DOI: 10.25515/PMI.2018.2.217

UDC 332. 338

ANALYIS OF GOVERNMENT SUPPORT TOOLS FOR MINING COMPANIES IN THE RUSSIAN ARCTIC ZONE

Svetlana A. LIPINA, **Lina K. BOCHAROVA**, **Lyubov A. BELYAEVSKAYA-PLOTNIK**
Russian Foreign Trade Academy Ministry of Economic Development of the Russian Federation, Moscow, Russia

The paper focuses on the development of mining companies in the Russian Arctic zone in the context of searching for new ways to improve government control over the development of the Arctic zone.

Existing outer restrictions imposed upon Russia and changes in the global financial market not only determined a paradigm shift to regional government control, but also dictated the need to search for new mechanisms of state influence on the regional economy. Primarily it concerns the development of growth zones based on utilizing resource potential, creation and implementation of tools aimed at attracting investments to the Arctic zone and offsetting the factors of northern appreciation for mining companies. With this in mind, government support of specific regional development projects is becoming an urgent issue.

The authors analyze new approaches to the development of public management in the Russian Arctic zone, for mining companies in particular, aimed at creating special economic conditions that would stimulate the operation of plants extracting mineral resources. Research methodology is based upon the analysis of factors restricting economic development and growth of the Russian Arctic zone and mining companies in the first place, as well as analysis of possible tools to support mining plants operating in the Arctic territories (advanced development zones, industrial clusters, «supporting zones»). The authors define priority goals and prospects of implementing such operation mode for mining companies in the Arctic zone, and propose a list of possible measures of government support needed to stimulate development of mining companies and the entire Arctic economy of Russia.

***Key words*:** mining industry, Russian Arctic zone, specific economic regime, supporting development zone, territory of advanced social and economic development, cluster

How to cite this article: Lipina S.A., Bocharova L.K., Belyaevskaya-Plotnik L.A. Analysis of Government Support Tools for Mining Companies in the Russian Arctic Zone. Zapiski Gornogo Instituta. 2018. Vol. 230. P. 217-222. DOI: 10.25515/PMI.2018.2.217

Introduction. The Arctic region of Russia is a concentration of strategic national interests. The subsoil and the seas of the Arctic zone are characterized by a huge resource and economic potential, but also by the highest environmental risks. Development of this complicated region is associated with a number of climatic, technological and technical difficulties, which in their own turn bring about social and demographic problems.

The fundamentals of Russian state policy in the Arctic until 2020 and further [1] specify the main characteristics of the Russian Arctic zone that influence state policy in the region:

• extreme environment and climate conditions;

• spot industrial development and low population density;

• great distance from main industrial centers, high resource consumption and dependence of economic activity and satisfaction of population needs (fuel, food, basic consumer goods) on the supplies from other regions of Russia;

• low sustainability of environmental systems, defining biological equilibrium and climate, as well as their reaction even to minor man-made interference.

Despite the above mentioned restricting factors, under current conditions the Arctic is considered an important source of socio-economic development.

As of today, the Arctic zone is responsible for 5 % of Russian GDP and 22 % of Russian export, 75 % of natural gas production, 90 % of nickel and cobalt production, 60 % of copper, 96 % of platinum group metals, 100 % of barite and apatite concentrate.

The structure of the Arctic economic area is quite specific: the share of the industry in the gross regional product reaches 60 %, which is almost twice the size of gross national product. Obviously, this trend is going to continue in the future. At the same time, Arctic economy re-

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quires a transition to innovative development, which would take into account higher labour costs and other limitations. It should be noted that the major share of all Arctic region, not only its Russian part, is primarily oriented on extraction and initial processing of mineral resources. This type of development is especially characteristic of the North American part of the Arctic. However, foreign Arctic has gradually come to understanding that exclusive focus on resource development is highly unsustainable. Resource base depletion and high volatility of the market have led to decline and shutdown of dozens and hundreds of resource centers. Other countries see the best solution to this problem in complex development of the territories by means of expanding the economic base, primarily by restructuring and diversifying economy of the region. E.g. in the Canadian North there were several attempts to revive declining Labrador centers of iron-ore industry, mining and forestry centers in Alberta and British Columbia, as well the search for new sources of income for the population. New plants oriented on deep petroleum processing (petrochemistry) are emerging in Alaska. Diversified economy has been established in the northern regions of Norway and Sweden [7, 8, 11].

For historical reasons companies operating in the region, including mining plants, must face a wide range of difficult social and logistical problems. Whereas passenger traffic and small shipments of economic goods can be performed by air or by trucks, large-scale goods transportation is only possible by sea or by rail. Hence all major industrial and mining plants in the Arctic must solve the problems of final product transportation and equipment delivery by developing transport infrastructure, either on their own or in close collaboration with the state.

Murmansk and Arkhangelsk are local centers of economic activity where several large development projects of separate plants and entire industry branches are being implemented and scheduled for realization. Developed infrastructure in place makes these spots attractive investment options. However, Central and Eastern regions, despite their significant resource potential, are characterized by very low investment activity, which can be explained not only by extreme temperature conditions, but also by high wear-out rates of fixed assets and lack of proper transport infrastructure.

Discussion. Due to the spot nature of Arctic economy and gravitation of adjacent territories to these spots, the critical task lies in the support, development and modernization of already existing economic centers, creation of the new ones and strengthening of their integration. The Arctic region is a unique object of government regulation and thus requires a transition to the new model of regional development, based on complex territorial principle of public management. Under current conditions of sanctions and limited budget resources, this principle can be realized by implementing large-scale investment projects, including private-public partnership. It is the integrated modernization of extracting and industrial plants and supporting infrastructure that hold the growth potential of the Arctic economy.

One solution to the described problem of infrastructure modernization and development with simultaneous attraction of investment resources to the Arctic region is the development of so called supporting zones. This process involves planning and complex development of Arctic territories as an integral system, created on the principles of interaction between industry-specific measures at the stages of planning, goal setting, financing and implementation, providing an opportunity to cut the costs and to achieve strategic interests of the Russian Federation in the Arctic zone and to maintain national security applying the entire range of existing methods and mechanisms of government support [15]. It can be presumed that the concept of supporting zones has changed the course of Arctic development from exploitation of separate fields to complex involvement of territories into the economic cycle in accordance with long-term national programmes of infrastructure development [2, 13]. The implementation of this mechanism also had an obvious positive effect on the economic operators in the mining sector. So,

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analysis of specific trends in the development of mining plants in the context of planned supporting zones has allowed to define effective measures, both for the Arctic territories and for the economic agents (on the example of Mining and Metallurgical Company «Norilsk Nickel») (see Table).

Expected results from the creation of Arctic supporting zones for mining companies and territories of their operation

Project name	Expected results	
	for territories	for companies
Kola supporting zone		
Reconstruction of copper production, AO «Kola Mining and Metallurgical Company»	Development of productive capacities Positive effect on the investment attractiveness of the region Reduced environmental impact	Increase in economic and environmental efficiency of company's assets; equipment modernization Strengthening of partnership with regional authorities
Taymyr-Turukhansk supporting zone		
Investment projects – development strategies of MMC «Norilsk Nickel» (resource base expansion, modernization of Talnakh factory, Nadezhda plant, shutdown of the nickel plant)	Shutdown of «dirty» facilities (nickel plant) Freed accommodation for resettlement of plant employees and their families	Growth of ore production in Zapolyarny branch; Shutdown of the old facility: the plant equipment is outdated, assets worn out (nickel plant)

Clearly, such approach requires development and application of special tools, such as taxation and customs regulation, or, e.g. introduction of specific economic regimes, creation and development of clusters etc. [14].

In 2015 the federal law «On the advanced development zones (ADZ)» took legal force. It can be assumed that extensive use of ADZ regimes in the Arctic mining projects will further the goals of state policy in the region. At the same time the ADZ concept suggests creation of new «growth zones» in the regions and attraction of investors, primarily small and medium enterprises. This being said, advanced development zones are to accumulate resources of adjacent territories. And if the western part of Russian Arctic can easily attract resources and capital from nearby territories, for the eastern part this can be quite challenging due to its spot development – neighbouring territories are simply untapped. Besides, all the projects of natural resources development in the Arctic require colossal investments, which can only be afforded by the largest mining companies – who are technically monopolists in the development of certain Arctic territories. The access of new investors from medium enterprises is quite complicated, as they fall behind the necessary level of capitalization and investment resources. Hence, one can be certain that the only niche for small and medium enterprises beyond the Arctic Circle is implementation of socially-oriented projects and operations on local consumer markets. Moreover, companies that have branch offices cannot be ADZ residents, which rules out large extracting companies. With this restriction in place, ADZ regime can fail to produce desired effect for the companies in the mining sector.

One more option of territorial development is the organization of clusters [6]. The necessary conditions of territorial cluster formation include the presence of an institutional entity (a specialized organization responsible for cluster development), efficient communication between its participants, improvement of quality management in the companies – parts of the cluster, stimulation of innovations and development of commercialization mechanisms. This implies creation of preferable terms for the companies, so that involvement in the cluster can increase their competitiveness. Apart from that, successful operation is impossible without collaboration with educational and research institutions (or even their inclusion in the cluster), development of transport and other supporting infrastructure [10].

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However, in the context of underdeveloped infrastructure in the eastern part of Russian Arctic, where mineral deposits are located very far from industrial and research centers, the case is more about creating competitive strength [5].

The principal and multiplicative effect of cluster creation in the mineral resources sector is that accelerated rates of field development facilitate development of the infrastructure potential, which in its own turn increases attractiveness of the region for the implementation of new projects and stimulates social development in the area. E.g., MMC «Norilsk Nickel» has estimated the potential effect from organizing Taymyr industrial cluster: a GDP increment of 300 million USD until 2030, doubling of the amounts of gas, oil and non-ferrous metals extraction. Preferable conditions can result in the following increments of resource extraction: for nickel – up to 0.4 million tons/year; for copper – up to 0.7 million tons/year, for platinum group metals – up to 224 tons. An increase in tax payments will mean a 33 % income growth of the regional budget (up to 1.4 million USD) [1]. Besides, the annual contribution of 4.9 million USD from the investors, potentially interested in Taymyr development, can produce the effect of 7 million USD of GDP per year [1].

However, social and economic situation in the Russian Arctic can become a real obstacle to the implementation of cluster approach. Many areas of the Russian Arctic witness negative economic trends, which will be hard to overcome in the short-term period. Still, this does not negate the need to attract investors and to develop infrastructure. That is why it is only rational for the government to support large companies operating in the Arctic. Despite significant internal resources, extracting companies have to face problems, in most cases uncommon for the rest of Russian territory, starting from transportation of the final product, delivery of the necessary equipment and motor fuels to the supply of provision and other consumer goods. Furthermore, companies, operating in the eastern part of the Arctic, often bear social responsibility as the main employer of the region. In addition to that, environmental security poses its own requirements. Companies outside the Arctic Circle also partially face all these problems, but in the Arctic region they are much more pressing and difficult to solve, not to mention the costs. It is evident that for the sake of attaining strategic goals of Arctic development large companies need government support none the less than small or medium enterprises in other regions. It should also be taken into account that in case of large companies the probability of investment projects being implemented is quite high, and the latter have an immense social impact: «large enterprises have a professional management team and an opportunity to involve the experts they need; they play a crucial role as they are often the main employer in the region and create new jobs for the locals» [4].

One can specify the following stimulation measures for the large business operating in the Arctic: accelerated amortization and increasing factor of capital investments, property tax exemptions for new objects, reduced social payments, stimulation of labour migration etc. According to the Federal Law from December 31, 2014 N 488-FZ «On the industrial policy in the Russian Federation» and the decree of the Russian Government, there is a whole array of government support measures: subsidizing of interest rates on investment loans (up to 0.9 from the refinancing rate), subsidies on working capital financing (up to 70 % from the Central Bank interest rate) and capital investments; subsidizing and support of research (up to 100 %); special investment contracts. The latter are made for the duration up to 10 years, imply a specific legal regime and complex support originating from taxation preferences and other measures.

The new mechanism offered by the state is not just a territory with certain preferences. Development should comply with the project principle through the integration of all industry events, and the projects should have federal significance status, as their primary goal is the development of the entire macro-region, not its separate territories [12]. The government, in its

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own turn, should have a clear understanding of how to apply the tools of specific economic regimes in every particular region of the Arctic. Such mechanisms should take into account regional distinctions of the area and specific requirements to business conduct, as the western Arctic regions differ significantly from the eastern ones, primarily in climate conditions, which can sometimes play the defining role.

First-priority support measures for mining companies operating in the Arctic in the context of supporting zones can include:

• taxation and tariff rate preferences which will be reimbursed by future tax payments from the expansion of operations and creation of new jobs;

• setting of specific regulations in regard to mandatory social insurance payments;

• customs privileges for the residents of the Arctic region, which will be reimbursed due to the expansion of trade connections and intensification of the goods traffic;

• state financing and co-financing of priority projects, the costs of which will be returned to the budgets in the form of tax and other payments;

• stimulation of labour migration to the Arctic regions;

• specific conditions of electricity pricing;

• stimulation of the development of mineral deposits, located in distant places or requiring additional exploration;

• capturing described measures of state support in the legislation.

Suggested approach to territorial development can facilitate extraction of prospective mineral resources by providing operating enterprises with necessary infrastructure and resources (transport, energy, communications, as well as personnel and technology).

Conclusions. Any company, operating in the Russian Arctic, needs support from the state. Creation of a favourable investment climate, introduction of tax and customs preferences will allow to increase budget incomes at all levels and will provide additional stimulus for the development of Arctic natural resources.

As of today, creation of tools to stimulate economic development of this high-latitude region can serve as a promising topic of academic pursuits. Regimes of accelerated economic development, applied in other regions of the country have proven to be either inefficient or impossible due to unique economic conditions and legislative restrictions in the Arctic region.

Potential results, expected from the implementation of supporting zone projects in the areas of mineral resources exploitation, can be the following: development of productive capacities in the region; positive effect on its investment attractiveness; reduced environmental impact; improved transport accessibility of distant territories; advocacy of Russian interests regarding its presence in the Arctic; improved living conditions for the population; enhanced economic security of the macro-region [3]. Expected effect for the companies will result in higher economic and environmental efficiency of the assets, modernization of equipment, strengthening of partnership with regional authorities.

At the current development stage of the Arctic macro-region, the most urgent issues for the transition from industry-based to complex development are the tasks of priority ranking for the projects of mineral resources exploitation in the following two categories:

1. The process of coordinated implementation of earlier initiated projects in accordance with federal priorities, which allows to attain the multiplication effect and lays the foundation of integral territorial development in the Russian Arctic on the scale of «supporting zones».

Implementation of such projects requires interdepartmental communications and coordination regarding the dates, amounts of financing, criteria and indicators, expected results.

2. Selection of the most significant «supporting zone» projects in the mining sector, which will provide realization of the approach in particular territories. Such projects must have a

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multiplicative effect and significant impact on the development of participatory branches, infrastructure and social sphere. One can assume that such projects of natural resources development will subsequently serve as a basis for complex projects of supporting development zones, assigned for implementation as priority measures in the framework of Russian State Programme «Social and Economic Development in the Arctic Zone of Russian Federation».

REFERENCES

1. Alekseeva O. Call Signs of Development. Kommersant». URL: http://kommersant.ru/doc/2464440 (date of access 27.01.2018) (in Russian).

2. Barkovskii A.N., Alabyan S.S., Morozenkova O.V. Ekonomicheskii Economic Potential of Russian Arctic in the Natural Resources Sector and NEP Shipments. *Rossiiskii vneshneekonomicheskii vestnik*. 2014. N 12, p. 44-48 (in Russian).

3. Belyaevskaya-Plotnik L.A., Sorokina N.Yu., Smirnova O.O. Scientifically Justified Model of Regional Aggregation for the Purposes of Economic Security and Sustainable Development of Russian Federation. *MIR* (*Modernizatsiya. Innovatsii. Razvitie*). 2017. Vol.8. N 4 (32), p. 492-504 (in Russian).

4. Kiyutsina O. Government Support of Large Enterprise Modernization. *Voprosy ekonomiki*. 2012. N 4, p.147-153 (in Russian).

5. Kotomin A.B. Vankor Cluster: Development of Oil Extraction and Pipeline Transport in the Eastern Arctic. *Vestnik MGTU*. 2015. N 3, p. 428-433 (in Russian).

6. Larichkin F.D., Cherepovitsyn A.E., Fadeev A.M. Modernization of Subsoil Use Basing on the Creation of Competitive Strength Clusters. *Ekonomika Severo-Zapada*: *problemy i perspektivy razvitiya*. 2011. N 45, p. 151-163 (in Russian).

7. Larchenko L.V. Modern Arctic: Problems of Exploitation and Socio-Economic Development. *Regional'naya ekonomika*: *teoriya i praktika*. 2011. N 11(194), p. 2-8 (in Russian).

8. Larchenko L.V. Strategic Interests of Regional Economy Agents in the Northern Territories: Analysis and Alignment of Interest. *Izvestiya RGPU im. A.I.Gertsena*. 2008. N 10, p. 107-113 (in Russian).

9. The Fundamentals of Russian State Policy in the Arctic until 2020 and Further (approved by the President of Russia on 18.09.2008 N 1969). Rossiiskaya gazeta. 27 marta 2009. N 4877 (in Russian).

10. Vasil'ev V.V., Zhukov M.A., Istomin A.B., Selin V.S. Assessment of Conditions and Prospects of Exploitation for the Natural Resources of Non-Delineated Maritime Spaces in the Arctic Zone. Apatity: Izd-vo IEP KNTs RAN. 2007, p. 147 (in Russian).

11. Pavlenko V.I. Arctic Zone of Russian Federation in the System of Serving the National Interests of the State. *Arktika*: *ekologiia i ekonomika*. N 4 (12). 2013, p.17-18 (in Russian).

12. Russia creates an «Arctic Singapore». Novosti Yakutii i Yakutska URL: https://oko-planet.su/finances/financesday/327075-rossiya-sozdaet-arkticheskiy-singapur.html (date of access 27.01.2018) (in Russian).

13. Slipenchuk M. Fractal Economy of the Arctic. *Mirovaya ekonomika i mezhdunarodnye otnosheniya*. 2013. N 5, p. 41-47 (in Russian).

14. Smirnova O.O., Lipina S.A., Bocharova L.K. Specific Economic Regimes: Prospects of Application in the Arctic Zone of Russian Federation. *MIR* (*Modernizatsiya. Innovatsii. Razvitie*). 2017. Vol. 8. N 3 (31), p. 357-367 (in Russian).

15. Smirnova O.O., Lipina S.A., Kudryashova E.V., Kreidenko T.F., Bogdanova Yu.N. Creation of Supporting Zones in the Arctic: Methodology and Practice. *Arktika i Sever*. 2016. N 25, p. 148-157 (in Russian).

Authors: **Svetlana A. Lipina**, *Doctor of Economics*, *Head of Department «World Ocean and the Arctic»*, *Deputy Chair of the Council on Productive Forces Investigation*, *s.lipina@mail.ru* (*Russian Foreign Trade Academy Ministry of Economic Development of the Russia*, *Moscow*, *Russia*), **Lina K. Bocharova**, *Candidate of Economics*, *Researcher*, *bocharova_lina@mail.ru* (*Russian Foreign Trade Academy Ministry of Economic Development of the Russia*, *Moscow*, *Russia*), **Lyubov A. Belyaevskaya-Plotnik**, *Candidate of Economics*, *Senior Researcher*, *belyaevskaya@inbox.ru* (*Russian Foreign Trade Academy Ministry of Economic Development of the Russia*, *Moscow*, *Russia*).

The paper was accepted for publication on 29 January, 2018.