# FEDERAL STATE BUDGET EDUCATIONAL INSTITUTION OF HIGHER PROFESSIONAL EDUCATION RUSSIAN ACADEMY OF NATIONAL ECONOMY AND PUBLIC SERVICE UNDER THE PRESIDENT OF THE RUSSIAN FEDERATION

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## ADVANCED SOCIO-ECONOMIC DEVELOPMENT OF THE RUSSIAN FAR EAST BASED ON THE TRANSITION TO THE REPRODUCTION OF AN INNOVATIVE TYPE

Specialty 5.2.3. "Regional and sectoral economics"

#### **ANNOTATION**

of the dissertation for an academic degree Doctor of Economic Science

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Relevance of the research topic. The problem of the discrepancy between the type of economy of the Far East and the tasks of expanded reproduction of the population of the macroregion was posed by the President of the Russian Federation V.V. Putin during "Eastern Economic Forum – 2017", where he noted that "we have already learned how to attract investments to the Far East" and "the growth rate of industry in the macroregion exceeds the national average," however, "the population nevertheless continues to decline annually," and was finally formulated and concretized during the work of the "Eastern Economic Forum – 2023", where the President of the Russian Federation pointed out the need to develop a "fundamentally new model of the urban economy", which should be aimed at "developing a variety of efficient industries, creative industries, and creating comfortable conditions for small and medium-sized businesses." The main ultimate goal of the events is not economic, but social, demographic – "of course, to make sure that young people, after graduating from universities, stay and work in their hometowns, and see career prospects in them."

The strategy of spatial development of Russia refers to the issues of national security as achieving the rates of socio-economic development of the subjects of the Russian Federation located in the Far East that are ahead of the national average, while ensuring the growth of the permanent resident population. In practice, outstripping economic growth is accompanied by steady depopulation, which actualizes the scientific problem of determining the essence of the phenomenon of multidirectional economic and socio-demographic development of the Far Eastern macroregion and substantiating the method of its resolution by the transition to an innovative type of social reproduction, the organizational and functional basis of which is the regional innovation system (hereinafter - RIS).

The purpose of the dissertation research is to develop conceptual provisions for achieving a state of advanced socio-economic development, accompanied by an increase in the permanent population, in the Far Eastern macroregion, which refers to the transition of the subjects of the Russian Federation located in the Far East to a predominantly innovative type of social reproduction, based on the application of

the concept of a regional innovation system, the creation and functioning of which can lead to qualitative transformations of the structure of the sectors of regional social reproduction, by launching and maintaining mechanisms for the creation and market launch of small innovative companies initiated by residents of the Far Eastern regions, capable of becoming the basis for the advanced economic, social, and demographic dynamics of the macroregion.

The object and subject of the study. The object of the study is the regional socio-economic systems of the Russian Far East, and their resource provision for the transition to an innovation-oriented type of reproduction. The list of subjects of the Russian Federation that are the object of dissertation research includes regions geographically located in the Far East, which in the period of 2000-2018 made the full list of regions of the Far Eastern Federal District of the Russian Federation: Amur Region, Jewish Autonomous Region, Kamchatka Territory, Magadan Region, Primorsky Territory, Republic of Sakha (Yakutia), Sakhalin Region, Khabarovsk Territory, Chukotka Autonomous Okrug.

**The subject** of the study is a set of socio-economic relations for the implementation of the transition of the subjects of the Russian Federation of the Far East to a predominantly innovative type of social reproduction.

The theoretical and methodological basis of the research is scientific works in the field of the theory of social reproduction and the transition to its innovative type, the methodology of economic systems, the theory of spatial distribution and distribution of innovations in the "poles of growth", methodological approaches to the reproduction-cyclic macromodel of analysis and forecasting.

Methods used in the work are of systematic, statistical, correlation, structural and functional analysis, the method of paired comparisons, historical and logical methods of cognition.

The information base of the research consists of normative legal acts of the Russian Federation and of the subjects of the Russian Federation, materials of state statistics bodies, specialized information and analytical agencies, materials of

seminars, round tables, scientific and scientific-practical conferences, works of Russian and foreign scientists.

### The scientific novelty of the research is as follows:

1. The nature of the phenomenon of multidirectional dynamics of economic and social, demographic development of the Far East is revealed as an expression of the result of resolving the contradiction between the economic and social goals of social reproduction. In contrast to the previously conducted studies of the Far Eastern macroregion, which took as a basis the concept of the primacy of economic growth, that by default is transformed into an increase in the level of consumption of the population, it was shown for the first time that the transformation of an economic result into a social, demographic result is determined not by the achieved volumes of added value, but by the method of its production, the established type of social relations. It is shown that the increase in sales volumes of high-margin extractive industries, accompanied by a permanent lag in the modernization and technological re-equipment of production, the development of an innovative economy, does not contribute to the formation of public institutions that create favorable conditions for the growth of satisfaction of the population (especially its highly educated part) the totality of the goods and services provided, as well as the possibilities of self-development, which leads to its migration outflow. It is proved that the achievement of leading indicators of socio-economic development of the Far East and the growth of the permanent population is possible when making the transition to an innovative type of reproduction with a social orientation. The economy, based on the application of advanced achievements of science and technology, is characterized by high efficiency. This makes it possible to ensure an increase in the satisfaction of the population with the totality of goods and services consumed and creates conditions for the creation of attractive jobs of highly qualified labor, professional and career growth and self-development of persons with higher education, including academic degrees. In carrying out the transition to an innovative type of social reproduction, a decisive role belongs to the large agglomeration formations of the macroregion, which ensure the conduct of the main part of the reproductive processes and are considered as centers of innovative growth.

- 2. The functional structure of RIS has been developed, which differs from the previously proposed definitions of RIS, describing it as a set of interacting elements of science, education, business, specialized infrastructure, etc., related to subsystems of supply (generation of new knowledge) or demand (practical application of new knowledge), is a reasonable composition of RIS elements necessary and sufficient to achieve the goal of constant resumption of the processes of "growing" small innovative companies that implement the results of intellectual activity (hereinafter RIA) into a product sold in the markets of goods and services. Such elements include only those directly involved in the processes of economic turnover of RIA and represent subsystems that are each part of their own super-system, respectively, by type of activity, and aimed at achieving its goals: generation of new knowledge (science), production and sale of products, works, services (entrepreneurship), risk financing (finance), contradictory interaction and interconnection of which is carried out through the subsystem of the innovation infrastructure.
- 3. Based on the results of a structural, functional and dynamic analysis of economic sectors (innovation and investment, energy, infrastructure, consumer), which had not previously been conducted for the Far East, it was found that the dynamics and proportions of the development of functional sectors do not correspond to the tasks of transition to a predominantly innovative type of social reproduction and require significant changes. The structural deformations of the economic development of the Far Eastern macroregion caused by the hypertrophied growth in the volume of sales of extractive industries, which have become the main recipients of cash flows, to the detriment of the innovation, investment and consumer sectors, which led to job cuts in agriculture, manufacturing, energy, transport, education, healthcare and social security. The necessity of redirecting investments into the advanced development of high-tech manufacturing industry, industrial and social infrastructure, education and science, the sphere of

consumption of goods and services, determining the transition to a predominantly innovative type of social reproduction, is substantiated.

- 4. It has been established that an important socio-economic factor of migration outflow and a decrease in the permanent population of the Far East, which was not previously noted in published scientific research, is the reduction of jobs in high-tech manufacturing industry and knowledge-intensive activities: energy, education, healthcare, and social services. The calculations carried out showed a high correlation between the decrease in the number of employed (reflecting the number of jobs) in manufacturing industries and the decrease in the number of permanent residents in the Russian Far East.
- 5. For the first time in studies of the mechanical movement of the population of the Far East, a constantly present initiative core of migration outflow was revealed, represented by persons with higher education, including those with academic degrees. It is shown that the recipients of migrants both in the Russian Federation and abroad are regions that have become leaders in the development of high-tech industries and innovations. None of the subjects of the Russian Federation located in the Far East is among such leaders, respectively, all Far Eastern regions are migration donors. It is argued that solving the problem of changing the migration balance from negative to positive requires a transition to an innovative type of social reproduction and building an innovative economic model based on RIS in the agglomeration formations of the Far East, which will create conditions for engaging highly educated people in attractive activities, career growth and self-development.
- 6. Unlike the existing methods for calculating the integral indicator of the characteristics of the innovative potential of the region, which allows it to be assigned a comparative rating, the assessment of the resources of the subjects of the Russian Federation located in the Far East necessary for the construction of RIS was carried out separately for each of the main elements of the potential: generation of new knowledge; innovative entrepreneurship; risk financing; innovative infrastructure. The results obtained show the presence (or absence) and the level of development of all these elements, and are the initial data for the construction of RIS.

Taking into account the peculiarities of the development of regional economies, measures for the formation of RIS in them are determined. Among them are: a) the development of the R&D sector; b) an increase in the number of innovation-oriented companies; c) the creation of a seed venture financing system; d) the creation of innovative infrastructure institutions - business incubators, technology parks, technology transfer centers.

7. Based on the analysis of the state innovation policy pursued in the Far East, it has been established that the formation of an innovative economy is considered as an important, but not the main factor in achieving the strategic goals of advanced socio-economic development and growth of the permanent population of the macroregion. Innovative activities carried out by state authorities at the regional and federal levels are characterized by a lack of unity of methodological approaches, disunity, and fragmentation. The proposals for making changes to the National Program of Socio-economic Development of the Far East, as well as for the development of regional innovative development programs for carrying out the necessary measures by public administration bodies, business entities, organizations of science and education, socio-cultural sphere, development institutions of the Russian Federation, ensuring the transition to an innovative type of social reproduction including: in the subsystem of generating new knowledge – the development of the field of applied scientific research and development; in the subsystem of entrepreneurship – stimulating enterprises to introduce high technologies and innovations; in the subsystem of finance – the development of seed and venture investment institutions within walking distance; in the subsystem of innovative infrastructure – the construction of business incubators and technology parks. The organizational and functional basis of the model of transition to an innovative type of reproduction is RIS, the construction of which is carried out in all agglomeration formations of the Far East, considered as centers of innovative growth, attractive for the residence and development of a highly educated population. A methodological approach to the development of regional innovative development programs aimed at building RIS is proposed. The essence of this

approach is that in order for RIS to work, it is necessary to create the main elements of this system as a matter of priority and support a favorable institutional environment for their continuous functioning.

8. As a confirmation of the possibility of achieving simultaneous improvement of economic, social and demographic indicators in the regions of the Far East, an assessment of innovative programs implemented in regions of various industry specialization: the high-tech Khabarovsk Territory and the raw materials Republic of Sakha (Yakutia), - was carried out. Concrete evidence has been obtained of the impact of the development of an innovative economy on the consolidation of highly educated personnel, the appearance of signs of stabilization of the population. Locally achieved high growth rates of production and sales, which were accompanied by a decrease in migration outflow, indicate the possibility of achieving faster economic growth and an increase in the permanent population of the macroregion based on the development and implementation of innovative development programs based on the construction of RIS. This makes it possible and expedient to repeat the proven measures for innovative development in other regions of the Far East.

The theoretical and practical significance of the study. It is theoretically proved that the achievement of leading indicators of socio-economic development of regions and expanded reproduction of the population requires a transition to a predominantly innovative type of social reproduction. Migration flows, the core of which are persons with higher education and qualifications, tend to move to Russian and global centers of high technology and innovation, which are recipients of migrants, while regions lagging behind in the formation of an innovative economy, which include all subjects of the Russian Federation of the Far East, without exception, are migration donors. The transition to a predominantly innovative type of development becomes an objectively necessary condition for a radical reversal of the demographic situation in the macroregion from negative indicators of mechanical population growth to positive ones.

The essence of the phenomenon of multidirectional dynamics of economic and socio-demographic processes in the Far Eastern macroregion is revealed, which consists in an increasing imbalance in the structure of functional sectors of the economy – the outstripping growth of investments and value added in the energy sector and the permanent lag of the innovation, investment and consumer sectors. Job cuts in high-tech manufacturing industries, knowledge-intensive industries of industrial and social infrastructure are the main factor in the migration outflow of the population.

The author has introduced into **the theory** of regional innovation systems (RIS) a justification of the composition of the minimum necessary and sufficient elements of RIS, ensuring the achievement of its functional purpose. The author's definition of RIS is given as a subsystem of NIS, consisting of elements that are representatives of their functional subsystems: generation of new knowledge, innovative production, risk financing, innovative infrastructure. In the contradictory interaction of these elements, the reproduction of the processes of bringing the results of scientific activity into the sphere of practical economically beneficial application takes place. A graphical representation of the system operating within the framework of an environment special to the region is given.

The method of transition of the regions of the Far East to a predominantly innovative type of reproduction on the basis of agglomeration formations of the macroregion forming institutions of regional innovation systems functionally aimed at the constant resumption of the processes of creation and development of innovative companies is substantiated.

The practical significance of the study lies in finding a scientifically sound solution to a socio-economic problem of national economic importance for ensuring the economic security of the country, including theoretical proof of the need to switch to an innovative type of reproduction in the subjects of the Russian Federation of the Far East, and substantiation of the methodology and method of conducting practically oriented measures to build RIS, which are the institutional basis for such a transition. An assessment of the resource provision for the creation

and development of RIS in the Far East has been carried out and measures have been proposed for the state governing bodies of the subjects of the Russian Federation located in the Far East to form functional elements and links of RIS in cooperation with federal government bodies, development institutions, large corporations, scientific and educational organizations. An assessment of the socio-economic effectiveness of such events is given based on the results of innovative projects and programs implemented in the regions of the Far East.

The results of the study have a high degree of preparedness for direct implementation into the practice of public administration in order to switch to a predominantly innovative type of development of the regions of the Far East and on this basis achieve advanced socio-economic development and growth in the permanent population of the macroregion.

Approbation of the research results. The main results of the research were reported at 31 interregional, all-Russian and international scientific and practical conferences, forums, and round tables. The results of the dissertation research are introduced into the practice of public administration through the direct participation of the author in the preparation and implementation of management decisions of executive and legislative authorities of the regional and federal levels on the formation of an innovative economy in the region.

The list of the author's publications. The author has published 92 scientific and educational works on the topic of the dissertation research, of which 52 publications are included in the RSCI.

On the topic of the dissertation research, the author has published 25 articles in journals included in the RSCI: "ECO"; "Economist"; "Innovations"; "Intellectual property. Industrial Property"; "Power and administration in the East of Russia". The list of publications recommended by the RANEPA Academic Council, or the international citation databases (WoS, Scopus), as well as the core of the RSCI, includes 5 publications by the author.

The structure and scope of the dissertation. The dissertation work consists of an introduction, five chapters, a conclusion, a list of abbreviations and symbols, a list of references, a list of illustrative material. The work contains 320 pages of the main text, 26 tables, 21 figures. The list of references includes 353 titles.