 based on the example of Russia in order to create an optimal migration policy, it is important to take into account possible changes in the economic policy, the structure of the formation of a labor force,

and recruitment requirements for immigrants in the Russian Federation.

Experience in the United Kingdom in improving a control system of migratory flows using foresight to analyze migration processes makes it possible to consider using this method, which is suitable for Russian conditions.

Results of migration forecasting in the United Kingdom using foresight. British futurologist M. Maavak, who analyzes the United Kingdom's migration policy using foresight, first notes the high probability of an increase in the proportion of Muslim population in the United Kingdom by 2050 [3].

In the United Kingdom, these processes are predicted in another study carried out in 2014 by O. O'Brien from University College London [4], which surveyed linguistic diversity of the London Underground lines. O'Brien analyzed linguistic behavior of the passengers within a radius of 200 m from the busiest subway stations and used census data of London's districts collected in 2011. He applied all of this to the map of the London Underground and obtained a map showing the second most frequently used colloquial language after English [4]. Thus, the most commonly used languages in the London Underground are Bengali, Arabic, Turkish, and Gujarati.

In 2011, the United Kingdom Ministry of Science implemented a project called Foresight: Migration and Global Challenge of Climate Change [5], in which with foresight was used to predict trends of migration flows in the European Union caused by climate change. According to scientists, the lack of drinking water due to the pollution of aquifers, increasing urbanization, and higher water consumption may cause a new wave of migration. For example,

Purpose of the stage Stage Tools 1. Identification of global and country-Ordering of key international studies Introducing the experts to leading level challenges of the future of megatrends and challenges of the trends in the study area future 2. Analysis of Russian and international Comparative analysis of Russian Identification of factors of migration forecasts of economic development and international economic developpolicy development ment forecasts 3. Development of criteria for selecting Carrying out expert panels, extrapola-Expert opinion participants in the session and invitation tion of trends, development of experts of scenarios, polls 4. Foresight-session to analyze prosects Use of Internet technologies in the Presentation of development trends of migration policy course of the foresight-session in migration policy for the foreseeable future, formation of the list of new opportunities and threats 5. Data collection Formation of the analytical report with Expert recommendations the results of the offline session

Table 1. Scheme for mini-foresight of migration in Russia

17 million people were forced to leave their homes due to natural disasters in 2009 and 42 million in 2010. Today, 40% of humanity lives on watersheds. Scientists estimate that, by 2050, more than 2 billion people will live in conditions with shortages of drinking water. Water scarcity is relevant in the southern Europe and Central Asia (where Aral Sea in the region has been depleted and is turning into a desert) [5].

J. Beddington has concluded that there is a need for new approaches to decision-making processes, for example, in areas such as adaptation to climate change, urban planning, and assistance in conflict development and management, thus developing a new strategic course in migration policy.

Features of mini-foresight. Our analysis of long-term migration flows in Russia is implemented using the mini-foresight technology developed by Italian Professor G. Sirilli (Institute for Research and Documentation, National Research Institute in Rome [6]). The main difference of mini-foresight from classical foresight is that the former uses a limited set of methods.

The methodology of mini-foresight comprises the following five steps (Table 1).

The preliminary unit of mini-foresight preparation included three major types of work:

—the organization of the Eleventh All-Russian Scientific and Practical Internet-Conference Demand and Supply in the Labor Market and the Market of Educational Services in the Regions of Russia on October 29–31, 2014, in the framework of which mini-foresight was carried out [7];

—the preparation of informative materials based on a preliminary analysis of the state of global migration processes; —the preparation of a list of participants of a future foresight session from the number of reference experts. Participants of the foresight session included 28 experts from Moscow, Petrozavodsk, Belgorod, Kazan, Tomsk, Omsk, Vladivostok, Irkutsk, Novosibirsk, and other cities.

Results of migration mini-foresight in Russia. In the Eleventh All-Russian Scientific and Practical Internet-Conference Demand and Supply in the Labor Market and the Market of Educational Services in the Regions of Russia carried out on October 29–31, 2014, peer reviews about the future of migration flows in the Russian Federation up to 2050 were obtained [7]. Mini-foresight was carried out through private messages that participants were able to view in their profiles during the Internet-conference. As a result, various experts identified global trends that will affect migration policy in the future and quantitative and qualitative estimates of the future of the country's migration background.

Thus, according to the experts, the global trends that affect the migration policy in the future will include the following:

- 1. Higher income inequality between developed and developing countries. Poor people (one-seventh of the world's population lives on less than 1.25 USD daily) [8] consume only 10% of global resources. Inequality breeds conflict, war, environmental degradation, unemployment, political instability, and migration.
- 2. Increased the geostrategic rivalry between Europe and Asia in the peripheral areas (Ukraine, Syria, Libya, Yemen, and Iraq). Extrapolating the current trend in the field of migration shows that the great migratory flows from the peripheral areas to Europe will only grow.

- 3. Greater frequency of natural disasters (droughts, tornadoes, storms, and floods). Extreme weather conditions give rise to political disasters, economic stress, disease, earthquakes, and other natural disasters. These are serious push factors for migrants to decide to leave their region.
- 4. Heightened nationalism. Economic disadvantages of globalization manifest in a revival of traditional identity and political nationalism (Quebec, Scotland, and Catalonia). With the strengthening of this trend in the future, it will not be easy for migrants to adapt to the host society.
- 5. Higher drinking water scarcity. The trend will persist due to population growth, limited access to drinking water, and high levels of poverty. India, Indonesia, Bangladesh, and Nigeria will be affected the most in that matter. In this regard, emigration of the population from these regions may increase.

At the end of the mini-foresight, the experts proposed the following expert estimates of the future migration background in Russia up to 2050. Experts have agreed that the main reasons for migration to Russia by 2050 could be as follows:

- 1. Economic reasons. Russia will significantly replenish its economically active population as a result of labor migration from the Commonwealth of Independent States, as migrants have weak prospects for decent wages in their homeland.
- 2. Demographic reasons. By 2050, the female fertility rate in Russia will not be higher than 2, which is not as disastrous as in Europe [3]. The average fertility rate in Europe is 1.5; for example, in Germany and Sweden, it is 1.84–1.89, while in Slovakia and Romania, it ranges from 1.28 to 1.32 [5].
- 3. Climate (ecological) reasons. Due to global warming, Russia could become one of the most attractive places in the world to live because, in other territories, especially in Southern Europe, the drought will reduce productivity and decrease the fertility of agricultural lands. However, these factors will have no impact on global migration flows in the near future.
- 4. Political reasons. Starting in 2025, there is a possibility of an inflow of migrants from the European Union to the European part of Russia. However, the analysis of political aspects of the problem is beyond the scope of this article.

Thus, the obtained data make it possible to conclude that Russia faces a relatively favorable future in the field of migration policy, above all due to the lower impact of external factors (global warming, irrational policy of the United States and the European Union, and demography).

The author shares the main conclusions of experts who took part in the mini-foresight.

1. The author considers the probability of the obtained forecast of the migration situation in Russia by 2050 as high. In particular, extrapolating the cur-

rent trends (humanitarian migration from Ukraine, labor migration from the CIS, aging of the resident population, and increasing migration flows in the world), the migration flows from the post-Soviet space to Russia will most likely continue to grow.

2. The author also agrees with the experts of the mini-foresight with regard to the pessimistic migration scenario for Europe by 2050. The mini-foresight of 2014 anticipated hardly predictable trends that had not been discussed just a few years ago. Most likely, extrapolation of this trend in Europe in the distant future will be continued.

In conclusion, let us note that the study based on mini-foresight using estimates of qualitative and quantitative characteristics of migration flows in the Russian Federation in the long term up to 2050 was implemented in Russia for the first time.

As a result of using the author's tools, experts have identified global trends that affect the migration policy. This also made it possible to obtain expert estimates of the future migration background in Russia up to 2050. Obviously, in order to acquire a holistic understanding of the future, mini-foresight technology alone is not sufficient to analyze the prospects of immigration policy. This requires comprehensive foresight in educational services and labor and technology markets.

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