Comprehensive socio-economic development of Arctic territories of the Russian Federation: case of risks in the coordinate plane.

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Abstract. Nowadays the development of Russian Arctic territories became a paramount problem of socio-economic development of our country and technical growth. Such a breakthrough can come true because of an effective state politics (rising of life grade, high standard investment protection by the law, strict requirement of protecting nature) and attracting of investment to comprehensive development of Arctic regions, including risk projects in long. However, the provisions of the state policy about the Arctic region is not completed today. The comprehensive way of region development is not shown. The specific Arctic conditions and especially a commerce control not completed too. The possibility of comprehensive socio-economics growth of the region is addicted to its potential, ability of adaptation for innovations and well risk management. All these factors define a relevance of risk research. In this article presented a risk analysis, defined and systemized the risk factors, on the base of spatial structuring in the coordinate plane, including trends of development and area features with region own potential and quality of socio-economic region development control. The case of risk and accounting have to become a part of the making an administration decisions to decrease the risk influents with using an integrated risk management.

1. Introduction

A value of Arctic region is becoming more important for Russian each year. This is caused by the necessity of multipurpose presence and comprehensive and balanced socio-economics development for the national safety, sustainable nature use, saving unique environmental systems. Geopolitics and Geo-economics value of Russian Arctic area, including its variety ecosystem, territories and natural resource potential, make an agenda forming a new modern special Russian development model and make government find a new progressive administration methods, considering modern domestic economic and geopolitical challenges.

Russian Arctic region is a unique geographic, ecologic and climate region. It is formed by spatial integration of the territory and water area. It has special properties and qualities: severe climate conditions, the exceptional vulnerability of the environment, uneven settlement, high urbanization, historical experience of development of area, special competence, industry specificity, uneven providing the main production factors, infrastructure and human resources, low diversification of economy. Furthermore, despite that population is just 1.5% from all-Russian, the weight of Arctic zone in Russian GDP is 10% GDP because of gas and oil production and attract 10% of all...
investment. However, the level of poverty, unemployment and quality of life of the population less than average. Therefore, the number of citizens headily decrease [1].

2. Method, Results and Discussion

The imbalance in the socio-economic development of the Arctic regions is basically due to the current priority resource and raw material development path, based mainly on the exploitation of natural resources. In the view of the foregoing, it is necessary to change the meaning of the concept and operating procedures, the key imperative for the development of the Arctic should be the comprehensive socio-economic development of the Arctic regions, which is also argued by many scientists [2,3]. This principle is one of the strategic lines of state policy. It is known by the new project of president’s decree «On the basics of state policy in the Arctic and national security until 2035», that define the aims, that are the base of the list of the main documents like: «Strategy for the development of the Russian Arctic zone until 2035», Federal law «On the special economic regime of the Arctic zone» (system of exemption and preferences) and new edition of state program «Socio-economic development of the Arctic zone of the Russian Federation».

According to the documents, the paramount areas of state policy are: growth of life quality in Arctic region among the average value; speed up of economic development of area and increasing of Arctic’s impact in Russian economic growth; conservation and protection of the Arctic natural environment; preserving the Arctic as a territory of peace, stable and mutually beneficial partnership.

According to the Strategy project, as estimated by the Ministry of development of the Russian Far East and Arctic, thanks to the development of the world biggest oil and gas regions (Varandeysky and Kolguevsky oil centers, Novopoortovsky oil and gas condensate and Bovanenkovsky gas condensate mineral deposits) and increase of the producing LNG on the Yamal and Gydan peninsulas, share of producing oil in Arctic will be increased to 22% of the total amount of oil production in Russia in 2030 and to 25% in 2035. The share of producing gas in Arctic will be increased to 92% from 82,7% in 2018. The production volume of LNG will increase more than 7 times (to 73,5 billion ton per year) in 2030. Moreover, in 2035 it will grow to 63% and reach 120 billion ton a year [4]. It is assumed, that increase of capacity of The Northeast Passage will grow to 80 billion ton a year in 2024, 120 billion ton in 2030 and 160 billion ton in 2035. It means that it will be 8 times above the same level in 2018. Thanks to government support and exemption the new industry (oil and gas chemistry) will develop. As a result of the new strategy it is planned an increase of industry production and share of arctic regions in all-Russian production. Up to 200 thousand new workplaces will be created, because of Arctic projects start [5].

Of course, one should take into account the peculiarity of the Arctic economy, which mainly depends on the exploitation of mineral resources. According to scientists, it is the use of natural Arctic resources, determined primarily by the strategic interests of the state and is the systemic core, the financial basis of the socio-economic development of the Arctic regions of the Russian Federation. [2] Through the orders of the fuel and energy sector, restructuring and updating of the entire economy takes place, the country's status in the global economic space is changing. This leads to the formation and implementation of bi-directional specialization of Russia, based on the use of natural advantages in the natural resource sector and the high technological potential of a number of industries [6].

Meanwhile, for public administration decisions of large-scale tasks, such as comprehensive socio-economic development of Russian Arctic area, it is not enough just to proclaim the strategy. It is needed to find out an effective methods of government politics realization, based on systematicity, comprehensiveness and coordination. This will help to overstep the gap between the contribution of Arctic regions to the economic development of the country and increase the living conditions of the populations in these regions.

For actual administration practice high resource-industry approach is an evidence. Obviously, the multifunctional economy and area management is not consistent, that is the main cause of imbalances. Therefore, the success of politics realization in socio-economic development of Arctic area, contributing to comprehensive development of region, is addicted to answers for these questions: Are
aims right and structured enough? Are resources used rational for reaching it? Is the logical sequence is justified enough for possible events. Without understanding all special actions for government control of socio-economic development are becoming chaotic and unable to reach aims and high effects in long run.

The development of any region is multidimensional process, that is mostly researched as a combination of different social, economic and ecological goals. For making an effective administration decisions and successful realization of strategy of socio-economic development Arctic regions the validity of the risk, based on risk management and ability to adapt, becomes relevant. Using these methods of optimization vs. risk procrastination, reliable administration, based on system way of research, are the main provision of strong socio-economic development of Russian Arctic zone.

Modern Russian model of development of Arctic zone is addicted to many factors of variety of internal and external order. The risk is characterized by multi-aspect and versatility, not just as theory of risk, but also as analytic structure and the way of making real decisions. In this point of view, diagnostics and identification of risks means implementation of spatial structuring in the coordinate plane, considering the trend of development and area features, based on its own potential, quality of socio-economic development control, that impacts on government strategy realization for choosing the way of region development control and its streaming (Figure 1).

![Risk diagnostics in the coordinate plane](image.png)
Risk diagnostics in the coordinate plane is a three-dimensional comprehensive analysis. It is possible to define a risk-tolerant and risk-based vectors, the connection between internal and external environment and risk situation that may influence on socio-economic region development, by using this method. Arctic region has a special factor system and development conditions (resource, economic, labor, innovation, transport, technic, etc.) [7]. Thus, a connection between region system and factors of influence (high-quality administration, region potential, region features including trend of development) appears. The risk-contributing factors is a prerequisite of risk. Therefore, risks are influence as on the whole region development, as on individual economic entities. It is a danger for government's plans and task solving process.

The main feature of risk analysis in coordinate planes in connection with concepts of risk is an orientation on object description of socio-economic process, that is to create an information base of risks like their id, that can be useful for full disclosure of possible dangers, that could damage the socio-economic region development. Information about possible risks is an important base for an administration practice and using methods of strategic planning and managing.

The results of Arctic strategy are strongly addicted to considering all risk factors. The risk plan space is researched by risk management on the base of process methods. Process method consisting of identifying zones as a source of risk, building the causal relationships, for defining a possible deviation (Figure 2).

For the management activity (for an effective administration decisions) risk justification is a main clause, because administration process is a connection of conditions, resources and risk-contributing factors of region development, coordination of interests of all agents, so it requires consciousness and consistency.

Every risk is a sequence of events. It is possible to decrease a risk by eliminating at least one such cause. Structured risk system, based on causal relationships and aimed at showing the counteractions to negative manifestations of risk (preventive measures), also the allocation of responsibility for risk, was created.

The realization of strategy points and solving problems could not come true without responsible administration. Risk could not be excluded in large-scale tasks. It is needed to work on decrease of an influence of risk-producing factors. The risk accounting has to become a part of making an administration decision process. Therefore, the risk influence will be decreased by using a comprehensive risk management, targeted on solving risk problems. The main principle of risk management is that to make the results more predictable (it means to decrease the uncertainty) for assuming measures to decrease the negative consequences of the risk.
Figure 2. Table of risk mapping based on cause-and-effect relationships
3. Conclusion

The success of realization of Arctic strategy is addicted to solving risk protection problem. Risk protection characterizes quality and reliability of development, the possibility of conservation of link health and ability to withstand hazards and threats. The comprehensive socio-economic region development is a result of risk protection, based on active management, including risk management that is not just for elimination of negative consequences, but for optimization of multi-step process of making responsible decision: for the nature of the impact (economic, organizational and technical, normative-legal) and for aim of using (warning, localization, distribution, transmission, compensation) by realization of many prepared events in connection of all stakeholders.

In conclusion, a scientifically justified government policy will have the main value, providing an optimization of possible risks, encouraging to use resources in rational manner.

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