The public administration of the socio-economic development of the Arctic zone based on a stakeholder approach

Swetlana Sakharova¹, Irina Avdeeva, Tatyana Golovina and Larisa Parakhina
Central Russian Institute of Management, Branch of RANEPA, Department of Management and Public Administration, 302028 Orel, Russia
E-mail: i-avdeeva-i@yandex.ru

Abstract. The need to form an effective system of public administration of the Arctic zone socio-economic development is driven by the current processes aimed at the working out of a new Arctic Development Strategy until 2035. This strategy should combine the activities of national projects, government programs, investment projects of state corporations, programs for the development of the Arctic regions and cities. The purpose of this study is to develop theoretical and methodological provisions of the stakeholder approach in the system of public administration of the Arctic development. Scientific novelty consists in the formation of an effective system of public administration, taking into account the specifics of economic and managerial relations with stakeholders, which is aimed at the balanced development of the Arctic. The study presents an assessment of the current state regional policy on the territory of the Arctic zone of the Russian Federation. A model of public administration of its socio-economic development based on a stakeholder approach was developed. Strategic measures of state management of the Arctic were identified on the basis of the regulation of the effects distribution between stakeholders.

1. Introduction
The modern processes in the Arctic Zone of the Russian Federation (RF) are aimed at elaboration of a new Development Strategy for the Arctic Zone of the Russian Federation until 2035. It should combine the measures of national projects, government programs, investment projects of state corporations, development programs for the Arctic regions and cities. This strategy determines the need to work out an effective system of public administration for the socio-economic development of the Arctic zone.

Nowadays the Arctic zone is an important part of the global political system. At the beginning of the 21st century, the Arctic attracts more and more attention of various countries. These include not only world powers and "Arctic" countries, but also Asian states (China, South Korea, Japan) that, at first glance, are not geographically related to the region. These countries become increasingly active in considering the Arctic issues [1]. It is worth clarifying that now Japan, the Republic of Korea and China have the most powerful political, economic, research, scientific and technological potential among other "non-Arctic countries" in the East Asia to be included in the joint development of the Arctic.

The present level of the development of science and technology, as well as climatic changes that make the Arctic more accessible from a transport point of view, drive an increase in interest in the region, primarily from the Arctic states traditionally represented here.
The new conditions pose the main task to ensure the competitiveness of the Arctic economy. In the pre-crisis period, the solution to this problem at the level of state policy was supposed to be carried out by stimulating investments and providing investors with various benefits and preferences. At the same time, such investments are becoming “cost destinations with unobvious purposes”.

At the same time, at a new stage of technological development, one can and should talk about the need for a new strategy of technologization, digitalization and industrialization of the economy. It should be based on the national program of sectoral/cluster development in the field of production and processing of hydrocarbons (primarily the key minerals of the Arctic - gas, oil, coal). Within the framework of a systematic approach to the formation of the Arctic energy cluster, one can perform an objective assessment of the effectiveness of certain measures of state support (benefits, direct investment, soft loans).

The ambitious plans of the state authorities to transform the Arctic zone into one of the locomotives of the country's socio-economic development are faced with a number of objective economic difficulties. These difficulties are diverse and some of them have a complex nature. They have arisen from the contradictions between the goals of the Arctic development, included in program and strategic documents, the regulatory and legal innovations, and objective economic prerequisites.

One of the main problems of public administration of the Arctic zone of the Russian Federation is the presence on its territory of the RF constituent entities in whole and part of the territories of the constituent entities of the Russian Federation. The other problems are the inclusion of the RF Arctic constituent entities into federal districts, point settlement, the focal nature of the development and conducting of economic activities, the multifaceted variability of natural, socio-cultural living conditions.

The development of the Russian territory of the Arctic has become one of the primary tasks of the socio-economic development of the state, reaching a new scientific and technological level. Such a breakthrough can be achieved due to implementation of effective state policy that ensures an increase in the quality and standard of living, high standards of investment protection at the legislative level, strict requirements for the protection of the natural environment. The other key point is focusing of investment capital on the integrated development of the Arctic regions, taking into account the implementation of high-risk capital-intensive projects with a long life cycle.

Special attention is paid to the development of the Arctic zone at the federal level. The Decree of the President of the Russian Federation dated February 2019 posed additional powers to the Ministry for the Development of the Russian Far East to implement state policy and legal regulation of the Arctic development. In March 2020, by his Decree V.V. Putin approved the Fundamentals of State Policy of the Russian Federation in the Arctic for the period up to 2035, which determine the main directions of development of this macrozone [2].

The priority task is developing the Arctic zone as a strategic resource base and its rational use in order to accelerate the economic growth of the Russian Federation. In order to implement these activities, a number of draft laws have been adopted, enabling increasing the volume of production of hydrocarbons, as well as regulating investment activities.

In particular, Federal Law No. 137-FZ of April 24, 2020 amended the Federal Law “On Gas Export” [3]. This legislative initiative has expanded the list of companies exporting liquefied natural gas.

PJSC Gazprom was the main monopolist on the Russian market for a long time. At the same time the considered Federal Law provides for the admission to the market of companies whose license includes the construction of a plant for the production of natural gas in a liquefied state or sending the extracted gas for liquefaction to this plant. This admission was used in 2013 by PJSC Novatek and PJSC NK Rosneft.

Amendments to the Federal Law "On Gas Export" will increase the production of liquefied natural gas in the Arctic zone, and will make it possible to export gas from sites licensed after January 1, 2013.
In addition, on March 18, 2020, Federal Law 65-FZ amended part two of the Tax Code of the Russian Federation. The bill is aimed at attracting investors to the Arctic through the application of tax incentives in the northern territories [4]. In 2020, the Ministry for the Development of the Russian Far East plans to create a system of social support for citizens living in the Arctic zone. Conditions must be created to stimulate living in the Arctic, as well as to attract labor resources.

For this purpose, state initiatives are being implemented at the regional level. For example, a mechanism for targeted training of specialists in regional universities for large Arctic projects should be implemented in the Murmansk region. In the Arkhangelsk Region, it is planned to create a research and educational center and an Arctic health center on the basis of existing universities. Its purpose is to conduct research in the interests of the entire Arctic zone, and to train qualified personnel.

In addition, the scientific community of Russia is involved in solving issues of the Arctic development. In various regions, Russian scientists create and develop unique substances, materials and devices capable of operating in the harsh Arctic conditions. For example, Altai State University is developing an ice reinforcement system that can be used on winter crossings. Specialists of Kazan Federal University have created a substance that slows down the process of icing and corrosion during oil production and transportation. Novosibirsk State University is developing an energy storage device capable of operating at temperatures down to -60 °C. Unique materials for building protection in the Arctic, radio electronics, communications equipment and much more are being created at the Russian universities.

Moreover, a draft law has been prepared providing for the possibility of obtaining free land plots in the Arctic zone. The land can be used both for house construction and for any economic activity.

2. Materials and methods

In order to take coordinated measures aimed at solving the existing problems and sustainable development of the Arctic zone of the Russian Federation, an integrated approach is needed through the adoption of effective government management decisions. In addition, working mechanisms for joint interaction between the state and business based on the stakeholder approach should be found. Due to the implemented state initiatives, the diversification of the socio-economic development of the Arctic zone should be ensured, the investment climate should be changed and the inflow of capital to the Arctic should be ensured, which will contribute to the accelerated development of the country's economy.

Moreover, there is a need for a theoretical rethinking of the activities of public authorities. One should also perform systematization and development of methodological approaches to improve public administration based on an integrated model, taking into account the balance of stakeholders interests in the Arctic zone.

It is necessary to develop and introduce into the practice of public administration models and mechanisms of joint management of the Arctic zone development. They should be based on the interaction of authorities, business structures, non-profit organizations in making strategic management decisions.

Nowadays one of the key factors in the successful implementation of state policy in the Arctic zone is effective interaction with stakeholders [5]. Thanks to coordinated actions and taking into account the stakeholders interests when making decisions, a positive result is achieved by all parts participating in measures implemented within the framework of state policy in the Arctic zone.

A large number of studies are devoted to the problem of interaction with stakeholders [6-9]. For example, the main success factors of the project approach for stakeholder management are considered in [10]. Olander and Landin examined the impact of open communication on the effectiveness of stakeholder management [11]. Achman tried to assess how it affects the degree of involvement of stakeholders in the public administration system [12].

M.Bal proves that interaction with stakeholders plays an important role in the implementation of infrastructure projects and influences the obtained results [13]. He has developed an iterative stakeholder engagement process that achieves sustainability goals. This process includes the stages of
identifying, prioritizing, managing key stakeholders and evaluating their effectiveness. However, the presented approach does not fully explain the impact of different types of stakeholders on specific activities.

E. Chinyio and P. Olomolaiye came to the conclusion that stakeholders can have a significant impact on functioning, achievement of goals, and development of the economic system [14]. J. Glass proposed to make reports on the results of activities of business entities for stakeholder involvement and reputation management [15]. N. Jeffery proposed a model of “meaningful” process of interaction with stakeholders, which is a proactive two-way process between an economic entity and a stakeholder [16].

Despite the valuable contribution of previous studies, it should be noted that the development of public administration of the socio-economic development of the Arctic zone on the basis of a stakeholder approach has not yet received a close attention and wide discussion in scientific articles. Nevertheless the state and municipal authorities of the Arctic zone pay considerable attention to this issue.

For this reason, scientists and practitioners have shown considerable interest in certain organizational and methodological aspects of creating an optimal system of interaction with stakeholders in the state and municipal authorities of the Arctic zone of the Russian Federation [17].

3. Results and discussion
The authors believe that cooperation between the state, represented by its central and regional executive authorities and regional and local self-government, on the one hand, and stakeholders, on the other hand, should be based on the principles of equality, openness, non-discrimination, increasing efficiency and minimizing risks and costs.

The modern practice of stakeholder approach is increasingly positioning itself as a partnership in order to modernize the system of regulation of regional intersectoral relations during development and implementation of regional development strategies [18-19].

All fields within the stakeholder approach are objectified by the goals and resources of the acting agents. In other words, the economic field is associated with the use and distribution of economic resource. The cultural field is formed through the interaction of agents solving problems related to the cultural sphere of society (education, religion, for example). The solution of problems concerning the social sphere forms the social field, and the competitive struggle for power is reflected in the functioning of the political field [20-21].

Factors external to stakeholders such as a developed legal system, a high level of development of information technologies, together with the same level of openness and transparency in the activities of interaction agents, create the necessary foundations for the functioning of effective public administration and provide conditions for high-quality implementation of management decisions [22].

The authors’ model of public administration of the socio-economic development of the Arctic zone based on the stakeholder approach is shown in Figure 1.
The relevance of the use of the stakeholder approach in the state administration of the Arctic zone of the Russian Federation is confirmed by the Federal Law "On state support of entrepreneurial activity in the Arctic zone of the Russian Federation", which entered into force on 28.08.2020. According to this Law the creation and modernization of infrastructure facilities of this territory will be carried out using public-private partnership mechanisms [23]. This mechanism implies the implementation of joint projects by the state and business on mutually beneficial terms. One of the goals of such a partnership is the admission of private investors to participate in offshore projects in the Arctic and the Far East, subject to meeting certain requirements in terms of the scope of work, assessment, exploration and production of hydrocarbons in due time.

A purposeful comprehensive government policy in relation to the formation of a favorable investment climate in the region can provide indirect multiplier impacts on the socio-economic indicators of the development of the region and the country's economy as a whole [24-25].

The new model of public administration of the Arctic development will take into account the objective limitations of the economic activity. It will contain effective mechanisms of state and corporate governance based on the stakeholder approach. The most important task of this model is to provide conditions for effective development, which can be achieved only by reducing the costs of economic activity and regulating the conditions for its implementation. Also it should include the practice of extended consideration of joint projects [26] within the framework of the strategy and programs of sectoral/cluster development.

To ensure the socio-economic development of the Arctic, the state needs:
a) To formulate the concept of a national and export-oriented program for sectoral/cluster development in the field of hydrocarbon production and processing;
b) To identify key strategic projects;
c) To form a request for the necessary infrastructure from the state and business;
d) To develop a set of tools and measures of state policy aimed at implementing strategic measures based on a stakeholder approach.

4. Conclusions
Thus, a vast variety of stakeholders is strategically interested in the development of the Arctic territories. Herewith the local population and business are the most important strategic subjects.

The stakeholder approach ensures the involvement of many subjects of public policy and their interpretation of socio-economic and political events, actions, and the implementation of values. In
this regard, the concept of stakeholders, constructed by many actors in their own interests, becomes a source of building effective socio-economic practice in the Arctic zone of the Russian Federation.

The social and economic potential of the Arctic zone can be comprehensively realized only thanks to the development of stakeholder ties on a new basis, which provides for the active participation of all stakeholders in the formation and implementation of state policy.

Increasing the role of stakeholder participation in public administration issues is currently being implemented on the basis of the principle of openness of authorities, as well as the general trend towards digitalization of processes within state and municipal governance.

5. Acknowledgements
The reported study was funded by RFBR, project number 20-310-90038.

6. References
[1] Gouré D 2017 US & NATO Need an Arctic Strategy to Counter Russia Real Clear Defense Available at: https://www.realcleardefense.com/articles/2017/11/08/us_nato_need_an_arctic_strategy_to_counter_russia_112602.html
[2] Fundamentals of state policy of the Russian Federation in the Arctic for the period up to 2035: federal law of 5 March 2020 no 164-FZ
[3] On Amendments to Article 3 of the Federal Law On Gas Export: federal law of 24 April 2020 no 137-FZ
[4] On Amendments to Part Two of the Tax Code of the Russian Federation: federal law of 8 June 2020 no 172-FZ
[5] Parnphumeesup P and Kerr S A 2011 Stakeholder preferences towards the sustainable development of CDM projects: Lessons from biomass (rice husk) CDM project in Thailand Energy Policy no 39(6) pp 3591–3601
[6] Freeman R E and McVea John 1984 A stakeholder approach to strategic management University of Virginia p 32
[7] Pfifiner J and Presthus R 1960 Public Administration: The Ronald Press Co (New York) 168 p
[8] Frooman J 1999 Stakeholder influence strategies Academy of management review no 24(2) pp 191–205
[9] Karlsen J T, Græe K and Massaoud M J 2008 Building trust in project-stakeholder Relationships Balt J Manag no 3 pp 7–22
[10] Yang J, Shen G Q, Ho M, Drew D S and Xue X 2011 Stakeholder management in construction: an empirical study to address research gaps in previous studies Int J Proj Manag no 29 pp 900–910
[11] Olander S and Landin A 2005 Evaluation of stakeholder influence in the implementation of construction projects Int J Proj Manag no 23 pp 321–328
[12] Rosen M A and Kishawy H A 2012 Sustainable Manufacturing and Design: Concepts, Practices and Needs Sustainability no 4 pp 154–174
[13] Bal M and et al 2013 Stakeholder engagement: Achieving sustainability in the construction sector Sustainability no 5(2) pp 695–710
[14] Heravi A, Coffey V and Trigunarsyah B 2015 Evaluating the level of stakeholder involvement during the project planning processes of building projects Int J Proj Manag no 33 pp 985–997
[15] Ackermann F and Eden C 2011 Strategic management of stakeholders: Theory and practice Long Range Planning no 44(3) pp 179–196
[16] Jeffery N 2009 Stakeholder Engagement: A Road Map to Meaningful Engagement The Doughty Centre for Corporate Responsibility, Cranfield School of Management Available at: http://www.som.cranfield.ac.uk/som/dinamic-content/media/CR%20Stakeholder.pdf
[17] Polyandin A, Proniayeva L, Matveyev V, Amelia A and Klevtsova M 2018 Personnel risks management in the competency approach at state service bodies Proceedings of the 32nd
International Business Information Management Association Conference IBIMA 2018 – Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth pp 2376–2391

[18] Wang W, Liu W and Mingers J 2015 A systemic method for organisational stakeholder identification and analysis using Soft Systems Methodology (SSM) European Journal of Operational Research no 246(2) pp 562–574

[19] Migunova G S, Polyanin A V, Popadyuk T G and Poltoryhina S V 2020 Innovative potential of Russian regions: Analysis of formation of regional clusters connected by technological chains International Journal of Supply Chain Management no 9(4) pp 78–83

[20] Keller L and Rabin J 2008 Public Administration as Encyclopedia of Public Administration and Public Policy Second Edition (Boca Raton (FL, USA): Taylor & Francis Group) pp 1588–1594

[21] Rosenbloom D 1998 Public Administration: Understanding Management, Politics and Law in the Public Sector (New York: McGraw-Hill) no 28(4) pp 84–89

[22] Delmon J 2017 Public-Private Partnership Projects in Infrastructure: An Essential Guide for Policy Makers (Cambridge University Press) no 7 p 269

[23] On state support for entrepreneurial activity in the Arctic zone of the Russian Federation: federal law of 13 July 2020 no 193-FZ

[24] Harrison J S, Bosse D A and Phillips RA 2010 Managing for stakeholders, stakeholder utility functions, and competitive advantage Strategic Management Journal no 31(1) pp 58–74

[25] Garvare R and Johansson P 2010 Management for Sustainability – A Stakeholder Theory Total Qual Manag no 21 pp 737–744

[26] Pikaar E 2011 Stakeholder engagement in a shale exploration project: Supporting societal embedding Delft University of Technology p 107