



Strategic Environmental Impact
Assessment of development of the Arctic



European
Commission

Strategic Assessment of Development of the Arctic

Assessment conducted for the European Union

Chapter

10

GENERAL KEY MESSAGES AND SUGGESTIONS FOR EU ARCTIC POLICY



Chapter cover image: Arctic Circle as marked in Rovaniemi, Finland.
Photo: GettyImages

Based on the findings and recommendations contained in the thematic chapters as well as the overall input from stakeholder consultations, this concluding chapter identifies key general messages regarding the development of the Arctic and proposes suggestions for the ongoing process of EU Arctic policy formulation.

10.1 Development of the Arctic: Key General Messages

10.1.1 The key drivers of Arctic transformation: global economy and climate change

This assessment shows that the global economy and climate change remain key drivers of changes in the European Arctic. Neither climate change impacts nor the implications of economic developments should be analysed independently; instead, they should always be examined in the light of existing governance frameworks.

Globalisation in all its forms is the main driver of current economic trends in the European Arctic. Global prices of minerals and hydrocarbons are key determinants of extractive resource developments. Both the upsurge in Arctic mineral exploration and exploitation over the past five years, and current industry concerns regarding the profitability of many operating and planned mines reflect global markets and the outlook for demand in emerging economies (Chapter 7). Lower natural gas prices have put some investment decisions on hold (e.g. Shtokman project), while high oil prices have encouraged companies to invest in expensive exploration projects (e.g. off the coast of Greenland) (Chapter 6). As destination shipping is expected to be the most important element of maritime transport, the transport needs of extractive industries are among the critical determinants of Arctic maritime traffic (Chapter 4). Demand for the products of fisheries and aquaculture, together with the management systems in place, significantly influence these industries and the communities that depend on them.

The influence of markets and climate change impacts is often outweighed by the role of regulatory frameworks and administrative or political decisions. This is the case with the opening of new areas for oil and gas exploration and legislation pertaining to reindeer herding or nature protection. Furthermore, local dynamics, social challenges and conflicts, environmental concerns, indigenous rights, as well as local perceptions of needs, risks and opportunities may facilitate, enhance or hinder change in particular locations.

While economic developments and climate change play a role in social transformation (the latter to a lesser extent in the European Arctic), factors such as various elements of cultural globalisation or the IT revolution have a major imprint throughout the region (Chapter 9).

10.1.2 Climate change: profound impacts on Arctic environment but limited on economic development

As the Arctic warms two to three times faster than the global average,¹ climate change presents a major challenge for the region, given the dependence of human-natural systems on the cryosphere and the fragility of Arctic ecosystems. The decrease in the sea ice extent and thickness in the Arctic Ocean as well as the melting of the Greenlandic ice sheet, thawing permafrost and coastal erosion are the clearest impacts. However, in Northern Fennoscandia, changes in snow cover or lake/river ice conditions are the most pronounced effects.

The resulting changes in Arctic biodiversity and landscape also affect human societies. Arctic communities are already affected by economic, social, cultural or political changes. Climate change is an additional pressure, testing the adaptive capacities and resilience of peoples and communities and augmenting existing uncertainties. The resilience and adaptive capacity of environmental-social systems may not be sufficient to withstand the accumulation of the multiple pressures discussed in this report.² Consequently, while mitigation of global change and ongoing knowledge-building are still seen as primary responses, the implementation of more concrete adaptation actions needs to be considered.

Climate change affects economic activities in the Arctic both positively and negatively. Yet, demand for Arctic resources and regulatory frameworks constitute the pivotal factors shaping the pace and direction of economic developments, both at present and by 2030. The current and future influence of different types of drivers cannot be thoroughly quantified, but the majority of the researchers and stakeholders involved in this assessment share the same general view of the limited role of climate change in socioeconomic development. This holds not only for extractive industries, but also for tourism, forestry, fisheries and even reindeer herding. Relative to other activities discussed in this report, Arctic maritime transport is likely to be the most affected by the consequences of climate change, even though a variety of constraints and uncertainties exist.

1. IPCC (2013). Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., Qin, D., Plattner, G.-K., Tignor, M., Allen, S.K., Boschung, J., Nauels, A., Xia, Y., Bex, V. & Midgley, P.M. (eds.)]; CAFF. (2013): Arctic Biodiversity Report. Synthesis. Conservation of Arctic Flora and Fauna. Arctic Council; ACIA (2005). Arctic Climate Impact Assessment. Arctic Council.

2. Nilsson, A. E. (ed.), Stockholm Environment Institute and Stockholm Resilience Centre (2013). Arctic Resilience Interim Report 2013. Arctic Council. www.arctic-council.org. Accessed 10 January 2014.

However, in the longer-term perspective climate change is likely to become an increasingly important factor in shaping the Arctic economic and social landscape through physical and environmental changes. Moreover, the recent IPCC Fifth Assessment Report highlights the severity of likely impacts around the globe.³ Global impacts have an indirect influence on the Arctic: via changes occurring in other regions and via the consequences of climate change mitigation policies, for example by shaping demand for Arctic resources or facilitating development of renewable energy in the region.

There is a widespread belief that climate change itself will lead to increased economic opportunities in terms of Arctic maritime transport, fisheries or resource extraction, and that these opportunities might balance out or even outweigh the negative impacts of climate change in the Arctic. This is far from certain, as while climate change already adversely impacts Arctic ecosystems and nature-based livelihoods, it has a limited role in triggering Arctic economic development, in particular in the European part of the region.

10.1.3 Moderate pace of socioeconomic developments

While signs of change, especially environmental change, are visible throughout the Arctic, the pace of socioeconomic developments is in general moderate. This is in contradiction to the dominant media coverage portraying climate change as ushering in a race among states and businesses for the region's plentiful hydrocarbon resources, minerals and navigational highways. This image of the region has been fuelled by events such as the 2007 and 2012 Arctic Ocean September sea ice minima, planting of the Russian flag at the North Pole, moderately increased number of Arctic transit voyages, and the interest of Asian states and companies. However, these dramatic narratives do not find support among expert circles or local actors.⁴ In terms of international relations, the Arctic remains a zone of co-operation and no major tensions originating from within the region are expected. However, conflicts outside the Arctic may affect regional governance, even if likely to a comparatively lesser degree than other areas of international co-operation.

Economic developments and social changes will occur mostly gradually and unevenly across the Arctic. In the coming decades, there might be sectors (e.g. minerals

mining, Chapter 7) that might stagnate or even bust. Therefore, it is not guaranteed that economic affluence will resolve the social challenges troubling many remote Arctic locations. The Arctic Ocean proper (compared to adjacent waters such as the Barents or Beaufort seas) is an area that receives particularly much attention from environmental NGOs, media, policy-makers and the public. However, the developments in fisheries, shipping and hydrocarbon extraction in this area are predicted to be either very limited or decades away (Chapters 4, 5 and 6).

Consequently, policies and strategies risk being misguided if they are based on such notions as "Arctic boom". This does not mean that current and expected economic and social developments do not require enhancement of policies and governance systems as well as investments in research and infrastructure. Owing to the characteristics of the Arctic environmental and social landscape, even activities that are moderate in scale may be connected with major impacts. There is a need to monitor change and adapt policies to shifting social, economic and environmental conditions. Involvement of regional actors is necessary to understand actual challenges and develop effective, tailor-made responses. Furthermore, it is always possible that unexpected political and economic events (e.g. energy or political crises) will trigger or restrict economic developments.

10.1.4 Arctic developments are closely interconnected

All changes and developments discussed in this report are interconnected, and thus often result in cumulative, often adverse, impacts, especially for Arctic biodiversity and current means of livelihood. In decision-making the interplay between various drivers, activities and their impacts should be always taken into account. No development should be analysed separately. Some issues recur across the chapters and could be taken up in greater detail in further assessment work in regard to the relationship between the EU and the Arctic, including: biodiversity, community viability, indigenous peoples' rights, participation, research, and short-lived climate forcers.

Industries may complement one another to contribute to a more diversified economic structure, but conflicts are also possible. If fisheries and hydrocarbon extraction or tourism and mining are developed in the same region, tensions or local conflicts could occur (Chapters 5, 6 and 8). The impacts are particularly pronounced when multiple activities result in cumulative impacts. Arctic maritime traffic is highly dependent on renewable and non-renewable resource extraction. Some livelihoods, like reindeer herding, are more vulnerable to pressures and there may be limits to the cumulative impacts they can withstand. In addition, Arctic hydrocarbon extraction

3. See: Intergovernmental Panel on Climate Change (IPCC) (2014). Climate Change 2014: Impacts, Adaptation and Vulnerability. Summary for Policy-makers. Fifth Assessment Report. See http://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf. Accessed 31 March 2014.

4. Koivurova, T. (2013), The Dialectic of Understanding Progress in Arctic Governance, Michigan State International Law Review, 22, 1-21; Arbo, P., Iversen, A., Knool, M., Ringholm, T. & Sander, G. (2013). Arctic Futures. Conceptualisations and images of a changing Arctic. Polar Geography, 36(3), 163-182.

in the long term involves a dilemma: climate change that plays a role in opening the Arctic to offshore hydrocarbon extraction is partly caused by the combustion of fossil fuels, and bringing a new hydrocarbon province into production will exacerbate the effects (Chapters 3, 6).

At the same time, infrastructures created for one activity may beneficially serve other industries. The availability of viable Arctic transport may serve as an enabler of various activities (Chapters 4, 6, 7 and 8) and may in the long run serve economic development outside the Arctic as well.

10.1.5 The European Union is affected by the changes in the Arctic

The EU not only influences the Arctic via its environmental and economic footprint,⁵ but is itself also affected by changes in the region. Of critical consequence for Europe are Arctic amplification effects within the changing global climate, including the rise in the sea level, and the significance of the Arctic for shaping Europe's weather patterns (Chapter 3). Gradual opening of Arctic sea routes will be important for European transport. Arctic shipping will require construction of ice-classed vessels, many of them likely to be designed and constructed in the EU (Chapter 4). Arctic fisheries are an important source of food for Europe (Chapter 5). The EU is a major importer of Arctic oil and gas (Chapter 6). Northern Fennoscandia is one of the main regions for EU domestic minerals production (Chapter 7). European tourists increasingly take advantage of the North's recreational potential and its rich biodiversity (Chapter 8). Northern cities are innovation centres of importance at the European level. Arctic cultures – including the culture of the Sámi, the EU's only recognised indigenous people – are an indispensable part of Europe's cultural diversity (Chapter 9).

10.2 Suggestions for the Further Formulation of EU Arctic Policy

Over the last decade, the European Union has made much progress in clarifying its approach to the Arctic, moving towards more nuanced and cautious approaches. The EU has been formulating its strategic approach to the Arctic region since 2008. The aim is to ensure that it is responsible, based on knowledge and engagement (as specified in the 2012 Joint Communication⁶). Future

5. See Ecologic Institute, Cavalieri, S. et al. (2010). EU Arctic Footprint and Policy Assessment Report, 2010. <http://arctic-footprint.eu/>. Accessed 10 January 2014.

6. European Commission (2012). Developing a European Union Policy towards the Arctic Region: progress since 2008 and next steps. Joint Commu-

nication of the European Commission and the High Representative of the European Union for Foreign Affairs and Security Policy. Brussels, 26.6.2012. JOIN(2012) 19 final.

10.2.1 Investing in better understanding of Arctic change

Numerous uncertainties and the dynamic nature of Arctic change require an in-depth understanding of the physical, biological and social processes. The EU is an important sponsor of Arctic research, and plays a key role in the development of technologies and innovations necessary to address Arctic challenges.

The findings of EU-funded research could be better communicated to EU decision-makers, Arctic stakeholders and the EU public at large in formats adjusted to the needs and capacities of particular audiences. The role of science communication is indispensable. Moreover, other forms of knowledge need to be taken into account in decision-making.

One of the key elements of a more comprehensive understanding of Arctic change is assessment work. Assessments are particularly important as tools bridging science and policy in the Arctic context, where a number of actors external to the region are present and where some local actors lack capacities to conduct their own knowledge-building activities. Assessments bring together available knowledge and information in formats that could contribute to a common understanding among researchers, sectors of the public and policy-makers of the developments at hand. Thus, assessments enhance knowledge- and participation-based decision-making.⁷ There is a particular need for integrated assessments, which should be characterised by greater attention to social and socioeconomic issues than is currently paid. Such integration should occur at all levels of assessment work: from environmental impact assessments and strategic integrated assessments to regional environmental assessments.

10.2.2 Enhanced communication and participation of Arctic actors in EU decision-making

More effective and meaningful participation of Arctic stakeholders in decision-making processes is a vital component of a response to social and environmental

7. See also, Kankaanpää, Paula and Malgorzata Smieszek (Eds.) (2014), Assessments in Policy Making: Case studies from the Arctic Council. Preparatory Action, Strategic Environmental Impact Assessment of development of the Arctic, Arctic Centre, University of Lapland. [Report for the European Commission]. Available: www.arcticinfo.eu

changes and to the rising complexity of Arctic governance. Two-way communication between Arctic stakeholders and EU decision-makers and involving stakeholders in dialogue with each other are crucial. Arctic inhabitants, communities, businesses, local governments and organisations lack information on the EU's role, interests and relevant activities in the region.

Enhanced participation enables understanding of values and livelihoods that might be neglected from the perspective of densely populated European economic centres, where the human-environment relation (e.g. subsistence use of forests) may not be as vital for culture and identity as in the North (Chapters 8 and 9).

EU policies designed for a broad European constituency may also need to be assessed in the context of Arctic-specific challenges. That is because particular measures may entail outcomes in the North that diverge from those anticipated in Europe's more southern latitudes, including environmental and transport regulations (Chapters 7, 8, 9). Where relevant, the European Commission's impact assessments of proposed policies or regulations could incorporate a special focus on how such new policy or legislative proposals influence the region.⁸ Due to the complexity of both Arctic realities and EU policy frameworks, identification of policies that have consequences in the Arctic constitutes a major challenge and requires stakeholder engagement. EU cohesion and co-operation programmes in the North are an example of the added value provided by stakeholder involvement. There, the key role of local actors in setting objectives has resulted in the alignment of local perceptions of needs and challenges and the goals of EU-funded programmes.

Indigenous peoples underline that they are also rights-holders. The participation of indigenous peoples (in particular the Sámi) in decision-making should be addressed in the light of evolving international indigenous rights (including land rights and the principle of free, prior and informed consent), primarily the UN Declaration of the Rights of Indigenous Peoples. Responsible decision-making with regard to EU policies that may affect Arctic indigenous communities requires their meaningful participation. The concept of establishing a more permanent presence of the Arctic indigenous peoples or the Sámi in Brussels remains relevant.⁹

10.2.3 Accounting for diversity within the Arctic

The Arctic is composed of diverse sub-regions characterised by dissimilar dynamics. Policy-making

8. As was already partly suggested (regarding environmental impacts) in the Commission's 2008 Arctic Communication. See European Commission (2008). Communication COM/2008/0763 from the Commission to the European Parliament and the Council – The European Union and the Arctic Region.

9. Already suggested at the 2010 'Arctic Dialogue' meeting. See the website of the European Commission's DG Maritime Affairs and Fisheries at <https://webgate.ec.europa.eu/maritimeforum/content/1831>. Accessed 4 March 2014.

processes addressing Arctic issues or affecting Arctic regions have to take this diversity into account. Stakeholder engagement may help to understand specific local concerns. EU policy-makers and other EU stakeholders need to acknowledge Arctic diversity and act with care when discussing "the Arctic" in an abstract manner. Statements true for the European Arctic or for the EU Arctic may lead to misunderstandings when applied to other parts of the circumpolar North.

There are many commonalities between Arctic regions, including: a cold climate, vulnerability of ecosystems, sparse human population, unique landscape value, dependence on primary industries, or the presence of indigenous cultures. However, even common characteristics are manifested differently across the circumpolar North. There are numerous examples: the Barents Sea involves less or different risks connected with shipping, tourism or hydrocarbon extraction in comparison to other, heavily ice-infested Arctic waters (Chapters 4 and 6); mining in Northern Fennoscandia involves a different set of problems than in Greenland (Chapter 7); and the implementation of international indigenous rights depends greatly on the specific local context (Chapters 8 and 9).

Competences and influence of the EU regarding particular parts of the region are another element of this diversity. The EU's role differs depending on the sector and geographically: in the EU Arctic, EEA, broader European Arctic, whole circumpolar North and the Arctic Ocean proper.

10.2.4 Paying special attention to the European Arctic

The changes in the Arctic are manifested also in the EU's northernmost regions. It is important that EU policy-makers and other European actors (such as media, NGOs, national decision-makers) perceive the European Arctic's biological and cultural diversity, social and economic development and the rights of its indigenous peoples as a "European issue", just as is the case with any other EU region.

Future EU Arctic policy should accentuate the EU's role and priorities in the European Arctic (not necessarily only the EU Arctic). In this way the EU would not only focus on areas where it can make the greatest positive difference, but would also improve its image in the region and underline its status as an Arctic actor. Although the main global trends and pan-Arctic environmental priorities should not be overlooked, such a more focused approach could result in EU institutions gaining Europe-specific Arctic expertise, leading also to greater influence at the circumpolar level.

Recent EU policy documents highlight EU actions in the European North. However, challenges particular to the European Arctic – as a region distinct within the broader,

circumpolar context – as well as clear goals and priorities specific for that region are not elaborated. The policy documents should state very clearly which aims and actions refer to the circumpolar Arctic, and which to its European and EU part.

Various EU cohesion and regional co-operation funding instruments are among the most important tools at the EU's disposal. It could prove advantageous to bring a variety of EU programmes, initiatives and actions in the European Arctic under a common framework. That may be beneficial both for long-term policy performance and for enhancing perception of the EU within the region.

10.2.5 Policy framework: coherent but adapted to the complexity of Arctic governance

The EU has been criticised for not fulfilling its own objective of developing a “structured and co-ordinated approach” towards the Arctic.¹⁰ However, taking such a comprehensive approach too far may be undesirable and even impossible. There is a need to acknowledge the complexity of Arctic governance¹¹ and to adjust EU actions to the Arctic landscape rather than to pursue in the future an artificially unified EU policy framework.

Complexity and fragmentation do not have to be seen as disadvantages of Arctic governance. Possibilities for enhancing governance frameworks exist and are highlighted in this report's thematic recommendations. The EU can positively contribute to gradual integration and enhancement within some sectors of Arctic governance, such as shipping or biodiversity. This can be achieved primarily owing to the EU's influence on the relevant international frameworks and participation in the venues of Arctic regional governance.

It may be advantageous for the EU to focus on areas where it has the greatest influence and where its credibility as a policy actor is the highest. That certainly includes climate change, research, technological expertise, and high safety and environmental standards.

Effective co-ordination within the European Commission and the European External Action Service as well as the identification of principles to guide various EU actions in Arctic matters are highly commendable. The Arctic policy framework could play a role in addressing potentially diverging policy objectives, for example simultaneously

pursuing climate change goals and energy security or, in the context of land use conflicts, facilitating domestic extraction of minerals while at the same time supporting local and traditional livelihoods and cultures. In the first case, however, long-term strategic actions related to climate and energy are needed, with Arctic-specific policy playing a secondary role.

10.2.6 Co-operation with Arctic partners despite challenges

In order to enhance its legitimacy, presence and influence in the region, the EU has to co-operate closely with Arctic states and local actors.¹² That includes substantial contributions to the work of the Arctic Council in the EU's capacity as an observer in principle (see Chapter 2). While the EU needs to continue working on resolving differences with Canada connected to the ban on the placing of seal products on the EU market and addressing the concerns of some Arctic states regarding the EU's role in the region, these issues should not constrain the EU's active engagement in Arctic co-operation.

Support for and participation in Arctic Council knowledge-building and standard-setting activities regarding maritime shipping, climate change adaptation, black carbon, oil spills, and biodiversity are particularly relevant. Emphasis should be given to the developments at the level of the Arctic Council's working groups.

Furthermore, within the area of greatest EU influence – the European Arctic – the European Commission should engage in more active and substance-oriented participation in Barents co-operation, including encouraging and supporting long-term actions and coming forth with its own proposals. As strongly highlighted by stakeholders, although very challenging (especially after March 2014), collaboration with Russian partners in the region is a necessary element of EU Arctic policy and regional governance in the European Arctic.

10. European Commission (2008). Communication COM/2008/0763 from the Commission to the European Parliament and the Council – The European Union and the Arctic Region; see, e.g., Keil, K. & Raspotnik, A. (5 July 2012). Further Steps Towards a Comprehensive EU Arctic Policy: Is the EU Getting There? The Arctic Institute. <http://www.thearcticinstitute.org/2012/07/further-steps-towards-comprehensive-eu.html>. Accessed 10 February 2014; Keil, K. (14 December 2011). EU Arctic Policy: Caught between Energy Security and Climate Change. The Arctic Institute. <http://www.thearcticinstitute.org/2011/12/4598-eu-arctic-policy-caught-between.html>. Accessed 10 February 2014.

11. See, e.g., Young, O. R. (2011). “If an Arctic Ocean Treaty is Not the Solution, What is the Alternative?”, *Polar Record* 47, 327-334.

12. As has been clearly acknowledged in consequent EU Arctic policy documents.