



**Improving decision-making processes in European  
Arctic environmental governance to sufficiently engage  
the Sámi People and their traditional knowledge**

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## **Improving decision-making processes in European Arctic environmental governance to sufficiently engage the Sámi People and their traditional knowledge**

### **Executive Summary**

- Climate change and extractive land uses are increasingly disrupting Sámi livelihoods, community sustainability, and wellbeing.
- Sámi traditional ecological knowledge (TEK) is not sufficiently considered in environmental decision-making in the European Arctic.
- Progress has been made recently in legal and policy realms, such as the establishment of the Sámi Climate Council in Finland.
- Militarisation complicates the picture as attention is increasingly shifted from the consideration of TEK in environmental governance to military operations.
- The availability and strength of legal instruments primarily affect the states of TEK and Sámi engagement in the environmental governance of Norway, Sweden, and Finland. Other avenues such as EIAs also affect TEK engagement. Overall, aspects of TEK consideration involve legislation, consultation requirements, and rights recognition.
- Policy and research paradigm shifts, as well as the strengthening of Sámi legal positions through law, are urgently needed in the national governments of Norway, Sweden, and Finland to promote the inclusion of TEK for more ethical and sustainable environmental governance.

### **1. Introduction**

Indigenous traditional ecological knowledge (TEK) has been accumulated through Indigenous Peoples' long-term observations and interactions with the natural environment as well as land stewardship since time immemorial (Jessen et al., 2022). TEK captures nuances of environmental dynamics that are often omitted by Western science and technology, such as Geographic Information System (GIS) (Rundstrom, 1995), and thus provides crucial insights into locally appropriate environmental governance. Yet TEK has been historically marginalised by modern nation-states and Western scientists, until recent efforts of co-production and co-management started to advocate for TEK in influencing decision-making (Berkes et al., 2000; Mustonen & Feodoroff, 2013). However, consideration of TEK is still insufficient in the Western government's decision-making processes.

As the only Indigenous Peoples recognised by the European Union (EU), the Sámi People – whose homeland, Sápmi, spans across the northern parts of Norway, Sweden, and Finland – are the primary group of focus when it comes to the status and engagement



of TEK in European Arctic environmental governance. In the European Arctic, especially with the intensifying challenges brought by climate change coupled with multiple land uses that encroach Sámi lands and disrupt Indigenous traditional livelihoods, engaging the Sámi People and their TEK – which have helped them maintain traditional livelihoods and adapt to varying weather dynamics since time immemorial – is not only an ethical requirement considering colonial legacies, but also essential for combating climate change at local, national, and global levels. Since the Arctic is warming up faster than other places in the world (Rantanen et al., 2022), the Sámi communities that live in the north are especially vulnerable to climate change. Even though progress has already been made in legal and policy realms, more work needs to be done to advance knowledge-sharing, decolonise environmental governance, and achieve effective and ethical climate adaptation.

## 2. Status Quo of Sámi Engagement in Environmental Governance

The engagement of Sámi in the environmental governance of the European Arctic is largely determined by the respective laws in the three nation-states in which they inhabit. A country's ratification, or lack thereof, of international agreements and clauses concerning Indigenous issues is a crucial determinant of the rights of its Indigenous citizens. These include the Indigenous and Tribal Peoples Convention, 1989 (ILO-169), the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and the International Covenant on Civil and Political Rights (ICCPR) Article 27 (Ravna, 2020).

Because Norway ratified ILO-169, the Sámi Parliament in Norway can directly negotiate with the state (Ravna, 2020). Other acts in Norway also affirm the state's obligation to consult the Sámi in decision-making: for example, the Sámi Act "contains an obligation for the state, county authorities and municipalities to consult the Sami Parliament and other Sami interests in matters concerning them" (Ministry of Labour and Social Inclusion, 2018). Yet in most of these laws, the term "traditional knowledge" or TEK is often absent, highlighting that the level of TEK engagement is still relatively low.

One distinct case where TEK engagement led to positive outcomes is the Finnmark Act of 2005, which initiated a crucial process in Norway of land rights recognition and reclamation (Finnmark Act, 2005). During the hearings involving Sámi *siiida*, the Sámi frequently referred to their TEK, such as those related to reindeer herding, to explain their immemorial land uses (The Finnmark Commission, 2015). Such high TEK engagement successfully contributed to the *siiida*'s lands being reclaimed from the state. Following the Finnmark Act, the Nature Diversity Act also requires the consideration of TEK in environmental planning and resource management, especially in Sápmi (Eythorsson & Thuestad, 2015). Therefore, the Norwegian example shows that court



cases and environmental impact assessments (EIAs) are specific avenues where the increased engagement of TEK can contribute to desirable governance outcomes.

However, in Sweden and Finland, ILO-169 is not yet ratified, and the legal position of the Sámi is therefore weaker compared to in Norway. Yet these two countries have seen positive developments in recent years. In 2022, Sweden adopted the Sámi Parliament Consultative Order (Hofverberg, 2022). In Finland, the duty to consult the Sámi is by law restricted to the Sámi Homeland area (Allard, 2018), but the establishment of the Sámi Climate Council in 2023 backed by the reformed Climate Act marked a new milestone. The Sámi Climate Council has the potential to increase TEK engagement in decision-making, as it is “tasked with bringing the knowledge base and perspectives of the Sámi people into the climate policy processes,” and half of its members are traditional knowledge holders (Finnish Ministry of the Environment, 2023).

### **3. New Challenges to TEK Engagement: Militarisation and Green Colonialism**

In all three countries, the state of Sámi TEK engagement in environmental governance is primarily determined by the availability and strength of legal instruments. Yet with all these initiatives focusing on climate adaptation, sustainability, and the environment, the Russia-Ukraine war that started in 2022 and the new memberships of Finland and Sweden in NATO have complicated the picture. With such developments, the focus of national governments in Arctic countries has shifted towards defense and militarisation. The engagement of Indigenous Peoples and their TEK is also starting to be considered for their benefits to military operations, instead of merely in an environmental governance context: “Indigenous peoples understand the Arctic environment better than anybody ... partnering with them is said to be essential to the potential for operational success ... there is every reason to believe that Indigenous knowledge can contribute to the geopolitical and strategic needs of NATO in the Arctic, should it be also in the interests of Indigenous peoples” (Reid, 2023). The duty to consult the Sámi is also not being properly followed due to militarisation: “future plans relating to military land use are advanced largely in secrecy, without proper hearings and consultations with those who are affected” (Junka-Aikio, 2024). Considering all these challenges, TEK integration in policy processes as a whole and in environmental governance in particular is still a work in progress.

Another complication is green colonialism, such as that reflected in the Fosen wind farm case (Fjellheim, 2023), where projects that seem to benefit sustainable development and climate adaptation pose significant harm to Sámi livelihoods. Without sufficient consultation of TEK, climate change adaptation efforts will not meet sustainability criteria because the Indigenous communities are the bearers of the negative impacts, such as land dispossession and fragmentation.



#### **4. Comparison with the U.S. and Canada**

Comparing the state of Indigenous rights and TEK engagement across Arctic countries can facilitate the sharing of good lessons and practices. In the United States and Canada, due to their very different colonial histories concerning the Indigenous Peoples, they have more comprehensive acts and government guidelines with a strong focus on TEK engagement as well as Indigenous rights and self-determination. For example, the Office of Science and Technology Policy (OSTP) and the Council on Environmental Quality (CEQ) in the United States jointly published the government guidance for federal agencies on recognizing and including Indigenous Knowledge in Federal research, policy, and decision making (Office of Science and Technology Policy & Council on Environmental Quality, 2022). Similarly, in Canada, the focus on knowledge itself is also distinct, as can be seen in its publication of the Indigenous Knowledge Policy Framework. Meanwhile, in the European Arctic, relatively less attention is paid by the government to the specific term “traditional knowledge” in discussing matters concerning the Sámi, nor are specific roadmaps laid out for implementation in the few acts that explicitly mention TEK.

#### **5. Gaps and Challenges**

Based on the review of the status quo of Sámi TEK engagement in Norway, Sweden, and Finland, as well as North America, a few gaps and challenges for the European Arctic countries can be identified.

First, various laws and policy documents in the European Arctic mention TEK and Sámi engagement, but there are very few initiatives or legislations focusing primarily on the knowledge itself. Since knowledge is an important aspect of Indigenous culture, and mobilising TEK is a key to decolonising Sápmi, it is crucial to fill this vacuum to facilitate more ethical scientific research and policymaking. Second, even though consultation laws are being enforced, following them through in actual implementation is still a work in progress in land use conflicts (Koivurova & Petrétei, 2014). Alternative avenues related to environmental governance, such as EIAs, also experience the issue of insufficient TEK consultation despite the existence of laws and initiatives (Eythorsson & Thuestad, 2015). Third, the militarisation of the Arctic has made defense and military operations increasingly a priority, slowing down the progress of Indigenous-led environmental governance and the equitable inclusion of the Sámi and their TEK in decision-making. Overcoming these barriers amidst geopolitical tensions would be challenging but essential to creating a socially and environmentally sustainable future for Arctic communities.

## 6. Policy Recommendations

Overall, in order to promote sufficient engagement of the Sámi People and their TEK in environmental governance and land use decision-making in the European Arctic, the policy recommendations are as follows:

- Recognise that Sámi engagement and TEK prioritisation are not only ethical requirements but also of practical importance in the context of climate change and conflicting land uses.
- Strengthen the implementation of existing consultation laws and develop additional legal and procedural instruments to facilitate channeling TEK to tangible and beneficial decisions.
- Advocate for legal reforms and policy paradigm shifts to increase the capacity of the Sámi to influence decision-making about environmental governance and safeguard their livelihoods with their TEK. These shifts should also empower researchers to promote Sámi-led policymaking, environmental management, as well as research and monitoring projects.
- Even with the militarisation of the Arctic, environmental initiatives should be prioritised and Sámi voices sufficiently considered, otherwise social and environmental sustainability will suffer in the long term.
- Promote knowledge-sharing between the European Arctic and the North American Arctic, as well as good practices to be shared and adopted within the European Arctic, such as Finland's establishment of the Sámi Climate Council and Norway's ratification of ILO-169.
- Facilitate the increase of Sámi-centredness and Indigenous leadership in multiple decision-making avenues, such as EIAs and co-produced research informing policies.

## References

- Allard, C. (2018). The Rationale for the Duty to Consult Indigenous Peoples: Comparative Reflections from Nordic and Canadian Legal Contexts. *Arctic Review on Law and Politics*, 9, 25–43. <https://doi.org/10.23865/arctic.v9.729>
- Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of Traditional Ecological Knowledge as Adaptive Management. *Ecological Applications*, 10(5), 1251–1262. <https://doi.org/10.2307/2641280>
- Eythorsson, E., & Thuestad, A. E. (2015). Incorporating Traditional Knowledge in Environmental Impact Assessment – How Can It Be Done? *Arctic Review on Law and Politics*, 6(2), Article 2. <https://doi.org/10.17585/arctic.v6.101>





- Finnish Ministry of the Environment. (2023). *Government appointed Sámi Climate Council*. Ministry of the Environment. <https://ym.fi/en/-/government-appointed-sami-climate-council>
- Finnmark Act, § 5 (2005). <https://lovdata.no/dokument/NLE/lov/2005-06-17-85>
- Fjellheim, E. M. (2023). "You Can Kill Us with Dialogue:" Critical Perspectives on Wind Energy Development in a Nordic-Saami Green Colonial Context. *Human Rights Review*, 24(1), 25–51. <https://doi.org/10.1007/s12142-023-00678-4>
- Hofverberg, E. (2022). *Sweden: Swedish Parliament Adopts Sami Parliament Consultation Order* [Web page]. Library of Congress, Washington, D.C. 20540 USA. <https://www.loc.gov/item/global-legal-monitor/2022-02-03/sweden-swedish-parliament-adopts-sami-parliament-consultation-order/>
- Jessen, T. D., Ban, N. C., Claxton, N. X., & Darimont, C. T. (2022). Contributions of Indigenous Knowledge to ecological and evolutionary understanding. *Frontiers in Ecology and the Environment*, 20(2), 93–101. <https://doi.org/10.1002/fee.2435>
- Junka-Aikio, L. (2024). Training on Terra Nullius? A decolonial approach to militarisation in Sápmi and Northern Finland. *Critical Studies on Security*, 12(3), 245–249. <https://doi.org/10.1080/21624887.2024.2358645>
- Koivurova, T., & Petrétei, A. (2014). *Enacting a New Mining Act in Finland—How Were Sami Rights and Interests Taken into Account?* (SSRN Scholarly Paper 2583748). Social Science Research Network. <https://papers.ssrn.com/abstract=2583748>
- Ministry of Labour and Social Inclusion. (2018, August 13). *Consultation duty in Sami matters* [Redaksjonellartikkel]. Government.No; regjeringen.no. <https://www.regjeringen.no/en/topics/indigenous-peoples-and-minorities/Sami-people/midtspalte/consultation-duty-in-sami-matters/id86931/>
- Mustonen, T., & Feodoroff, P. (2013). *Ponoi and Näätämö River Collaborative Management Plan*. Snowchange Cooperative.
- Office of Science and Technology Policy & Council on Environmental Quality. (2022). *Guidance for Federal Departments and Agencies on Indigenous Knowledge*. The White House.
- Rantanen, M., Karpechko, A. Y., Lipponen, A., Nordling, K., Hyvärinen, O., Ruosteenoja, K., Vihma, T., & Laaksonen, A. (2022). The Arctic has warmed nearly four times faster than the globe since 1979. *Communications Earth & Environment*, 3(1), 1–10. <https://doi.org/10.1038/s43247-022-00498-3>
- Ravna, Ø. (2020). The Duty to Consult the Sámi in Norwegian Law. *Arctic Review on Law and Politics*, 11, 233–255. <https://doi.org/10.23865/arctic.v11.2582>
- Reid, J. (2023). Indigenizing NATO. *Transatlantic Policy Quarterly*, 22(1).
- Rundstrom, R. A. (1995). GIS, Indigenous Peoples, and Epistemological Diversity. *Cartography and Geographic Information Systems*, 22(1), 45–57. <https://doi.org/10.1559/152304095782540564>
- The Finnmark Commission. (2015, October 16). *Finnmark Commission Reports [Finnmarkskommisjonens rapporter]*, Field 6.



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