

Research Article

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Navigating turbulence: adaptive local governance responses to the consequences of Russia's war against Ukraine in the Norwegian Arctic

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Abstract

Russia's full-scale invasion of Ukraine profoundly disrupted Arctic governance, challenging the long-standing notion of Arctic exceptionalism and creating enduring turbulence. While scholarly debate has largely focused on geopolitical and institutional consequences, the local-level impacts remain underexamined. This study investigates adaptive governance (AG) responses to the war's effects in Norway's northernmost counties, Troms and Finnmark, which share a direct border with Russia. The analysis draws on the concepts of crisis, turbulence, and AG, situating them within broader scholarship on how decision-making centers respond to crises and turbulence and political adaptation. It examines stakeholder responses across four key domains: civilian preparedness, international cooperation, infrastructure development, and the economic repercussions of sanctions. Based on 19 semi-structured interviews, policy documents, and media analysis, the study reveals both adaptation and persistent challenges shaped by pre-existing governance structures, demographic and economic conditions, and past cooperation with Russia. The study contributes to AG literature by unpacking the interplay between strategies, highlighting structural constraints, and demonstrating how geopolitical disruptions shape local governance in strategically significant environments.

Introduction

Since the end of the Cold War, the Arctic region has enjoyed a period of geopolitical stability. The relatively high level of cooperation and stability, achieved by the “Arctic Eight” (the USA, Canada, Denmark, Iceland, Sweden, Finland, Norway, and Russia) in the region, gave rise to the idea of “Arctic exceptionalism” (AE). AE signifies the region's detachedness from global political dynamics, framing it as “an apolitical space of regional governance, functional cooperation and peaceful co-existence” (Käpylä & Mikkola, 2015, p. 5). Though widely embraced in scholarship and policy analysis, AE also faced critique, especially due to its reliance on a static perception of security and thus ignorance of changing security dynamics (e.g. Gjörv & Hodgson, 2019).

This critique appeared to be justified, as Russia's full-scale invasion of Ukraine profoundly challenged the very idea of AE. Within days since the war started in February 2022, the “Arctic Seven” suspended all cooperation with Russia, including in the Arctic Council. This marked a radical departure from the previous, quite deeply entrenched dynamic that had managed to contain tensions for years, including when the Russia–West rivalry was exacerbated following Russia's annexation of Crimea in 2014, coinciding with its reopening and modernising Soviet-era military bases in the Arctic. Unsurprisingly, the new geopolitical reality in the Arctic, along with the strategies of both the “Arctic Seven” and Russia to navigate it, has received considerable attention in scholarship and policy analysis. Within this literature strand, particular attention has been devoted to the geopolitical and security implications of Russia's aggression against Ukraine in the Arctic region (Hilde, Ohnishi, & Petersson, 2024; Vidal, 2025). Many contributions have focused on changes in Russia's Arctic strategy amidst its war on Ukraine, including its engagement in hybrid operations in the region (Komin & Hasa, 2025; Leclerc, 2024; Stensrud & Østhagen, 2024). The altered security landscape – combined with Finland's and Sweden's accession to NATO – has prompted analyses of the Alliance's responses to Russia's perceived presence in the Arctic (e.g. Strauss & Wegge, 2023). Conversely, amidst heightened security tensions, scholars have also focused on various scenarios for Arctic multilateral governance and the future of cooperation with Russia in the region, both generally (Koivurova & Shibata, 2023; Koivurova et al., 2022; Thomassen, 2024) and in specific domains, such as climate and science and technology (Andreeva, 2023; Gricius & Fitz, 2022).

As the geopolitical situation in the Arctic evolved, scholarship has also emerged examining how Arctic states adapted their foreign, security, and economic policies, in particular vis-à-vis Russia, as exemplified by recent insights from Norway (Neumann, 2024; Østhagen, 2025). Yet – with rare

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exceptions, such as the work by Caspari and Nicolaysen (2023), which analyses regional and local vulnerabilities in the Norwegian Arctic and explores ways to address them from a defense perspective – little is known about the impact of Russia's invasion of Ukraine and its geopolitical repercussions in the Arctic on local communities and how these communities have responded to this new reality. To address this gap, this article examines adaptive local governance responses to the challenges posed by Russia's war against Ukraine in Norway's two northernmost counties – Troms and Finnmark – directly bordering Russia. It asks: How do stakeholders, involved in local governance in Troms and Finnmark, perceive the war and its repercussions for the region, and what key response strategies have they adopted?

To answer these questions, the article constructs an analytical framework, drawing on the concepts of “crisis” and “turbulence” as governance challenges and “adaptive governance” (AG) as a way organisations respond to them. This framework is situated within a broader discussion of how decision-making centres respond to crises and turbulence, maintain their integrity during disruptions, and adapt politically. Drawing on conceptual insights into the crisis–turbulence relationship, the research examines evolving stakeholder perspectives on how local governance has been shaped by war and the shift away from AE. The study bears a particular focus on the extent to which local stakeholders have been able to act proactively to quickly adjust their strategies in response to dynamic circumstances, address complex cross-sectoral issues, navigate unexpected institutional and temporal entanglements, and mitigate the amplification of existing disagreements (Ansell et al., 2024). While we recognise that individual leadership is crucial for navigating crisis and turbulence, our study deliberately centres on the organisational perspective and intentionally excludes individual adaptive leadership from our framework.

While the study initially did not confine its analysis to adaptation in specific sectors, it inductively draws examples from four interrelated areas that were particularly strongly affected by the turbulent effects of Russia's invasion of Ukraine. They are (i) civilian preparedness and strengthened local awareness of security measures, (ii) changing patterns and perceptions of international cooperation at the regional and local levels, (iii) infrastructure development, and (iv) tackling economic consequences of sanctions against Russia and related suspension of cooperation with Russian stakeholders. Our primary source for addressing developments and governance responses in these areas is 19 semi-structured stakeholder interviews, conducted in Troms and Finnmark between October 2024 and March 2025. Interview data were supplemented by the analysis of relevant policy documents and local media debates.

Our study finds that in Troms and Finnmark, the war and the shift away from AE have led to increased unpredictability, unforeseen institutional entanglements, and challenges in aligning decision-making across actors and scales. These effects have amplified existing governance difficulties, especially in small, sparsely populated municipalities in the North. Across the two counties, stakeholders have thus encountered turbulence to varying degrees and in distinct ways, influenced by both their demographic and economic profiles and the nature of their pre-war cooperation with Russia. Overall, the study reveals significant adaptation, as demonstrated by stakeholders' proactive efforts, policy learning, and success in seizing new opportunities and building multistakeholder networks among pressing issues; however, challenges persist due to the complexity of the governance landscape in the region, instances of institutional

and organisational inflexibility, and limited resources and capacity. In many aspects, actors' experimentation and collaboration efforts thus unfolded within pre-existing structures and networks. Notably, Norway's deeply rooted culture of stakeholder engagement and inclusive consensus-building has consistently been depicted as an important asset in navigating turbulence and related conflictual issues.

Alongside its empirical contribution, the study also contributes to the literature on adaptation in turbulent times by (i) situating the AG concept vis-à-vis broader literature on decision-making centres' responses to crises and political adaptation theory, (ii) unpacking the interplay among different adaptive strategies, (iii) highlighting how pre-existing challenges and assets shape the adaptation process, and (iv) underscoring the repercussions major geopolitical shifts have for local governance in strategically significant environments. For such environments, particularly for regional and local authorities, our findings showcase the importance of not only anticipating vulnerabilities but also developing scenarios that assess how existing assets, such as cooperation structures and links to internal and foreign stakeholders, can be leveraged to enhance resilience and coordinated responses – both under acute crisis and under lasting turbulence. The organisation-level operationalisation of AG in turbulent settings, proposed in this article, offers a tool for scholars advancing research on governance adaptation and a framework for organisations designing and implementing adaptation strategies that account for evolving challenges, existing vulnerabilities, and available assets.

The remainder of the study is structured as follows. First, it presents the analytical framework and offers a brief overview of the Norwegian Arctic, highlighting the complexities of its governance landscape. After outlining the research design, the study moves to the presentation of empirical findings. The concluding section explores the broader implications of these findings for research on local governance and the Arctic.

Turbulence as a governance challenge

The concept of turbulence is increasingly often used to capture the instability, complexity, and unpredictability of contemporary governance environments (e.g. Ansell et al., 2024; Micacchi et al., 2025). In contrast to crises as one-time disruptions requiring urgent responses, turbulence represents a more enduring and systemic challenge that resists straightforward resolution. The relationship between crises and turbulence is also complex. While some crises may be contained and resolved without lasting consequences, other disruptive events may lead to heightened turbulence, also by exacerbating pre-existing trends (Ansell et al., 2024). While in some cases stakeholders' failure to address turbulent dynamics may result in a crisis, turbulence can also exist without precipitating such an outcome.

The state of turbulence can be conceptually understood as embracing several dimensions. The first dimension involves shifting parameters, where stable conditions change and the “ground is in motion” (Emery & Trist, 1965, p.26; Lund & Andersen, 2023). In such times, usual procedures may become irrelevant or unavailable, and new factors may influence goal attainment. Consequently, existing knowledge may not be suitable for specific situations, making it difficult to develop relevant insights before circumstances evolve.

Second, turbulence deals with the recognition of institutional entanglements, which become particularly apparent during turbulent times as sudden realisations of unexpected interdependencies between issues and issue areas. Actions taken at one

governance level – whether local, national, or international – can have unanticipated ripple effects, influencing other levels both vertically (across governance hierarchies) and horizontally (across sectors and regions). Moreover, turbulence can alter the relative importance of stakeholders, reshaping power dynamics and decision-making structures (Ansell & Trondal, 2018, p. 45; Lund & Andersen, 2023).

Third, turbulence includes temporal complexity, which arises from varying and shifting tempos within organisations, governance structures, and external environments. Therefore, an important challenge relates to transitioning from routine operations to rapid responses, while simultaneously developing long-term strategies to address persistent uncertainties and structural shifts (Ansell & Trondal, 2018; Lund & Andersen, 2023). Temporal complexity is further exacerbated by the multiplicity of stakeholders, each operating within different decision-making timelines and priorities.

Additionally, we suggest complementing this understanding of turbulence with the fourth dimension, namely, the amplification of existing political disagreements. While Ansell, Sørensen, and Torfing (2023) refer to social and political conflicts as one of the sources of turbulence, we argue that the state of turbulence is conducive to the amplification of existing, previously latent disagreements. Moreover, as efforts to address turbulence may involve rethinking existing institutional structures and creating new ones (Ansell et al., 2024), already turbulent governance conditions may be exacerbated by conflicts over representation and competencies.

With this, the multidimensional challenge of turbulence underscores the need for flexible and adaptive decision-making governance approaches capable of addressing it effectively over time. In contrast to crises, which demand quick and immediate responses, addressing turbulence as an enduring condition calls for governance mechanisms that emphasise long-term adaptability and continuous learning. As illustrated in the subsequent conceptual section on AG, this includes not only reactive responses to challenges but a proactive approach to harnessing opportunities presented by shifts in the external environment.

Dealing with turbulent settings: towards an adaptive governance concept and strategies

In our examination of local governance adaptation in the Arctic amidst the Russia–Ukraine war, we draw on several strands of scholarship, including decision-making under crisis and turbulence (and its common challenges), political adaptation, and AG, along with its strategies.

Decision-making under crisis and turbulence and its common challenges

In studies of public administration, as well as in sociology and political psychology, individual and organisational crisis response strategies have traditionally captured scholarly attention (e.g. Clayes & Cauberghe, 2014; Linnell, 2014). At the crossroads of these disciplines lies the decision-making approach to foreign policy, which unpacks the state's "black box" to examine how decision-making centres at various levels – international, national, or subnational – formulate and implement decisions (Snyder, Bruck, & Sapin, 1954, 2002). As illustrated by the seminal study of Snyder & Paige (1958), which examined the US decision to resist aggression in Korea, this decision-making framework is equally applicable to the

study of crisis governance. If decisions are examined in sequence and over time, the framework can be relevant for exploring decision-making under lasting turbulence. In such contexts, decisions can be understood as shaped by the demands of the external and internal environments (e.g., the geopolitical context and national-level responses), the organisational and bureaucratic characteristics of a given decision-making centre, and, not least, psychological factors such as decision-makers' values, belief systems, role conceptions, and (mis)perceptions, as well as the effects of uncertainty and stress (Snyder, Bruck, & Sapin, 2002). Applying the framework – either in its entirety or through selected elements, as underlined where relevant throughout the analysis – can help illuminate specific decisions, or clusters of decisions, made under conditions of turbulence.

Further engaging with the decision-making perspective, relevant scholarship also examines the integrity of decision-making centres and how it can be undermined by the phenomenon of *groupthink* – a situation in which the desire for consensus during group decision-making overrides the critical evaluation of alternatives (e.g. Holsti, 1980; Stern, 2003). These contributions further highlight the importance of how decision-makers perceive and process information under conditions of uncertainty – a feature that can characterise both crisis situations and turbulent settings. Empirical research, following this line, was produced amidst the COVID-19 crisis, illustrating how uncertainty and (mis)perceptions about the nature of the crisis have challenged decision-making among various stakeholder groups at different levels (e.g. Asthana et al., 2025). Evidence from the management of COVID-19 as a crisis and of longer-term turbulent areas (as exemplified by Czaika et al. (2024) through several migration governance-related cases) illuminates an important role (mis)perceptions play in decision-making amidst crisis and turbulence.

Political adaptation

While the decision-making approach primarily explains the mechanics of specific individual or collective choices (decisions) under constraints, political adaptation captures the cumulative process through which these choices gradually reshape political strategies, institutions, and behaviours in response to shifting internal and external conditions. An important contribution to the study of adaptation belongs to the works by Rosenau (1970, 1981), primarily focusing on the foreign policy realm. His theory of adaptation rests on two key assumptions: (i) the reality of global interdependence, which creates pervasive linkages between national and international contexts, and (ii) the analogy between states and biological organisms, implying that political systems, like living entities, must adjust to their environments to preserve their essential structures (Petersen, 1977; Rosenau, 1970). In this vein, he distinguishes several modes of adaptation, with *preservative* (balancing both internal and external sets of demands), *acquiescent* (yielding primarily to external pressures), *intransigent* (prioritising internal demands), and *promotive* (driven by leaders' own visions rather than immediate pressures).

Although Rosenau's classification offers a useful conceptual apparatus for the comparative analysis of adaptation, empirical studies – for instance – on adaptation to climate change show overlapping needs to address both external demands (e.g. by the international system) and domestic preferences and thus the feasibility of the preservative model (Eriksen, Nightingale, & Eakin, 2015). The climate change example more broadly illustrates the relevance of this framework for turbulent contexts, where

challenges are long-term and require not a single “grand” decision, but continuously evolving adaptation strategies. For Rosenau (1981), adaptation is essential to the survival of political systems, enabling them to maintain their core structures, whereas failure to adapt increases the risk of systemic breakdown. As discussed later in the AG section, the close interplay between dynamic adaptation and the maintenance of stability is central to understanding how adaptation unfolds – namely, through the strategies political actors and administrations employ to adjust to change while safeguarding essential functions.

Adaptive governance concept and strategies

The pervasiveness of the turbulence challenge has led to the proliferation of various governance concepts, suggesting strategies for navigating it. Over time, some of these concepts have borrowed key principles from one another, thus resulting in an evolving landscape of hybrid governance approaches. Initially focusing on a system’s ability to “bounce back” after a disruption, the resilience concept has increasingly recognised the value of adaptive capacities – the ability to adjust, transform, and innovate in response to ongoing and unpredictable challenges (e.g. Broeke et al., 2017). Similarly, an emerging robustness concept represents “a mix of flexible adaptation and proactive innovation,” where the former resonates with the resilience theory (i.e. absorbing shocks and maintaining essential functions) and the latter with agility (i.e. quickly pivoting towards new solutions) (Micacchi et al., 2025, p. 1; see also Ansell et al., 2024).

Against this background, the AG concept bears several added-value aspects for addressing local-level responses to turbulence. First, rooted in early studies on the management of socio-economic systems (e.g. Holling, 1973; Ostrom, 1990), this concept is by design defined to address multidimensional complexity – involving both the interdependencies between issue areas and complex institutional entanglements (Cleaver & Whaley, 2018; Sharma-Wallace, Velarde, & Wreford, 2018). This complexity is conceptually open to embed the interdependence between the global and national levels, put forward by Rosenau’s (1981) political adaptation theory. Second, AG acknowledges that some degree of turbulence is persistent and naturally embedded within complex systems (Sharma-Wallace et al., 2018). Rather than striving for quick fixes, AG emphasises long-term institutional adaptation, iterative learning, and strategic flexibility. These features are particularly important for governance at the local level, marked by both proximity to challenges and constant exchange with higher levels of government, private sector actors, and civil society. Third, innovation comes as a natural element of AG but as part of flexible adaptation, rather than radical change in governance approaches, as provided for by the agility and robustness approaches (Ansell et al., 2024, pp. 26–28). Such an approach to innovation suits the research on local governance. The reason for this is that, deeply embedded in administrative frameworks and bound by service delivery obligations, local authorities are likely to lack room for radical innovation. Similarly, other actors, predominantly operating at the local scale, may lack the capacity for innovating swiftly and radically.

Based on the literature review, we distinguish five AG strategies.

First, incremental adaptation to change through continuous learning is central to AG (e.g. Cleaver & Whaley, 2018; Rijke et al., 2012). As Rijke et al. (2012) argue, “continuous learning is a crucial component of adaptive governance in order to be able to take into account complex dynamics and uncertainty” (p. 74). Learning

processes happen within networks that promote interactions between individuals and agencies, operating across different levels and scales (e.g. Olsson et al., 2006). By facilitating knowledge-sharing and experimentation, respective networks help actors to bridge gaps between local insights, policy planning, and scientific expertise, ensuring that governance remains both evidence-based and context-sensitive (e.g. Folke et al., 2005).

Second, the focus on learning and experimentation in the AG context naturally embeds innovation (e.g. van Assche, Valentinov, & Verschraegen, 2022). In the organisational context, innovation can be seen as a way to test small-scale adaptive mechanisms and, subsequently, integrate them into governance frameworks and/or come up with larger-scale innovations (van Assche, Valentinov, & Verschraegen, 2022, p. 1738). This iterative process enables organisations to respond flexibly to both complexity and uncertainty, refining policy solutions based on empirical insights. Moreover, within the AG context, innovation includes the recognition and seizure of new opportunities offered by the external environment (Sharma-Wallace et al., 2018, p. 181). Therefore, knowledge exchange across actors and scales has the potential to help leaders identify promising opportunities and amplify the impact of local innovation.

Third, the AG framework posits the importance of organisational and institutional flexibility for successful learning, innovation, and seizing opportunities (e.g. Folke et al., 2005; Rijke et al., 2012). While not presupposing the deterioration of formal governance structures, AG, nonetheless, stresses the role of “social networks with teams and actor groups that draw on various knowledge systems and experiences for the development of a common understanding and policies” (Folke et al., 2005, p. 441). Therefore, flexibility of institutional and organisational structures also fosters inclusion, dialogue, and dispute resolution through consensus-building (e.g. Mestad, 2024).

Fourth, the organisational and institutional flexibility aspect is tightly interconnected with such prominent prescriptive of AG as “meaningful collaboration across actors and scales” (Sharma-Wallace et al., 2018, p. 178). The systematic review of empirical work by Sharma-Wallace et al. (2018) highlights the value of combining formal and informal collaboration in AG. While formal collaboration enhances regulatory capacity and resource sharing, informal collaboration fosters knowledge exchange and trust. Alongside collaboration across levels, networked collaboration across scales is particularly important to both address interdependencies between issue areas and resulting institutional entanglements.

Fifth, AG is inextricably connected to the idea of adaptive leadership. For Heifetz and Linsky (2017), an important feature of adaptive leadership deals with finding a balance between taking one’s own proactive action and actively engaging followers and other stakeholders in change processes. Such an approach both stresses the need for proactive action to address change and resonates with the focus on collaboration across actors and scales. Yet, since our study focuses on the organisational level, its subsequent analytical framework will be limited to the former four AG strategies.

In a nutshell, the investigated literature strands form a conceptual progression. The decision-making approach illuminates how specific choices are made under constraints, being particularly suitable for explaining crisis response. Over time – and as such choices accumulate – it is of importance to consider political adaptation as a broader process, through which structures, institutions, and behaviours are reshaped to meet shifting internal and external demands. Building on this, AG offers a framework for understanding and guiding adaptation in turbulent contexts.

Whereas political adaptation theory underscores the survival imperative of balancing change with the preservation of core structures, AG operationalises this balance through concrete strategies – such as continuous learning, innovation, institutional flexibility, and collaboration – which enable governance systems to remain both stable and responsive over time.

Analytical approach

Drawing on conceptualisations of turbulence and AG, this article introduces an analytical framework to assess (i) the degree to which local governance in the Arctic has experienced turbulence amidst Russia's war against Ukraine and (ii) the application of AG strategies to navigate the uncertainty and complexity generated by the war's geopolitical repercussions in the Norwegian Arctic. As demonstrated by Table 1, while closely intertwined, each AG strategy contributes distinctively to addressing various dimensions of turbulence. Their interconnected nature ensures a comprehensive response to uncertainty, yet each strategy also offers unique value in mitigating specific challenges posed by institutional, temporal, and conflict-driven complexities.

Arctic Norway: beyond polar nights, midnight sun, and Arctic exceptionalism

This section examines why Arctic Norway is a pertinent case study for understanding the repercussions of Russia's war against Ukraine on local governance. The region's strategic importance, coupled with demographic trends, climate change impacts, economic challenges, infrastructure needs, and the complex governance landscape, underscores its selection for this analysis.

Strategic significance

With its strategic location, Arctic Norway is a gateway between the Atlantic and the Arctic, important for the military, geoeconomic, and geopolitical stability in the High North.

Norway is a frontline NATO state in the Arctic, with a range of important naval, air, and land forces military bases and developed intelligence-gathering systems, positioned to monitor Russia's military activities. Sweden's and Finland's accession to NATO has reinforced defense cooperation in the Nordic region, whereby Norway is expected to contribute to the defense of Sweden and Finland, and their territories can be used by allied forces for the defense of Norway (Friis, 2024).

In geoeconomic terms, the region's importance stems from its being rich in natural resources, such as oil, gas, fisheries, and critical minerals, essential for both local and global economic development. Furthermore, the reduction in sea ice due to climate change has opened up possibilities for expanded maritime trade along Arctic Sea routes (Lasserre, 2018), further enhancing the region's strategic importance.

As noted in the introduction, the Arctic region has been conceptualised as a zone of exceptionalism, immune to great power rivalries elsewhere (Gjorv & Hodgson, 2019). Norway's Arctic policy has been, in turn, guided by the motto "High North, Low Tension," promoting "soft" cooperation between the eight Arctic countries, including Russia. As Østhagen (2021) points out, this motto started to be challenged by Russia from the mid-2000s and particularly extensively since 2014, when Russia started to modernise and reopen Soviet military bases in the Arctic. Nonetheless, even following the suspension of Arctic cooperation in 2022, Norway has pursued "a policy mix of both deterrence and reassurance measures," with the latter including pragmatic cooperation with Russia in areas such as fisheries management, maritime governance, search and rescue operations, and nuclear safety (Knutsen & Pettersen, 2024, p. 15).

Region-specific governance challenges

The 2023 Total Preparedness Commission report stresses that the landscape of challenges in Arctic Norway looks different from that in the rest of the country (Norwegian Government Security and Service Organization, 2023, p. 142). Troms and Finnmark are the most sparsely populated areas in Norway, with the depopulation

Table 1. AG in turbulent settings: an organisation-level perspective

Dimensions of turbulence/AG strategies	"Ground in motion"	New institutional entanglements, rooted in unexpected interdependencies	Temporal complexity	Amplification of existing conflicts and the rise of new ones
Adaptation through iterative learning	<ul style="list-style-type: none"> Gradual adjustment of policy frameworks Pilot projects used to test new solutions 	Development of sector support measures (horizontal entanglements) and accommodating fluid alliances and partnerships (vertical entanglements)	Looking for ways to "synchronise the clock" with other stakeholders	Learning from conflict resolution attempts
Innovation and seizure of new opportunities	Monitoring of the situation and testing out new policy approaches, partnerships or technological solutions		Using "windows of opportunities" in decision-making cycles of other actors for advocacy and partnership-building	Exploring unconventional tools for conflict resolution, such as digital solutions
Organisational and institutional flexibility	Shifting roles and mandates to tackle new challenges	Creation of cross-sectoral and cross-organisational partnerships and networks to address new challenges and tackle emerging opportunities	Finding new ways to balance short-, medium-, and long-term measures	Institutional and organisational arrangements, allowing for inclusion, dialogue, and consensus-building
Meaningful collaboration across actors and scales	Developing coordinated responses to uncertainty, including joint reflection on new policy initiatives		Information exchange and coordination on decision-making cycles	

Source: Authors' own elaboration.

challenge particularly salient in small municipalities, such as Båtsfjord or Nordkapp. There are also big distances between settlements, making infrastructure maintenance, emergency response, and public service delivery more complex than in other parts of Norway. The harsh climatic conditions, coupled with the remoteness of many communities, add to the region's vulnerability. While creating new opportunities for trade, accelerated climate change in the region adds to uncertainty, posing difficulties to infrastructural and economic planning (Hanssen-Bauer et al., 2017, p. 8). Long distances and shifting climate patterns also present obstacles to implementing energy transition projects, alongside opposition from indigenous communities, who fear that big renewable energy projects may disrupt their traditional livelihoods (e.g. Amnesty International and Sámi Council, 2025).

Governance complexity

The location and strategic significance of the Norwegian Arctic determine the multilevel and multidimensional governance architecture in the region.

As the governance level closest to individuals, local and regional governance bodies (*kommuner and fylkeskommuner*) in Norway play a key role in implementing the welfare state and shaping daily life. Governments in counties (*fylkeskommuner*) are responsible for broader tasks, including regional development and infrastructure. In contrast, municipalities (*kommuner*), irrespective of their size, manage essential services like primary schools, health and social care, and area planning and local development. Both municipalities and counties have security responsibilities. In their work, municipalities tend to rely on networks with other actors, typically involving the local business community, civil society, and neighbouring municipalities (Bjørnå & Aarsæther, 2010).

Notably, both county and municipal governance bodies extensively engage with the national level. For the Norwegian Government, Norway's northernmost territories represent an important area of convergence for domestic and foreign policy (The Government of Norway, 2021). At the regional level, the central government (*Regjeringen*) is represented by the Country Governor's offices (*Statsforvalteren*), performing a range of administrative and supervisory functions. This includes overseeing the legality of municipal decisions and implementing national policies within the county. Additionally, these bodies coordinate civil protection and emergency planning efforts across the municipalities.

Another level of complexity to local governance in the Norwegian Arctic is added by intergovernmental cooperation. The Arctic Council is a primary intergovernmental cooperation body in the region. Although cooperation within the Arctic Council has been severely disrupted since Russia invaded Ukraine, Russia remains its official member (Koviurova & Shibata, 2023). At the same time, the war accelerated Nordic cooperation in the Arctic within multiple forums and channels, with NATO and NORDEFCO (Nordic Defense Cooperation) as notable examples. The Norwegian Arctic is also an important arena for US and EU engagement, particularly as a counterweight to China's expanding Arctic ambitions (e.g. Knutsen & Pettersen, 2024).

Research design

Methodology

The study employs a qualitative methodology, with its prime source being 19 semi-structured stakeholder interviews, conducted between October 2024 and March 2025, in Troms and Finnmark.

The focused reading and analysis of municipality- and county-level policy documents and pieces in local newspapers in Troms and Finnmark complemented primary data collection in several ways, such as the provision of background information for research, informing the selection of respondents, and finally, supplementing interview data and guiding the interpretation of interview findings.

Primary data collection

Interviews were conducted both physically and digitally, depending on respondents' availability, in two big and two small municipalities in Troms and Finnmark counties. By selecting the respondents, we aimed to ensure a diverse range of perspectives and institutional affiliations. Among our respondents, there are (i) municipal- and county-level political and administrative leaders; (ii) special advisors focusing on thematic areas (e.g. international cooperation, preparedness), working for municipalities and counties; (iii) a representative of the County Governor's office; (iv) representatives of Norway's association of local and regional authorities (KS) and intermunicipal cooperation structures; (v) leaders of municipal and private enterprises; and (vi) academics and non-government organisation (NGO) representatives. Alongside the analysis of policy documents, our strategy of selecting respondents employed the "snowball technique," allowing us to get suggestions of potential further respondents from initial interviewees.

Though slightly adapted for each interview, interviews followed an interview guide, consisting of three blocks of questions. These blocks focused on interviewees' perceptions of the war and the challenges it has posed for local governance in Troms and Finnmark, including questions on how these perceptions have evolved since February 2022, the strategies implemented to address these challenges, and experiences with multistakeholder cooperation.

Data analysis

Data analysis was conducted using NVivo 13 software, which facilitated the organisation, coding, and systematic examination of qualitative data.

Ethical considerations

The Norwegian Agency for Shared Services in Education and Research, *Sikt*, granted ethical approval for the study. To ensure confidentiality, the names and any sensitive information provided by informants are not disclosed. Importantly, since Troms and Finnmark are relatively small counties, the study, as a rule, avoids references to specific municipalities, intercommunal organisations, and businesses. Specific municipalities and organisations will be referred to if information is publicly available.

Limitations

The study has three limitations. First, due to engaging a limited number of respondents, it does not cover all municipalities in Troms and Finnmark. Yet, an effort was made to interview leaders and advisors from municipalities differing not only in size but also in their expected degrees of vulnerability to the challenges posed by the war, for example, those located closely to and relatively far from the border with Russia.

Second, by focusing on Troms and Finnmark, it has not engaged with Svalbard, which is of pivotal importance for Russia–

Norway relations and where local governance has undoubtedly been impacted by the war.

Third, focused on the organisational-institutional perspective, the research does not examine individual leaders' decision-making experiences, strategies, and styles and therefore does not illuminate the adaptive leadership dimension of AG.

Crisis-driven turbulence in Troms and Finnmark

Interviews revealed that the respondents' activities had been to different degrees and in different ways impacted by Russia's war against Ukraine and its geopolitical repercussions, including international sanctions against Russia. While for some stakeholders the war produced immediate practical challenges (e.g. ports and maritime industry players, previously oriented on customers from Russia), others would see it as a part of a bigger picture of governance challenges (e.g. those engaged in international cooperation at the municipal or county levels). Nonetheless, the vast majority of respondents perceived Russia's full-scale invasion of Ukraine in February 2022 as an event, leading to heightened turbulence. A systematic analysis of their experiences showcases that all four dimensions of turbulence, to various extents, have shaped local governance in the two northernmost counties of Norway amidst the war.

To start, we suggest characterising this turbulence as "crisis-induced." When we asked our respondents to remember how the start of the invasion looked like for them professionally, most respondents said it was "a shock" to see that "a war came back to Europe" (Interview 1). In a bigger municipality in Troms, this realisation was reported "to lead to considerable unrest in the population" (Interview 1). Therefore, the municipality was prepared to act as a "first-line service" for the local population, "where they would find safety" (Interview 1). During the first several months of the invasion, the key manifestation of the crisis on the ground was the influx of Ukrainian refugees, with the largest municipality in Troms having received the highest number of refugees relative to its population in Norway (Interviews 1–3). At this stage, many interviewees, however, believed that the war would not last long and therefore postponed discussions of strategic questions, for example, how Barents cooperation, which traditionally included Russia, would look like without it, or how help for businesses oriented on the Russian markets would be transformed (e.g. Interviews 2, 4). This reported difficulty in making decisions under uncertainty, when both the external environment is in constant flux and national-level preferences are shifting or perceived by regional and local actors as likely to shift, closely mirrors the dynamics of decision-making in times of crisis, as highlighted by Snyder, Bruck, and Sapin (1954, 2002).

"Ground in motion"

Yet, as no such swift resolution took place, interviews reported their perception of the situation to develop into a "new normal" or "new unnormal," as one of them metaphorically pointed out (Interviews 4, 5). An interviewee, previously extensively engaged in Barents cooperation, which traditionally involved Russia, compared the shift from a crisis mode to this "new normal" with the grieving process, saying that after all denial, anger, and hopes that Russia would stop aggression, her organisation ultimately had to come to terms with the loss and think how to move forward (Interview 4). Anger with "the other Russia we did not know" (as a respondent was juxtaposing aggressive Russia that attacked

Ukraine and Russian cooperation partners he/she used to work with) and uncertainty as to whether any cooperation with Russia would ever be possible also pierced responses by local and regional authorities and academics who used to hold contact with Russian counterparts (Interviews 5, 6, 7).

For respondents from the industry, there have been multiple EU sanctions packages that signified that "the ground was in motion," and they would have to adapt to ever-new, hardly predictable restrictions (Interviews 8, 9). Particularly important shifts, in this vein, have dealt with Norway's restrictions on Russian vessels, in particular, the prohibition of any Russian non-fishing vessels to enter Norwegian ports and limiting access for fishing vessels to three ports of Tromsø, Kirkenes, and Båtsfjord. Additionally, in these ports, the ships were only allowed to stay for five days, and the spectrum of services local ports and maritime industry players could provide them with got significantly limited (Edvardsen, 2024; Interviews 6–8). While for Tromsø with its diverse economic profile and increasing significance as a tourist destination, these restrictions did not produce notable socio-economic consequences, the situation has been considerably different for Sør-Varanger (where Kirkenes port is located) and, particularly, the smaller municipality of Båtsfjord (Dahl, 2024; Edvardsen, 2022; Salo, 2024; Interviews 3, 6, 8, 19). There, the maritime industry was heavily reliant on Russian vessels, and the imposed restrictions led to significant income losses. This, in turn, exacerbated demographic challenges, as some jobs were cut, and employees began seeking new opportunities elsewhere (Interviews 3, 8, 19). Notably, when asked to compare the effects of Russia's annexation of Crimea and its aggression in Donbas since 2014 with those of the full-scale invasion in 2022, respondents were unified in stating that these earlier instances of aggression had barely impacted cooperation with Russia or economic activities in Troms and Finnmark (Interviews 1, 2, 5, 8).

When reflecting on the full-scale invasion period, both respondents, previously engaged in various forms of functional cooperation with Russia, and those representing businesses highlighted the dynamism of the challenges they faced. Therefore, they linked uncertainty and the "ground in motion" feeling with multiple factors, including the unpredictable dynamics of the war in Ukraine and the uncertainty surrounding its eventual resolution, the evolving sanctions policies, and the long time required for the national government to develop strategic plans and support measures for businesses (e.g. Interviews 3, 5, 8, 11).

New institutional entanglements

Alongside exemplifying the "ground in motion" dimension of turbulence, the above challenges also relate to the recognition of new institutional entanglements, such as interdependencies that were less salient before. Interestingly, even though some interviewees emphasised that, by the time Russia invaded Ukraine in 2022, regional and municipal cooperation with Russia had already been significantly limited due to the COVID-19 pandemic, the invasion nevertheless marked a fundamental rupture (e.g. Interviews 7, 19). The reason has likely been that, while physically limiting cooperation, the pandemic did not make stakeholders shift their perception of the northern neighbour. Yet, with the invasion and the rise of Russia's assertiveness, including the use of hybrid warfare in Northern Norway, stakeholders were forced to deeply change their perception of Russia and think of the neighbour in preparedness, rather than in cooperation terms (Interview 11). This change,

alongside Finland's and Sweden's NATO accession, has highlighted the issue of civilian preparedness at the local level, thus pushing for the rethinking of its institutional and organisational architecture (Interviews 1, 11).

Notably, the above challenge of sanctions' negative socio-economic impact also illustrates the recognition of new institutional entanglements, in part related to the significance of economic interdependencies with Russia for small municipalities in Troms and Finnmark and their maritime industries (Interviews 3, 12). Another policy area, exemplifying new institutional entanglements because of Russia's war against Ukraine, has been energy policy. In horizontal terms, Norway emerged as a key supplier to the EU, as European countries committed to moving away from Russian fossil fuels. Vertically, however, regional and local authorities in Northern Norway have had to address the socio-economic and environmental consequences of this transition, especially when it comes to balancing Norway's commitment to the EU Green Deal and Sámi concerns about renewable energy projects' impact on traditional livelihoods (e.g. The Barents Observer, 2024).

Temporal complexity

Our empirical research also revealed the presence of temporal complexity, as new challenges for local governance unfolded in a non-linear manner, and stakeholders operating within different time horizons. For instance, although nearly three years have passed since the invasion began, there is still considerable uncertainty and disarray regarding how various regional cooperation formats will need to be reformed (Interview 5). This regards particularly the Norwegian Barents Secretariat, which, though currently tasked with promoting cooperation with Finnish and Swedish regions, does not yet have a strategy for future development (Interviews 4, 5). Different tempos of strategy and decision-making by different actors, including NATO, the Government of Norway, and Swedish and Finnish authorities, surround plans for developing rail transport in Northern Norway that would suit both military and civilian purposes and be also directed to local development (Interview 13). Temporal complexity is thus inevitably linked not only with the diversity of stakeholders but also with the complex interplay between policy areas and issues, such as the suspension of functional cooperation with Russia, Europe's demands for energy, and climate change and indigenous rights concerns pertaining to big energy projects in Norway's northernmost counties (Interview 13).

Amplification of conflicts

Finally, beyond these indigenous rights concerns, the war and its geopolitical repercussions added to societal conflict potentials, especially in the part of Finnmark bordering Russia. Although municipal authorities in Sør-Varanger registered no official reports of conflicts (Interviews 1, 14), empirical research among the local population indicates a rise in societal insecurities and tensions in this border municipality. Against this background, "trust and security have remained in a limbo," with the Norwegian and Russian population and Ukrainian refugees trying to make sense of the evolving situation and the municipality's role in a new security environment (Salo, 2024, p. 1). Besides, the conflict-related dimension of turbulence can be exemplified by extensive media and policy debate regarding Russia's "memory diplomacy" and war memorials, especially in Eastern Finnmark (Myklebost & Markussen, 2024). While some local leaders have expressed a

strong wish to deconstruct Russia-initiated war monuments (e.g. Nilsen, 2024), other local stakeholders, such as veteran organisations, have voiced opposition to this (Fadnes & Bratlie, 2024; Interview 15). Another noticeable line of debate has dealt with municipal and county-level friendship agreements with Russia; yet, as the war continued and Norwegian and international media extensively covered Russia's war crimes in Ukraine, most of these agreements were eventually suspended by the Norwegian side (Nygård, 2024).

In summary, following the initial shock, Russia's invasion of Ukraine triggered lasting multidimensional turbulence in Troms and Finnmark. While some challenges – such as the shift from viewing geographical proximity to Russia as an opportunity for cooperation to perceiving it as a security threat – have been broadly shared across the region, others, like the economic impact of sanctions, have disproportionately affected certain municipalities and stakeholders. Notably, beyond introducing new challenges (e.g., the need to repurpose institutions and structures previously geared towards cooperation with Russia), the war and resulting geopolitical shifts have also exacerbated long-standing governance issues, including demographic decline, outmigration from remote areas, infrastructure development in sparsely populated regions, and the protection of indigenous rights.

Adaptive governance: strategies and challenges

This section reveals a considerable degree of adaptation, manifested through numerous decisions across various levels, in response to evolving geopolitical dynamics amidst Russia's war against Ukraine. At the regional and local levels, this adaptation reflects the compounded influence of external environmental shifts and domestic political decision-making outcomes, as highlighted by Rosenau (1981) in his studies of political adaptation. It is shown that local stakeholders have extensively applied AG strategies to navigate the turbulence caused by the war. Therefore, efforts aimed at seizing new opportunities and collaboration across actors and scales appear particularly prominent. Yet, the lack of institutional and organisational flexibility can sometimes be seen as a factor, limiting stakeholders' adaptive capacity and creating obstacles towards innovation. Insufficient flexibility can also explain limited experimentation with iterative learning techniques, where stakeholder feedback is gradually adapted to refine the policy. Identified instances of experimentation, as well as collaboration with other stakeholders, thus extensively relied on existing structures and experiences, such as intermunicipal cooperation and KS's engagement for municipal capacity-building. However, we also showcase examples of innovative approaches that go beyond such established frameworks.

Adaptation through learning

As already partly covered in the above section, the respondents widely acknowledge the scale and complexity of challenges the war brought about or amplified for Troms and Finnmark. This regards particularly individuals engaged in international cooperation, who confirm that their work following the invasion has been largely oriented towards learning and adaptation in the new geopolitical milieu (Interviews 4, 5, 13). Therefore, a recurring theme has been the need for redirecting the region's international cooperation landscape from cross-border cooperation with Russia to partnerships with other neighbouring countries, such as Finland and Sweden (*Ibid*). One interviewee stressed that he was surprised by

how loose the connections between Troms and Finnmark and the border regions of Sweden and Finland had been before the war, despite their geographical proximity (Interview 13).

An important framework for fostering such cross-border economic, environmental, and cultural connections has become the EU's INTERREG Aurora initiative, launched in 2021 and adapted in 2023 to use funds previously aimed at cooperation on the Finnish–Russian border (e.g. Soust-East Finland Russia) (Troms County Municipality, 2023). EU total funding for this programme between 2021 and 2027 constitutes EUR 93.8 million, and Norway's contribution is EUR 8.4 million. Local stakeholders' project engagement through this framework has been fostered by the appointment of a special advisor to the programme at a county level in Troms and the intensification of contacts with Swedish and Finnish representatives through the Northern Norway Europe Office – an office, jointly owned in Brussels by three northernmost counties in Norway, namely, Troms, Finnmark, and Nordland (Interview 13). This also included learning about new horizontal entanglements, that is, each other's perceptions of changing geopolitical dynamics and approaches to addressing them both within and beyond the INTERREG. As another interviewee acknowledged, her experience of exchanging views with Finnish colleagues made her realise how much more seriously Finland approaches civilian preparedness and the cross-border cooperation needed to achieve its desired degree (Interview 5). Notably, the war has intensified exchanges on civilian preparedness not only in the northernmost communes of Norway in their interactions with Finland and Sweden but also through increased engagement with NATO, which is reported to have been nearly absent before the war (Interviews 13, 19). This development exemplifies how emerging vertical entanglements are being addressed through new, sometimes fluid, alliances, as county-level actors seek to adapt to new geopolitical and security dynamics.

Civilian preparedness has also become an important priority for municipal and county actors. A notable instance of experimentation and an attempt to tackle new horizontal entanglements are plans for the development of an Arctic emergency and civilian preparedness centre in Tromsø municipality (Tromsø municipality, 2023). The plans for the centre are illustrative of both a shift in thinking about potential threats and suggestions for a fundamentally new institutional framework for local cooperation on preparedness (*Ibid*). Though sometimes taken “with a pinch of salt” and not fitting the framework of county-municipality relations, this development is viewed by stakeholders as a pilot initiative – one in which Tromsø municipality could potentially serve as a model for other northern municipalities (Interviews 2, 11, 16). It is also reported that municipalities in Troms and Finnmark are increasingly turning to KS as a forum for training and the exchange of experiences on preparedness (Interview 11). Nonetheless, KS's efforts to promote exchange between Norwegian and Ukrainian municipalities were not met with much engagement in Northern Norway, most probably due to the high geographical distance and the lack of specific funding for joint projects (Interviews 11, 17).

While fostering both new links to Finnish and Swedish regions and intermunicipal topic-specific cooperations, stakeholders report to have had to adjust to each other's time horizons and decision-making procedures (e.g. Interviews 11, 17). For instance, civilian preparedness planning at the county and municipal level has been dependent on the Norwegian Parliament's release of the Total Preparedness Report 2024–2025 (Interviews 11, 16). KS's

planning for further efforts to promote Ukrainian–Norwegian cooperation is dependent on whether the Norwegian Agency for Development Cooperation comes up with funding for such cooperation through its Nansen Support Programme for Ukraine (Interview 17). Moreover, increasing attention is put on adjustment to the EU and NATO decision-making cycles.

Finally, when it comes to preventing potential conflicts over indigenous rights, Norway has a developed legal and policy framework for stakeholder engagement in respective matters (Mestad, 2024). No evidence was found as to the introduction of any new mechanisms for handling such conflicts after Russia's full-scale invasion of Ukraine. At the same time, nearly all interview partners reported initiating and participating in multiple meetings with a broad range of stakeholders, both horizontally and vertically (e.g. Interviews 1, 2, 13, 16). By maintaining open channels of communication across various levels and sectors, this approach fosters an environment where potential disagreements can be identified early and addressed collaboratively, reflecting Norway's strong cultural commitment to consensus-building.

Innovation and seizure of new opportunities

The respondents were usually confident in saying that the war has presented not only challenges but also opportunities for Norway's northernmost counties. Yet, as the analysis below reveals, institutional inflexibility and resulting challenges (e.g. the lack of resources) tended to limit their innovation efforts.

As mentioned earlier, Russia's invasion of Ukraine represents a major cross-border challenge, making international cooperation a natural focal point for adaptation and innovation – both in the formation of new partnerships and in the exploration of emerging themes. In both regards, this statement can be exemplified by the establishment of Platform North, a cross-border cooperation mechanism between the transport administrations of Norway, Finland, and Sweden (Bye & Hansen, 2024). While ideas for improving infrastructural connections in the North have existed before, given big distances, challenging travel conditions, and plans related to green transition, the realisation of Russia as a security threat clearly gave them a new impetus (*Ibid*). Since large infrastructure projects involve substantial funding – likely from national, EU, and/or NATO sources – and create new economic opportunities for municipalities, civil society, and local businesses, these actors actively follow project developments and contribute to discussions (Interviews 2, 3, 13). Their engagement includes participating in meetings, publishing opinion pieces in local media, and providing input on planning and implementation (Interview 13). An interesting example here comes with renewed prominence of *Jernbanealliansen* (non-government alliance for rail transport developments), which advocates for the reliance on train infrastructure for improving preparedness in Northern Norway and the Arctic, more broadly (Interview 13, e.g. Schlaupitz, 2024).

Challenges in the process of adaptation and seizing new opportunities amidst the war have been reported by local economic actors, who have been significantly impacted by sanctions against Russia. Especially for maritime industry actors in smaller municipalities, whose operations and even pre-war investments were fully oriented towards Russia, there is little reported that could have been done to mitigate immediate losses (Interviews 3, 8, 9). At the same time, municipal actors in Finnmark expressed dissatisfaction with the government's NOK 105 million (roughly EUR 9 million) support package for Eastern Finnmark (The Government of Norway, 2023; Interviews 3, 9, 18). The critique of

the package has centered on its failure to adequately address stakeholder needs, particularly in relation to the long-term challenges faced by small maritime enterprises and the high costs of the necessary infrastructure investments for transformation (e.g. to be able to serve cruise ships) (Interviews 3, 8, 18). Respondents were also dissatisfied with the degree to which input by the municipalities and local industry players was included in the final version of the package, despite their advocacy efforts (Interview 3).

Importantly, municipal and county-level actors' advocacy efforts have been prominent in their attempts to make use of "windows of opportunities," posed by decision-making cycles of other actors. Such efforts took place both via formal channels (e.g. letters, replies to requests for input) and informal ones (e.g. informal meetings, usually on the sidelines of various conferences and events) (e.g. Interviews 3, 13, 17). A particular role in such efforts has belonged to structures, specifically designated for representing municipalities' interests, such as KS in the case of interactions with national government authorities and the Northern Norway Europe Office, exercising advocacy for the region's interests in Brussels (Interviews 11, 13, 17).

Finally, regarding conflict resolution, one of the interviewees shared the experience of a physical civil society mediation initiative aimed to reduce social pressures in Sør-Varanger. There, an NGO took initiative to bring together individuals with Norwegian, Russian, and Ukrainian backgrounds to share their perceptions of the war (Interview 6). The initiative was described by a respondent as a success, as "*people were queuing next to the door and seeking to speak about difficult topics*" (Interview 6). Interestingly, none of the interviewees was aware of the initiatives taken to address the conflict around the Russia-initiated World War II monuments in the region. This challenge has continued to be addressed in a traditional manner, primarily through the media.

Organisational and institutional flexibility: meaningful stakeholder coordination

Since our operationalisation points to interconnectedness between these two AG strategies, we will discuss them jointly, especially pointing to instances when flexibility within existing institutions and organisations facilitated meaningful stakeholder cooperation.

First, given the complex governance landscape in the Arctic region in general, and the Norwegian Arctic specifically, county- and municipality-level actors have limited room to initiate institutional adaptation. Their ability to do so is often constrained by national policies and international negotiations, for instance, when it comes to the operationalisation of the total preparedness concept or determining infrastructural development plans (e.g. Interview 2). Yet, strong civic engagement and consensus-building culture in Norway can be seen as partly compensating for such institutional inflexibility, with municipal leadership reporting regular contact with both the regional and national authorities (e.g. Interviews 1–3). Small and remote municipalities, nevertheless, find it more challenging to get attention to their concerns, compared to bigger ones (*Ibid*). Both big and small municipalities faced organisational adaptation linked to an increased focus on civilian preparedness. While a bigger municipality underwent internal restructuring to allow for a special section on civilian preparedness, a smaller one reported relying on a pre-existing intercommunal partnership with three other small and remote municipalities to hire an advisor on this topic (Interviews 1, 3).

In this vein, the initiative for an Arctic emergency and civilian preparedness centre in Tromsø can be seen as illustrative of both

institutional and organisational flexibility, as well as actors' efforts to deliver a coordinated response to new challenges. Stressing co-location (location in a shared physical space) as a strategy for improved coordination and promoting resource efficiency, the centre also exemplifies an idea of cross-organisational partnership as a response to new horizontal entanglements. Another, yet looser case of a cross-organisational partnership is represented by the Platform North and stakeholder cooperation around plans for transport infrastructure development in Northern Finland, Sweden, and Norway. Respective plans envisage, *inter alia*, cooperation with multiple industry players and NGOs, while expanding existing networks of railroad, shipping lanes, and hydrogen pipelines (e.g. The Norwegian Public Roads Administration, 2025). While we have not found evidence of new issue-specific networks or partnerships emerging in the maritime industry affected by sanctions, interviewed industry players mentioned pre-existing local and region-level business associations as important venues for coordination and joint representation of interests (Interviews 12, 18). Moreover, particularly in a small municipality, maritime industry players demonstrated deep engagement in municipal affairs and closely coordinated with local leadership to mitigate the negative impact of sanctions on jobs and socio-economic development (Interviews 3, 8).

Temporal complexity was recognised as a challenge by several interviewees, especially industry players who found it difficult to develop medium- and long-term measures under uncertainty related to new sanctions and possible government support measures for affected businesses (Interviews 8–10). These industry players in different municipalities reported to exchange information between them and with municipal and county-level bodies as to prospective government assistance and avenues for lobbying for it (Interviews 8–10). Yet, comparing the situation with COVID-19 and government support policies, respondents find coordination on decision-making cycles with the national government more challenging than it was back then (*Ibid*). In contrast, interviewees working with civilian preparedness and infrastructure development projects largely prefer asynchronous decision-making as an opportunity to exchange information, engage in collaborative planning, and enable collective influence on higher-level decisions, such as those made within the EU. This point can be exemplified by the aforementioned cooperative infrastructure planning for the northernmost regions of Finland, Sweden, and Norway, which is strategically organised to precede the elaboration of the EU's Multiannual Financial Framework and involves a broad range of government and non-government stakeholders (Interview 13).

Finally, while not informing us about any specific new institutional or organisational conflict resolution constellations, respondents once again pointed out the importance of Norway's deeply rooted culture of stakeholder engagement and consensus-building. They emphasised that solutions to significant societal issues, such as deciding to suspend a county-level friendship agreement with Russia, would not have been possible without inclusive debates in the media and through physical meetings at any level of leadership (Interviews 7, 15).

Conclusion

The aim of this contribution was two-fold: first, to assess the extent to which local governance in Arctic Norway has been affected by the turbulence resulting from Russia's war against Ukraine and the shift away from the AE concept in Arctic governance, and second, to examine how local governance structures have adapted to the resulting challenges.

We found that in the initial months of the war, local stakeholders in the Arctic perceived the situation as a crisis, with decision-making complicated by rapid shifts in the external environment and perceived instability in national-level decisions, with the latter exemplified by successive waves of sanctions. After these initial months, the situation evolved into lasting turbulence, requiring the local level to adapt to interdependent challenges arising from both the external and internal environment. This ongoing unpredictability, increased complexity, and rising conflict potential have variably influenced local governance institutions and processes across municipalities in Troms and Finnmark. Due to pre-existing challenges, small municipalities with strong economic and social ties to Russia were the most affected by turbulence and had the least capacity to adapt, especially when it comes to “side effects” of sanctions against Russia. In contrast, the heightened focus on civilian preparedness and infrastructural development in the North has allowed other local governance stakeholders, especially larger ones with broad international networks, to adapt to change through seizing new opportunities.

Importantly, both our novel analytical framework, combining insights from the literature on turbulence and AG, and its application to the case of Arctic Norway underscore the tight interplay between AG strategies’ use in turbulent environments. Our analysis thus shows that seizing new opportunities amidst new institutional entanglements, created by turbulence, may require both building new collaborative networks and a degree of experimentation within them. However, both network-building and experimentation may be challenged by the lack of institutional and organisational flexibility, which is a likely case for local-level actors, entrenched in complex governance constellations. Both individually and in combination, AG strategies can simultaneously tackle different dimensions of turbulence; for instance, meaningful collaboration across actors and scales may be harnessed to tackle both issue-specific and temporal complexities.

The study also highlights the role of existing challenges and available assets for actors’ ability to adapt under turbulence. Thus, turbulence can be seen as exacerbating existing challenges (e.g. demographic problems in small municipalities) and enabling stakeholders to leverage available assets (e.g. networks, cooperation structures). In the latter vein, Norway’s deeply rooted culture of stakeholder engagement and consensus-building was repeatedly referenced as a valuable tool for addressing new institutional entanglements under turbulence and facilitating conflict resolution. The organisation- level operationalisation of AG under turbulence, developed through this research, can be seen as both applicable to academic research on governance adaptation in different settings and as a framework for organisations – especially the region- and local-level public administrations – to design and implement strategies that consider the interplay and potential synergies and trade-offs between different AG strategies, existing vulnerabilities, and available assets.

Finally, the case of AG in the Norwegian Arctic demonstrates the profound repercussions that major geopolitical shifts can have on local governance in strategically significant environments. By presenting the literature on crisis decision-making, adaptation, and AG as a conceptual progression, it highlights the value of integrating these perspectives to better understand how local and regional actors navigate turbulence caused by major geopolitical and security crises. It thus calls for further research into the local-level implications of major geopolitical shifts in strategically important regions, with particular attention to how actors perceive the transition from acute crisis to a “new normal” of

turbulence and to the distinctive trajectories of local adaptation in this context – offering fertile ground for cross-fertilisation between theory and practice.

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- List of interviews.** Interview 1. Administrative leader in a bigger municipality, 30 October 2024
- Interview 2. Political leader in a bigger municipality, 1 November 2024
- Interview 3. Political leader in a smaller municipality, 14 March 2025
- Interview 4. Leader at a regional cooperation body, 11 November 2024
- Interview 5. Senior official at a county level, 14 February 2025
- Interview 6. Official at a county level, 22 November 2024
- Interview 7. Academic, 25 October 2024
- Interview 8. Local port official, 23 January 2025
- Interview 9. International maritime sector representative, 2 March 2025
- Interview 10. Local port official, 2 February 2025
- Interview 11. Senior advisor, a regional cooperation body, 9 December 2024
- Interview 12. Leader at a pan-Arctic business network, 23 January 2025
- Interview 13. Leader at a policy and business advocacy office, 23 October 2024
- Interview 14. Senior advisor in a smaller municipality, 4 February 2025
- Interview 15. Academic, 30 October 2024
- Interview 16. Official at a county level, 11 December 2024
- Interview 17. Senior advisor, a regional cooperation body, 7 October 2024
- Interview 18. Senior adviser at a business support agency, 5 February 2025
- Interview 19. Senior adviser at a government body, 4 March 2025