Russia's Presidential Directive 2025 as Institutional Innovation: Arctic Development under Strategic Pressure

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Abstract

This article analyzes Presidential Directive No. Pr-1079 of May 16, 2025, as a comprehensive state instrument shaping the strategic framework for Russia's Arctic Zone. The document consolidates a wide range of policy directions—from the development of the Trans-Arctic Transport Corridor and infrastructure modernization to environmental risk management and institutional coordination. Drawing on content analysis, institutional theory, and spatial governance approaches, the article examines the structure of the directive, its implementation mechanisms, administrative density, and integration into national projects and budget planning.

Particular attention is paid to the spatial rationale: regional differentiation, Arctic agglomerations as development nodes, and targeted infrastructure deployment. Environmental and climate priorities—such as permafrost monitoring, ecological rehabilitation, and adaptation to Arctic warming—are embedded as structural components rather than peripheral concerns. The article also explores the involvement of federal agencies, regional authorities, scientific institutions, and state corporations in forming a multilevel governance model.

Comparative analysis with previous presidential directives (2021, 2023) and outcomes of the International Arctic Forum in Murmansk highlights a shift toward mobilization-based, climate-adaptive, and functionally integrated governance. The policy is conceptualized as a governance mechanism that formalizes Russia's long-term strategic turn toward the Arctic amid geopolitical fragmentation and external constraints. In this context, Arctic development becomes a critical domain of national consolidation, territorial planning, and climate-resilient policy formation.

Keywords

Arctic Zone; Presidential Directive 2025; Arctic governance; Trans-Arctic Transport Corridor; climate adaptation; institutional coordination; spatial development; Russia

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Introduction

The Directive of the President of the Russian Federation No. Pr-1079, dated May 16, 2025 (hereinafter referred to as Presidential Directive 2025) (Prikaz Prezidenta Rossiyskoy Federatsii, 2025), prepared following Vladimir Putin's visit to Murmansk in March 2025, represents a comprehensive and structurally dense document reflecting the contemporary evolution of executive governance mechanisms in regions of strategic significance to Russia. Although formally classified as a current administrative decision, the document stands out for its scale, institutional depth, and its specific focus on a strategically important area—the Arctic Zone of the Russian Federation (AZRF).

Presidential directives constitute a special form of administrative intervention through which the head of state exerts direct influence over governmental bodies, state, and quasi-state organizations. Despite lacking normative legal force, such directives practically serve as a basis for adopting regulatory acts and are regarded as mandatory within the established administrative tradition (Artamonov, 2020). Since the early 2000s, they have functioned as a stable tool for coordination across various levels of executive authority. Presidential decrees of 2004 (Ukaz Prezidenta Rossiyskoy Federatsii, 2004) and 2011 (Ukaz Prezidenta Rossiyskoy Federatsii, 2011) codified procedures for implementing directives and expanded the system of oversight. In 2020, the concept of a "Presidential Directive of the Russian Federation" was officially incorporated into the Constitution (Ukaz Prezidenta Rossiyskoy Federatsii, 2020a), thereby securing its institutional status.

A new phase of strengthened administrative coordination emerged in 2024, when the Presidential Directorate for Domestic Policy was granted additional powers for expert support and performance evaluation of regulatory decisions at the regional level (Ukaz Prezidenta Rossiyskoy Federatsii, 2024). Under these conditions, presidential directives evolved from mere tools of current governance into components of program-targeted planning embedded within a broader system of strategic documents and national projects.

Presidential Directive 2025 illustrates the growing significance of the Arctic as a deliberate state policy priority. The directive's scope transcends standard administrative formulas: it covers a wide range of tasks, includes annexes listing specific measures, and is coordinated at the highest level. The directive's agenda spans key sectors—from defense and energy to healthcare, logistics, shipbuilding, education, ecology, and tourism. What distinguishes it is not only the number of sectors involved but their synchronized organization as interlinked components of a unified state strategy in the Arctic region.

The spatial logic of the document is structured around key Arctic hubs and agglomerations. The region is conceptualized through functional linkages, including the development of transport corridors, logistics infrastructure, and energy clusters. Primary emphasis is placed on territorial connectivity, improving internal and external transport accessibility, and modernizing essential infrastructure nodes. Special attention is given to the Northern Sea Route and the emerging Trans-Arctic Transport Corridor, envisioned as pillars of future economic growth and geopolitical influence.

The directive's systemic nature is evident in its reliance on existing national projects, government programs, and previously adopted strategic documents. It offers both the updating of earlier decisions and the development of new formats. This reflects the maturity of the Arctic policy coordination mechanism, wherein the President's initiative serves as a catalyst for large-scale restructuring of administrative and financial flows.

The coordination of the directive's implementation involves major state and quasi-state corporations—including Rosatom, Gazprom, the United Shipbuilding Corporation, VEB.RF (State Development Corporation VEB.RF, 2025), the Russian Academy of Sciences, and others. This imparts an interagency character to the implementation process and underscores the close interconnection between state governance, scientific expertise, and large corporate capital. At the same time, responsibility for execution is shared between federal authorities and regional administrations, resulting in a hierarchically complex yet manageable implementation structure.

Climate and environmental challenges remain a critical area of focus. The directive includes measures for monitoring permafrost conditions, eliminating accumulated environmental damage, managing radioactive waste, and ensuring the resilience of new infrastructure to climate change. These aspects position the Arctic agenda not only as a domestic concern but also as a potential platform for restoring international cooperation.

The context in which the document emerged is significant: its preparation is directly linked to the President's visit to Murmansk, reflecting a distinctive feature of Russian administrative tradition—namely, the connection between "field-based" oversight and institutional mechanisms. This trip catalyzed the development of a directive that merges operational immediacy with long-term strategic planning.

Presidential Directive 2025 serves not only as a subject of substantive analysis but also as a key to understanding broader transformations in Russian state policy in the Arctic. It illustrates a shift toward a model of mobilization-based and integrative governance, in which regional management is grounded in multi-level coordination, vertical accountability, and functional resource consolidation.

Three complementary analytical methods are employed to examine this document. Content analysis systematizes the main themes and instruments embedded in the presidential directives. The institutional approach focuses on identifying coordination mechanisms among federal authorities, regional governments, and corporate actors. The spatial approach assesses the territorial logic of implemented measures and determines the hierarchy of Arctic agglomerations within the state policy framework. Together, these methods ensure a thorough understanding of both the content and the practical implementation of the directive.

The study of Presidential Directive 2025 is of considerable academic interest as a key document shaping the long-term agenda of Russian state policy in the Arctic amid escalating geopolitical and economic challenges. Particular attention is given to the initiative to create the Trans-Arctic Transport Corridor, aimed at enhancing Russia's logistical connectivity with Asia, particularly China. The directive also emphasizes ecological and investment aspects that reflect efforts to bypass sanctions-related constraints and reestablish international cooperation.

Thus, the directive serves as a vital source for analyzing both the internal mechanisms of governance and external strategic orientations. The subsequent sections of this study focus on the directive's substantive features, the institutional logic of its implementation, and the spatial distribution of governance initiatives.

Primary sources for this study include strategic and programmatic documents: the Foundations of State Policy in the Arctic until 2035 (Ukaz Prezidenta Rossiyskoy Federatsii, 2020a) and the Strategy for the Development of the Arctic Region (Ukaz Prezidenta Rossiyskoy Federatsii, 2020c); the amendment to the Constitution of the Russian Federation, which enshrines the

institution of presidential directives (Ukaz Prezidenta Rossiyskoy Federatsii, 2020b); the Arctic-related directives of May 16, 2025 (Prikaz Prezidenta Rossiyskoy Federatsii, 2025); as well as earlier Presidential directives from 2004 and 2011 (Ukaz Prezidenta Rossiyskoy Federatsii, 2004) and (Ukaz Prezidenta Rossiyskoy Federatsii, 2011) and the 2024 order expanding the powers of Presidential Directorate for Domestic Policy (Ukaz Prezidenta Rossiyskoy Federatsii, 2024).

Additional sources include government materials and reports from international forums, along with selected sectoral analytical publications. Artamonov (2020) presents theoretical interpretations of presidential directives as a form of administrative practice, which emphasizes their role as coordination and control instruments within the executive authority system. The analytical framework is further supported by studies such as Ivchenko et al. (2025) and Leonteva & Agafonov (2024), which focus on the institutional transformation of Arctic policy, strengthening environmental priorities, and shifting toward spatially integrated governance.

1. Analysis of the Structure and Implementation Mechanisms of Presidential Directives

1.2. Scope and Internal Composition of Presidential Directives

Presidential Directive 2025 is a comprehensive administrative act containing 54 directives of varying scope and specificity. A quantitative and structural analysis of the directive reveals key features of its design, priority areas of state policy, and the nature of the administrative instruments employed.

In terms of volume, the directive ranks among the most extensive in recent practice: it is accompanied by an annex listing specific measures for infrastructure development in key Arctic agglomerations. By comparison, most presidential directives typically contain between five and fifteen items. Presidential Directive 2025 thus significantly exceeds the standard volume and takes on the character of a strategic document, reflecting increased state focus on the Arctic region of the Russian Federation.

The internal variation in the level of elaboration also deserves attention. The most complex is the instruction addressed to the Russian Government (Item 1), which comprises 27 sub-items covering a broad spectrum of topics—from infrastructure and environmental development to scientific and legal regulation. The second largest is the directive concerning the formation of the Trans-Arctic Transport Corridor (Item 5), which includes 10 sub-items and underscores the priority of logistical integration in Arctic governance. Together, these two items represent nearly 70% of the document's substantive content. The remaining directives consist of concise and narrowly defined tasks, allowing for flexibility and simplifying the organization of implementation.

Table 1. Distribution of Directives by Scope (Number of Sub-Items)

Type of Directive by Scope	Number of Directives	Description
Large (≥10 sub-items)	2	Items 1 (27 sub-items) and 5 (10 sub-items); form the strategic core of the document
Medium (2–9 sub-items)	6–8	Include several interrelated tasks on adjacent topics
Simple (1 sub-item)	44–46	Stand-alone directives, often with a narrow task and a specific executor

From the perspective of institutional architecture, a significant portion of the directives is addressed to the Government of the Russian Federation, which serves as the principal executor. Simultaneously, several directives involve regional executive authorities, state corporations, and private partners, giving the implementation process an inter-level and cross-sectoral nature.

Structurally, many directives are single-stage assignments that neither require interim reporting nor involve multi-phase procedures. Nonetheless, a considerable share comprises multi-stage tasks, encompassing preliminary analysis, planning, initiation of activities, and mandatory reporting. This blend of execution formats reflects a deliberate effort to balance immediate actions with long-term goals. This approach supports effective governance through phased implementation.

Table 2. Structure of the Directives

Characteristic	Number of Directives	Share (%)	Comment
Single-stage directives	31	57.4%	No intermediate stages
Multi-stage directives	23	42.6%	Include reports, analysis, and implementation phases
Linked to the 2026 budget	9	16.7%	Incorporated into budget planning
Linked to national projects	6	11.1%	Intended for integration into national project frameworks

An additional indicator of the degree of administrative accountability is the presence of interim reporting requirements: 7.4% of the directives explicitly include the term "report," while another 22.2% specify a distinct deadline for report submission, separate from the final implementation deadline. This underscores an emphasis on strengthening accountability and monitoring progress, especially in the most resource-intensive and sensitive areas.

The linkage to budget planning is evident in 16.7% of the directives, whose timelines coincide with the federal budget formation for 2026. This reflects the financial and institutional integration of the presidential directive into the medium-term public policy planning system. Additionally, 11.1% of the assignments are explicitly designated for incorporation into ongoing national projects, ensuring policy consistency with the established strategic hierarchy.

Taken together, the analysis indicates a high level of administrative concentration within the document. Despite a relatively moderate total number of directives, their internal complexity and level of detail require substantial organizational and institutional capacity. The structure of Presidential Directive 2025 merges strategic imperatives, mechanisms of political and administrative control, and multi-level reporting, consistent with the logic of comprehensive governance amid intensified strategic focus on the Arctic.

1.3. Legal Foundations and Regulatory Documents

An analysis of the regulatory documents referenced in Presidential Directive 2025 reveals a systematic effort to integrate the strategic, programmatic, and project-based foundations of Russia's Arctic policy. Two key presidential decrees form the foundation for current Arctic policy:
— The Presidential Decree "On the Foundations of State Policy of the Russian Federation in the Arctic for the Period until 2035" (Ukaz Prezidenta Rossiyskoy Federatsii, 2020a);
— The Presidential Decree "On the Strategy for the Development of the Arctic Zone of the Russian Federation and the Provision of National Security for the Period until 2035" (Ukaz Prezidenta Rossiyskoy Federatsii, 2020c).

This indicates an effort to revise relatively recent strategic documents, including those related to national security, maintaining policy continuity while adapting to new geoeconomic, technological, and climatic challenges. The revision of these strategic acts is expected to address the interagency nature of Arctic governance and expand the scope of mid-term planning. Within this context, the Russian government, amid geopolitical instability and changing regional dynamics, has initiated a reassessment of its Arctic strategy, with particular emphasis on ensuring national security.

One of the methodological challenges in establishing the regulatory framework for Arctic policy is the continued ambiguity in the definitions of key terms such as "*the Arctic*," "*the Arctic Zone of the Russian Federation*," "*the Far North*," and "*the Russian Arctic*." These terms are frequently employed in administrative and expert discourse but often lack standardized criteria for their application or legally codified definitions. As noted by Leonteva and Agafonov (2024) and Lukin (2016), due to the absence of a dedicated federal law on Arctic zone development, the legal delineation of the region has been fragmented—most notably articulated in Presidential Decree No. 296 of May 2, 2014, which established a list of land territories constituting the Arctic Zone of the Russian Federation (Ukaz Prezidenta Rossiyskoy Federatsii, 2014). Nonetheless, the origins of the legal framework trace back to a 1989 resolution of the State Commission under the USSR Council of Ministers, although these legal instruments lack strong normative continuity. This situation complicates institutional planning and creates legal uncertainty for Arctic policy implementation.

In Presidential Directive 2025, environmental issues are prioritized as a core element of Arctic state policy, rather than treated as secondary concerns. The main tool is the state program 'Environmental Protection', which forms the basis for measures aimed at eliminating accumulated environmental damage, managing waste, and conducting systematic monitoring of permafrost conditions. This approach marks a transition toward an adaptive environmental governance aimed at managing risks amid climate instability, focused on proactive risk management in the context of climate instability.

One of the key initiatives in this direction is the development of a comprehensive plan to adapt infrastructure to permafrost degradation and the establishment of a specialized scientific center dedicated to permafrost monitoring. Collectively, these measures establish the foundation for climate-responsive governance of high-latitude territories. Particular attention is directed at the adoption of environmentally safe technologies in the energy, logistics, and industrial sectors—with the dual aim of reducing emissions and mitigating harm to fragile Arctic ecosystems. This strategic orientation, emphasized at the International Arctic Forum in Murmansk, confirms the environmental agenda as an integral component of Russia's contemporary Arctic strategy.

A key component of Presidential Directive 2025 is the integration of Arctic-related themes into national projects—major state programs focused on the development of crucial sectors such as healthcare, environmental protection, education, and infrastructure. This process includes both Arctic-specific targeting and resource reallocation to northern regions and adapting project mechanisms to their unique conditions. Successfully implementing this requires a revision of planning methods and synchronization of federal and regional investment timelines.

Concrete examples of these transformations are already observable in several initiatives. For instance, the federal project Five Seas and Lake Baikal is being expanded to to include tourism infrastructure on the White Sea, thus adding an Arctic component. This move supports a broader strategy to develop the cultural and tourism potential of the Arctic, establishing a regional brand, and diversifying its economic base. In the social sphere, housing programs are being extended: expanding the rental housing mechanism to Arctic regions seeks to counteract demographic decline, increase the attractiveness of the region for migrants, and strengthen the resilience of social infrastructure.

Another significant vector in the institutionalization of the Arctic agenda is the extension of the infrastructure development plan for closed administrative-territorial entities (ZATOs) and settlements with stationed military personnel. This highlights the integration of military logistics within the Arctic development system and underscores the strategic importance of the

defense factor in the region. Simultaneously, work continues on the formation of the Trans-Arctic Transport Corridor, whose organizational and financial model is still being formulated. This endeavor demands a high degree of interagency coordination and the active involvement of major state corporations.

At the same time, a substantial number of documents and programmatic decisions remain in the stages of drafting, development, or awaiting approval. These include the program to eliminate digital inequality in Arctic settlements, the initiative for demolition of abandoned housing, a staged relocation of residents from unsafe housing, a comprehensive plan for climate adaptation of infrastructure, and the operational model for the Trans-Arctic Transport Corridor. This situation reflects a persistent institutional gap between political goal-setting and regulatory specification. Bridging this gap will require accelerated coordination, the establishment of stable interagency mechanisms, and synchronization with budget planning processes.

Thus, the list of assignments in Presidential Directive 2025 serves not only as an instrument of operational management but also as a marker of the maturity of the normative and programmatic architecture underpinning Russia's Arctic policy. Its implementation demands more than the mechanical execution of tasks—it requires a systematic coordination of strategic plans, project instruments, and infrastructure initiatives, and specific infrastructure solutions, all carefully adapted to the region's climatic, demographic, and logistical characteristics.

Table 3. Regulatory Documents Referenced in the List of Directives

Document Title	Number	Date	Status
Presidential Decree "On the Foundations of State Policy of the Russian Federation in the Arctic until 2035"	No. 164	05.03.2020	In force, subject to revision
Presidential Decree "On the Strategy for the Development of the Arctic Zone and National Security until 2035"	No. 645	26.10.2020	In force, subject to revision
State Program of the Russian Federation "Environmental Protection"	—	—	In force
National Projects (sections including Arctic Zone development activities)	—	—	In force, subject to expansion
Federal Project "Five Seas and Lake Baikal"	—	—	In force, parameters subject to clarification
State Program "Affordable Rental Housing in the Far Eastern Federal District"	—	—	In force; extended to the Arctic from 2026
Action Plan for Infrastructure Development of ZATOs and Settlements with Military Units in the Arctic Zone	—	—	In force; to be extended to 2030
Program for Eliminating Digital Inequality in Arctic Core Settlements	—	—	In development
Program for Demolition of Vacant Housing Structures	—	—	In preparation
Phased Resettlement Schedule from Unsafe Housing in the Arctic	—	—	Expected to be approved
Financial, Economic, and Organizational Model for the Trans-Arctic Transport Corridor	—	—	In development
Comprehensive Plan for Infrastructure Adaptation to Permafrost Thaw in the Arctic Zone	—	—	Expected to be approved

The body of regulatory documents encompassed by Presidential Directive 2025 addresses the principal domains of Arctic policy — covering infrastructure, transport, social development, and climate resilience. A significant share of these documents is currently being drafted, revised, or awaiting formal adoption, reflecting an ongoing process of refining and operationalizing strategic policy directions.

1.4. Implementation Timelines and Temporal Horizons

An analysis of the implementation timelines specified in Presidential Directive 2025 reveals a predominance of short-term planning. Most assignments are scheduled for completion between June 1 and July 1, 2025. These include directives related to the development of the organizational and financial model for the Trans-Arctic Transport Corridor, the designation of an operator, decisions on digital infrastructure, and socio-economic policies targeting Arctic support hubs, and the inclusion of activities in national projects.

A portion of the directives is scheduled for the third quarter of 2025—specifically in August and September. These assignments involve the participation of multiple agencies, coordination with federal bodies, and engagement with state corporations. For example, Rosatom is involved in drafting agreements with cargo shippers and consideration of international partnership options. The administrative complexity of these initiatives contributes to extended timelines.

Several directives are intended for long-term implementation, extending as far as 2028 or even 2035. These include projects such as the construction of an icebreaker fleet, infrastructure modernization in Arctic settlements (e.g., Sabetta, Tiksi), and the establishment of the "Snezhinka" scientific station, a high-latitude research hub. These initiatives align with existing strategic documents and are intended to unfold through multi-stage planning.

The start dates for implementation also vary: some assignments call for immediate initiation upon approval, while others are planned to begin in the second half of 2025. In terms of duration, the majority of directives fall within a three-month timeframe, while others range from three to six months or exceed one year, reflecting variation in elaboration, complexity, and project scope.

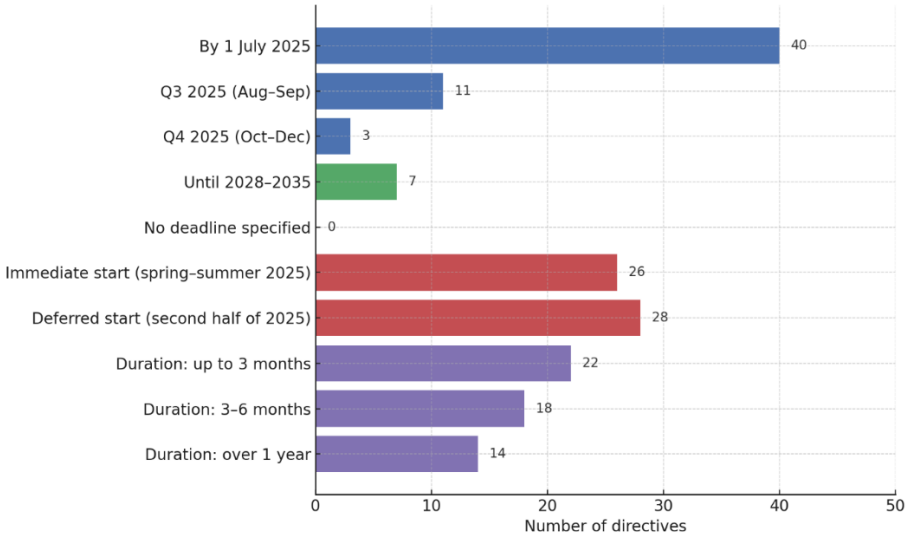
Table 4. Distribution of Directives by Execution Deadlines, Start Dates, and Duration

Category	Number of Directives	Share (%)	Comment
Execution Deadline: by July 1, 2025	40	74.1%	Majority of directives have short deadlines
Execution Deadline: Q3 2025	11	20.4%	Require additional coordination and partnerships
Execution Deadline: Q4 2025	3	5.5%	Address issues requiring interagency processing
Long-term Implementation (to 2028–2035)	7	—	Reflect strategic horizons; include fleet, stations, infrastructure
No Specified Deadline	0	0%	All directives include a set implementation timeline
Start Date: Immediate (Spring–Summer 2025)	26	48.1%	Implementation begins immediately after approval
Start Date: Delayed (Second Half of 2025)	28	51.9%	Launch depends on coordination and planning processes
Duration: up to 3 months	22	40.7%	Typical short-term directives (coordination, proposals)
Duration: 3–6 months	18	33.3%	Include coordination with Ministry of Finance, regions, and agencies
Duration: over 1 year	14	25.9%	Related to infrastructure, investments, and scientific centers

The table captures the quantitative and categorical structure of the directives based on key temporal indicators. Notably, none of the directives lack a specified execution deadline, underscoring the directive's administrative precision. The distribution of short-term, deferred,

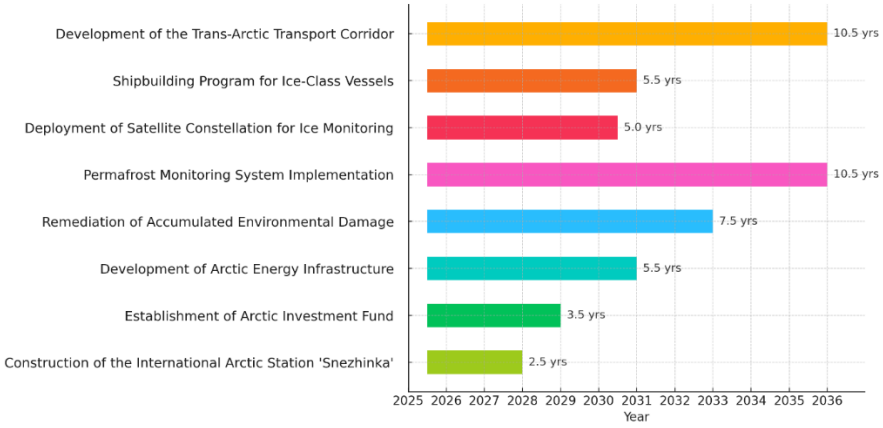
and long-term assignments reflects a phased logic: from the urgent development of project solutions to the strategic implementation of infrastructure-focused initiatives.

Figure 1. Frequency Distribution of Directives by Key Temporal Characteristics



The diagram illustrates the distribution of directives contained in Presidential Directive 2025 according to their execution deadlines, start dates, and durations. The color scheme is as follows: blue indicates execution deadlines, red start dates, purple durations, and green long-term strategic tasks: blue — execution deadlines; red — start dates; purple — duration; green — strategic tasks with a time horizon extending to 2028–2035.

Figure 2. Timeframes for the Implementation of Russia's Arctic Infrastructure and Environmental Projects (2025–2035+)



The diagram depicts the duration range of key Arctic projects referenced in Presidential Directive 2025. Certain initiatives are planned to extend over a period of more than ten years, including the development of the Trans-Arctic Transport Corridor and a comprehensive permafrost monitoring and research system, while others are scheduled for completion by 2028.

1.5. Coordination Instruments Between Implementing Actors

An analysis of the content of the directives contained in Presidential Directive 2025 reveals the deliberate use of interagency coordination mechanisms as a key instrument of Arctic policy implementation. These mechanisms are intended to coordinate actions across various levels of executive authority and to support the development of institutional frameworks that bring together diverse actors, including scientific institutions and corporate stakeholders, within a unified spatial development strategy.

The documentary formats used to facilitate interagency coordination vary, but the majority of directives are structured as programs and action plans. This underscores the priority given to long-term, project-based approaches, while the use of schemes and schedules is relatively limited—indicating a preference for comprehensive planning over step-by-step roadmaps.
The main share of the directives is addressed to federal executive bodies. Regional structures play a supportive and operational role, while the involvement of the municipal level in implementation is virtually absent. This distribution of responsibility reflects a centralized model of governance.

At the same time, there is a visible shift away from narrow sectoral planning in favor of more integrated management solutions. The share of cross-cutting directives that span several domains such as security, logistics, environmental protection, and humanitarian resilience—is increasing. These require close interagency cooperation and reflect a move toward implementing a unified, cross-cutting agenda that consolidates disparate policy areas within a common strategic framework.

Most assignments remain in the development stage, indicating that the process of institutional consolidation is not yet complete and reinforcing the need for stable coordination mechanisms among implementing actors. In some cases, execution deadlines are specified, while in others they are omitted, increasing uncertainty and complicating management, particularly in contexts of interagency dependence and limited resources.

Table 5. Structural Characteristics of Directives Related to Interagency Coordination

Characteristic	Number of Directives	Comment
Include more than one federal agency	31	Indicate shared responsibility and need for horizontal coordination
Involve regional authorities	18	Regions act as operators or co-executors
Reference state corporations or scientific bodies	12	Reflect hybrid implementation structures (e.g., Rosatom, RAS)
Framed as programs or long-term plans	29	Emphasize strategic and project-based coordination
Structured as technical or regulatory tasks	7	Include standard-setting or legal preparation steps
Integrative (combine ≥3 policy areas)	15	Typically span sectors like ecology, logistics, and national security
Explicitly require coordination mechanisms	9	Mandate creation of commissions, working groups, or formal agreements
Lack detailed coordination instructions	14	May hinder timely execution and cross-sector alignment

A number of directives include the formation of new organizational structures, covering project management, scientific research, education, and finance. One example is the establishment of a project office under VEB.RF, designed to carry out management tasks via public–private partnerships. The proposed Arctic Development Investment Fund is envisioned as an additional tool for investment support. The creation of a Unified Scientific Center for Permafrost Monitoring is intended to consolidate the resources of scientific institutions and applied research organizations engaged in Arctic-related activities. These structures represent a model of comprehensive cooperation—vertically with the state and horizontally with science and industry.

The strengthening of such multi-level ties marks a shift toward an integrated model of Arctic governance. As noted by Ivchenko et al. (2025), sustainable development in the Arctic Zone is impossible without a shift toward intersectoral coordination based on the alignment of transport, energy, and social policies. This approach entails a departure from fragmented decisions in favor of spatially coordinated plans centered on major infrastructure nodes.

Mechanisms of interagency coordination are also evident in specific project models. For example, the formation of the Trans-Arctic Transport Corridor is based on collaboration between the Government of the Russian Federation, the state corporation Rosatom, shipbuilding companies, and infrastructure operators through formal agreements and clearly delineated responsibilities. A similar logic applies to the comprehensive plan for infrastructure adaptation to permafrost thaw, which involves federal and regional authorities, scientific institutions, and operational entities. These examples demonstrate an institutional synthesis—the integration of diverse participants within new administrative units with comprehensive mandates.

At the same time, in several cases, coordination mechanisms are formulated declaratively, lacking specific legal frameworks or monitoring procedures. This reduces implementation predictability and underscores the need for additional regulatory development. To systematize interagency interaction, a unified coordination matrix could be introduced, listing participants, interaction format, timelines, and legal basis. The introduction of such an instrument would improve accountability and coordination in Arctic policy implementation.

1.6. Planned Facilities, Infrastructure, and Institutions

Presidential Directive 2025 includes provisions aimed at the development of organizational, scientific, and physical infrastructure in the Arctic Zone of the Russian Federation. The directives address the establishment of new institutions and coordination mechanisms, as well as the implementation of specific infrastructure projects with clearly defined territorial and temporal parameters. The list also includes the creation of a grant program to support youth-led initiatives in science, ecology, and public engagement.

On the organizational side, the directive provides for the establishment of a project office under the state development corporation VEB.RF, tasked with supporting Arctic-oriented initiatives, including the development of the Trans-Arctic Transport Corridor. It also calls for the creation of the Arctic Development Investment Fund, intended to offer mixed financing with private sector involvement.

The scientific component is represented by the initiative to establish a centralized Permafrost Monitoring and Research Center. Its proposed functions include data collection and analysis,

coordination of applied research, and the developing infrastructure adaptation strategies in response to climate change. Additionally, the directive foresees the creation of an orbital satellite group for remote Earth sensing, tasked with monitoring ice conditions and providing data for risk management and decision-making.

In the educational sphere, plans include the establishment of the international Arctic research station Snezhinka, developed jointly with the Moscow Institute of Physics and Technology and regional authorities, an international Arctic youth maritime center, and several specialized institutions focused on Arctic studies and training in Murmansk. These facilities aim to support human capital development and expand educational infrastructure in northern regions.

The infrastructure measures cover the construction and modernization of public utilities and social facilities— including water purification systems, fueling infrastructure, medical centers, educational and sports complexes, airports, and bridges. The implementation timeline spans from 2025 to 2035, with with core construction activities scheduled between 2028 and 2032. The geographic scope includes both major cities (Murmansk, Arkhangelsk, Norilsk) and remote areas (Taimyr, Chukotka, Yamal), with potential extension to other settlements such as Tiksi, Vorkuta, and Anadyr.

In sum, the measures outlined in the directive encompass various components of infrastructure and institutional development, involving the creation of new administrative, research, and support institutions with the execution of specific construction and organizational tasks within the Arctic Zone.

Table 6. Programs, Mechanisms, and Structures for in Presidential Directive 2025

Name	Type	Implementation Period	Notes
Chilingarov Youth Grant Program	Grant Program	until 01.07.2025	Support for youth initiatives in science, ecology, and education
Program for Bridging the Digital Divide	Digital Program	until 01.07.2025	Connectivity for key Arctic settlements
Comprehensive Plan for Infrastructure Adaptation	Adaptation Program	until 01.12.2025	Includes creation of a scientific center and risk assessment system
Arctic Housing Demolition Program	Housing Program	until 2035	Resettlement from substandard housing
Phased Relocation Schedule	Action Plan	until 01.10.2025	Gradual relocation of Arctic residents
Financial and Economic Model of the Trans-Arctic Corridor	Infrastructure Mechanism	until 01.08.2025	Operator designation, monitoring, and tariff planning
Snezhinka International Arctic Research Station	Scientific-Educational Structure	2026–2028	International participation, climate neutrality
Project Office at VEB.RF	Managerial Structure	until 01.06.2025	Coordination of national and infrastructure projects
Arctic Development Investment Fund	Financial Structure	until 01.06.2025	Attraction of off-budget investments
Unified Permafrost Monitoring Center	Scientific Center	until 01.12.2025	Risk assessment and infrastructure adaptation
Arctic Urban Development Competence Centers	Competence Centers	until 01.12.2025	Urban planning and workforce development
Arctic Youth Maritime Center in Murmansk	Educational Structure	2027–2030	Specialized education and patriotic upbringing

1.7. Evolution of the Content and Logic of Presidential Directives in Comparative Perspective

A comparison of Presidential Directive 2025 with earlier documents from 2021 and 2023 (Prikaz Prezidenta Rossiyskoy Federatsii, 2021) and (Prikaz Prezidenta Rossiyskoy Federatsii, 2023) reveals a clear evolution in the Russian leadership's approach to Arctic policy.

As noted by Leonteva & Agafonov (2024), while Arctic policy in the 2010s was primarily centered on resource extraction and transport route development, in the 2020s the focus has shifted toward climate resilience, social infrastructure, and scientific cooperation—an orientation clearly embodied in the 2025 directive.

The 2021 directive marked an initial stage in the institutionalization of the Arctic agenda and was primarily geared toward the socio-economic development of northern territories and their integration into national programs. By 2023, the emphasis had shifted toward practical implementation of infrastructure and energy projects, particularly in the context of expanding the Northern Sea Route (NSR).

Presidential Directive 2025 signals a transition to long-term strategic planning. It includes directives to revise key foundational documents—namely the Foundations of State Policy in the Arctic and the Strategy for the Development of the Arctic Zone—extending their strategic horizons to 2050. This reflects the consolidation of the Arctic as a strategic priority in both the medium- and long-term horizons. According to Ivchenko et al. (Ivchenko et al., 2025), this shift is accompanied by the strengthening of the state's role as both coordinator and investor, and by the transformation of the Arctic from a resource hub to a comprehensive platform for social and technological development.

The nature of goal-setting has also changed. While the 2021 directive focused primarily on preparatory measures, and the 2023 directive emphasized infrastructure modernization (ports, icebreaker fleets, navigation systems), the 2025 directive presents a more integrated model. Particular attention is given to establishing a unified transport and financial framework for the Trans-Arctic Transport Corridor, linking the NSR with railway infrastructure, as well as to including logistics enhancement, shipbuilding support, and incentives for private investment. This shift reflects a move from sector-specific governance toward a cross-sectoral balance and the implementation of strategic master plans (Ivchenko et al., 2025), integrating environmental, infrastructure, and social priorities within a single spatial-functional framework.

The environmental component has been substantially enhanced. Whereas in 2021 and 2023 environmental issues were only sporadically mentioned, the 2025 directive includes the establishment of a dedicated scientific center for permafrost monitoring, the initiation of programs aimed at remediating accumulated environmental damage, and the adaptation of infrastructure to climate change. This reflects a clear move toward the institutionalization of environmental responsibility within Arctic policy.

In the social domain, the approach has shifted from fragmented measures (such as relocation or tourism projects) to a to a coherent and integrated strategy. The 2025 directive mandates development efforts in key settlements, including housing construction, and the establishment of healthcare, educational, and cultural facilities. This demonstrates growing recognition of the importance of human capital in ensuring the sustainable operation of northern regions and the success of infrastructure projects.

Technological priorities have similarly broadened. Previous documents primarily emphasized discrete projects like icebreaker construction. Conversely, Presidential Directive 2025 articulates a wider technological vision that encompasses support for research, automation, and unmanned technologies, and the development of a specialized Arctic fleet.

Regarding international engagement, earlier directives adopted a cautious stance, focusing on domestic resources and selective cooperation. The 2025 directive reflects a pivot towards greater autonomy, technological sovereignty, and prioritization of partnerships with non-Western countries, especially China. This shift underscores the adaptation of Russia's foreign policy to evolving global geopolitical realities.

Table 7. Comparative Overview of Strategic Objectives and Instruments for Arctic Zone Development *(based on Ivchenko et al., 2025; adapted by the author)*

Aspect	Traditional Approach	Updated Approach
Development Goal	Resource exploitation	Balanced territorial development
Strategy	Fragmented programs	Integrated planning
Focus	Sectoral	Cross-sectoral and interregional
Planning	Centralized, directive	Strategic planning, modeling, digital tools
Role of the State	Control and regulation	Coordination, investment, institutional development
Financing	Budget allocations	Mixed sources, preferential mechanisms
Innovation	Not emphasized	Circular economy, digitalization
Ecology	Secondary	Integrated into strategy
Population	Benefits, partial support	Infrastructure, employment, culture, healthcare
Implementation	Targeted programs	Master plans, models, legal support
Regions	Centralized approach	Feedback mechanisms, inclusion of regional initiatives
International Aspect	Sovereignty, security	Logistics, ecology, international risks

Table 8. Comparative Table of Arctic-Related Presidential Directives

Policy Area	2021 Directives	2023 Directives	2025 Directives
Infrastructure and Transport	Northern Latitudinal Railway, modernization of the Kolyma highway, Port Vostochny	Continued work on the Northern Sea Route, port infrastructure development	Accelerated NSR construction, creation of a comprehensive transport system with Chinese involvement
Investment and Special Regimes	Development of Advanced Special Economic Zones (ASEZs), support for investors in the Russian Far East	Conditions for attracting private and foreign investment into the Arctic	Establishment of Arctic priority development zones with state oversight and Chinese capital
Subsoil Use and Resources	Improvements to subsoil legislation, geological exploration	Offshore development, increased transparency in licensing	Support for the extraction of rare earth and strategic resources, state support for processing
Social and Demographic Policy	Population relocation, tourism support	Tourism, VAT benefits for tour operators	Support for population stability in the Arctic: healthcare, housing, digitalization
Environmental and Technological Security	—	—	Acknowledgement of environmental and technological risks of megaprojects, despite limited international cooperation
International Cooperation and Geopolitics	Indirect reference via shipbuilding cooperation	Emphasis on "national sovereignty" in the Arctic, focus on domestic resources	Geopolitical isolation as the basis of new policy; pivot from Western cooperation to engagement with China

Thus, a comparative analysis of the Presidential Directives issued in 2021, 2023, and 2025 reveals both continuity and evolution in Russia's Arctic policy agenda. Whereas the initial directives concentrated primarily on discrete projects, by 2025 the Arctic is conceptualized as a unified macro-region requiring a comprehensive governance framework. Increasing foreign policy pressures, sanctions, and technological isolation have increased the Arctic's strategic relevance as a strategic cornerstone of Russia's long-term national strategy.

2. Spatial and Resource Parameters

2.1. Classification of Presidential Directives by Thematic Areas

The analysis of Presidential Directive 2025 reveals several key thematic areas that constitute the core of Russia's current Arctic policy. These areas are evident both in content— through the structure and purpose of the assigned tasks—and quantitatively, as demonstrated by the predominant use of specific terminology categories and initiative types. Collectively, they reflect a shift toward systematic governance of the Arctic as a priority macro-region amid ongoing foreign policy transformations.

The document's structure exhibits a clear hierarchy of priorities. The greatest emphasis is placed on territorial anchoring and institutional design of the Arctic, alongside infrastructure and logistics mechanisms—these blocks form the backbone of the directive. In contrast, measures related to science, social policy, ecology, and financial architecture appear to a lesser extent, serving as supportive rather than primary components. This indicates the project-oriented nature of the directive, primarily focused on establishing systemic foundations for long-term development.

A central element of the agenda is the formal recognition of the Arctic as a distinct subject of territorial governance. Terminology associated with northern regions—such as "Arctic zone," "Arctic territories," "the North," and "Northern Sea Route"—features prominently throughout the text, while the geography of the directives encompasses both coastal and inland areas of key Arctic regions. This concentration underscores a trend toward creating a unified governance logic for northern territories, irrespective of administrative status, emphasizing an agglomeration-focused development model.

Infrastructure construction occupies a distinctive role as a universal instrument for implementing state policy in the region. This involves not merely isolated facilities but targeted infrastructure linkages designed to ensure the resilience of transport, social, and public utility networks. This is confirmed by the diversity and spatial scope of the initiatives, including port modernization, railway expansion, construction of medical facilities, and water treatment plants within Arctic agglomerations.

Considerable attention is devoted to transport logistics, particularly in the context of establishing the Trans-Arctic Transport Corridor (TATC). The directive outlines a comprehensive model for the TATC as a system encompassing institutional, infrastructural, and foreign economic components. It provides mechanisms for transport management, tariff policy, icebreaker fleet development, and digital navigation systems. Geographically, the project spans from the Northwest to the Russian Far East, integrating the Arctic within the broader framework of a Eurasian transit corridor.

Energy and heat supply are presented as fundamental prerequisites for the region's livelihood and industrial development. This topic intertwines with housing reform, modernization of utilities, and the resilience of key settlements along the Northern Sea Route. Special attention is given to energy infrastructure in remote and hard-to-reach areas, where the modernization of boiler plants and the provision of gas supply are defined as key priorities.

Social infrastructure is viewed as the foundation for demographic stability and the retention of human capital. The directive systematizes support for education, healthcare, sports infrastructure, and resettlement programs. Priority is given to Arctic settlements with high

climatic and logistical vulnerability, which are designated for comprehensive upgrade within the framework of sustainable development zones.

Thus, Presidential Directive 2025 reflects a shift from a fragmented, project-based approach to an integrated spatial policy, in which Arctic development priorities are structured around the territorial concentration of resources, infrastructure connectivity, social resilience, and institutional manageability. Comparing these priorities with the thematic structure of the directive (see Table 10) points to the consolidation of a strategic governance mode adapted to contemporary domestic and international challenges.

The International Arctic Forum in Murmansk reaffirmed the Arctic's status as a strategic priority in Russian policy. Alongside the traditional focus on developing the Northern Sea Route (NSR) and logistics, new priorities were introduced—rare earth elements (REE) processing, climate resilience, and social development. Scientific and environmental infrastructure, as well as support for healthcare and housing in the Arctic Zone of the Russian Federation (AZRF), were emphasized. The need for technological self-sufficiency and independent Arctic development was especially underscored. As noted by Zhuravel (2025), the forum served as an indicator of a transition toward a more balanced and integrated model of Arctic policy.

The conceptual correlation between the International Arctic Forum in Murmansk and the subsequent Presidential Directive 2025 reveals a key feature of Russia's current mechanism for shaping and institutionalizing Arctic policy. Despite their chronological proximity—the directive was issued two months after the forum and was largely presented as its outcome—thematic discrepancies between the forum's content and the structure of the directive suggest a more nuanced dynamic of setting priorities rather than a straightforward sequence.

The International Arctic Forum in Murmansk addressed a broad spectrum of issues, with particular emphasis on sustainability, environmental resilience, logistics integration, and the development of strategic raw materials, including rare earth elements (REE). According to the forum's official conclusions, REE production was framed as a critical priority—not only for technological sovereignty but also as a lever for attracting foreign investment. This theme featured prominently in discussions on Arctic industrialization and foreign economic engagement and was explicitly highlighted by representatives of the Ministry of Industry and Trade and VEB.RF. Kirill Dmitriev, head of the Russian Direct Investment Fund (RDIF), publicly announced the fund's intention to invest in REE extraction projects in the Arctic, particularly in the Murmansk region, as reported by Interfax (2025).

Nevertheless, Presidential Directive 2025 contains no explicit mention of REE or associated value chains, despite the topic's prominence in spring 2025. This omission may indicate that such projects have not yet acquired a defined institutional status or that there is a deliberate avoidance of formalizing sensitive economic sectors under conditions of technological constraints and international sanctions. By contrast, other forum priorities—such as logistics development and the establishment of permafrost monitoring infrastructure—are reflected in the directive with considerable detail.

The directive also includes a number of initiatives that were not prominently featured in the forum's agenda. These include reforms to tariff regulation, the digitalization of navigation systems, and housing construction within closed administrative-territorial entities (ZATOs). Their inclusion suggests the existence of parallel policy streams, where certain priorities are

developed internally by federal ministries and agencies outside the public discourse of major events.

In summary, the partial misalignment between the forum agenda and the directive underscores the adaptive and multi-channel nature of Arctic policy formation in Russia. While there is stated continuity between the two, the directive operates as a selective administrative instrument shaped by both strategic planning and bureaucratic negotiation. Some initiatives raised publicly are only partially institutionalized, while others emerge independently of the forum process.

This dynamic leads to several broader conclusions:

1. Russia's Arctic policy continues to prioritize integrated, infrastructure-driven regional development, yet specific focal points evolve in response to shifting domestic and geopolitical conditions.
2. A structural divide persists between public-facing formats (such as forums) and executive policy instruments (including directives and orders), reflecting their distinct roles: the former as platforms for agenda setting and stakeholder engagement, the latter as mechanisms of administrative execution and control.
3. The absence of direct references to sensitive economic sectors—particularly REE — in the directive suggests a cautious institutional approach, shaped by the realities of external constraints and the strategic imperative of maintaining policy flexibility.

Overall, the comparison reveals that forums function primarily as ideational incubators and consensus-building platforms, whereas directives serve as curated and enforceable expressions of state policy priorities.

Table 9. Thematic Structure of Directives in Presidential Directive 2025

Thematic Area	Number of Directives	Share (%)	Key Subtopics
Institutionalization of the Arctic	37	68.5 %	Territorial delineation, AZRF, Arctic agglomerations
Infrastructure Development	21	38.9 %	Social, transport, and utility facilities
Transport and Logistics	17	31.5 %	NSR, Trans-Arctic Corridor (TATC), ports, railways, tariff policy
Energy and Heat Supply	15	27.8 %	Electricity, gas, boiler houses, system modernization
Social Infrastructure	14	25.9 %	Healthcare, education, resettlement, sports
Science, Technology, Ecology	14	25.9 %	Scientific research, ecology, technological development
Financial and Administrative Measures	9	16.7 %	Budget, investments, project offices, development funds
Other Areas	9	16.7 %	Law, SMEs, space, and others

Table 10. Thematic Differences Between Presidential Directive 2025 and the 2025 International Arctic Forum

Thematic Focus	Presidential Directive 2025	International Arctic Forum 2025
Institutionalization	Centralized governance, project offices, territorial agglomerations	Focus on institutions for scientific and investment cooperation
Infrastructure Development	State-led construction and modernization tied to Arctic agglomerations	Infrastructure as a tool to attract private investment
Transport and Logistics	Development of the NSR and TATC, tariff and management models	International positioning of the NSR, logistics as foreign policy instrument

Energy and Sustainability	Modernization of heating systems, electrification of remote areas	Green energy, climate-oriented solutions
Social Infrastructure	Education, healthcare, housing; priority for vulnerable territories	Demographic sustainability, population retention
Science and Ecology	Environmental damage mitigation, permafrost monitoring, research centers	Innovative eco-technologies, circular economy, ecological diplomacy
Financial Mechanisms	Budget planning, project offices, state development funds	PPPs, investment platforms, RDIF participation
Mineral Resources and Rare Earth Elements (REEs)	Indirect mentions through industrial projects	Direct references to REEs, development of processing and export chains

2.2. Territorial Anchoring and Regional Coverage

The list of directives contained in Presidential Directive 2025 reflects not only a strategic commitment to the long-term development of the Russian Arctic Zone, but also a clearly articulated spatial differentiation of priorities. These distinctions correspond to the specific geographical location, infrastructural accessibility, and resource potential of individual Arctic agglomerations. The spatial logic embedded in the directive aligns with findings from cluster analyses of regional resilience, which classify Arctic territories according to levels of socio-economic development, infrastructure availability, and demographic sustainability (Bose, 2025).

Within the framework of Presidential Directive 2025, the term “agglomeration” refers to a territorially and functionally integrated group of settlements, linked not merely by geographic proximity but by stable infrastructural, economic, and social interconnections. These clusters are defined by their spatial compactness, shared engineering and public service infrastructure, and high intensity of transport, economic, and cultural interactions that create functional coherence. Although Russian legislation does not provide a formal definition of “agglomeration,” the term was widely employed in the now-defunct Spatial Development Strategy of the Russian Federation up to 2025 (repealed in December 2024). There, it denoted compact settlement systems with integrated infrastructure and strong internal linkages. In Presidential Directive 2025, Arctic agglomerations are designated as anchor territories for the concentration of investment and the implementation of federal development priorities under polar conditions.

The directive identifies thirteen such agglomerations, each conceptualized not as a conventional administrative unit, but as a strategically significant functional space requiring integrated planning, investment coordination, and cross-sectoral implementation. In parallel, a resolution adopted by the Government of the Russian Federation on 28 November 2023 designated 27 key Arctic municipalities as logistical, resource, and infrastructure nodes, thereby laying the foundation for a new spatial support network within the Arctic Zone of the Russian Federation (AZRF) (Leonteva & Agafonov, 2024). These municipalities are intended to serve not only as administrative jurisdictions, but also as structural components for ensuring macroregional resilience.

Contemporary spatial planning increasingly regards agglomerations as “growth poles”—localized development centers with the potential to generate cascading positive effects. As emphasized by Ivchenko et al. (2025), the effectiveness of this approach depends not solely on the concentration of resources in core nodes, but also on the existence of mechanisms for spatial diffusion—such as transport connectivity, educational institutions, and innovation

infrastructure. In this context, master planning emerges as a critical tool for integrating local development efforts into a coherent territorial framework for Arctic advancement.

The Murmansk agglomeration is a prime example of this approach, functioning as the principal anchor zone of the Northwestern Arctic. Investment priorities in this area include gasification (construction of ten gas-fired boiler plants), healthcare (new facilities for children's and adult regional hospitals), education (a flagship public school and a youth maritime center), cultural infrastructure, and creative economy initiatives. These projects are reinforced by directives to expand the Murmansk transport hub and to construct the Volkhov–Murmansk gas pipeline, thereby consolidating Murmansk's role as both a logistical and energy hub.

The agglomerations of Tiksi, Nayba, Pevek, Bilibino, Dikson, Vorkuta, and Anadyr exemplify a targeted approach to development under extreme climatic and logistical conditions. Planned measures include the modernization of water treatment infrastructure, the expansion of medical services, construction of new clinics and thermal power plants, and the enhancement of regional connectivity. These territories correlate with clusters identified as least resilient in terms of infrastructure and demographics, underscoring the necessity of tailored and compensatory development interventions (Bose, 2025).

The Salekhard and Arkhangelsk agglomerations are acquiring growing significance as transport and infrastructure hubs within the frameworks of the Northern Latitudinal Railway and the Trans-Arctic Transport Corridor. Salekhard's integration into the national railway system—facilitated by the construction of a bridge across the Ob River and its connection to the international scientific station Snezhinka in Kharp—exemplifies the multifunctional logic of "science–transport–economy."

The Kem–Belomorsk, Kirovsk–Apatity, and Monchegorsk agglomerations are positioned as regional resilience centers and sites of cultural-territorial development, with a focus on infrastructure modernization, sports-tourism initiatives, and support for emerging scientific clusters. These agglomerations function as secondary stabilization nodes, oriented toward integration into national tourism, education, and research networks.

Particular emphasis is placed on a subset of directives targeting the formation of institutional and monitoring foundations for spatial governance. These include the establishment of a permafrost monitoring center, the involvement of the Russian Academy of Sciences and Rospotrebnadzor in Arctic expeditions, the creation of competence centers for spatial development, and the integration of Arctic priorities into national project frameworks. Such measures reinforce not only the region's physical infrastructure but also its scientific and analytical foundations within the state's strategic planning system.

The spatial distribution of directives by agglomeration is illustrated in a horizontal heat map (Figure 3), highlighting the relative density of assigned tasks across territorial clusters. Quantitative indicators and the geographical classification of agglomerations by type and function are detailed in Tables 11 and 12. These visual materials confirm a general trend toward concentrated development in key Arctic hubs, while also demonstrating attention to more remote enclaves through stabilizing and compensatory policy measures.

In summary, the directive advances a spatial development model that is both multi-level and multi-functional. The logic of state interventions is tailored to the specific geographic, demographic, and climatic profiles of each agglomeration. The result is a polycentric, yet

hierarchically organized structure of Arctic governance, in which each node performs a role proportionate to its infrastructural capacity, strategic potential, and level of connectivity.

Table 11. Typology of Arctic Agglomerations by Number of Assigned Measures

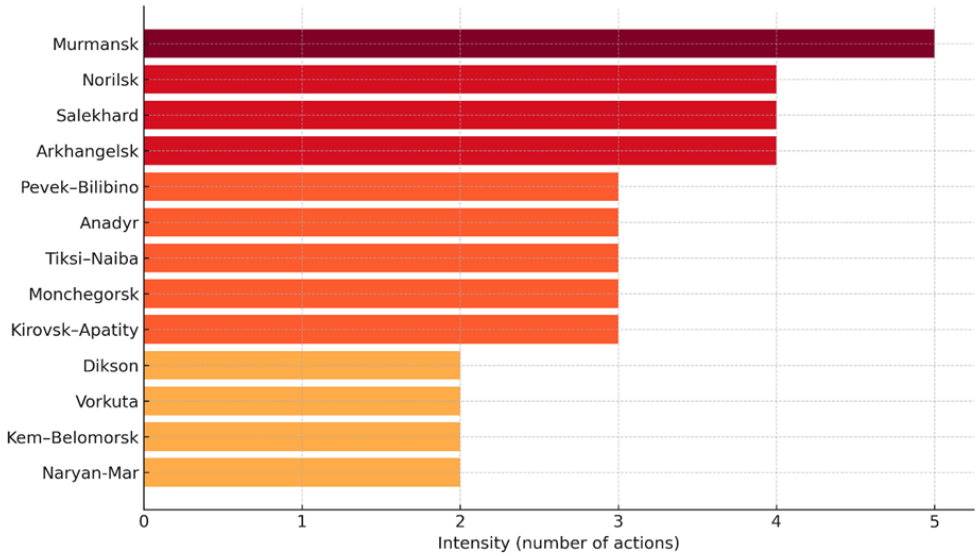
Type of Agglomeration	Number of Agglomerations	Geographic Belt	Number of Measures	Share of Total (%)
Major (≥15 measures)	1	Northwestern industrial hub	15	25.0 %
Balanced (4–6)	7	Central and Eastern Arctic	30	50.0 %
Local (1–3)	5	Isolated Arctic enclaves	15	25.0 %

Note: Shares are calculated based on the total number of measures across the 13 agglomerations (n = 60).

Table 12. Arctic Agglomerations by Geographic Groups

Geographic Group	Agglomeration Name (Constituent Entity of the Russian Federation)
Northwestern Arctic	Murmansk Agglomeration (Murmansk Oblast)
	Kirovsk–Apatity Agglomeration (Murmansk Oblast)
	Monchegorsk Agglomeration (Murmansk Oblast)
	Arkhangelsk Agglomeration (Arkhangelsk Oblast)
	Naryan-Mar (Nenets Autonomous Okrug)
	Kem–Belomorsk Agglomeration (Republic of Karelia)
	Vorkuta (Komi Republic)
Central Arctic	Salekhard–Labytnangi (Yamalo-Nenets Autonomous Okrug)
	Norilsk–Dudinka (Krasnoyarsk Krai)
	Dikson (Krasnoyarsk Krai)
Eastern Arctic	Tiksi–Naiba (Republic of Sakha (Yakutia))
	Anadyr Agglomeration (Chukotka Autonomous Okrug)
	Pevek–Bilibino (Chukotka Autonomous Okrug)

Figure 3. Intensity of Directive Implementation in Arctic Agglomerations



The horizontal heat scale visualizes the relative distribution of presidential directives across the 13 designated Arctic agglomerations. The highest concentration of assigned measures is recorded in the western segment of the Arctic—notably Murmansk, Arkhangelsk, and

Salekhard. These centers exhibit the greatest intensity of policy interventions in the domains of energy, logistics, healthcare, and education, thereby forming the institutional and infrastructural core of spatial stabilization within the Russian Federation's Arctic strategy.

2.3. Financing of Presidential Directives in the Arctic Zone: Structure and Risks

The financing framework for the presidential directives targeting the development of the Arctic Zone of the Russian Federation relies on a combination of mechanisms—ranging from direct federal allocations to public–private partnerships (PPPs) and extrabudgetary investments. Despite this formally diversified approach, the primary financial burden remains concentrated on the federal budget, while alternative sources are mentioned selectively and lack detailed elaboration.

The most clearly defined initiatives are those underpinned by explicit federal budgetary commitments. These include long-term expenditure obligations—for example, funding for infrastructure in closed administrative-territorial entities (ZATOs), backed by fixed annual allocations extending through 2030, and relocation programs for residents of unsafe housing, scheduled through 2035. Among other priorities secured through direct financing are the development of emergency response infrastructure and the deployment of an orbital satellite constellation for ice monitoring. These measures are accompanied by designated deadlines and funding sources, enhancing their administrative feasibility.

Considerable attention is also devoted to projects envisaged with hybrid financial models. A prominent example is the construction of new-generation nuclear-powered icebreakers, funded equally by public and private sources. A similar approach is proposed for the modernization of the fuel and energy sector (FEC), employing instruments such as concessions, energy service agreements, and PPP mechanisms. Although the role of private capital remains broadly outlined, more detailed financial configurations are expected in the subsequent implementation plan—a common feature for directives of this scope. Nevertheless, a persistent structural limitation lies in the high cost of capital. As noted by Ivchenko et al. (2025), restrictive macroeconomic conditions and constrained access to long-term financing—especially for capital-intensive Arctic initiatives—continue to impede private investment engagement.

Program-based financing occupies a distinct niche in the implementation framework. For instance, environmental measures are incorporated into the federal programme Environmental Protection through 2035, while the Affordable Rental Housing in the Arctic programme is scheduled to launch in 2026 under the broader national housing initiative. Integration into such established programmes ensures a degree of institutional continuity and administrative stability.

In several instances, funding is described in conditional or provisional terms. This applies, for example, to dredging operations, the construction of Arctic cargo vessels, and subsidies for icebreaker escort tariffs. Formulations such as "if necessary" imply potential budgetary involvement but stop short of specifying its scope. This ambiguity is likely to be resolved during the development of subordinate regulations and implementation plans, particularly given the high probability that these initiatives will be incorporated into national and regional programme frameworks.

Some projects are expected to rely predominantly on extrabudgetary sources. These include the construction of the Volkhov–Murmansk gas pipeline and the establishment of the Arctic Development Investment Fund. Although the specific financial parameters of these

mechanisms remain undefined, the directive provides an institutional foundation for their future activation, including the creation of dedicated project offices and coordinating bodies.

Overall, the financial model set out in Presidential Directive 2025 reflects an ambition to combine centralized funding with alternative sources, though in practice the implementation continues to depend primarily on federal appropriations. The level of financial detail varies across programmes and infrastructure initiatives, but further clarification is anticipated in subsequent implementation documents. In this regard, the current use of flexible or non-committal language does not preclude future specification, but rather underscores the need for institutional rigor in the development of second-tier regulatory acts.

Table 13. Funding of Directives in the Arctic Zone

Thematic Block	Directive	Funding Source	Funding Form	Amount (if specified)
Budget Appropriations for Priority Areas	Development of ZATO infrastructure	Federal budget	Targeted appropriations	≥ 10 billion RUB annually until 2030
	Resettlement of emergency housing	Federal budget	Budget appropriations	Not specified
	Emergency and rescue infrastructure	Federal budget	Budget appropriations	Not specified
	Orbital satellite constellation	Federal budget	Budget appropriations	Not specified
Programme-Based Budget Financing	Affordable Rental Housing Programme	State programme	Programme-based budget financing	Not specified
	Environmental protection in the Arctic	"Environmental Protection" state programme	Programme-based budget financing	Until 2035
Mixed Financing (Budget + Off-Budget)	Universal nuclear icebreakers	50% federal budget + 50% off-budget	Budget and off-budget co-financing	Not specified
	Modernization of fuel and energy facilities	Federal budget + private investment	PPP, concessions, energy service contracts	Not specified
Conditional State Support	Icebreaker escort subsidies	Federal budget	Targeted subsidy	Not specified
	Dredging operations	Potential state support	Support if necessary	Not specified
	Arctic cargo fleet	Possible budget support	Direct support	Not specified
Off-Budget Projects	Volkhov–Murmansk gas pipeline	Private investment	Off-budget construction	Not specified
	Arctic Development Investment Fund	Presumably off-budget	Investment mechanism	Not specified

2.3. The Arctic as a Priority Area of State Policy

Presidential Directive 2025 underscores that in the current political cycle, the Arctic is no longer perceived solely as a strategic territory but as a spatial axis of mobilization policy encompassing a wide array of sectors—from logistics and energy to science, defense, and social infrastructure. This mobilization logic manifests not only in the scope and ambition of assigned tasks but also in the formulations of the directives, the compressed execution timelines, and the institutional architecture of implementation.

A clear illustration of this approach is the directive on the establishment of the Trans-Arctic Transport Corridor. It simultaneously defines the parameters of the operational model, sets deadlines for tariff regulation, outlines a broad array of implementing actors (including the Government of the Russian Federation, Rosatom, and the United Shipbuilding Corporation), and introduces mechanisms for direct agreements with cargo shippers and the formation of joint ventures with foreign partners. This dense, multi-layered structure exemplifies the mobilization approach: a project that is administratively integrated, economically incentivized, and institutionally embedded.

A comparable logic is evident in directives concerning the development of emergency and rescue infrastructure in remote Arctic settlements such as Sabetta, Tiksi, Dikson, and Khatanga. These measures simultaneously address construction, personnel training, interagency coordination, and integration into the Northern Sea Route system. Their aim is not only to strengthen safety infrastructure but also to consolidate a continuous state presence in hard-to-reach areas.

The directive on the creation of the International Arctic Station Snezhinka also exemplifies this integrative logic. While formally framed as a scientific initiative, it involves interregional and interinstitutional coordination—including with academic entities and potential international partners—and is tied to a clear deadline of 2028. In the context of restricted external cooperation, this project may be interpreted as an attempt to concentrate and mobilize domestic scientific capabilities in support of Arctic technological sovereignty.

Even social initiatives in Presidential Directive 2025 are embedded within a mobilization framework. For example, the relocation of residents from dilapidated housing in Arctic agglomerations—as specified in the annex to the directive—is linked to a set of coordinated measures: infrastructure upgrades, job creation, and the construction of boiler plants, clinics, and sports facilities, all with designated locations and clearly identified responsible entities. This fusion of social policy with territorial planning and industrial infrastructure highlights the integrated application of mobilization instruments in Arctic governance.

Taken as a whole, Presidential Directive 2025 conceptualizes the Arctic as a domain in which Russian state authorities pursue managed industrialization, institutional consolidation, and the advancement of social and technological resilience in a coordinated manner. In this regard, the Arctic is no longer treated as a peripheral region, but rather as a strategic platform for synchronized and large-scale mobilization.

Table 14. Arctic Focus of the Presidential Directive 2025

Thematic Area	Content of Directive	Geography of Implementation
Transport and Logistics	Creation of the Transarctic Corridor, tariff regulation, operator model	Entire Arctic, Northern Sea Route, Murmansk
Security	Development of emergency and rescue infrastructure	Sabetta, Tiksi, Dikson, Khatanga
Digitalization	Program to eliminate digital inequality	Key Arctic settlements
Social Infrastructure	Relocation, construction of housing, clinics, schools, sports facilities	Agglomerations across the Arctic
Science and Education	International scientific station "Snezhninka", coordination with regions	Yamalo-Nenets Autonomous Okrug (Kharp)
Defense and ZATOs	Extension of infrastructure development program in closed administrative-territorial formations (ZATOs)	ZATOs in the Arctic Zone

Ecology and Climate	Adaptation plan for permafrost thawing, monitoring system	Entire Arctic
Tourism and Regional Branding	Tourism projects, inclusion in federal programs	White Sea region, Karelia, northern coastlines

2.4. The Arctic Agenda in the International and Geopolitical Context

Although most provisions of Presidential Directive 2025 focus on internal resource mobilization, infrastructure modernization, and institutional consolidation, certain formulations reveal a deliberate international dimension, especially in the Trans-Arctic Transport Corridor (TATC) project. Several points explicitly mention "foreign partners," "international organizations," and "global competitiveness," indicating a desire to maintain selective channels of external cooperation despite sanctions pressure and limited political dialogue.

Specifically, the directive permits the creation of joint organizations with foreign partners for cargo transportation along the TATC. This wording allows for the involvement of logistics, technological, and investment actors not only from Arctic Council member states but also from Asia, including China, as well as from the Middle East and Latin America. The inclusion of such diverse partners reflects a recalibrated foreign economic orientation and suggests that Russia continues to position the TATC as a globally relevant project—a potential alternative to traditional maritime routes such as the Suez and Panama canals.

The directive also foresees the conclusion of long-term agreements with cargo shippers, without specifying their national affiliation, thereby leaving room for the participation of foreign companies—both global logistics operators and export-oriented industrial groups. The emphasis on improving the TATC's international competitiveness frames the project within the broader logic of economic diplomacy and strategic diversification.

Additional significance is attached to the International Arctic Station "Snezhinka," whose designation as an international research hub implies potential cooperation with foreign scientific institutions. While foreign participation is not explicitly detailed in the directive, the format and scientific orientation of the project preserve an opening for scientific diplomacy even under reduced formal interaction with Western countries.

The implementation of internationally relevant provisions is assigned to leading state institutions and development actors. The TATC project is coordinated by the Prime Minister of the Russian Federation, Mikhail Mishustin, ensuring cross-agency synchronization. The international and foreign economic components fall under the supervision of Alexey Likhachyov, CEO of Rosatom, who is tasked with tariff decisions and cooperation with foreign shippers. A separate instruction is directed to Igor Shuvalov, Chairman of VEB.RF, regarding the establishment of a dedicated project office to support TATC -related initiatives. Investment attraction, including from abroad, is entrusted to the management company of the Russian Direct Investment Fund (RDIF), led by Kirill Dmitriev.

References to joint ventures, international competitiveness, and tariff subsidies may be interpreted as signals of openness to "limited cooperation" in domains such as shipbuilding, logistics, and Arctic science. In this context, the directive should be viewed not only as an instrument of domestic mobilization but also as a platform for future selective engagement—ranging from deepening ties with China and other Asian partners to the potential restoration of Arctic cooperation with Western states, should the geopolitical landscape shift.

3. Substantive Priorities of Arctic Policy

3.1. Military-Strategic Dimension of Arctic Initiatives

Presidential Directive 2025 demonstrates the integrated character of Russia's Arctic strategy, where socio-economic and infrastructure development is closely interwoven with objectives related to national security and the sustained military presence in the region. While the document avoids overt militarized language, defense-related priorities are systematically embedded across several assignments, enabling the advancement of strategic interests through dual-use mechanisms and institutional convergence.

A key instrument of direct military support is the directive extending until 2030 the plan for the development of communal, energy, and social infrastructure in closed administrative-territorial entities (ZATOs) and settlements hosting military units. The provision of guaranteed annual funding of no less than 10 billion rubles signals the long-term institutionalization of garrison logistics and support functions, embedded within the broader framework of regional development.

In the regulatory dimension, defense considerations are incorporated through the instructions to update the Fundamentals of State Policy in the Arctic and the Strategy for the Development of the Arctic Zone. Both documents include provisions on national security, and their extension until 2050 ensures the structural entrenchment of defense concerns in the strategic planning horizon.

The infrastructure component likewise contains provisions with potential defense relevance. Directives on the creation of multifunctional facilities in key Arctic settlements envision the integration of social, commercial, law enforcement, and other functions. This flexible design enables the infrastructure to support multiple agencies, including those with mobilization or defense mandates, thereby reinforcing institutional adaptability.

Such an approach is consistent with Russia's long-standing model of parallel civilian–military infrastructure development in the Arctic, where port construction, airfield modernization, and the expansion of the icebreaker fleet serve both defense mobility and economic connectivity. The dual-use logic has become a structural foundation of Arctic policy under conditions of heightened strategic uncertainty (Finsrud, 2023).

Additional aspects of the directive pertain to logistical preparedness and spatial resilience. These include the formation of the Trans-Arctic Transport Corridor, the construction of icebreaker and dredging fleets, the deployment of drone landing sites, the modernization of fuel and lubricants depots, and the expansion of Arctic cargo shipping. While formally categorized under transport and economic policy, these initiatives—given the strategic significance of the Arctic—are aimed at ensuring high mobility, operational logistics, and territorial control.

Moreover, several directives mandate the modernization of sixteen Arctic airfields—including those in Salekhard, Arkhangelsk, Naryan-Mar, and Vorkuta—alongside the expansion of port infrastructure and the construction of new shipyards. These measures serve not only to improve connectivity but also to enhance the resilience of logistical nodes in scenarios involving isolation or reduced transport accessibility (Russian Government, 2025).

The orbital satellite constellation for monitoring ice conditions exemplifies dual-use infrastructure. While presented as a civilian navigation and risk management system, it also provides enhanced situational awareness and navigational support for defense operations.

Even scientific and environmental initiatives reflect latent elements of strategic preparedness. The "Snezhninka" international Arctic station, officially introduced as a research and ecological platform, may also function as a forward base for mobile personnel and applied fieldwork with potential dual-use applications.

Not all elements of the directive are explicitly military in nature, yet many form an infrastructural backbone that could be mobilized for defense-related tasks if necessary.

In sum, Presidential Directive 2025 outlines a flexible model of strategic control over the Arctic, where military priorities are normatively embedded and institutionally integrated into the broader narrative of regional development. This approach enables the projection of defense capacity with minimal geopolitical signaling, allowing for adaptive management amid changing international and operational conditions.

In this context, Russia's strategy reflects a global trend toward modular Arctic infrastructure, developed along the concept of "support zones." Each zone includes coastal bases, research platforms, logistics centers, transport nodes, energy assets, and dual-use facilities—pre-designed for rapid conversion to military purposes, thereby reducing costs and enhancing resilience under conditions of limited access and climatic vulnerability (Finsrud, 2023); (Pechko, 2025).

Table 15. Integration of Defense Tasks into the Structure of Presidential Directive 2025

Level of Defense Relevance	Content of Directive	Military Significance	Description / Context
Direct Military Significance	Development of infrastructure in ZATOs and military garrisons	Direct	Extension of the comprehensive improvement program for settlements hosting military units, with annual funding
–	Modernization of fuel and energy complex (FEC) and fuel depots	Direct	Includes upgrading fuel infrastructure, storage facilities, and supply systems critical for military logistics
–	Construction of Project 22220 nuclear icebreakers	Direct	Ensures year-round logistical mobility, including supply and troop transfers within the Arctic zone
Indirect Military Significance (Dual-Use Infrastructure)	Emergency rescue centers in strategic settlements	Indirect	Established in remote areas; can be used in emergencies, including military and border security scenarios
–	Orbital constellation for ice condition monitoring	Indirect	Satellite monitoring system important for civilian shipping and military planning
–	Creation of Arctic cargo fleet	Indirect	Transport vessels capable of supplying and transferring goods in conditions of limited access
–	Creation of dredging fleet for Arctic ports	Indirect	Enables expansion of port infrastructure important for defense supply chains

–	UAVs for cargo delivery to remote areas	Indirect	Can be used for rapid delivery of military or humanitarian cargo
–	Infrastructure for year-round navigation on the Northern Sea Route	Indirect	Strengthens sustainable transport connectivity critical for military presence and supply
Regulatory, Institutional and Organizational Measures	Extension of strategic documents including national security components	Political-military	Strengthens legal basis for Arctic presence, emphasizing security within a long-term strategy
–	Multifunctional facilities capable of hosting security agencies	Indirect (law enforcement)	Universal facilities in key settlements allowing placement of government bodies, including those with enforcement functions
–	"Snezhninka" station as potential dual-use facility	Indirect	Scientific station that can be adapted if necessary for other purposes, including logistics and operational tasks

3.2. Transarctic Transport Corridor (TATC)

One of the central vectors of Russia's Arctic policy, as articulated in Presidential Directive 2025, is the formation of a comprehensive model for the Trans-Arctic Transport Corridor (TATC)—an infrastructure-institutional megaproject that encompasses not only the Arctic coastline but also transcontinental routes extending from the Barents Sea to the Sea of Japan. For the first time in an official document, the spatial axis Saint Petersburg – Murmansk – Arkhangelsk – Sabetta – Vladivostok is presented as the foundational framework for Russia's future Arctic logistics. The TATC is conceptualized not simply as a set of transport assets, but as a geo-economic positioning project, strategically aligned with the country's foreign policy priorities, industrial development goals, and institutional modernization agenda.

The development of the TATC's organizational and financial-economic architecture is entrusted to the Government of the Russian Federation in coordination with the State Corporation Rosatom, with the involvement of the United Shipbuilding Corporation (USC), the Zvezda shipbuilding complex, the State Council Commission, and major cargo shippers. This composition of implementers reflects Russia's characteristic model of Arctic centralization, where strategic planning, technological production, and economic regulation are integrated into a unified vertical chain. Among the top priorities are the designation of a TATC infrastructure operator, the development of a KPI-based performance monitoring system, and the conclusion of long-term "take-or-pay" contracts between logistics operators and exporting companies.

Particular emphasis is placed on the institutional logic of governance. The Northern Sea Route (NSR) is treated as a multifunctional transport system that integrates maritime, river, pipeline, aviation, and railway components. Its management structure is centralized and falls under the direct oversight of the President, highlighting the Arctic's status as a zone of exceptional strategic governance (Koval, 2025); (Leonteva & Agafonov, 2024).

For the first time at the official level, Presidential Directive 2025 formulates the possibility of establishing joint organizations with foreign partners in logistics and shipping, thereby lending the project a clear international dimension. Geographically, the TATC is conceived as a transcontinental route linking the key hubs of the Northwestern Federal District (Saint Petersburg, Murmansk, Arkhangelsk), Arctic bases (primarily Sabetta—crucial for energy logistics and rescue operations), and the eastern logistics outlet—Vladivostok, thus connecting

the Arctic zone with the Asia-Pacific region. The emerging spatial configuration also incorporates initiatives such as the Arctic railway polygon presented at the International Arctic Forum in Murmansk, designed to facilitate cargo movement from the Urals, Siberia, and the Northwest to Arctic ports and thereby relieve pressure on the Trans-Siberian Railway and the Baikal–Amur Mainline (BAM) (Ivchenko et al., 2025).

The nuclear icebreaker fleet plays a pivotal role in implementing the TATC. By 2026, a decision is expected on the construction of the seventh and eighth Project 22220 nuclear icebreakers, with a budget co-financing model of no less than 50%. Rosatom once again acts as both coordinator and operator. In addition, subsidies are envisioned for icebreaker escort services along the Northern Sea Route, particularly during the summer–autumn navigation period. In parallel, the directive calls for the creation of infrastructure enabling year-round navigation along the TATC's eastern section, thereby reinforcing functional connectivity between the European part of the corridor and Vladivostok. These measures aim to eliminate seasonal constraints and institutionalize a continuous logistics flow through Arctic waters. According to recent network optimization models, the NSR offers lower piracy risks and less congestion than the Suez Canal route, making it a cost-efficient alternative for Sino-Russian trade under geopolitical constraints (Yang et al., 2025)(Yang et al., 2025).

In parallel with the expansion of the icebreaker fleet, the TATC's development requires the deployment of a new generation of Arctic cargo vessels. The directives mandate a dedicated shipbuilding program focused on specialized ice-class tonnage, with Russian shipyards designated as a priority, but allowing temporary foreign procurement in case of domestic capacity limitations. The United Shipbuilding Corporation and the Zvezda shipbuilding complex are named as the principal actors. This initiative represents not only a technological challenge but also a structural transition toward standardizing Arctic navigation: the directive mentions the possible development of unified technical requirements for vessels operating within the TATC, shaping a coherent regulatory and engineering domain suited to harsh climatic conditions.

The TATC's infrastructure development proceeds through phased modernization of ground-based logistics systems. Priority attention is given to tripling the capacity of the Murmansk transport hub and to the comprehensive development of Arkhangelsk's logistic infrastructure, including the expansion of railway approaches and the construction of terminal facilities. Furthermore, significant emphasis is placed on the creation of a domestic dredging fleet, essential for maintaining navigable depths in Arctic port waters, reinforcing operational stability in year-round shipping.

Sabetta—a major Arctic port on the Yamal Peninsula with advanced energy and port infrastructure—acquires special strategic significance within the TATC framework. The settlement is included among the designated locations for the deployment of interdepartmental rescue units. This decision is motivated not only by Sabetta's role as a key logistics node but also by the growing navigational risks associated with increasing climate instability. The thawing of permafrost and perennial ice has led to the emergence of drifting ice masses, posing challenges even for purpose-built Arctic-class vessels. This issue is especially pronounced in areas adjacent to the Northwest Passage, where the high variability of ice conditions necessitates flexible engineering solutions and rapid-response capability (Solovyova, 2025).

A separate directive provides for the establishment of a project office within the State Development Corporation VEB.RF, tasked with expert support, coordination of infrastructure decisions, and facilitation of investment implementation. This office is intended to operate as

an analytical and coordination center along the entire TATC, aligning regional initiatives with federal financing instruments and ensuring institutional cohesion across economic, technological, and administrative domains.

The structure of the TATC, as formalized in Presidential Directive 2025, is conceived as a multilayered mechanism aimed at transforming the Arctic from a resource periphery into a strategically managed logistics space. It integrates components of hard infrastructure (ports, icebreaker and cargo fleets, railways), industrial and shipbuilding policy, tariff regulation, and international cooperation instruments. The geographic axis Saint Petersburg – Murmansk – Arkhangelsk – Sabetta – Vladivostok defines not only the spatial trajectory of Arctic development, but also the connective logic between Arctic coastal zones and Russia's principal economic centers.

Thus, the TATC is positioned not merely as a transport artery, but as a comprehensive instrument of institutional projection, economic mobilization, and geopolitical sovereignty in the Arctic macro-region.

Table 16. Components of the Transarctic Transport Corridor (TATC): Directives and Expected Outcomes

Component	Expected Outcome
Infrastructure Operator (Rosatom)	Appointment of a centralized logistics manager for the TATC
Organizational and Financial Model of TATC	Unified system of management, budgeting, and monitoring
Construction of Project 22220 Icebreakers	Fleet replenishment for year-round escort along the TATC
Tariff Policy (take-or-pay, subsidies)	Financial sustainability of the route and attractiveness for shippers
Murmansk Transport Hub and Railway Approaches	Increased throughput capacity of northwestern logistics
Development of Arkhangelsk Hub	Enhanced role of Arkhangelsk as a port of the support zone
Dredging Fleet	Ensuring safe navigation and expansion of port infrastructure
Arctic Cargo Fleet	Creation of a specialized fleet for TATC tasks
International Agreements and Partnerships	Attraction of foreign cargo and joint investors
Project Office at VEB.RF	Expert support and integration of investment projects into the TATC

3.3. Environmental Protection and Climate Resilience

Presidential Directive 2025 stands out for its systematic and comprehensive approach to environmental security and sustainable natural resource management in the Arctic Zone of the Russian Federation. In contrast to the 2021 and 2023 directives, where ecological issues were addressed sporadically and often in a declarative fashion, the 2025 directive positions the environmental agenda as an autonomous and strategic vector of Arctic policy.

The environmental block of the directive encompasses a wide range of objectives—spanning engineering interventions, institutional restructuring, and the development of scientific-analytical infrastructure. One of the key initiatives is the establishment of a federal system for identifying and recording polluted territories, including sites with accumulated environmental damage, technogenic waste, and sunken hazardous objects. On this basis, a long-term program is planned for remediating the consequences of past economic activities, with a special focus

on coastal zones and areas of intensive resource exploitation. The planned measures extend to the restoration of aquatic ecosystems, the cleanup of inland water bodies, the extraction and disposal of submerged objects, and the protection of biodiversity. These efforts combine physical remediation with the formation of comprehensive systems for monitoring, registration, and environmental control.

Particular attention is devoted to the degradation of permafrost, a process with direct implications for infrastructure integrity, hydrological regimes, and the overall ecological stability of the Arctic. For the first time in an official planning document, the directive provides for the establishment of a Unified Federal Center for Permafrost Monitoring, pooling the institutional resources of the Russian Academy of Sciences, the Ministry of Emergency Situations, infrastructure operators, and regional administrations. In addition, a network of observation stations is to be deployed and integrated into a digital system for climate data analysis, providing an empirical basis for adaptation programs designed to mitigate damage to buildings, transport routes, and energy systems amid shifts in the cryolithic zone. The set of initiatives presented in the directive is systematized in the table below:

Table 17. Environmental and Climate Measures in Directive 2025

Impact Type	Measure/Initiative	Executors	Deadline	Region/Zone of Action	Funding/Notes
Polluted Territories and Sites	Creation of a federal register of polluted sites	Ministry of Natural Resources; Rosprirodnadzor	By December 1, 2025	Arctic subjects of the Russian Federation	Integration with GIS ecosystems
Accumulated Environmental Damage	Implementation of measures to eliminate accumulated damage	Ministry of Natural Resources; Rosprirodnadzor; regions	2025–2027	Arkhangelsk, Murmansk, others	Priority — Arctic subjects of the Russian Federation
Underwater Waste and Sunken Objects	Raising sunken objects and cleaning the water environment	Ministry of Natural Resources; Ministry of Transport; Ministry of Emergency Situations; regions	Start in 2025; in action plan	Arctic coast and seas	With involvement of special fleet
Biodiversity	Programs for conservation and restoration of natural ecosystems	Ministry of Natural Resources; Rosnedra; Ministry for Development of Russian Far East; Rosleskhoz	Ongoing	Arctic protected areas	Based on scientific recommendations
Permafrost	Creation of a unified permafrost monitoring center	Russian Academy of Sciences; Ministry of Emergency Situations; Roshydromet; regional authorities	2025–2026; by December 1	Entire Arctic Zone	Federal funding
Infrastructure Adaptation	Development of infrastructure resilience programs under permafrost conditions	Ministry of Construction; Russian Academy of Sciences; regional authorities	From 2026	Entire Arctic Zone	Scenario modeling of degradation
Climate Monitoring	Creation of observation point network	Roshydromet; regions; operators	Gradual implementation	Entire Arctic Zone	Integration with infrastructure systems

The directive also introduces a clear logic of regional differentiation. The Republic of Sakha (Yakutia) and Krasnoyarsk Krai are designated as priority territories for permafrost monitoring and pilot testing of engineering adaptation solutions. Infrastructure adaptation to permafrost

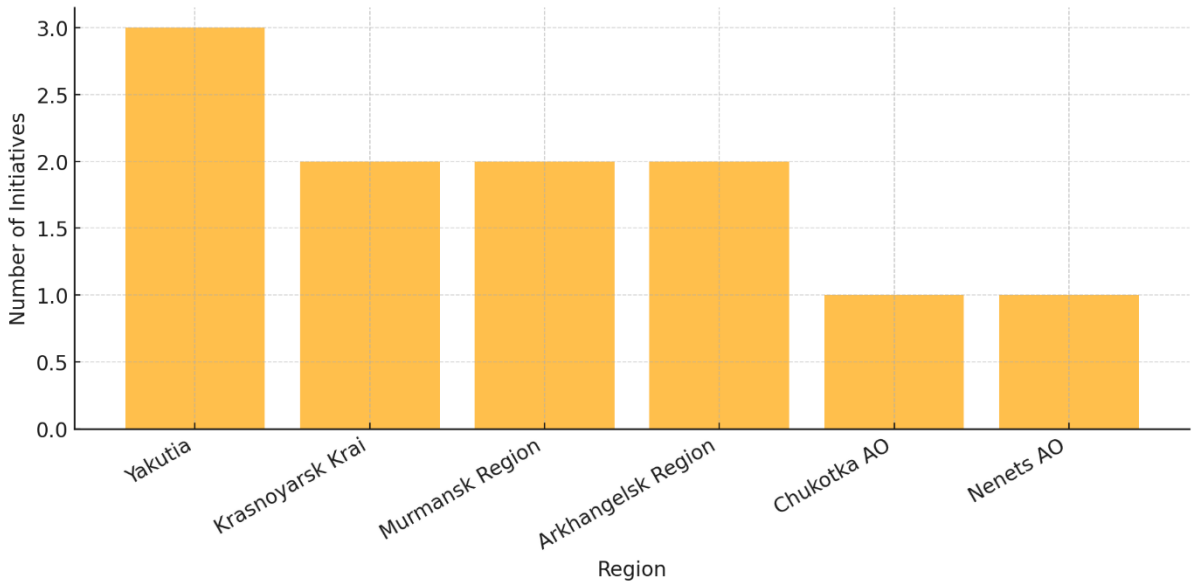
degradation gains particular urgency in light of the winter of 2024–2025, which once again recorded temperature anomalies of +1–2 °C above long-term averages, intensifying risks to the stability of infrastructure in the cryolithozone (National Snow and Ice Data Center, 2025).

In Murmansk and Arkhangelsk regions, the focus is placed on the restoration of aquatic environments and the removal of sunken objects, while in the Nenets and Chukotka Autonomous Okrugs, priority is given to ecosystem restoration and biodiversity preservation. This spatial differentiation underpins a model of interregional ecological cooperation, allowing for the tailoring of environmental measures to local climatic and infrastructural contexts of each Arctic territory.

At the same time, a socio-economic assessment of Arctic regions reveals persistent structural constraints: limited transport and digital connectivity, demographic contraction, a high share of Indigenous small-numbered peoples, a shrinking number of active enterprises, and the continued dominance of extractive industries. In this context, as Yakhyaev (2025) notes, digitalization becomes a critical instrument for monitoring, planning, and governance. It is expected to mitigate the effects of territorial fragmentation, enhance administrative responsiveness, and contribute to sustainable development under increasing climatic volatility.

The regional distribution of environmental initiatives across the Arctic Zone of the Russian Federation is illustrated in the diagram below, showing the spatial clustering of tasks and the functional load by federal subject:

Figure 4. Number of Climate and Environmental Initiatives by Region



A comparison with international frameworks—notably those of the Arctic Council, the Barents Environmental Programme, and NEFCO—reveals considerable thematic alignment, particularly in areas such as ecosystem restoration, contaminated site remediation, and environmental monitoring through scientific infrastructure. However, the Russian model, as set forth in Presidential Directive 2025, is distinguished by its reliance on centralized governance, direct federal oversight, fixed implementation timelines, and public financing. In contrast to international approaches—often built around community-based, bottom-up mechanisms and the active involvement of NGOs—the Russian strategy is embedded within a framework of

national security and strategic spatial consolidation, reflecting the redefinition of the Arctic as a sovereign macro-region of geopolitical priority.

In this context, Presidential Directive 2025 marks a substantive shift toward the institutionalization of Arctic environmental policy. Environmental measures are no longer treated as ancillary to infrastructure development but are elevated to the status of foundational pillars of regional planning. The directive constructs an operational model grounded in territorial differentiation, scientific integration, digital oversight, and interagency coordination, thereby laying the groundwork for a resilient governance system amid climatic transformation.

In conditions of increasing climate volatility, environmental and climate resilience are no longer peripheral but have become central structuring factors in state policy formulation. The degradation of permafrost or shifts in Arctic hydrological regimes could trigger cascading failures across critical domains such as logistics, energy, and national security (Ivchenko et al., 2025). Within this paradigm, ecological sustainability is framed not as a normative aspiration, but as a precondition for the strategic viability of long-term Arctic development.

3.4. Scientific Research and Educational Infrastructure in the Region

The list of directives issued following the President of the Russian Federation's working visit to Murmansk on March 27, 2025, includes a number of initiatives aimed at strengthening scientific activity in the Arctic Zone of the Russian Federation. Science is treated not merely as a sectoral domain but as a functional component of the region's infrastructural, environmental, and social support systems.

Among the core initiatives is the planned establishment of the International Arctic Station "Snezhinka" in the Yamalo-Nenets Autonomous Okrug. The project, developed in cooperation with the Moscow Institute of Physics and Technology (MIPT) and regional authorities, is intended to support scientific research under Arctic conditions and to serve as a platform for educational programs and international cooperation. In parallel, the creation of a scientific center for permafrost monitoring is mandated. This center is expected to consolidate climate data and coordinate the development and implementation of engineering solutions for infrastructure adaptation in response to permafrost degradation. Its operations will involve federal and regional bodies, academic institutions, and economic actors.

Within the framework of the federal program Environmental Protection, a set of scientific and applied activities is planned—including the elimination of accumulated environmental damage, monitoring of permafrost dynamics, and conservation of Arctic ecosystems. Notably, the directives provide for the involvement of Rospotrebnadzor specialists in scientific expeditions to assess sanitary-epidemiological conditions and biological safety, reinforcing the biosafety component of Arctic research.

Also highlighted is the launch of the A.N. Chilingarov Grant Program, aimed at supporting youth-led initiatives in science, environmental protection, and public outreach in the Arctic. In addition, the directives underscore the integration of scientific and technological progress into the overarching Arctic policy agenda. This track is being developed under the leadership of Rosatom, in collaboration with regional authorities.

As noted by Ivchenko et al. (2025), the formation of a sustainable Arctic development model is inconceivable without a robust scientific and educational foundation. The expansion of university networks, research institutions, and regional branches of scientific organizations

plays a dual role—training qualified personnel and creating an institutional framework capable of generating practical solutions to local challenges ranging from logistics to environmental remediation. This direction demands systemic federal support and inclusion in long-term strategic planning.

Additional measures include the formation of a scientific cluster in Apatity, an educational cluster in Bilibino, and the modernization of scientific and academic infrastructure in Murmansk. Collectively, these actions aim to unlock the intellectual and human potential of Arctic territories. The directives also contain a task to eliminate digital inequality—in particular, to ensure access to high-speed internet in Arctic settlements. This will facilitate remote collaboration and integration of Arctic science into global research networks.

Table 18. Key Initiatives in the Development of Arctic Science

Project Category	Initiative	Deadline	Territory / Level	Description
Scientific Centers and Research Infrastructure	International Arctic Station "Snezhninka"	By 2028	Yamal-Nenets Autonomous Okrug (YNAO)	Multifunctional research and education center
	Permafrost Monitoring Center	By 01.12.2025	Entire Arctic Zone	Coordination of scientific data and adaptation technologies
	Modernization of Scientific and Educational Institutions in Murmansk	By 2030	Murmansk	Digitization and re-equipment of research base
Research and Monitoring	Participation of Rospotrebnadzor in Scientific Research	From 2025, annually	Federal Level	Biological safety and sanitary monitoring
	Support for Environmental Protection Research	By 2035	Entire Arctic	Research, monitoring, ecosystem restoration
Educational and Outreach Initiatives	A.N. Chilingarov Grant Program	By 01.07.2025	All-Russian Level	Support for youth initiatives in science and environmental education
	Educational Cluster in Bilibino	2028–2032	Chukotka Autonomous Okrug	Secondary vocational education in science and technical fields
Integration and Infrastructure Projects	Scientific Cluster in Apatity	2027–2030	Murmansk Region	Regional scientific and educational center
	Integration of Science into Arctic Development Project	By 01.07.2025	Federal and Regional Level	Synchronization of science with infrastructure development
	Ensuring Digital Accessibility	Ongoing	Remote settlements	Broadband internet for scientific and educational activities

4. Conclusion

The 2025 Presidential Directive represents a critical institutional shift in Russia's Arctic policy, marking a transition from fragmented, sector-specific measures to an integrated model of governance. The document formalizes the Arctic as a priority macroregion, embedding it within the national policy framework through a system of state-led planning, intergovernmental coordination, and climate-adaptive infrastructure development.

One of the Directive's defining features is its spatial logic. Development is structured around Arctic agglomerations and transport corridors, positioning them as growth nodes in both economic and administrative terms. This functional-territorial approach departs from traditional administrative zoning by emphasizing networked integration and region-specific adaptation. It is further reinforced by the planned establishment of scientific, planning, and monitoring institutions designed to ensure long-term coordination and responsiveness to environmental volatility.

The Directive also demonstrates a high degree of administrative density, assigning multiple instructions to federal and regional bodies that require synchronized implementation, cross-sectoral alignment, and legal incorporation into existing programs. It is not merely a declarative document but functions as a management tool with concrete deadlines, institutional responsibilities, and funding mechanisms.

Environmental and climatic challenges are addressed not as peripheral risks but as structural drivers of governance. By embedding provisions for permafrost monitoring, ecosystem restoration, and biosecurity within the state management framework, the Directive advances a policy model that is both mobilization-driven and ecologically informed. This dual logic—combining infrastructural assertiveness with environmental sensitivity—is particularly evident in its emphasis on digitalization, interagency coordination, and youth-oriented scientific initiatives.

A comparison with earlier directives (2021, 2023) and the outcomes of the 2025 International Arctic Forum in Murmansk reveals an evolutionary transformation in Russia's Arctic approach. While previous frameworks prioritized extractive industries and basic access infrastructure, the 2025 Directive articulates a broader agenda encompassing climate adaptation, social resilience, and institutional maturity. In this sense, it represents a formal step toward the institutionalization of Arctic governance under conditions of geopolitical uncertainty and sanctions pressure.

Looking ahead, further research should focus on the emerging strategic documents and initiatives shaping Russia's Arctic trajectory. The 2025 Presidential Directive serves as a foundational instrument and is likely to be followed by a cascade of regulatory, programmatic, and fiscal measures aimed at operationalizing its provisions. A close examination of these instruments—such as regional development plans, ministerial strategies, and sector-specific programs—may offer critical insights into how the Directive is being translated into concrete policy. Particular attention should be paid to how these tools define institutional responsibilities, allocate budgets, set spatial targets, and reflect broader shifts in governance logic under mounting geopolitical and environmental pressures. Comparative assessment of these dynamics alongside Arctic governance trends in other circumpolar states may also help clarify the extent to which Russia's approach converges with or diverges from global practices in resilience-building and sustainable development.

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6. Appendix

Table 19. List of Directives

№	Content (with explanations)
1	Updating decrees on Arctic policy until 2050
2	Inclusion of measures in the development plans of key Arctic settlements
3	Approval of comprehensive development plans for key Arctic settlements
4	Integration of activities into national projects
5	Creation of the A.N. Chilingarov grant program
6	Expansion of the rental housing program to the Arctic
7	Extension until 2030 of the development plan for closed administrative-territorial formations (ZATO) and military sites
8	Financing the construction of emergency rescue infrastructure (2026–2028)
9	Creation of an Earth remote sensing orbital constellation for the Northern Sea Route (NSR)
10	Elimination of digital inequality in the Arctic
11	Support for small and medium-sized enterprises (SMEs) in Arctic regions
12	Additional funding for Arctic healthcare
13	Construction of ice-class vessels and infrastructure for unmanned aerial vehicles (UAVs)
14	Standards for Arctic fleet vessels for the Transarctic Transport Corridor (TTK)
15	Multifunctional centers in key settlements with legal functions
16	Infrastructure adaptation plan for thawing permafrost
17	Creation of joint ventures for the Transarctic Transport Corridor (TTK)
18	Development of the Murmansk transport hub and railroads
19	Development of the Arkhangelsk transport hub
20	Creation of the "Snezhninka" station by 2028
21	Environmental protection activities (waste management)
22	Formation of a register of environmentally harmful sites
23	Measures to preserve and restore ecosystems and landscapes
24	Monitoring of permafrost
25	Raising and removal of sunken objects
26	Inclusion of Arctic measures in national projects (budget-related)
27	Program for demolition of vacant housing
28	Support for a comfortable urban environment in the Arctic
29	Scientific and technological development of the Arctic
30	Development of the Transarctic Transport Corridor (TTK) and transport infrastructure
31	Development of shipbuilding capacities for the Transarctic Transport Corridor (TTK)
32	Organizational model of the Transarctic Transport Corridor (TTK) and determination of the operator
33	Monitoring of key performance indicators (KPI) for the Transarctic Transport Corridor (TTK)
34	Cost reduction in the creation of the Transarctic Transport Corridor (TTK)
35	Cargo flows and agreements of Rosatom with shippers
36	Formation of an icebreaker fleet by 2035–2050
37	State support of tariffs for icebreaker escort on the Northern Sea Route (NSR)
38	Subsidies for transit icebreaker escort
39	Program for construction of Arctic fleet vessels

40	Creation of a dredging fleet for ports of the Transarctic Transport Corridor (TTK)
41	Stages of infrastructure creation for year-round navigation
42	Tourism in the Arctic and White Sea, the "Five Seas" project
43	Schedule of resettlement from emergency housing until 2035
44	Creation of tourist clusters
45	Creation of competence centers for urban development
46	Participation of the Russian Academy of Sciences (RAS) and Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing (Rospotrebnadzor) in research
47	Winter sports training center (Murmansk region)
48	Reliability of power grids in the Murmansk region
49	Project office based at the state development corporation VEB.RF
50	Volkhov–Murmansk gas pipeline by 2030
51	Arctic Investment Fund with participation of the Russian Direct Investment Fund (RDIF)
52	Analysis of the results of the Arctic Forum (Roscongress)

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