
DOI: 10.15838/ptd.2025.5.139.4
UDC 332.1 (338.2) | LBC 65.049 (2)

© Krasnopolski B.H.

MANAGEMENT INSTITUTIONS AND THE SUSTAINABILITY OF GEOSTRATEGIC AND ECONOMIC DEVELOPMENT OF THE ARCTIC TERRITORIES OF THE FAR EAST IN THE MODERN CONTEXT



BORIS H. KRASNOPOLSKI

Economic Research Institute, Far Eastern Branch of the Russian Academy of Sciences
Khabarovsk, Russian Federation
e-mail: boriskrano@gmail.com
ORCID: [0000-0002-1549-036X](https://orcid.org/0000-0002-1549-036X)

The research continues the series of studies previously carried out by the author, aimed at investigating the features of spatial and economic development of the Arctic territories of the Far East. These territories are considered in close infrastructural connection with the “sub-arctic” high-latitude regions of the Far North, which, as the author proves, represent a single spatial and economic system. The aim of the study is to identify the directions of transformation of institutional structures and mechanisms in the management of the territories under consideration based on the analysis of a number of international and domestic scientific papers, as well as the results of the author’s previous research. In theoretical and methodological terms, based on the cluster approach, the necessity of forming a “meso cluster” here is substantiated for the first time, representing a single complex of mining industries specializing in these territories and acting as a structure-forming basis for further institutional transformations in their management. The emphasis is placed on solving specific problems of institutional transformation – coordinating the management functions of formal and informal institutions, both the “meso cluster” and the entire newly formed spatial and economic entity in order to increase its economic and geostrategic stability in the context of emerging crises in the natural, environmental, political, socio-economic and public spheres.

Far East, Arctic territories, “meso cluster”, formal and informal institutions, spatial and economic entity.

ACKNOWLEDGMENT

The article was prepared as part of the implementation of the research program “Transformation of institutional mechanisms and structures in managing the development of the Arctic territories of the Far East, taking into account the new realities of spatial development” on planned topic # 2 “Studying the patterns of socio-economic development of the Far Eastern region of Russia, taking into account new challenges” for the Economic Research Institute, Far Eastern Branch of the Russian Academy of Sciences for 2025.

For citation: Krasnopolski B.H. (2025). Management institutions and the sustainability of geostrategic and economic development of the Arctic territories of the Far East in the modern context. *Problems of Territory’s Development*, 29(5), 58–70. DOI: 10.15838/ptd.2025.5.139.4

Introduction

The conditions and sustainability of the geostrategic and economic development of the Arctic territories of the Far East, as well as other regions of Russia and the world, largely depend on the processes taking place against the background of constantly escalating natural crisis phenomena and various kinds of shock situations arising in the natural and ecological environment, in socio-economic and international relations and other spheres of human activity. As for Russia, in particular its Arctic zone (AZRF), it is currently, in addition to natural processes, subjected to very serious crisis pressure in all spheres of life of the population in connection with various external sanctions from unfriendly states and the significant shocks they have caused in the national arena. These crises have become political and economic phenomena specific to our country, caused by the prevailing international situation. In recent years, the development of the Far Eastern Federal District has also been subjected to serious sanctions pressure.

The threat of crisis phenomena necessitates constant transformations of institutional mechanisms and structures for managing the social development of the country and its regions in order to increase comprehensive economic stability and accelerate adaptation to newly emerging non-standard situations in all areas of the social structure of the state.

One of the ways to transform the management apparatus in this process is to improve the interaction between formal and informal institutions of government, representing both state bodies and local structures of community, commercial and administrative management at the level of individual municipalities, business organizations and regions.

Based on the analysis of international and domestic scientific developments in this field, this article attempts to identify and specify areas that will be effective enough to transform institutional mechanisms in the management system at the current stage of development of the North Arctic territories of the Far East.

Theoretical and methodological approaches to research

In this regard, an article recently published in the international scientific publication "Journal of Institutional Economics" entitled "Introduction to the symposium on crisis and persistence: Dynamics of institutional changes at the interface between formal and informal institutions" (Douarin, Schnyder, 2025) is of interest. It contains an analysis of the leading scientific papers presented at the scientific symposium, which took place in September 2021 in London, concerning the coordination of the functioning of formal and informal institutions to maintain the stability of various types of economic systems in the context of emerging crises of a natural, ecological, geopolitical and socio-economic nature.

The reports of the symposium examined various crisis phenomena: international, national political, socio-economic, environmental, natural – and assessed the impact on the course of these processes of the level of coordination of the functioning of formal and informal institutions. The need for a clearer taxonomy was also emphasized, which consists in increasing specificity in the formulation of the duties and functions of acting actors and the distribution of their power in society and social groups at various hierarchical levels of social systems.

The main "sore spots" of the problem under consideration were discussed in the leading scientific papers presented at the symposium. In all these studies, it was emphasized that crises of various kinds are becoming more frequent and profound due to the increasing complexity of processes in all areas of both natural and ecological, as well as socio-political nature. In this regard, it is currently necessary to focus the efforts of the scientific community on studying the role of crises as a certain force contributing to positive changes and increasing the sustainability of social development on all its hierarchical "floors" (Arvanitidis, Papagiannitsis, 2024; Buchen, 2024; Choutagunta et al., 2024; Rayamajhee et al., 2024). There are four different types of interaction between formal and informal

Table 1. Formal and informal institutions: types of interaction

| Type of interaction | Authors of papers | Formal – informal institutional interaction | Type of crisis and reaction | The process of change/ stability | Agents of change or stability | Questions for future research |
|---------------------|--------------------------------------|--|--|--|--|---|
| 1 | (Arvanitidis, Papagian-nitsis, 2024) | Antagonism and substitution: the rivalry of two incompatible logics and processes | An exogenous economic shock that causes dramatic changes in the action of endogenous forces and their sometimes incompatible counteraction | Displacement/ replacement, if formal institutions are strong enough, which opens the system to external influences. Increased internal resilience, if informal institutions are strong enough. | Politicians as legislators, local leaders as legislators | What makes community (local) rules sustainable? When do they lose their power? How can top-down state institutions be designed and implemented to build on, rather than supplant, community rules? |
| 2 | (Buchen, 2024) | Complementary functions: a formal institution strengthening an informal institution | An exogenous economic shock that causes a violation of endogenous stability | Formal institutions that strengthen informal ones increase stability | Political actors as legislators | How do different types of crises affect the propensity to cooperate? What features of formal institutions are necessary to support norms of cooperation? When are external "shocks" too strong to maintain stability? |
| 3 | Choutagunta et al., 2024) | Complementary functions: an informal institution that strengthens a formal institution | External economic, political and natural crises that weaken constraints on compliance with endogenous norms | Formal institutions may be altered by non-compliance with informal norms depending on the strength of the shock | Economic actors as legislators | What functions should be implemented to make external constitutions crisis-resistant and limit the declaration of new norms in the observance of constitutions? |
| 4 | (Rayamajhee et al., 2024) | Competition and cooperation: two alternative logics performing an equivalent function | An exogenous spontaneous process that activates and stimulates competition and cooperation | Changing the scale of the formal and informal institutional sphere: informal institutions are becoming equal in influence to formal institutions | Federal and local actors as equal legislators and implementers | How can we ensure that different institutional spheres reinforce each other during a crisis, rather than compete with each other? |

Source: (Douarin, Schnyder, 2025). Translation and interpretations made by the author.

institutions. The wide range of interactions between them in the articles reviewed highlights the complexity of institutional processes in practice (*Tab. 1*).

The research described above provides theoretical and methodological results that can be used to study the impact of institutional transformations on the sustainability of geostrategic and economic development of

the Arctic territories of the Far East in modern conditions.

Thus, based on extensive international research, Table 1 presents the four most characteristic types of interaction of institutional structures at various hierarchical levels of the spatial organization of the economy. Is there a type among them that will best match the processes taking place in the

object under consideration, in our case, in the Far Eastern Arctic territories? These processes are most likely related to type 4 interaction of formal and informal institutions, when there are two alternative logics associated with competition and cooperation and performing functions equivalent in scale and significance in the development of territories. It is precisely these processes of coordinating institutions of this type that determine the theoretical and methodological approach that should be used in the analysis and assessment of institutional transformations in the management of the territories considered in this article.

In a deeper scientific sense, theoretical and methodological approaches to research are related to fundamental works in the field of philosophy of cooperation as an alternative to competitive mechanisms of social interaction, the history of which was analyzed, for example, in the article (Balatsky, 2024). One of the founders of this trend in philosophy is Academician V.M. Polterovich. His works prove that the institutions of cooperation today help to overcome the failures of the market, the state and parliamentary democracy, and therefore the philosophy of cooperation acts as an ideological driver of future progressive reforms of mankind (Polterovich, 2022).

Discussion of the research results

In an article published earlier in the journal “Regionalistika” (Krasnopolsky, 2024), the author justified the creation of a so-called “mesocluster” of mining industries specializing in mineral resources in all the territories studied in this article, which should be the structural basis of the newly emerging large spatial and economic entity here – the Northeastern mesoregion.

Using a methodological approach to coordinate formal and informal institutions in relation to this economic system makes it possible to draw the following conclusion: the management institutions of the “mesocluster” are created on an *informal* contractual basis by its business partners, as for the entire economic system as a whole, its management institutions are created on a *formal* basis

and include departmental institutions of the federal level and administrative institutions of the regional level. The economic foundation for interaction and coordination of the institutional bodies of this economic system is based on the establishment of a certain consensus between the *competitive* relations of business partners within the framework of the emerging “mesocluster”, operating on the basis of market management methods, reflecting the business interests of the partners, and the *cooperative* relations of the territories of the Northeastern economic zone, regulated by planning and program management methods, reflecting political and economic interests of the state.

Thus, opportunities are created for the formation of a complementary management system using planned (in the interests of the state) and market-based (in the interests of business entities) methods.

Table 1 shows just such a type under No. 4, identified based on the study of international experience in the interaction of formal and informal management structures of economic entities. And this confirms that the processes taking place in this area in the territories we study are quite common in world practice, but they have country-specific features. It is important to note here that it is the exogenous (external) spontaneous process or crisis that in this case acts as a kind of “trigger” for the formation of this type of interaction between formal and informal institutions.

Such an exogenous crisis in the case of the territories we study at the national level is characterized by significant inversion contradictions in state-planned and market methods of managing their spatial and economic development, starting with the sphere of their mining industries. At the international level, the following crisis phenomena are superimposed on this, related to the cross-border position of the territories under consideration as the eastern outpost of the Russian Arctic on the border with the state of Alaska, the USA and Canada; with the geostrategic problems of the country as a whole, with the role of these territories as

part of the global sector of the Pacific Arctic in ensuring its safety and regulating the shipping regime in the Beringian zone on the Northern Sea Route, as well as a number of other reasons (Zhuravel, Timashenko, 2020; Minakir et al., 2020; Far Eastern..., 2021; Lazhentsev, 2024; Baker, 2021).

In connection with these crisis processes and phenomena in the development of these territories, a new situation arises when the emphasis in their strategic development is shifting as a second “wave” from mainly sectoral to territorial spatial and economic planning and forecasting¹.

From the perspective of our research, an article on the US practice of using clusters as drivers of regional economic development is of interest (Rastvortseva, Cherepovskaya, 2024). In it, the authors analyze the development of US clusters in the context of groups focused on foreign and domestic markets, and demonstrate the importance of the cluster approach at the current stage of the development of the American economy. The article “An institutionalist perspective on regional economic development” (Amin, 1999) is also interesting, it proves that regions that focus on mobilizing the endogenous potential of the regional economy and forming strong local relationships through the use of additional opportunities for the development of informal (cluster) institutions have the highest rates of innovative development due to internal reserves.

In our case, the use of the interregional model of the mining “mesocluster” is precisely the method and way of mobilizing local reserves of mineral resource specialization industries included in the Northeastern economic zone. Their integration will maximize the

concentration of all available internal resources to enhance both their industry effectiveness and the emerging effect of the entire area. Of course, the complex effect of all these measures can be achieved only if an appropriate system is formed to coordinate the interaction of formal and informal institutional structures at both the exogenous and endogenous levels of the regional systems under consideration.

In general, the mobilization approach, in our opinion, should become the leading method of implementing current and future development programs in Russia at the present time. For example, V.N. Lazhentsev speaks about the mobilization approach in the development of the Arctic territories of Russia, noting that this approach is the leading direction of the methodology of research of the northern territories. This article highlights: “Therefore, the method of mobilization management is becoming very relevant for the North of Russia, and especially for its Arctic zone. The scientific and practical aspects of the methodology of North Arctic activities have a common methodological setting: the transition from the position ‘the more, the better’ to the position ‘good quality is more important than large quantity’. In addition, the Arctic is increasingly aware of the need to move from the ‘most necessary to the most feasible’” (Lazhentsev, 2024).

The author’s “mesocluster” approach, the evidence of which is provided in his research, including this one, answers to a certain extent the above questions related to the coordination of the functioning of formal and informal institutions of spatial management and economic entities. Structurally, in practical terms, this approach looks simple, but there are specific features in its implementation in

¹ Let us recall that the first stage of our state’s focus on territorial planning stems from our country’s historical experience in the 1950s and 1960s, when, during the Soviet era, the so-called Northeastern Economic Council was created in these territories, comprising Yakutia, Magadan Region, and Chukotka, an administrative unit within it. This structure was linked to political and administrative reforms, with the transition from primarily sectoral to territorial management of the country’s economy. The Economic Council has made a significant contribution to the comprehensive development of this region, creating a base for resource development, settlement systems, energy supply, and major transport infrastructure – for example, the Kolyma Highway from Magadan to Yakutsk and its branches, river and air transport links, seaports along the Northern Sea Route, and others. While this certainly does not entail a complete restoration of such a territorial structure, it does mean that tools that have proven quite effective in the past can and should be used to improve the institutional mechanisms for developing and implementing strategic programs for the territories under consideration.

all parameters of institutional transformations in the system of regulating the relationship between the mining industries and the “large” system of the Northeastern mesoregion, which includes the territories of three federal subjects.

Once again, we emphasize that one of the leading features at this stage of the development of the economic entity in question, according to the author, is the aggravation of inversion (counteracting) processes and contradictions in the functioning of formal and informal management institutions of an economic conglomerate. In previously published works, the author has studied in detail the inversion relationships of various elements in the structure of spatial and economic systems (Krasnopolski, 2023). Inversion processes also occur in the interaction of formal and informal institutional relationships in the studied territories, in our case, in the interaction of cluster (informal) and system-wide (formal) management mechanisms.

In this case, it is necessary to pay attention to the fact that an essential feature of the organization of clusters is the creation of their governing institutions on an *informal* basis, that is, the determining principle of their formation is the *voluntary* association of business partners (Bobrysheva, 2023). Its focus in this case has a specific character, namely, it is focused primarily on achieving the specific goals of its partners, rather than the integrated system as a whole. Informal institutional mechanisms and cluster structures, which are created on a contractual basis², are also oriented toward this. It is in this case that inversion contradictions arise in their joint functioning in cooperation with formal institutions of a higher hierarchical rank, which act not in private, but in the public interest, which requires constant coordination of their institutional methods and techniques.

We should note that the “mesocluster” approach, based on the research conducted by the author, corresponds in its scientific and applied essence to the conclusions drawn in a number of domestic works in this field.

For example, A. Klepach’s work on “breakthrough” technologies in the new organization of spatial development of the country proves the need for the following measures:

- “implementation of cluster policy (a supply-side economics tool aimed at developing *strategic territories* to maximize the contribution to the country’s economy in the medium and long term)”;

- “the transition from *competition* for resources to *interregional cooperation* (this is achieved through the restructuring of budget policy, including through the introduction of cluster transfers aimed at the formation of interregional value chains)”³.

Interesting research results that closely correspond to those of the author are presented in an article on the *resource-institutional approach* to the formation of industrial clusters in the region using the example of the Rostov Region (Khanina, Sorokina, 2020). The paper proposes an integrated resource-institutional approach that allows for the achievement of a synergetic effect and the development of partnership management in using the innovative potential of the region. In fact, the resource approach promotes the development of local links between informal institutions within the cluster and the improvement of formal institutions in the system of endogenous and exogenous links throughout the region (Khanina, Sorokina, 2020).

All these features of the cluster approach in their deep essence, as well as assessments of the impact of formal and informal institutional structures on the joint management of the development of clusters and regional economies, which are described in the above articles, largely coincide with the results we have obtained.

However, the spatial level of application of this approach in the author’s research differs significantly from that described in these articles. The “mesocluster”, as has been repeatedly emphasized above, in the author’s

² Kutsenko E.S. Cluster management as a profession. Cluster Summit: Moscow, November 14–15, 2013. Available at: <https://cluster.hse.ru/mirror/pubs/share/216157624> (accessed: 12.04.2025).

³ Klepach A. Eastern challenge of spatial development. Available at: <https://russiancouncil.ru/analytics-and-comments/comments/vostochnyy-vyzov-prostranstvennogo-razvitiya> (accessed: 18.04.2025).

interpretation integrates economic business structures in the mining sector not in the internal environment of individual territories, but within the framework of interregional interactions of fairly independent subjects of the federation. And it is precisely these features that cause the use of very specific

techniques and methods for creating a cluster, forming its spatial structure, maintaining the sustainability of the development of the entire region, institutional management of economic processes on all hierarchical floors of the spatial and economic formation under consideration, etc. (Tab. 2).

Table 2. Goals, causes, mechanisms and results of institutional transformations in the management of the formation of a "mesocluster" in the North-Arctic zone of the Far East

| The purpose and reasons for creating a "mesocluster" |
|--|
| <p>The need for qualitative changes in the regulation of the management of the development of extractive industries of specialization and, in general, the North-Arctic zone of the Far East, which includes several spatially localized territories, caused by the following reasons:</p> <ul style="list-style-type: none"> - extreme development conditions, a hostile natural environment for functioning; - emerging turbulence in their exogenous environment, caused by various natural-ecological, political-economic, and other shocks and crises; - new requirements for the transition to more modern scientific and technological achievements, technical and technological innovations, and ways of life; - strengthening control over inversion (opposite) processes in the interaction of planned-program and market management methods and the cooperative and competitive relationships that implement them |
| Type of cluster |
| <p>Resource-institutional cluster, formed on the basis of coordination of extractive industries in several territories, which subsequently undergo a significant strengthening of cooperative ties thanks to new technological solutions in the organization of their functioning, as well as innovations in spatial organization through the development of interregional trunk infrastructure; coordination of the functioning of formal and informal institutions in managing the development of the "mesocluster" and the spatial-economic entity as a whole in the context of emerging crisis situations</p> |
| Features of objects and spatial structure of the cluster |
| <p>Identical in specialization groups of large structure-forming enterprises in the territories under consideration (basic, "anchor" enterprises), determining the strategic directions and spatial structure formation of their further development, the composition of auxiliary and service industries, as well as exogenous and endogenous elements of infrastructure</p> |
| Impact on economic stability |
| <p>Strengthening the decisive importance of cooperative ties for the mining industries of several territories within the boundaries of the "mesoregion"</p> |
| <p>Coordination of interactions between cluster participants according to agreed production programs for the development of their specialization industries, which will impact the increased efficiency of innovation processes in the technical and technological sphere and the economic performance of both the cluster and the region as a whole.</p> |
| <p>Strengthening the focus of production in the mesocluster's specialization industries on domestic and foreign markets and import substitution</p> |
| General advantages in management |
| <p>Significant increase in the level of endogenous coordination of interaction between regional administrations and businesses in the mining industries of the territories under consideration, as well as exogenous coordination with federal structures</p> |
| <p>Direct participation of the administration in the management structures of the "mesocluster" and coordination decisions as equal partners, which affects the increase in efficiency in making organizational and economic decisions both in the "mesocluster" and in industry departments at the federal level</p> |
| <p>Enhancing the ability to identify the problems and strengths of a specialization industry as a leading sector of the economy based on aggregate indicators of the extraction of identical natural resources in several complementary (mutually supplementary) territories based on the analysis of reliable information on the activities of industry enterprises, product sales markets, labor resources, etc.</p> |
| <p>Increasing the overall economic stability of enterprises in the mesocluster's specialization industries through more rationally organized processes of competition and cooperation, which enables auxiliary and service enterprises to receive additional financial support, corresponding to the combined needs of the core enterprises, using the released funds.</p> |

End of the Table 2

| |
|--|
| Applying an integrated approach to the provision of infrastructure to territories and the creation, along with critical types of infrastructure, of its innovative element in all modern technologies in basic industries, research and development, while covering the entire group of complementary territories |
| Improving the staffing of the mesocluster's specialization industries, as well as auxiliary, service industries and infrastructure elements within the framework of a spatial-economic entity that includes mutually complementary territories |
| Formation of joint marketing groups to promote products from specialized industries to domestic and foreign markets with stable demand |
| Creating management structures based on unified institutional practices and standards based on the principles of public-private and public-regional partnerships, which should include representatives of federal agencies, regions, and private investors |
| Creating an expert council, including scientific organizations, to review various projects as they are prepared for implementation, which will ensure a significant increase in information interaction within the mesocluster and mesoregion and will be a key source of strengthening the competitive advantages of the Far Eastern zone in question in the domestic and foreign markets |
| Impact on the coordination of formal and informal institutions |
| The possibility of creating a balanced institutional model that ensures a sufficiently close coordination of the exogenous and endogenous functions of formal (federal and regional administrative levels) and informal ("mesocluster") governance institutions, including the entire system of their methods, techniques and specific mechanisms, regulations, etc. |
| Source: own elaboration. |

In general, strengthening the coordination of the functioning of formal and informal institutions in managing the spatial and economic development of the territories under consideration will give a significant emerging socio-economic effect in their integrated development.

Conclusion

In the territories under consideration, due to various factors, deep crises are intensifying, primarily in socio-economic and geostrategic development at both the national and international levels.

The nature of these crises varies, but in relation to the territories under consideration, according to the author, the most significant at this stage of development is the growing crisis situation in the mining specialization industries. These branches not only act as the basic ones in the systems of reproduction relations of the studied territories, but also, which is very important in this case, they are structure-forming in the formation of their spatial structure. The inversion contradictions that arise in the development of these industries, especially in the field of *competitive* and *cooperative* relations, lead to significant losses in their overall effectiveness at the

national and international levels, since the territories under consideration, in addition to being of great importance in terms of strengthening Russia's raw material potential, border such major countries in the global Arctic as the United States (near abroad – the state of Alaska) and Canada (far abroad).

The main results of the study are as follows.

Based on the formation of an interregional resource and institutional "mesocluster" for the extraction of mineral resources in the Northeastern sector of the Russian Arctic, it is proved that it is necessary and possible to ensure sufficiently close coordination of exogenous and endogenous functions of formal and informal management institutions, including the entire system of their methods, techniques and specific mechanisms, regulations, etc. The purpose of these transformations is to create conditions for public, regional and public-private partnership (based on the "mesocluster") and joint regulation of the integrated development of the newly created spatial and economic education here, which will result in a high cumulative emergent effect in the interests of all participating partners.

The solution to this problem also corresponds to the ongoing processes of changing the emphasis in planning and

management from purely sectoral to territorial principles. The priority of territorial planning acts as the second wave of institutional transformations in this economic zone of the country. These processes, which are extremely important at the current and future stages of the development of this zone, are caused by the emergence of various kinds of deep crises in its development. And the way out of one of these crises in the resource sector is the need to implement some kind of “mobilization” approach in regulating the long-term formation of its spatial and economic structure.

In the future, for the consistent implementation of these substantiations, of course, it will be necessary to create a single

permanent institutional body, which will most likely be a special state-regional planning commission for the Northeastern mesoregion. Its creation will to some extent affect the current management functions of both state organizations at the federal level and regional administrative bodies of the Republic of Sakha (Yakutia), Chukotka Autonomous Area and Magadan Region combined. However, the implementation of such a planned and programmatic approach in the strategic development of these trans-border North Arctic territories of the Far East is currently urgently needed in the current period of exacerbation of crisis situations both on the national and international arena.

REFERENCES

- Amin A. (1999). An institutionalist perspective on regional economic development. *International Journal of Urban and Regional Research*, 23(2), 365–378. DOI: <http://dx.doi.org/10.1111/1468-2427.00201>
- Arvanitidis P.A., Papagiannitsis G. (2024). Community and informal institutions in reforms under crises: The odyssey of a 350-year-old functionally credible water commons. *Journal of Institutional Economics*, 20(33). DOI: <https://doi.org/10.1017/S1744137424000183>
- Baker B. (2021). Beyond the Northern Sea Route: Enhancing Russian-United States cooperation in the Bering Strait Region. *Polar Perspectives*, 8, 1–27.
- Balatsky E.V. (2024). Philosophy of cooperation in institutional design: Origins, limitations and prospects. *Filosofskie nauki*, 67(4), 27–46 (in Russian).
- Bobrysheva A.A. (2023). On the issue of defining the concept of a cluster as an integrated structure in the production sector. *Ekonomicheskaya nauka sovremennoi Rossii*, 2, 58–71. DOI: 10.33293/1609-1442-2023-2(101)-58-71 (in Russian).
- Buchen C. (2024). Institutional resilience: How the formal legal system sustains informal cooperation. *Journal of Institutional Economics*, 20, e1. DOI: <https://doi.org/10.1017/S1744137422000418>
- Choutagunta A., Gutmann J., Voigt S. (2024). Shocking resilience? Effects of extreme events on constitutional compliance. *Journal of Institutional Economics*, 20, e3. DOI: <https://doi.org/10.1017/S1744137423000279>
- Douarin E., Schnyder G. (2025). Introduction to the symposium on “crisis and persistence: Dynamics of institutional changes at the interface between formal and informal institutions. *Journal of Institutional Economics*, 21, e6. DOI: <https://doi.org/10.1017/S1744137424000328>
- Khanina A.V., Sorokina Yu.V. (2020). Resource-institutional approach to the formation of an industrial cluster in the region. In: *Innovatsionnaya ekonomika i menedzhment: metody i tekhnologii*. Moscow (in Russian).
- Krasnopolski B.Kh. (2023). *Infrastruktura i prostranstvennaya ekonomika: teoreticheskie i prikladnye issledovaniya* [Infrastructure and spatial economics: Theoretical and applied research]. Khabarovsk: IEI DVO RAN.
- Krasnopolski B.Kh. (2024). North Arctic territories of the Russian Far East: Mechanisms of organizational and managerial coordination of mineral resource sectors of the macroregion. *Regionalistika*, 11(4), 24–42. DOI: 10.14530/reg.2024.4.24 (in Russian).

- Krasnopol'ski B.Kh. (Ed.). (2021). *Dal'nevostochnaya i Tikhookeanskaya Arktika: na perekrestke dvukh okeanov i kontinentov: monografiya* [The Far Eastern and Pacific Arctic: At the crossroads of two oceans and continents: Monograph]. Khabarovsk: IEI DVO RAN.
- Lazhentsev V.N. (2024). The North Arctic specifics of the subject of economic research (methodological aspects). *Arktika i Sever*, 57, 64–76. DOI: 10.37482/issn2221-2698.2024.57.64 (in Russian).
- Minakir P.A., Isaev A.G., Demyanenko A.N., Prokapalo O.M. (2020). Economic macro regions: An integration phenomenon or a political and geographical expediency? The case of the Far East. *Prostranstvennaya ekonomika*, 16(1), 66–99. DOI: 10.14530/se.2020.1.066-099 (in Russian).
- Polterovich V.M. (2022). Competition, collaboration, and life satisfaction. Part 2. The fundament of leadership – collaborative advantage. *Economic and Social Changes: Facts, Trends, Forecast*, 15(3), 42–57. DOI: 10.15838/esc.2022.3.81.2 (in Russian).
- Rastvortseva S., Cherepovskaya N. (2024). Clusters as drivers of regional economic development: US Practice. *Mirovaya ekonomika i mezhdunarodnye otnosheniya*, 68(2), 27–38. DOI: 10.20542/0131-2227-2024-68-2-27-38 (in Russian).
- Rayamajhee V., March R.J., Clark C.C.T. (2024). Shock me like a Hurricane: How Hurricane Katrina changed Louisiana's formal and informal institutions. *Journal of Institutional Economics*, 20, e2. DOI: <https://doi.org/10.1017/S1744137423000267>
- Zhuravel V.P., Timoshenko D.S. (2020). The Russian Arctic in the period of sanctions pressure and geopolitical instability. *Arktika i Sever*, 49, 105–124. DOI: 10.37482/issn2221-2698.2022.49.105 (in Russian).

INFORMATION ABOUT THE AUTHOR

Boris H. Krasnopol'ski – Doctor of Sciences (Economics), Professor, Chief Researcher, Economic Research Institute, Far Eastern Branch of the Russian Academy of Sciences (153, Tikhookeanskaya Street, Khabarovsk, 680042, Russian Federation; e-mail: boriskrano@gmail.com)