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Identification Method of the Russian Federation Arctic Zone Regions Statistical Aggregate as the Object of Strategy Development and a Source of Sustainable Growth

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Abstract

The lack of accurate identification of the territories belonging to the Russian Arctic zone is a specific feature. As a result, the problem of statistical observations of circumpolar regions arises. Russian Arctic zone is considered in an article in the format of the threshold spatial socio-economic entity. The identification of the regions included in the Russian Arctic zone is based on the concept of unstable aggregates. The probit regression tools are used to determine the thresholds and to form a threshold aggregates in the study. Equation parameter estimation is performed by a quasi-Newton method. The indicators that reflect a variety of criteria for classifying territories (municipalities) as the Arctic zone (based on not only geographical, but also climatic and biological criteria) were used as the initial data. These calculations allowed forming the list of territories identified as the Russian Federation Arctic zone.

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Keywords: Arctic zone of the Russian Federation; sustainable development; the threshold set of spatial; spatial identification; probit regression.

1. Introduction

Modern strategic priorities of the Russian Federation are related to the need of the Arctic zone development. Actions of the world's elite more and more are focused on the fact that the resources of the circumpolar zone is

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increasingly involved in global economic markets, because: firstly, the rapid growth of the Asia-Pacific region is observed, secondly, the dynamics of economic development of China and India accelerated and at the last this is connected with the global resource crisis. In this regard, the issue of self-determination of the Russian Arctic as a macro-region escalates and its identification is necessary: what is the Arctic for the world, for the country and for the world, national and regional elites, for financial economic groups and companies? Will it be Arctic the global pantry and resource warehouse? Or its role will all the more strengthened as a transit transport and logistics corridor? Or the Arctic could become the largest innovative and industrial center with a post-industrial management center in Murmansk or Arkhangelsk for Russia? These issues by the self-determination of the Arctic are exacerbated due to the fact that the problem of the development and settlement of the northern territories of the country continues to remain. [1-4].

Arctic zone of the Russian Federation (Russian Arctic) has a diverse and unique resources which could to lead Russia to a new level of economic development to during correct and effective public policy. These processes, in turn, will lead to socio-economic and innovative development is not only the Arctic region, but the entire country as a whole, and the competitiveness of the Russian economy in the world market will rise. Russia will be able to consolidate its position as a great power with its unique and rich in mineral and intellectual resources. Moreover, the Arctic zone is a very specific target for strategic analysis, research and control its development.

The Russian Arctic zone specifics is a few features:

- Large size of the territory, which should be controlled at its approximate conditional zoning and uneven development of regions within the macro-region;
- The concentration and wealth of the natural resources and raw materials in the area;
- A special climate map and zone of the limiting cold and permafrost;
- Deficiency and incompleteness, and the dispersal and sparseness of all sorts of infrastructures on the territory, the concentration in the core cities and rotation villages, concentration to the Northern Sea Route;
- Established model of Arctic exploration with widely carried out on a rotational basis of development;
- Relative development of the western areas and socio-economic backwardness of eastern regions of the Arctic;
- Survival strategies and struggle for resources dominate in the politics of regional elites;
- Factual lack of representation of Arctic zone interests as a single development entity. [5-7].

Arctic zone of Russia is an artificial territorial formation, it can be regarded as a threshold spatial socio-economic object, which is formed by two criteria: first, the coastal position (Sea of the Arctic Ocean), and secondly, the location of the territory to the north of the Arctic circle. However, this is not sufficient for correct identification of the regions of the Arctic zone of the Russian Federation and a wider range of specific criteria should be considered [5-9].

In addition, a serious challenge is to develop innovative models of regions development management. [10,11]. Achievement of the goal of transformation of the Russian Arctic zone into the point of growth of the economy throughout Russia that is and its transition to a new level of development possible through the creation of the Arctic zone of innovative and industrial clusters. These will produce a new knowledge, innovation and footage to new economy. In the Arctic zone there are several regions (Murmansk and Arkhangelsk Oblast), on whose territory the industrial and post-industrial development scenarios are processed. We think that it is first necessary to create and develop clusters, for the formation which the preconditions are in the regions of the Arctic zone: development of a system of highways, railways, a network of regional airports. These projects contribute to the development of the necessary infrastructure for the territory, the model of post-industrial innovative development is based on which. The China economy is an example of the formation and development of the infrastructure as the impulse of the whole economy.

This management model should be built not only on the usual forecast figures, which are based on past and present experiences and perceptions of the separate scientific corporation, but on a deeper call analysis and trends, on the one hand, the capacity of regions and the country as a whole, on the other hand, and on attracting and building up a wide experts network, with the third party. To this end, the construction of a model of economic development of the Russian Arctic zone should take into account completeness of vision of the strategy development facility based on monitoring and a specially-organized observation. [12]

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