

GOOD PRACTICES



**For Environmental Impact Assessment
and Meaningful Engagement in the Arctic**

**INCLUDING GOOD PRACTICE
RECOMMENDATIONS**



Sustainable Development
Working Group



ARCTIC COUNCIL



Good Practices

**for Environmental Impact Assessment and
Meaningful Engagement in the Arctic –
Including Good Practice Recommendations**

Arctic EIA

► Page 8

The Arctic EIA project worked under the auspices of the Arctic Council and its Sustainable Development Working Group. The aim of the project was to improve the application of environmental impact assessments (EIA) in the Arctic region. The project gathered examples of existing good practices across the Arctic, identified areas where improvements are needed and formulated associated recommendations. These recommendations and good practice examples are being shared here with proponents, authorities, consultants, other stakeholders and the public to raise awareness, while relying on the Arctic states' governments to enhance their application.

Environmental Impact Assessment and Meaningful Engagement

IN THE ARCTIC

Photo: Ole Geertz-Hansen

Models for Meaningful Engagement of Indigenous Peoples

► Page 48

Indigenous-led Impact Assessment

Indigenous Knowledge-based Impact Assessment

Specific Impact Assessments

Collaborative Mitigation

The Arctic is undergoing rapid environmental and economic change. The growing interest in the north and its resources is evidenced through an increase in the number of large-scale development projects. Planning and design of such projects should be done in a competent way, where Arctic ecosystems and their people are respected and engagement is meaningful. EIA is an important planning tool that can help to balance environmental and economic considerations and facilitate making sustainable development decisions in the context of the changing Arctic.

All eight Arctic states have EIA legislation. Each legislative process is unique, but a common EIA framework can be identified across the Arctic.

IMPROVING ARCTIC EIA

Meaningful engagement



1. Meaningful engagement proposes a relationship between proponent, authorities and the public that is characterized by dialogue, respect and trust. ► Page 16



Use of different types of knowledge

2. A comprehensive understanding requires the consideration of Indigenous knowledge and local knowledge in addition to acquiring data by conventional ways. ► Page 18

Transboundary environmental impacts



3. Providing neighboring jurisdictions the possibility to engage in EIAs in cases where there is likely significant transboundary impact is important. ► Page 20

GOOD PRACTICE RECOMMENDATIONS

► Page 22

- 1 Seek true dialogue to meaningfully engage
- 2 Utilize Indigenous knowledge and local knowledge
- 3 Build internal capacity and provide resources to meaningfully engage in EIA
- 4 Allow EIA to influence project design and decision-making process
- 5 Strengthen circumpolar cooperation on transboundary EIA

CASES

Good Practise Examples Across the Arctic ► Page 26

Country Specifics

EIA LEGISLATION

► Page 58

Canada | Finland
Iceland | Kingdom of Denmark:
Greenland and Faroe Islands
Norway | Russian Federation
Sweden | United States





Good Practices for Environmental Impact Assessment and Meaningful Engagement in the Arctic – Including Good Practice Recommendations

Arctic Council, Sustainable Development Working Group (SDWG),
Arctic Environmental Impact Assessment (EIA) project

2019

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PREFACE AND ACKNOWLEDGEMENTS	6
1 Introduction	8
2 EIA in the Arctic	12
Arctic Environment	12
Arctic EIA Processes	13
3 Improving Arctic EIA	16
Meaningful Engagement – Early and Continuously	16
Indigenous, Local and Scientific Knowledge – Complementary Ways of Knowing	18
Transboundary Environmental Impact Assessment – Involving Neighbors in EIA	20
4 Good Practice Recommendations	22
5 Good Practice Examples Across the Arctic	26
Case Examples	28
6 Models for Meaningful Engagement of Indigenous Peoples	48
REFERENCES	54
APPENDICES	58
APPENDIX I Country Specifics of EIA Legislation in Arctic Countries	58
APPENDIX II Definitions for the Purposes of the Report	62
APPENDIX III Sources	64
APPENDIX IV Objectives, Approach, Procedure and Organization of the Arctic EIA Project	65



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The active Editorial Group, as well as the Steering Committee of the project have been key players and deserve a major acknowledgement.

Photo: Kaisa Sirén

Preface and acknowledgements

Increasing economic activity in the Arctic, including a growing number of large-scale projects, provides the rationale for the Arctic Environmental Impact Assessment (EIA) project. How to plan and design large-scale projects in a way that gives consideration and value to the voice and knowledge of Arctic inhabitants is a driving force behind the project. In detail, the project identified three current topics needing specific attention to improve EIAs in the Arctic: 1) Meaningful engagement 2) Utilization of Indigenous knowledge and local knowledge as complementary to scientific knowledge and 3) Trans-boundary impact assessments. The first two themes appeared consistently throughout the workshops of the Arctic EIA project with about 180 participants total. The third theme was valued as important by the Editorial Group of the project.

This report is intended for all actors involved in environmental impact assessments: authorities, including regulators, proponents, consultants, financiers, and those who are most directly affected by the projects themselves, namely Arctic inhabitants and stakeholders. The recommendations (chapter 4) specifically target proponents from outside the Arctic, as they may be unfamiliar with the Arctic context and need a deeper understanding of the issues to be considered when aiming to work in the unique Arctic environment, and in particular, with Arctic Indigenous and other local residents.

The report has been prepared by the Ministry of the Environment of Finland assisted by the Arctic Centre, University of Lapland. Essential input has come from the Editorial Group of the project, which consists of representatives from all eight Arctic states, six Permanent Participants of the Arctic Council and a representative from the Arctic Economic Council. The active Editorial Group, as well as the Steering Committee of the co-leads of the project – Canada, the Kingdom of Denmark and Gwich'in Council International – have been key players and deserve a major acknowledgement. A full list of these people and organizations giving their expertise and in-kind contribution is found in Appendix IV.

The main funder of the project is the Ministry for Foreign Affairs of Finland. Many others contributed to financing the workshops. The full list of sponsors can also be found in Appendix IV.

The Editorial Group and the Steering Committee, the financiers, partners and participants of the workshops – all who have contributed to the Arctic EIA project and to this report – including the Sustainable Development Working Group of the Arctic Council under which the project has lived and breathed from 2017–2019: Thank you for your valuable contribution.

Hannele Pokka
Permanent Secretary
Ministry of the Environment of Finland

Helsinki, March 2019

1

Introduction

The overarching purpose of an Environmental Impact Assessment (EIA) is to outline the environmental consequences of a project for the proponent and authorities, the public and eventually decision makers. It is conducted through a process of identifying, communicating, predicting and interpreting information on the potential impacts of a proposed development on the environment – and proposes measures to avoid, minimize and mitigate negative impacts. Public participation is an integral part of EIA. Incorporating views from the public facilitates more informed EIAs and subsequent decision-making.

EIA IN ARCTIC CONTEXT

All eight Arctic states – Canada, Finland, Iceland, the Kingdom of Denmark, Norway, the Russian Federation, Sweden and the United States – have national legislation on environmental impact assessment. Each legislative process is unique, but there is nonetheless a common EIA framework that can be identified.

The Arctic is undergoing rapid environmental and economic change connected with climate change. The ongoing warming has made the region more accessible; for example, melting ice and longer periods of open water are resulting in longer marine shipping seasons. There are many areas where the growing interest in the north and its resources is evidenced through an increase in the number of large-scale infrastructure and natural resource development (e.g., mining and oil extraction) projects. If the planning and design of such projects are not done in a competent and respectful way, Arctic ecosystems and their people may be seriously harmed and the project itself does not benefit. EIA as a planning tool can help to balance environmental and economic considerations and facilitate making sustainable development decisions in the context of the changing Arctic.

GATHERING GOOD PRACTICES AND CREATING RECOMMENDATIONS

With the aim of improving the application of EIA in the Arctic region, the Arctic EIA project has been gathering examples of existing good practices across the Arctic, identifying areas where improvements are needed and formulating associated recommendations. These recommendations and good practice examples are being shared here with proponents, authorities (including regulators), consultants, other stakeholders and the public to raise awareness, while relying on the Arctic states' governments to enhance their application.

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All eight Arctic states – Canada, Finland, Iceland, the Kingdom of Denmark, Norway, the Russian Federation, Sweden and the United States – have national legislation on environmental impact assessment.



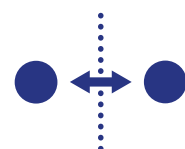
Three themes for development emerged during the project as being particularly relevant:



Meaningful engagement



Use of different types of knowledge – Indigenous knowledge, local knowledge and scientific knowledge



Transboundary environmental impacts

This report discusses the themes (chapter 3), and presents recommendations (chapter 4), while also highlighting good practice cases (chapter 5). Specific models for meaningful engagement of Indigenous Peoples are also presented (chapter 6).

Good practices were gathered and recommendations were created under the auspices of the Sustainable Development Working Group of the Arctic Council during the Finnish Chairmanship 2017–2019. The work was led by Finland (Ministry of the Environment), Canada (Crown-Indigenous Relations and Northern Affairs), Kingdom of Denmark (Greenland Institute of Natural Resources) and Gwich'in Council International, which represents Gwich'in across Alaska (USA), Yukon and the Northwest Territories (Canada) in its capacity as a Permanent Participant in the Arctic Council. An Editorial Group was formed to be the joint working body for the project. It consisted of nominated members of all the Arctic states and Permanent Participants of the Arctic Council and a representative of the Arctic Economic Council.

The Arctic EIA project organized in cooperation with its local partners three regional workshops. They were held in Utqiagvik/Barrow (Alaska, United States), Rovaniemi (Nordic countries' workshop, Finland) and Yellowknife (Northwest Territories, Canada). The workshops were structured to provide regional perspectives on key EIA challenges, as well as case studies that are illustrative of a good practice approach. Workshop participants included EIA practitioners, government representatives, Indigenous Governments and Indigenous Peoples' Organizations, researchers, industry and other stakeholders. Additional data collection included an online questionnaire.

To complement the work of the project as a whole, two research initiatives were carried out: Gwich'in Council International's workshop and research paper Emerging Practices of Indigenous-led Reviews in Environmental Impact Assessment and the Arctic Centre of the University of Lapland's (Finland) research on models to assist in planning meaningful engagement of Indigenous Peoples.

1997 Guidelines for Environmental Impact Assessment in the Arctic

The early 1990's witnessed the collective recognition by the Arctic states that the Arctic region is climatically and culturally unique and environmentally fragile. This inspired a Finnish-led, Arctic-wide effort in 1994 to develop Arctic EIA Guidelines that were approved in 1997 under the Arctic Environmental Protection Strategy, the predecessor of the Arctic Council. The guidelines are still worth visiting, especially if EIA is new to the reader, since they describe in detail the procedure of EIA in the Arctic: ► sdwg.org.

For the purposes of the report

Arctic refers to the polar region that comprises the Northern regions of eight states: Canada, Finland, Iceland, the Kingdom of Denmark, Norway, the Russian Federation, Sweden and the United States of America. The Arctic has also vast areas beyond national jurisdictions.

Environment refers to the entire ecosystem, including people and communities, nature and resources, as well as the cultural setting and identity of places. However, it should be noted that the conceptualization of the environment may have specific definitions in each Arctic state's legislation, Indigenous world-view and in the context of specific communities.



Photo (on the following page): Kaisa Sirén

2

EIA in the Arctic

The arctic is characterized by fragile ecosystems and sparse but diverse population. All Arctic states have EIA legislation. Each legislative process is unique, but a common EIA framework can be identified across the Arctic.

Arctic Environment

The defining characteristics of the Arctic region continue to be its sparse population, unique biodiversity, fragile ecosystems, and slow recovery rates from disturbance for flora and fauna. The physical environment in the Arctic is harsh, with extended periods of cold. In many areas, landforms are dominated and greatly influenced by permafrost and there is little infrastructure. Natural resources in the Arctic are abundant and, in many areas, becoming more accessible because of factors such as diminishing sea ice and development of transportation infrastructure.

The Arctic is warming at a rate double the global average and climate induced change is negatively impacting vulnerable Arctic ecosystems, the residents, Indigenous Peoples and other local communities. For example, climate change has led to the need to adapt fishing, hunting and herding practices that have been relied upon by previous generations. The natural environment of the Arctic is par-

ticularly susceptible to the atmospheric deposition of airborne pollutants, changes in physical landforms and habitat degradation. The Arctic environment is affected by local actions and disproportionately by actions taken outside of the Arctic region.

The Arctic is home to approximately 4 million people. About 10 per cent of the population is Indigenous. This proportion varies widely by region, in some areas almost all population being Indigenous. Both Indigenous and other local people have lived and survived in the Arctic environment for centuries and hold knowledge of importance for EIAs.

There are over 40 distinct Indigenous groups throughout the circumpolar Arctic, each with their own specific culture and language. One common feature of all the Arctic's Indigenous Peoples is their relationship to the natural ecosystems on which they rely for food security, culture, language and identity.

International Declarations and Conventions concerning Indigenous Peoples

UNDRIP – The United Nations Declaration on the Rights of Indigenous Peoples, adopted in 2007, ensures the individual and collective rights of Indigenous Peoples to self-determination to “freely determine their political status and freely pursue their economic, social and cultural development”. The UNDRIP protects Indigenous Peoples’ rights to their cultural heritage, spirituality, language, traditional games, visual and performing arts, knowledge, education, health and well-being, infrastructure, lands, territories, and natural resources amongst other factors.

The UNDRIP was adopted by 144 states, with 11 abstentions and four states voting against it. Since 2009, all four states who voted against it (Canada, USA, New Zealand, and Australia) have reversed their positions and now support the Declaration. The Declaration is non-legally binding under international law.¹

FPIC – Free, Prior and Informed Consent is a principle enshrined within the UN Declaration on the Rights of Indigenous Peoples. According to the principle, Indigenous Peoples have a right to “be consulted and make decisions on any matter that may affect their rights freely, without pressure, having all the information and before anything happens”.

ILO C169 – The Indigenous and Tribal Peoples Convention, 1989 (No.169) is a legally binding international convention under the International Labor Organization (ILO) concerning the rights of Indigenous and Tribal Peoples. It was adopted in 1989 and it entered into force in 1991. It has been ratified by 23 countries including in the Arctic region Norway and the Kingdom of Denmark. The Convention specifies that governments have the responsibility to coordinate and organize action to protect the rights of Indigenous and Tribal Peoples, ensuring the right mechanisms and resources are available. ILO C169 and UNDRIP are complementary and mutually reinforcing.²

Arctic EIA Processes

All Arctic states have EIA legislation that, while having common features, includes provisions unique to their circumstances. For example, in Greenland within the Kingdom of Denmark, social impacts of mineral resource projects are assessed in a process separate from the assessment of environmental impacts. Greenland also has a separate EIA legislation for mineral resource and other projects. The main characteristics of Arctic states’ EIA legislation are highlighted in Appendix I.

Photo: Ole Geertz-Hansen

PHASES OF AN EIA PROCESS

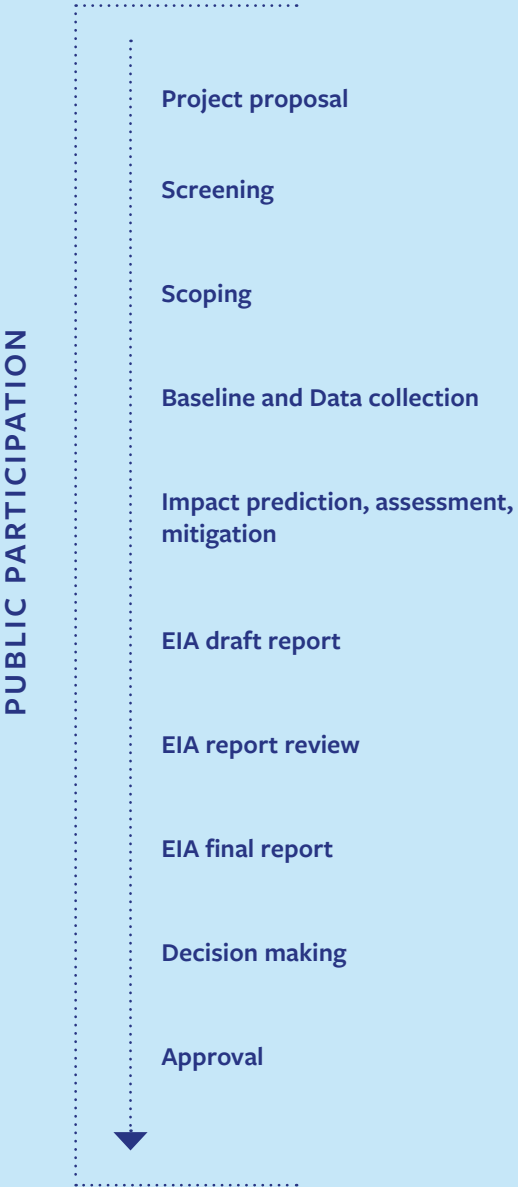


FIGURE 1 TYPICAL PHASES OF AN EIA PROCESS³

Environmental impact assessments across the Arctic generally include the following:

- ▶ **Screening** precedes the EIA process to determine if a project is to undergo an EIA or not.
- ▶ **Scoping** is where the content and extent of the EIA is defined. Which potential impacts are to be assessed, the spatial scale and what alternatives to the project are to be included in the assessment are determined at this phase.
- ▶ **Baseline data** is needed for assessing the impacts. Existing data is used in scoping but baseline data is supplemented during the assessment.
- ▶ **Assessing environmental impacts** includes predicting the magnitude, the probability of occurrence and the extent of the identified potential impacts and eventually defining their significance. These can be direct impacts of a proposed project, indirect impacts or cumulative effects of multiple projects.
- ▶ **Mitigation** aims to avoid, minimize, mitigate or, as the last step, compensate for the negative impacts of the project. There is also the potential to promote positive impacts during this step. A mitigation plan is included in the EIA.
- ▶ **EIA report** compiles the analysis of assessed impacts and the description of the public participation throughout the process.
- ▶ **Monitoring** is planned during the EIA, but eventually determined in the permitting phase. Monitoring is not a compulsory EIA step in all jurisdictions.
- ▶ **Public display** and quality control ensure that the public and the authorities can review and provide comments and opinions on the EIA report. In many jurisdictions the public may also comment on the scoping document. Quality control is completed by the competent authority.
- ▶ **Taking EIA into account in decision-making.** The outcome of EIA is considered in decision-making and this consideration is documented in decisions.



Photo: Henna Haapala

“The growing interest in the north and its resources is evidenced through an increase of large-scale development projects. EIA is a planning tool that can help to balance environmental and economic considerations and facilitate sustainable decision-making.

3

Improving Arctic EIA

During the Arctic EIA project, three particularly important themes for improving the EIA in the Arctic were identified: **Meaningful Engagement, Complementary Knowledge and Trans-boundary Impact Assessment**. The first two themes appeared consistently throughout the workshops of the Arctic EIA project. The third theme was valued as important by the Editorial Group of the project.

1. Meaningful Engagement – Early and Continuously

EIA legislation of each Arctic state forms the basic requirement for public participation. However, experience gathered in this project shows that these minimum legislated requirements and the current practice do not always leave the public feeling that they have been adequately engaged and that their views have been truly heard and considered. Consequently, the need to develop this area was selected as one main theme of the Arctic EIA project. Instead of public participation, the concept of *meaningful engagement* was chosen to define the participation of individuals, communities and stakeholders in the EIA of a proposed project in a way that is considered meaningful for those involved.

Meaningful engagement proposes a relationship between proponent, authorities and the public that is characterized by dialogue, respect and trust. It includes a genuine attempt to find out what are the truly significant issues for a community and its people, in order to create structures and solutions that give due consideration to those interests. Depending on the proposed project, the potentially affected people may extend beyond the strictly local envi-



ronment, to include regional, national or even transboundary constituencies.

To meet the bar of meaningful engagement, proponents, consultants, and authorities should start to engage with potentially affected people early, and extend the engagement throughout the entire process from project conception through scoping, assessment of the impacts, mitigation and finally the review and analysis that informs decision-making. To be meaningful, engagement needs to be adaptable to multiple forms and inclusive of culture-specific methods. It is to be noted that a community in the Arctic may consist of different groups and cultures, who need to be approached and engaged distinctly.

It is important to note that many communities throughout the Arctic are home to both Indigenous and non-Indigenous residents.



Meaningful engagement proposes a relationship between proponent, authorities and the public that is characterized by dialogue, respect and trust.

For the purposes of the report

Meaningful engagement refers to a process of participation that is promoting and sustaining a fair and open dialogue. It recognizes the needs, concerns and values of the public and provides the public a genuine opportunity to influence decisions made during an EIA.⁴

Dialogue means interaction that emphasizes listening, exchange of opinions, talking about experiences and seeking out common understanding in respectful conditions.

Indigenous Peoples or Indigenous communities refer to individuals and communities of Indigenous origin, whose status may be specifically recognized in national legislation and international standards.

Local people or local communities refer to individuals and communities of non-Indigenous origin.

Stakeholder refers to associations, organizations, agencies, institutions and groups that share common interests and are involved in an EIA of the proposed project.

Public or interested parties refer to all the above: Indigenous Peoples/communities, local people/communities, and stakeholders.

2. Indigenous, Local and Scientific Knowledge – Complementary Ways of Knowing

Conventionally, EIA relies on research, data, measurements and calculations based on scientific principles, even though EIA itself is not science. This project found, however, that relying on such data uniquely may not be sufficient in the Arctic. A comprehensive understanding requires the consideration of Indigenous knowledge and local knowledge in addition to acquiring data by conventional ways as usually done in EIAs. Indigenous Peoples and local communities may have lived in the area for generations, accumulating knowledge by observing the environment and living as an integral part of it. This creates knowledge in both time and space that may not be reached by scientific knowledge. Good data is critical for project design and decision-making. The Arctic EIA project espouses an approach whereby proponents, authorities and other stakeholders recognize that knowledge about the Arctic environment and Arctic specific changes and phenomena resides in multiple complementary knowledge systems. Complementary ways of knowing was thus determined to be the second theme for this report.

A variety of terms are used when talking about sources of knowledge other than scientific knowledge. These include, for example, Indigenous knowledge (IK), Traditional knowledge (TK), Traditional ecological knowledge (TEK), Traditional and local knowledge (TLK) and local knowledge (LK). Their meaning may differ by country and territory, as each has its own specific history and is tied with language, geography and legislation. As such there is not a universal agreement on the use and definitions of these terms. A discussion on this terminology is also ongoing within the Arctic Council (December 2018).^{5,6}

In the context of this report and its recommendations, Indigenous knowledge refers specifically to the knowledge of Indigenous Peoples, and local knowledge to the knowledge of all Arctic inhabitants. The term Indigenous knowledge is used as it is the will of the Permanent Participants of the Arctic Council expressed in the Arctic Science Ministerial Meeting in Berlin held October 2018. The term Indigenous knowledge was also strongly preferred in the workshops of the Arctic EIA project.



Photo: Terry Kruger

Indigenous knowledge and local knowledge can fill gaps in scientific knowledge and reinforce scientific results. When at odds, new knowledge may arise from contradictions and point out where additional research efforts should be concentrated.

WHAT IS SPECIFIC ABOUT INDIGENOUS KNOWLEDGE?

Indigenous communities define for themselves who their knowledge holders are. Most often, they are the elders of a community. It should be noted that an “elder” is not someone of a given age, but rather someone that the community has recognized as such. Similarly, while there is a link between the meaningful engagement of Indigenous Peoples and Indigenous knowledge, it should be recognized that two processes are different and may require distinct actions to achieve. The goal in an EIA should be to strive for both.

An Indigenous worldview and knowledge are based on a holistic view, where people, culture, language, hunting, dancing, sharing of food, cultural celebrations, amongst other elements, are all a part of the ecosystem. As the Inuit Circumpolar Council states:

“Addressing the multiple challenges associated with climate change, biodiversity conservation, and pollution requires a holistic understanding of the interlinkages that exist within and between the health of people, animals, and plants; the condition of land, sea, and air; and the cultural fabric held together by language, cultural expression, and social integrity.”⁷

Indigenous knowledge is based on its own framework, values, methodologies and validation processes. The workshop participants of the Arctic EIA project were clear in their view that Indigenous knowledge is not to be integrated into scientific knowledge but treated as a separate and complementary knowledge system. With this approach, Indigenous knowledge avoids being reduced and taken out of context, while still allowing synergy between knowledge systems. Those who participated in the workshops expressed that an optimal case scenario is when there is co-production of knowledge. Co-production, they reflected, is where scientific knowledge and Indigenous knowledge are equitably utilized and where there is dialogue about how to proceed through the EIA using both sources of knowledge – from the earliest stages of scoping and baseline data collection, through assessment, mitigation, and the analysis and interpretation of the results of the assessment. Dialogue should continue in the monitoring phase as well.

“A comprehensive understanding requires the consideration of Indigenous knowledge and local knowledge in addition to acquiring data by conventional ways.

For the purposes of the report

Indigenous knowledge refers to knowledge of Arctic Indigenous Peoples. It is a systematic way of thinking and knowing that is elaborated and applied to phenomena across biological, physical, cultural and linguistic systems. Indigenous knowledge is owned by the holders of that knowledge, often collectively, and is uniquely expressed and transmitted through Indigenous languages. It is a body of knowledge generated through cultural practices, lived experiences including extensive and multi-generational observations, lessons and skills. It has been developed and verified over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation.⁸

Local knowledge refers to knowledge of all Arctic residents, who inhabit a specific geographical area. Local knowledge is adapted to the local culture and environment and is embedded in community practices and institutions. It can include experiences, skills, practices and learning that have been developed, used, sustained and passed on from generation to generation within a community. It can also include knowledge derived from formal schooling.⁹

Deciding which terms should be used about different knowledges was among the most difficult issues in writing this report. In the abundance of different terms and definitions, there was also a lack of a definition for local knowledge. The local knowledge definition used here is co-created as part of the activity of the Editorial Group of the project. Neither one of the definitions, Indigenous knowledge and local knowledge, have been adopted by the Arctic Council but are used for the purposes of this report.

3. Transboundary Environmental Impact Assessment – Involving Neighbors in EIA

Environmental impacts do not stop at national, territorial or provincial borders. Projects can have significant impacts in another state, territory or other different jurisdiction. There are also projects that are transboundary by character, such as powerlines, pipelines or roads leading from one state to another. Projects can even impact more than just two jurisdictions.

Providing neighboring jurisdictions the possibility to engage in EIAs in cases where there is likely significant transboundary impact is important. It gives the affected communities an opportunity to present opinions on activities and impacts affecting their environment. Providing accurate information on the proposed project to the neighbor helps to avoid or mitigate possible tensions. In the Arctic region, Indigenous Peoples span borders, whether national, territorial or provincial, which emphasizes the need to assess impacts across those borders. Assessing cumulative impacts may be especially important in these circumstances. Transboundary EIA was chosen as a third theme for this report.

International transboundary cooperation was formally adopted in 1991 when the Convention on Environmental Impact Assessment in a Transboundary Context was signed in Espoo, Finland (Espoo Convention) and entered into force in 1997. The Espoo Convention provides a legal framework for transboundary impact assessment for those states that are parties to the Convention. Others may follow the procedure voluntarily. Transboundary impact assessment requires authorities to notify the potentially affected state(s) at the start of the EIA and ask about their willingness to participate in the EIA. The public of the affected state must have an equal opportunity to participate in the EIA. As a minimum, the EIA report must be provided for comment, with appropriate translations where necessary.

Individual states may also have their own legislated requirements for assessing transboundary impacts. Canadian northern land claim agreements and their implementing legislation are an example. They include provisions relative to creating agreements with other jurisdictions and for the inclusion of Indigenous groups of adjacent areas in the assessment process. For example, Article 12.11.2 of the Nunavut Agreement provides that the “...Government of Canada and the Territorial Government, assisted by the Nunavut Im-



Photo: Mads Peter Heide-Jørgensen

pact review Board, shall use their best efforts to negotiate agreements with other jurisdictions to provide for collaboration in the review of project proposals which may have significant transboundary ecosystemic or socio-economic impacts.”

For the purposes of the report

Transboundary impact means any environmental impact within the affected state that is caused by an activity located in another state. In Canada, transboundary means additionally impacts between territories or territories and provinces.

State where the activity is being planned



NOTIFICATION

EIA DOCUMENTATION

FINAL DECISION

Request for participation to the EIA

Answer on participation

To public and authorities for comments

Comments

Consultation between parties

State that is likely to be affected



FIGURE 2 ESPOO CONVENTION PROCESS

State Parties to the Espoo Convention notify and consult each other on activities if likely significant impacts may extend across the border. Parties have agreed to name an authority Point of Contact for the exchange of documents thus ensuring the public on both sides of the border have an equal opportunity to participate in the EIA. All Arctic states have named a Point of Contact and this list can be found on the Convention’s web site.

Espoo Convention refers to the United Nation’s Economic Commission for Europe’s Convention on EIA in a Transboundary Context. It lays down the general obligation of states to notify and consult each other on projects with likely significant adverse impact across boundaries. The Convention includes a list of activities that automatically require an application. Bilateral or multilateral agreements may be established between states to address the procedure in more detail. The right to decision-making rests with the state of origin (i.e., where the project is initiated). All Arctic states belong to the United Nation’s Economic Commission for Europe. Canada, the Kingdom of Denmark, Finland, Norway and Sweden are parties to the Convention. Iceland, the Russian Federation and the United States have signed the Convention, but have not yet ratified it, and are thus not parties.¹⁰

The Convention on Biological Diversity (CBD) was signed in 1992 and entered into force 1993. It is the first global agreement to cover all aspects of biological diversity: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources. The Biodiversity Convention also sets requirements for EIAs and explicitly encourages transboundary assessments. The United States has signed the Convention but has not yet ratified it. All other Arctic states have signed and ratified and are thus parties to the Convention.¹¹

RECOMMEN- DATIONS

4

These **Good Practice Recommendations** are intended for Arctic states, their authorities and private or public proponents to be actively used in the Arctic region with the goal of strengthening and improving EIAs in the Arctic. Photo: Kaisa Sirén

1

Seek true dialogue to meaningfully engage

- **Start building a relationship with the affected communities at the earliest possible stage** – even before the formal EIA process begins, such as in the preparation of a feasibility study. Early engagement facilitates a mutual level of understanding from the beginning and creates meaningful opportunities for amendments to the project design based on communities' feedback. It is important to be aware there may be different groups and cultures within a community that need different approaches for engagement.
- **Find out in cooperation with communities what kind of engagement would be meaningful for them.** This helps to ensure there is space for dialogue that is respectful and a foundation upon which to build mutual trust. The processes should be reflective of a community's own understanding of their practices, values, and traditions. To assist in clear communication, provide translation into the community's first or preferred language. Use a cultural translator where needed.
- **Commit to continuous dialogue.** Meaningful engagement is an ongoing process, rather than a step. If the project is implemented, the engagement needs to continue throughout the mitigation and monitoring phases.

2

Utilize Indigenous knowledge and local knowledge to complement scientific knowledge

- **Take steps to become more familiar with the principles of Indigenous knowledge systems,** its methodologies and processes for working with Indigenous knowledge and its holders. Be aware that Indigenous knowledge-based studies cannot be held as proprietary by project proponents or authorities, but they require consideration around intellectual property rights. Identify the Indigenous knowledge holders through dialogue with the communities. Support the community to work with its knowledge holders to undertake Indigenous knowledge-based studies.
- **Find sources of local knowledge.** Sources may include but are not limited to experienced individuals, local associations, studies of local history and inventories of different topics.
- **Be inclusive of experts from different knowledge systems** throughout the entire EIA process, from conceptualization to the analysis of the results and monitoring.

3

Build internal capacity to work in the Arctic context and provide resources to communities to meaningfully engage in EIA

- **Authorities and proponents, with their consultants, should be trained to work with Arctic communities** and have appropriate knowledge about cultural issues and different worldviews. Cultural awareness training is a good way to build competence.
- **Authorities and proponents should increase the capacity and resources of communities** to follow large-scale projects and engage in associated EIAs. Means for doing so may include providing independent technical support for communities, providing resources to communities to conduct internal consultations to establish their position and to travel to present their viewpoints at relevant meetings. Sufficient resources and meaningful timelines help to prevent overburdening members of the community.

5

Strengthen Circumpolar cooperation on transboundary environmental impact assessment

- **Apply the principles of the UNECE¹² Espoo Convention.** The Arctic states' governments are encouraged to cooperate to give equal opportunity for the public to engage in EIA on both sides of the border if a project is likely to have significant adverse transboundary impacts. Even though not all Arctic states are parties to the Espoo Convention, the principles of the Convention could be applied voluntarily on a circumpolar level by all.
- **Draft agreements or Memorandums of Understanding¹³ to guide transboundary processes.** Arctic states' governments are invited to discuss drafting bilateral or multilateral agreements or memorandums of understanding that address the possibility for the affected state and its public to engage in the EIA of the state of project's origin for a more binding commitment between neighbors or the whole Arctic region. Such commitments may also be established between regions (for example territories) within a specific state. This is especially relevant in instances where each region has its own EIA framework or legislation.

4

Allow EIA to influence project design and decision-making process

- **Engagement with communities, their views and the inclusion of complementary knowledge should be well documented,** and influence in a transparent manner the proponent's project design choices and the final decision made by authorities or political decision-makers.

- **Strengthen cooperation under the Espoo Convention.** Arctic states could initiate cooperation by forming an Arctic sub-region under the Espoo Convention and agree on joint activities to enhance transboundary cooperation within the Arctic region.

Meaningful engagement and complementary knowledge in different phases of EIA

with quotes captured at the Utqiagvik (Alaska), Rovaniemi (Nordic) and Yellowknife (Canada) workshops of the Arctic EIA project

Before the formal EIA process officially starts

“ It’s about building a relationship with people. You are not going to get our actual opinions if you don’t have a relationship, if you don’t have trust.

Plan properly for the EIA. The more carefully an EIA is planned, the better the whole planning process will be. You may need to incorporate flexibility in the application of your internal corporate processes if they are rigid. Flexibility may be needed particularly around timelines, to anticipate the unexpected and to give a true chance for meaningful engagement and utilization of complementary knowledge. Please see chapter 5 for more concrete ideas.

“ When you’ve been to one Arctic community, you’ve been to one Arctic community.

Begin to learn about the area impacted by the project and its people. Create the basis for dialogue and building trust. Be aware of expectations and avoid creating unfounded ones. Keep in mind that every Arctic community is unique and distinctly its own.

“ You need to talk to scientists and locals at the same time – not scientists first and locals after.

Find out what is already known about the area and people living there. Explore how Indigenous knowledge and local knowledge could be utilized in the EIA. Through dialogue with the community, identify the Indigenous knowledge holders and discuss how they could get involved in producing and utilizing the knowledge, should they wish to do so. The local community should also be approached to find out appropriate sources.

Scoping

“ Meaningful engagement is to listen, to work together – not learning one way.

“ To communicate and truly collaborate – that’s what the question is about.

Plan together with communities how to proceed with engagement and how to ensure that engagement will be truly meaningful. Explore alternative ways for engagement than statutory hearings, e.g. cooperation groups, thematic meetings, interviews, site visits. For more ideas for alternative ways, please visit chapter 5. Consider the need to collect information through oral consultations, which should be carried out in the first or preferred language of the interviewee. Identify with the community the times when people cannot engage, for example as a result of fishing, hunting, whaling, reindeer herding or gathering activities.

“ You need to ensure meaningful engagement with a view to working diligently to understand what is truly important to people in a community.

Learn about the values of the community. Pay particular attention to a community’s valued components, identifying potential impacts and issues that are particularly significant for them. Make sure that every member of the community regardless of age or gender has a chance, if she/he so wishes, to express her/his view(s).

“ Budgets must recognize the critical need for scientific, Indigenous, and local knowledge capacity and expertise, as well as data collection and maintenance, to support the incorporation of best practicable knowledge in EIA processes.

When compiling baseline data, give resources, time and space to Indigenous knowledge and local knowledge and plan together with knowledge holders how the complementary knowledge will be utilized during the process.

During the impact assessment

“ When you’re pulling knowledge from me, I want something back to me.

Make sure that the dialogue continues throughout the impact assessment phase: keep people informed of the project status and enquire about expectations and concerns they may have as the EIA progresses. Make sure to utilize the knowledge of the communities when planning measures to mitigate the adverse impacts. Strengthen the positive impacts in consultation with people affected. As an important part of the dialogue, bring new knowledge constructed upon Indigenous knowledge systematically back to the Indigenous knowledge holders. When using local knowledge, bring new knowledge back to that particular community.

EIA Report

“ Ensure that scientific/technical data is made available in plain language, understandable to non-specialists.

Document the EIA in a way that is understandable to the public. Pay particular attention to the summary, ensuring it is written in plain language. At the same time, make sure that everyone who has interest in the detailed material has access to all documentation relating to the EIA. At a minimum, the summary should be available in the languages spoken by communities. Use of maps, pictures and videos can assist in creating understanding of the often technical and complex issues under consideration.

Decision-making

“ Are we being genuinely heard?

EIA enhances the knowledge available for decision-making and the diversity of perspectives. The decision should show how the voice of communities and stakeholders has been heard and whether it impacted the decision made. Decision documents should reference specific elements of written submissions, oral evidence and engagement initiatives.

Monitoring

“ Follow-up component is always missing.

Communities may have a significant role in monitoring the impacts of the project. This may effectively continue the relationship between the project and its “neighbors”, ensuring that dialogue and meaningful engagement is a reality through the project’s entire lifecycle.

5

The **Case Examples** collected in this chapter highlight elements of what has been regarded as a good practice. They are intended to give ideas and inspiration for future EIA processes in the Arctic.

The collection of good practice examples introduced in this chapter are based on:

- An online good practice questionnaire
- Information exchange at the three workshops held by the Arctic EIA project
- Background work done by the Editorial Group of the Arctic EIA project, representing all Arctic countries and Permanent Participants of the Arctic Council. Ultimately the Editorial Group selected and validated the cases in the report

Terms used in the case descriptions are country specific and therefore partly differ from the ones used elsewhere in the report. This can be somewhat challenging to the reader. However, if a reader dives deeper into the cases the logic underlying the use of terms becomes evident. A general rule is that “*Traditional knowledge*” and “*Traditional ecological knowledge*” have the same meaning as Indigenous knowledge.

A more detailed description of the procedure of the Arctic EIA project is in the Appendix IV.

It is important to note that the presented cases focus mainly on specific parts or phases of the EIA that have been found successful, without taking a stand on either the entire project’s exemplariness, its viability or the quality of the EIA as a whole.

- CASE 1** Liberty Oil Drilling | Alaska, USA ► Page 28
- CASE 2** Red Dog Mine | Alaska, USA ► Page 28
- CASE 3** Impact assessment on acoustic disturbance | Alaska, USA ► Page 29
- CASE 4** Gahcho Kué Diamond Mine | Canada ► Page 31
- CASE 5** Snap Lake Diamond Mine | Canada ► Page 32
- CASE 6** Ekati Jay Project | Canada ► Page 33
- CASE 7** Back River Project | Canada ► Page 35
- CASE 8** NICO polymetallic mine project | Canada ► Page 37
- CASE 9** Raglan Nickel Mine | Canada ► Page 38
- CASE 10** Dundas Ilmenite Project | Greenland ► Page 39
- CASE 11** White Mountain Anorthosite Project | Greenland ► Page 40
- CASE 12** Apartment Development Plan | Norway ► Page 41
- CASE 13** Hammerfest LNG Plant | Norway ► Page 43
- CASE 14** Koppera Wind Power Plant | Norway with impacts to Sweden ► Page 44
- CASE 15** Sakatti Mine Project | Finland ► Page 45
- CASE 16** Yamal LNG Project | Russian Federation ► Page 46
- CASE 17** Sakhalin II Project | Russian Federation ► Page 46

LOCATION OF CASE EXAMPLES



CASE 1

Liberty Oil Drilling | Alaska, USA



THEME: COMPLEMENTARY KNOWLEDGE

The incorporation of mitigation measures into the Final Environmental Impact Statement and Record of Decision proposed by the affected Inuit whalers.

DESCRIPTION

The Liberty project in Alaska has numerous components: an artificial gravel island 5.6 miles offshore; a drilling and production processing facility on the island; and, a single-phase oil pipeline to shore with first production anticipated in 2020. The project exemplifies a number of good practices but is particularly notable for its use of mitigation measures, some of which were provided by the affected Inuit whalers and described in the final environmental impact statement and record of decision. Among others, the mitigation measures prescribe: quiet periods during whale migration and harvest; required winter construction in order to proactively avoid and minimize conflicts; and, limited vessel speeds and routes to minimize potential impacts.¹⁴

Hilcorp Alaska, the proponent is to enter a Conflict Avoidance Agreement (CAA) with the Alaska Eskimo Whaling Commission and the Nuiqsut Whaling Captains' Association to mitigate impacts to Inuit subsistence whaling.

REASONS FOR HIGHLIGHTING THIS PROJECT

The Liberty Project is notable because of its sensitivity to the needs of the Inuit whalers and the incorporation of those needs into mitigation measures, which remain throughout the life cycle of the project.

CASE 2

Red Dog Mine | Alaska, USA



THEME: MEANINGFUL ENGAGEMENT

A wide cooperation of different federal, regional, local and tribal actors. A pre-EIA measure taken in a form of a Relationship Agreement between the NANA Regional Corporation and affected communities.

DESCRIPTION

The landowner of the Red Dog Mine, the NANA Regional corporation has been the first to implement a Relationship Agreement with affected communities, which precedes any other agreement such as a Memorandum of Understanding or Letter of Intent and extends into perpetuity. The Relationship Agreement is the first interaction with communities and defines the nature and scope of the relationship between NANA and community. To date these have been very well received by communities.

There is a partnership between the Landowner (NANA Regional Corporation) and the Company (formerly Cominco Alaska Inc. now Teck Alaska, Inc.). The intent of the agreement between NANA and the Company was to allow development in a manner that provided for long-term economic base for the NANA region and jobs for NANA shareholders and other Alaskans, while also providing economic return for the Company and ensuring minimal impacts on the region's hunting and gathering culture and way of life.

Red Dog Mine began operations in 1989. In 2009, the Environmental Protection Agency finalized a Supplemental Environmental Impact Statement (SEIS) for an expansion of the existing mine operations. The 2009 SEIS supplements the "original" 1984 Environmental Impact Statement in evaluating the environmental effects associated with development of a new ore deposit, Aqqaluk. The cooperating agencies that participated in this Supplemental Environmental Impact Statement process include the U.S. Army Corps of Engineers, National Park Service, the State of Alaska, the Northwest Arctic Borough, and the tribal gov-

ernments representing the Native communities of Buckland, Kiana, Kivalina, Kobuk, Kotzebue, Noatak, Noorvik, Selawik, and Shungnak. The tribal governments authorized the Maniilaq Association, the region's tribal non-profit health services provider, to prepare a health impact assessment and represent their cooperating agency interests and responsibilities.¹⁵

NANA is one of 12 land-based Alaska Native Corporations which are a result of the Alaska Native Claims Settlement Act. This Act is a legal agreement the federal government reached with Alaska Natives in 1971. Under the Act Alaska Natives relinquished claims to their ancestral lands in exchange for a settlement of \$1 billion and a land selection of about 44 million acres, a little more than 10 percent of the state of Alaska.

NEPA, the National Environmental Policy Act was signed into law on January 1, 1970. NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions.

REASONS FOR HIGHLIGHTING THIS PROJECT

U.S. Federal, State, local and tribal agencies with jurisdiction or expertise were brought together in a wide cooperation to address environmental, social, cultural and economic interests. Building of the relationship between NANA and affected communities was founded in the very beginning by a Relationship Agreement. A health impact assessment was given special emphasis.

The Red Dog Mine has an innovative Taxation Agreement with the Northwest Arctic Borough, which explicitly outlines the project's contribution to the economic development of the region. The Taxation Agreement is different than the normal US (municipal level) taxation schemes as it was negotiated such that the Company agreed to a payment in lieu of taxes - a negotiated tax payment to the Borough where the funding goes directly to the Borough's school district. The use of renewable energy, entrepreneurship training programs and start-ups are also encouraged by funding.

CASE 3

Impact assessment on acoustic disturbance | Alaska, USA



THEME: MEANINGFUL ENGAGEMENT & COMPLEMENTARY KNOWLEDGE

Partnering with communities and utilizing Traditional ecological knowledge to facilitate the production of best available knowledge.

DESCRIPTION

Traditional Ecological Knowledge on Acoustic Disturbance – Research Project Partnering with Communities on the North Slope, Alaska, was run by Statoil (now Equinor) and linked to oil exploration. The study was published 2016.^{16 17}

It was noted early that even if the effects of underwater noise, which has the potential to impact marine life by changing behavior, are negligible, it could still have an impact on the ability of local communities to hunt for marine mammals and can effect traditional ways of life. It was also acknowledged that the behavior of marine mammals is complex and only partially explained by western science.

Through thousands of years of subsistence hunting, Native Alaskans have developed extensive knowledge of marine mammal behavior in a variety of contexts. Prior to the study, there was no known written body of that knowledge on the behavioral reactions of marine mammals to sound. Statoil partnered with the Native governments of three villages on the Chukchi Sea coast to document this knowledge, utilizing semi-directed interviews and community advisors.

Three communities on the Chukchi Sea coast were chosen for the project due to their proximity to the relevant lease area, geographic span of the possible migration ways and the desire of the tribal governments to partner with the project team. Prior to the start of the project, the principle investigators contacted the local leadership organization in these communities and requested in-person meetings to discuss participation in the research. In Alaska, the local tribal government is generally recognized as the appropriate entity to approach regarding research in their communities. However, as village politics are not uniform throughout the coastal communities, care was taken to leave the decision to the community as to who would be the most appropriate leadership entity to officially partner and grant permission for the research project.

The study adheres to the Alaska Federation of Natives Guidelines for Research (Alaska Native Knowledge Network 2006).

Due to the complex political and cultural landscape in Alaska and the participatory framework needed for research, extensive interested party outreach was conducted prior to the start of the study and throughout its evolution. First, guidance on methodology and general advice was sought from other well-respected researchers who had conducted Traditional ecological knowledge research in Alaska, as well as several marine mammal acousticians. The project conception was then presented to the Alaska co-management groups (Alaska Native Organization made up of hunters and elders that partners with the federal government to co-manage marine mammal species) for feedback and buy-in. Additionally, care was taken to sit down with the chairman and executive board of these co-management groups privately, when possible, to seek advice and develop a relationship. Updates were given at yearly co-management

group meetings and further feedback sought to ensure key interested parties were apprised of the project’s progress and were included in the development of the work.

REASONS FOR HIGHLIGHTING THIS PROJECT

The practice of meaningful engagement and partnering with communities was exemplified in the study on the Traditional Ecological Knowledge on Acoustic Disturbance. Input was sought from Alaskan Native Organizations including co-management groups, community leadership, elders and other Traditional ecological knowledge holders. Partnerships were formed with each community and community advisors who reviewed the findings of the study and assisted with the research. Innovative methods of working together with Traditional ecological knowledge and scientific knowledge were introduced and successfully used.

The study produced a semi-quantitative description of marine mammal reactions to noise that was not documented before. Combined with the scientific research, it provided the best available information to be taken into account when planning oil exploration.



Photo: Ole Geertz-Hansen

CASE 4

Gahcho Kué Diamond Mine | Canada



THEME: MEANINGFUL ENGAGEMENT & COMPLEMENTARY KNOWLEDGE

Ni Hadi Xa provides an additional layer of oversight, over and above the regulatory instruments that govern mining operations, and forms part of a broader engagement with Indigenous communities. This example of ongoing Indigenous community engagement resulted from the proponent’s recognition during the development of the mine of the need to communicate and engage effectively with host Indigenous communities to address the mine’s activities and impacts.

DESCRIPTION

Gahcho Kué Diamond Mine in the Northwest Territories is owned and operated by De Beers. A collaborative organization called Ni Hadi Xa (nihadixa.ca), which translates to People Watching the Land Together, was formed by five (later six) Indigenous nations and De Beers to implement an innovative arms-length monitoring program at and around the mine site. Originally jointly proposed at the Public Hearing during the final stages of the impact assessment, Ni Hadi Xa exists to watch over the Gahcho Kué Mine. The review panel supported the initiative...

“ Because it was developed in the spirit of collaboration and could facilitate the incorporation of Traditional knowledge into the monitoring and management and facilitate transparency and accountability throughout the life of the Project.

The Ni Hadi Xa Agreement is a binding contract (negotiated after the impact assessment), which will span approximately 17 years (2014–2030), based on the current estimate of the active mine life. The Agreement makes resources available, to be administered through a Governance Committee,

and provides for environmental monitoring and management of the mine in addition to such matters governed by legislation. Decisions are made by the Committee, which is comprised of a member from each of the Indigenous Parties and a company representative. This monitoring effort aims to provide ways to avoid or minimize the impacts of Gahcho Kué Mine on: the rights of Indigenous Parties; their traditional lands; their relationship to the land, water and resources; their social, cultural, economic and spiritual values; their way of life; and, the environment. This is similar to the agencies set up to monitor other mines in the Northwest Territories, but one key difference is that Ni Hadi Xa puts a much greater level of importance on Traditional knowledge monitoring.

The monitoring is divided into three different approaches:

- 1. An Environmental Monitor based at the mine site as an observer, working with the mine’s environmental team to provide real-time feedback to improve practices and maintain strong communication.
- 2. Technical reviews of monitoring and management plans, including 3rd party review.
- 3. Traditional knowledge Monitors (N Hadi Xa employees), who travel to the area adjacent to the mine site regularly to observe, monitor and record changes to the environment.

Ni Hadi Za also has an on-the-land program, which supports Indigenous People to travel and observe the region around the mine, practicing traditional activities, working with the Traditional knowledge Monitors, and engaging in research and monitoring.

The focus of the monitoring program is on issues that matter most to the five Indigenous Nations and include wildlife, water, and fish.

REASONS FOR HIGHLIGHTING THIS PROJECT

The collaborative approach to monitoring includes numerous benefits, including building Indigenous community capacity, ensuring that Traditional knowledge is used in monitoring the mine, ensuring that the land-based economy is maintained by protecting land and water resources, and providing a formal mechanism for Indigenous communities to make recommendations. In effect, the Agreement ensures those most affected by the mine have an active role and voice in post-approval mine monitoring.

CASE 5

Snap Lake Diamond Mine | Canada



THEME: COMPLEMENTARY KNOWLEDGE

Traditional knowledge is important for aquatic monitoring and provides information that scientific knowledge cannot. Using Traditional knowledge and scientific knowledge in conjunction with one another allows for a comprehensive picture of the true effect of impacts, and therefore, also the possibility of more accurate solutions if needed.

DESCRIPTION

Snap Lake Mine is Canada’s first underground diamond mine and is located north of Yellowknife in the Northwest Territories. The mine began operations in 2007 and entered Extended Care and Maintenance in December 2015. Within Snap Lake, fish are considered to be the most valued ecosystem component, and ensuring that there are fish to eat and water to drink are the top two priorities for the surrounding communities.¹⁸

During the EIA process the operating company, De Beers, made a commitment to the community that after mining commenced, that the fish in the nearby lake would continue being safe to eat and the water safe to drink. This commitment was incorporated into the mining company’s monitoring program. Hence, since 2005 Elders have gathered for the annual Fish Tasting at Snap Lake Mine in order to test the fish using a look-smell-taste method. Elders, who are the Traditional knowledge holders, examine the fish visually and then clean them to observe the health of the internal organs. If there was a concern, samples were collected for laboratory analysis. The fish are then tested via taste whereby they are filleted, boiled and eaten without any seasonings. The Elders’ comments are documented in a final report that is then added into the Annual Aquatic Effects Monitoring Program Report and submitted to regulators and stakeholders. Youth are invited to annual Fish Tastings so as to learn Traditional knowledge.

The elders do also berry picking to assess dust deposition on traditional foods, which observations are documented.

REASONS FOR HIGHLIGHTING THIS PROJECT

While dialogue and shared understanding are always considered key components of meaningful engagement, the monitoring program of Snap Lake goes beyond the rhetoric to devise with the Elders a clear protocol and sensitivity criteria to ensure the fish are safe to eat, and the water safe to drink, in Snap Lake. Annual Fish Testing events are an innovative way to not only obtain sampling data, but to make it fun and a social event that binds community and proponent in a respectful way.



Photo: Terry Kruger

Socio-Economic & Cultural Impact Assessments

Socio-Economic Impact Assessment Guidelines by the Mackenzie Valley Impact Review Board (2007) is a planning tool that outlines the Review Board’s expectations for assessing socio-economic and cultural impacts in the Mackenzie Valley.¹⁹

CASE 6

Ekati Jay Project | Canada²⁰



THEME: MEANINGFUL ENGAGEMENT & COMPLEMENTARY KNOWLEDGE

Indigenous engagement and use of Traditional knowledge throughout the entire assessment process allows for refinement of mitigation measures proposed by the proponent or the addition of new ones.

DESCRIPTION

The Jay Project, an expansion of the operating Ekati Diamond Mine in Northwest Territories involves construction of a new open pit 30 km from the existing mine site and related road infrastructure. The site is located in an arctic tundra landscape dominated by lakes and ridges known as eskers. Caribou migrate through the area twice a year, using eskers as movement corridors. The herd population has declined by more than 90 % from its historical high in 1986; this decline is continuing despite a harvesting ban in place since 2009.

During the impact assessment, the proponent maintained that with its proposed mitigation plans the project would not have significant impacts to caribou and concluded that the cumulative effects from the project and other developments should not have a significant influence on the ability of the caribou herd to be self-sustaining. At the public hearings held by the Review Board it became clear that Indigenous communities and other organizations did not agree. The proponent proactively addressed this difference in opinion by hosting a meeting following the hearings with all parties to address the insufficiency of the proposed caribou mitigations; its purpose was to find ways to positively compensate for or “offset” impacts from the mine expansion on caribou. As a result, the proponent submitted a plan for additional compensation (offsetting) beyond what could be achieved through standard mitigation techniques.

In their February 2016 Report of Environmental Assessment and Reasons for Decision²¹, the Review Board found that the Project would likely have significant adverse project-specific and cumulative impacts on caribou. They noted:

“ The project proposed to cross an important caribou migration corridor at a time when the herd is in a precarious and “extremely worrisome” state. There are existing significant cumulative impacts, so additional stresses on the herd have a large effect. From a project-specific perspective, the Jay Project will create physical barriers that prevent caribou from moving freely and add sensory disturbances such as noise and visual stimuli along an important mitigation corridor.

In addition to direct and indirect impacts to caribou, Indigenous communities who rely on caribou for food and as part of their traditional lifestyle expressed serious concern that the mine expansion would erode their way of life and ties to the land. The Review Board also found that mine development would prolong significant impacts to Indigenous culture and traditional way of life by de-valuing the area for traditional uses, leading to the loss of cultural sharing between generations.

Engagement and Consultation Policy | Canada (Northwest Territories)

Engagement and Consultation Policy is a guidance document developed by the Mackenzie Valley Land and Water Board (2013). It aims to ensure that its obligations for meaningful consultation (as set out by the land claims and applicable legislation) with all affected parties, including Aboriginal groups in the Mackenzie Valley, are met and clearly articulated. The Policy describes submission requirements and the Administration of Board responsibilities for statutory consultation under the Mackenzie Valley Resource Management Act.²²

The Review Board recommended specific on-site offsetting measures to achieve net neutral impacts to caribou, reducing existing impacts on caribou and the traditional Indigenous lifestyle based on caribou so that the cumulative impacts of the Project were no longer significant. On-site offsets are actions taken to set aside areas of the project footprint that result in an overall net neutral or positive effect; the offsets had to be developed in a way that caribou and Indigenous uses of caribou would directly benefit from the development. A number of specific offsetting actions were required, including: an Indigenous elders group to advise on construction and operation of the esker crossing and waste pile egress ramps for caribou (see below for additional detail), and the construction and operation of an on-the-land culture camp in a traditionally used area near the mine expansion to maintain traditional Indigenous uses of the land and to transfer that knowledge between generations.

The Review Board found that incorporating Traditional knowledge into the project design and operations is required to mitigate impacts to caribou while constructing and operating the Jay Project. In their view, directly applying Traditional knowledge, along with conventional science-based information will result in practical mitigation actions that reduce the Project impacts to caribou so they are no longer significant.

A specific measure (Measure 6-5) requires the proponent to use Traditional knowledge more effectively in caribou research to reduce caribou impacts, and fund a Traditional knowledge Elders group to: advise on constructing roads and operating to prevent impacts to caribou; monitor caribou reactions to road use in coordination with existing caribou management authorities; report on the results of monitoring and recommend associated mitigation; and, recommend a contingency plan if monitoring indicates the road through the esker is a major barrier to caribou movement. The group, which was established prior to construction, will remain active through operations and mine closure. The group has been meeting quarterly now that construction is underway; every second meeting has been held at the mine site to allow elders to see work that is underway, ask questions and make recommendations based on their knowledge.

REASONS FOR HIGHLIGHTING THIS PROJECT

Caribou populations in the region have been declining dramatically. During the course of the review, Indigenous participants and others voiced their concern that the proponent’s planned mitigation and monitoring would not be sufficient to protect the safety of the caribou and ensure the herd’s viability. The independent Review Board heard the parties’ concerns, recognized the value of Traditional knowledge, and added measures that would help ensure such knowledge would be considered during ongoing monitoring and adaptive management.



Guidelines on Indigenous knowledge

Guidelines for incorporating Traditional Knowledge in Environmental Impact Assessment (2005) by the Mackenzie Valley Review Board explains what the Review Board expects from developers when working with Traditional knowledge holders and how Traditional knowledge holders can share their knowledge directly with the Review Board during the EIA of a proposed development.²³

CASE 7

Back River Project | Canada



THEME: TRANSBOUNDARY IMPACTS & MEANINGFUL ENGAGEMENT

Engagement with communities, both regional and transboundary, throughout both reviews, and transparent decision-making, helped influence the final project design. The measures to protect caribou included in the Project Certificate set the bar very high, yet the region is in a position to benefit economically from the resulting development.

DESCRIPTION

Sabina Gold and Silver Corporation’s Back River Project is a proposed open pit and underground gold mine, mill and associated infrastructure and a marine laydown area at Bathurst Inlet, 75 km to the north, in the western part of the Territory of Nunavut.

An initial Project Description was submitted to the Nunavut Impact Review Board in July 2012, starting the impact assessment process. Following community scoping and guidelines development, the Project’s Draft Environmental Impact Statement (Draft EIS) was submitted to the Review Board in January 2014. The technical review included numerous opportunities for engagement – including commu-

nity consultations that culminated in a Final Hearing in April 2016. Public meetings were held outside Nunavut in Yellowknife, Northwest Territories, to encourage participation by parties who could be potentially affected by transboundary impacts within the Northwest Territories. The Review Board also invited representatives from Indigenous and local governments and Indigenous groups in the adjacent Northwest Territories to attend the Final Hearing.

The Project appeared to enjoy support from most parties, including the regional Inuit Association, which championed the project. The governments of Nunavut and the Northwest Territories both suggested that company’s final environmental impact statement warranted approval to move to the permitting phase. The review did, however, have a transboundary component; the Lutsel K’e Dene First Nation, North Slave Métis Alliance and Yellowknife’s Dene First Nation in the Northwest Territories were opposed to the Project, given its closeness to the migration route of the Bathurst caribou herd to which their existence and culture is so closely tied. The Northwest Territories government said the herd’s population had halved between 2012 and 2016 to 16,000 animals.

In June 2016, the Review Board recommended to the Canadian Minister of Indigenous and Northern Affairs that the project not proceed at this time, “on the basis of the potential for significant adverse ecosystemic and socio-economic effects in Nunavut and also in the Northwest Territories that, in the Board’s view, cannot be adequately managed and mitigated...”. The Board also concluded that “effects on caribou and terrestrial wildlife could result in additional cumulative and transboundary effects on already declining populations”. While the proponent noted that the Bathurst caribou range had not overlapped the project area in over 20 years, the Review Board noted that Traditional knowledge had informed them “that significant and unpredictable shifts in ranges had occurred before and will undoubtedly occur again over the course of the project’s proposed lifecycle”. The Board cited concerns about potential impacts to caribou populations that are already in decline, having heard there is a high level of concern about the potential for the Project to have impacts on caribou herds with ranges in Nunavut and the Northwest Territories that have recently experienced significant declines. “Due to a high level of uncertainty regarding the efficacy and adaptability of measures designed to mitigate these effects, the board is not confident that these potential adverse ecosystemic and related socio-economic effects could be effectively mitigated over the life of the project.”

While the Review Board’s decision came as a surprise to many, in its recommendation to the Minister, the Review Board clearly opened the door to reconsideration when the uncertainties could be addressed. Together with other Ministers with jurisdictional responsibility, the Minister returned the negative assessment back to the Review Board for further review as they felt it was too early to conclude that the project would lead to unacceptable or unmanageable impacts. The Board’s Report and the broader record indicated that many of the subject matter experts (both Indigenous and not) believed that there were solutions to the issues identified by the Board, and that adverse impacts could be avoided or mitigated to an acceptable level.

Inuit Qaujimajatuqangit Principles

Inuit Qaujimajatuqangit Principles²⁵ refer to Inuit Traditional Knowledge and are set out by the Government of Nunavut. The Nunavut Impact Review Board is guided by Inuit Qaujimajatuqangit principles.

During the efficient second review, the proponent worked closely with the governments of Nunavut and the Northwest Territories, as well as the regional Inuit association to determine what should be done. The proponent provided an additional 1,500 pages on its environmental impact mitigation plans; the additional information provided as part of the addendum to the Final Environmental Impact Statement, which increased the Review Board’s confidence. After additional hearings, the Review Board reversed its 2016 decision and recommended that the Project move ahead.

“ All participants can be proud of the development of some of the ‘best in class’ caribou protection measures that Nunavut has ever seen...

...the Review Board’s project chairman stated in the text of the Review Board’s second decision. The recommendation however also cautions:

Examples of coordination agreements (including transboundary)

The Nunavut Impact Review Board (NIRB)²⁶ works closely with other environmental assessment and licensing boards and agencies whose responsibilities and jurisdiction align closely with the NIRB or the Nunavut Settlement Area. In some cases the NIRB may enter into a formal Memorandum Of Understanding to guide this coordination.

“ Nice words are not enough and if Sabina’s important commitments, plans and programs are not implemented, the effects could be equally as devastating as if no plans were in place at all.

As a result, it has laid out more than 90 terms and conditions for Sabina to follow.

REASONS FOR HIGHLIGHTING THIS PROJECT

The review process was robust in that it encouraged the participation of transboundary groups that might feel the impacts of the Project, while being flexible enough to allow for a timely reconsideration of the Project once the Board’s and the Minister’s concerns were addressed. The Proponent engaged key parties during the reconsideration process to ensure key issues were resolved before the second Final Hearing.

CASE 8

NICO polymetallic mine project | Canada²⁷



THEME: MEANINGFUL ENGAGEMENT & COMPLEMENTARY KNOWLEDGE

Indigenous co-managed impact assessment assured meaningful engagement and utilization of Traditional knowledge.

DESCRIPTION

In 2012, the Tłı̨chǫ Indigenous Government participated in the environmental assessment for the proposed Fortune Minerals’ NICO poly-metallic mine project in the Northwest Territories.

Throughout the assessment, the Tłı̨chǫ Government was actively involved to ensure that key issues related to scoping, Traditional knowledge and adequate Indigenous engagement were meaningfully dealt with. For example, public hearing dates were changed to accommodate the completion of key Traditional knowledge studies and the Tłı̨chǫ Government required additional public hearings for community members to speak about the project. During the public hearings, the Tłı̨chǫ Government requested a two-hour window be allotted for youth and women to speak. Elders’ land use knowledge was the focus in a commissioned Traditional knowledge study and the hearings themselves (Olsen et al. 2013). Effluent discharge levels and locations were changed to protect land use; this could only be established through detailed Traditional knowledge collection. Also permits require annual cultural monitoring at K’eagoti (Hislop Lake) for the duration of the project. Ultimately, the Tłı̨chǫ Government accepted the Report of Environmental Assessment, which had been issued by the quasi-judicial Mackenzie Valley Review Board. The project was approved and an Impact and Benefit Agreement (IBA) negotiated with the intent of generating net benefits, captured through financial payments, employment, training, and contracting.

CASES

Financial resources held by the Tłı̨chǫ were used to hire technical reviewers, engage the community, and ensure community-based capacity building. Although the Tłı̨chǫ Government contributed some of their own funding toward the review process, the uniqueness of this example lies in the fact the Tłı̨chǫ negotiated with both the proponent and the government to have long-term capacity and continuous funding through taxation and revenue sharing power to support the review and ongoing monitoring activities.

REASONS FOR HIGHLIGHTING THIS PROJECT

This case is an example of the co-management process laid down in the legislation and land claims agreement between Indigenous Government and the Crown. The Tłı̨chǫ Indigenous Government’s central role assured the appropriate involvement of both Traditional knowledge and western scientific methods in the assessment and conditions for project approval. Hiring technical reviewers and promoting capacity building was possible for Tłı̨chǫ as they negotiated with both the proponent and the government for financing to help local communities and Indigenous Peoples in the North to gain a better understanding of the EIA process and documents. The Canadian government may offer financing for such technical support. Indigenous co-managed impact assessment is also discussed in Chapter 6.

Legislation and government-to-government agreements set the background for the Fortune Minerals review: these are the Mackenzie Valley Resource and Management Act and the Tłı̨chǫ Land Claim and Self-Government Agreement. Through the Act, Traditional knowledge is given an equal role in the legislation that guides impact assessment.

Photo: Sarah Cox



CASE 9

Raglan Nickel Mine | Canada²⁸



THEME: MEANINGFUL ENGAGEMENT & COMPLEMENTARY KNOWLEDGE
Indigenous co-developed impact assessment assured meaningful engagement and utilization of Traditional knowledge.

DESCRIPTION
The Raglan Nickel Mine in Arctic Quebec has been in operation since 1997 and is currently owned and operated by Glencore. In 2016 the company proposed to extend the mine life by over 20 years, until 2041. A Committee was formed to review the environmental and social impact assessment measures of an extension project, as drafted by the proponent. The committee was comprised of participants from the Inuit Parties (land claim Inuit organization, Makivik Corporation and two Inuit communities in close proximity to the project, Salluit and Kangiqsujuaq) and from the proponent, with a mandate that was co-developed by their respective senior leadership.

The James Bay and Northern Quebec Agreement is a land claim agreement signed in 1975. Under Section 23 of the Agreement, a full environmental assessment is required for all new major mining projects.

Separate from the formal review of the project, the proponent and Inuit conducted a chapter-by-chapter joint review of the environmental and social impact assessment. The purpose of the review was to discuss changes to the project and to the management and operation of the project on Inuit lands. The Inuit Parties chose a set of chapters to review, carving out the areas that were of key interest to them. Recommendations resulting from the Commit-

tee were transmitted to the Quebec government prior to the issuance of a certificate of authorization, and their inclusion in the project certificate led to an enforceable decision both within and outside of the formal impact assessment process.

Makivik and Glencore funded the process, and the communities were able to retain expertise, legal advice, and support necessary for the technical review. It is worth noting that Glencore assumed only 20 per cent of the costs; Makivik covered the remainder. As a result of the bilateral approach to this review, the parties were able to have deep and wide-ranging exchanges.

Separately, the Kativik Environmental Quality Commission (a permitting and licensing body) also conducted an independent review of the project.

REASONS FOR HIGHLIGHTING THIS PROJECT
Impact assessment review was done in cooperation with the proponent and the Indigenous government. The joint review allowed the Inuit and the company to integrate cultural information, revise the project, co-develop mitigations and monitoring measures, and jointly define levels of significance for each impact after mitigation and eventually settle on a decision with support for the project development. The case is also an example of a retrospective impact assessment that looked at changes that had occurred during the existing project's lifetime and compared them to predictions made prior to the project's approval, as well as (in cases like this where an expansion changed the original project) provided valuable insight into the ways that project management and monitoring should be changed in the future. Retrospective impact assessment is also discussed in Chapter 6.

Considering Aboriginal Traditional knowledge in environmental assessments conducted under the Canadian Environmental Assessment Act (2012) is a reference guide intended to provide general guidance on the consideration of Traditional knowledge. It is published by the Government of Canada.²⁹

CASE 10

Dundas Ilmenite Project | Greenland



THEME: MEANINGFUL ENGAGEMENT
Hiring local translators and guides that can facilitate community consultations helps ensure that meaningful engagement is inclusive, occurs with the right people and happens on time.

DESCRIPTION
In Greenland, Dundas Titanium A/S is developing a mining project called Dundas Ilmenite Project, which plans to collect ilmenite sand from a beach at Moriusaq (an abandoned settlement). The project is currently in the early stage between the scoping period / preparation of the Terms of Reference and the writing of the first draft of the EIA and Social Impact Assessment reports. The proponent hired a Greenlandic consultant company called Orbicon Arctic, assisting with EIA reporting as part of the scoping and pre-consultation process. This company conducted community consultations in Qaanaaq in February 2017, which is the Inuit community in the closest vicinity of the proposed mine site, Moriusaq being within the hunting grounds for the Inuit hunters in Qaanaaq.

The company has Greenlandic employees who already understand Greenlandic culture and the overall context, and in addition they chose to hire a local guide and translator from Qaanaaq to assist with community consultations. The guide had an intimate knowledge of the local community and in addition to translating she also helped by identifying who should, at a minimum, be consulted, who the relevant knowledge holders could be and how and where to advertise and organize the consultation meetings. The guide helped to set up consultation meetings during the whole week that the company spent in Qaanaaq. The usefulness of snowball sampling as a method to identify which members of the community to consult was apparent.

What the company found especially valuable was that the guide's intimate knowledge of the community context

gave her insights, which she shared with the company by adding more relevant knowledge to consultation statements and assisting with data interpretation for the pre-consultation report. Interestingly, while the guide shared additional information about what people said and did, she also pointed out what they did not say or do and their possible reasoning for this.

REASONS FOR HIGHLIGHTING THIS PROJECT
Typically the role of a translator or guide is thought of as a fairly superficial one, but in this case the role extended to be more of a facilitator for a complete mapping of interested parties, a more robust analysis, and hence, a more complete and accurate EIA documentation.

Social Impact Assessment Guidelines | Greenland³⁰

Social Impact Assessment (SIA) – Guidelines on the process and preparation of the SIA report for mineral projects (version 2, 2016), published by the Greenlandic Government, provides robust guidance for the content and methodology required in SIAs for mineral projects in Greenland. The requirement to conduct a separate SIA report on par with the EIA report ensures an equal and comprehensive emphasis on social impacts. The guidelines draw on experiences and international best practices, and support a transparent process with involvement of relevant stakeholders. They contain sections on pre-consultations, white papers, establishment of a consultation fund, impact benefit agreements, as well as Traditional knowledge and local knowledge.

There is also an annual governmental fund of 944 000 DKK of which citizens and relevant organizations and communities can apply for support to make investigations or seek counselling and to have meetings about social and environmental effects regarding specific mineral resource projects in Greenland.

Both Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) are mandatory according to Greenlandic mineral legislation.

CASE 11

White Mountain Anorthosite Project | Greenland



THEME: MEANINGFUL ENGAGEMENT & EMPHASIS ON SOCIAL IMPACTS

Conducting a comprehensive collection of social baseline data using multiple methods and sources helps ensure that social impacts are emphasized along with environmental impacts, and allows for adequate mitigation measures and monitoring of the effects of mitigation over time.

DESCRIPTION

A multitude of technical reports are required to obtain a mining license in Greenland and social impacts specifically are treated in a stand-alone report. The foundation for that is the Socio-economic Baseline Report. Hudson Resources, the proponent of the White Mountain Anorthosite Project, submitted a comprehensive Social Baseline Study³¹ that focuses on the social, economic and health parameters of communities that could potentially be affected by a mining project. The analysis includes among other aspects, changes to land use, labor force activity and demographic features, and also identifies topics of most concern to the public, including employment opportunities, Greenlandic traditions and local culture. The Social Baseline Study used several methods and sources including literature review and secondary data collection, consultations with key interested parties and data collection tours. It provided detailed data both for a Regional Study Area, comprised of Greenland in its entirety, and a Local Study Area, comprised of communities that have the potential to be affected directly or indirectly by the proposed mining project. As the Social Baseline Study is a public document, it has been translated into Greenlandic.

In addition, in regard to this project an Impact Benefit Agreement has been signed by three parties, the Hudson Resources, the Government of Greenland and the Qeqqata Municipality.³² An Impact Benefit Agreement is a condition for an exploitation license.³³ Impact Benefit Agreement is also discussed in chapter 6.

REASONS FOR HIGHLIGHTING THIS PROJECT

One of the major criticisms of extractive projects in particular is their inability to provide adequate social mitigation measures or to monitor and adapt mitigation measures over time. Only by having comprehensive baseline data on social conditions can this happen. According to Greenlandic legislation the social impacts are clearly emphasized as on par with environmental impacts.

The Government of Greenland, Naalakkersuisut, has taken measures to ensure transparency in the permitting of natural resource projects. Transparency is also highly prioritized in the Greenland Parliament, Inatsisartut, where all materials are available online to everyone across Greenland at the parliament of Greenland website www.ina.gl, where everyone is also able to follow political debates via livestreaming in the native language. Videos are logged in an archive so that everyone can watch the legislative decision-making process. In addition, the Government of Greenland, Naalakkersuisut, decisions are posted weekly on the Government website www.naalakkersuisut.gl.

As set out in regulations and guidelines, it is also mandatory that non-technical summaries of EIA/SIA reports, and other consultation materials from public consultation meetings, have to be available in native language versions. This includes “white papers”³⁴ which contain all oral and written consultation statements, the proponent’s replies to statements, comments from relevant authorities and scientific advisors, and descriptions of how and where statements lead to changes in the impact assessment reports.

CASE 12

Apartment Development Plan | Norway



THEME: MEANINGFUL ENGAGEMENT & COMPLEMENTARY KNOWLEDGE

Dialogue with Sámi reindeer herders started early and continued through the whole process making their knowledge prominent in the planning of the project.

DESCRIPTION

The proponent, Blåman Bygg AS, had an apartment development project (with 19 apartments) in Kaldfjorden, on Kvaløya island just outside Tromsø, Norway. The land the proponent wanted to use is very narrow and is squeezed in between two trafficked roads; it is also an area that is previously regulated as a migration corridor for reindeer.

In this case, the negotiations and dialogue between the proponent and the reindeer herders started unusually early in the process compared to most other projects. The proponent himself reached out first. This was before the planning program was developed and sent out for a public hearing.

Norwegian Institute for Nature Research, NINA, was hired in 2017 to prepare an EIA to analyze how the project would affect the reindeers’ use of the area. NINA started out with informal meetings and inspections in the planning area. These meetings were essential because tacit knowledge revealed more in detail of the reindeer herders’ use of the area.

The EIA indicated a negative impact on the reindeers’ use of the area and, as such, allowed the planning authorities to legally put an end to the project. The proponent however was eager to go on with the project and initiated a meeting with all parties included. In this meeting, the proponent and the reindeer herders came to an agreement. As the proponent also owned the land surrounding the planning area, the reindeer herders could write a contract with



Photo: Kaisa Sirén

Procedural guidelines on consultations between Norwegian Government and the Sámi Parliament | Norway

In Norway, the Sámi, as an Indigenous People, have the right to be consulted in matters that may affect them directly. The Government and the Sámi Parliament have agreed that consultations between State authorities and the Sámi Parliament shall be conducted in accordance with certain procedural guidelines. The substantive scope of consultations may include various issues, such as legislation, regulations, specific or individual administrative decisions, guidelines, measures and decisions. In matters concerning the material basis for the Sámi culture, including land administration, competing land utilization and land rights, the obligation to consult the Sámi Parliament is applicable to traditional Sámi areas.

the proponent to leave the space leading in and out of the planning area undeveloped, hence securing a migration corridor in the future. This corridor would be secured by permanent fenced facilities and the monitoring of the corridor was incorporated into the EIA's mitigation measures.

The negotiated migration corridor was also important for the locals because it is used as trails for Nordic skiing. It is an important corridor for wildlife in general as the planning area is located on the narrowest part of Kvaløya and is a small area/corridor without any infrastructure. These factors needed to be considered with the reindeer and the herders' needs. In this case coinciding interests required infrastructure free areas.

It should be noted that reindeer herders in Norway are always Sámi, which gives them certain protections in legislation and regulations. The implementation of Sámi culture and commercial activity (reindeer herder industry) is stated in Norway's Constitution; the Nature Diversity Act (§8), which requires Sámi knowledge to be implemented in the knowledge base when the authorities make public decisions; and the Planning and Building Act and its regulations that clarify the tools and instruments to be used by local and regional authorities in planning processes for reindeer herding areas in Norway.

REASONS FOR HIGHLIGHTING THIS PROJECT

The proponent reached out to the reindeer herders early in the process and continued dialogue with the herders throughout the entire process, including the permitting phase. The process was transparent, and all parties were involved in all steps of the process, making it feasible to perform an EIA in which the herders' opinions were reflected. Even though the reindeers and the herders came out with a narrower migration corridor and a loss in area, in the end, the solution was acceptable to all parties.

Using maps to assess and visualize impacts on biodiversity – GLOBIO3 Model³⁵

The GLOBIO3 Model is a tool to assess and visualize on maps the impacts of past, present and future human-induced stressors on biodiversity. It estimates the cumulative impacts on biodiversity from land-use change, infrastructure development, fragmentation, nitrogen deposition and climate change. The model has been used in UN Environment GEO-reports. The combination of GLOBIO3 maps and participatory mapping have proven to be an approach that can be used in impact assessment and support decision-making around development and adaptation. The tools have been used to collect and illustrate reindeer herders' land-use, their observation of change, their unique knowledge about the dynamics in the landscape in which they operate, as well as their assessment of the impacts of these changes on reindeer husbandry and Arctic ecosystems. The GLOBIO3 scenarios can facilitate dialogue and participation in planning to minimize negative effects on biodiversity and traditional livelihoods. Pilot studies using GLOBIO3 Model have taken place e.g. in Finnmark County, Norway and Nenets Autonomous Okrug, Russian Federation.

CASES

CASE 13

Hammerfest LNG Plant | Norway³⁶



THEME: MEANINGFUL ENGAGEMENT & COMPREHENSIVE APPROACH

The proponent used the information in the EIA to determine its comprehensive approach to community revitalization.

DESCRIPTION

Snøhvit is the first production facility for LNG in Europe, the world's most northern LNG plant and the first offshore project in the Barents Sea. When the Norwegian Parliament passed the Snøhvit Plan for Development and Operation in 2002, Hammerfest was a town in recession and was suffering from a declining population. By taking a comprehensive view of the role that EIA could play in local community revitalization, the proponent, Statoil (now Equinor) exemplified EIA as a project-management tool.

For the Snøhvit project, the impact assessment process was carried out in 2001 to map potential environmental and socio-economic consequences. During the construction phase, a ripple effect study, which included follow-up research on extended effects three years into operation (2010), was undertaken together with the municipality of Hammerfest and Finnmark County. This study covered issues such as economic extended effects, community planning and social changes.

As the project was an extremely complex one (primarily involving offshore oil exploration with the LNG Plant being the only onshore component), the EIA provided the framework for evaluating the whole project and laid the foundation for future studies that were done to monitor the effects of this project.

The proponent saw a need to document development processes, impacts and ripple effects, which was done through the Impact and Extended Effects Study. This looked at the extended and social effects during the construction phases (2002–2007). The Impact and Extended Effects Study was initiated at an early stage of the project and

went on throughout the entire construction phase. It was financed by Statoil, Hammerfest municipality and the county of Finnmark. The impact study covered three main areas: analysis of extended economic effects in the construction phase; community planning and the development of policies for business and commerce; and social changes in the period. Follow-up research on the extended effects two years into operation (2009) concluded the impact studies for the Snøhvit development. The follow-up research covered how and the degree to which the Snøhvit development had led to increased capacity in the Hammerfest area, as well as what the regional and local ripple effects were.

REASONS FOR HIGHLIGHTING THIS PROJECT

The approach to the Snøhvit development shows that EIA can be a valuable project management tool by both laying the foundation for understanding project's impacts and potential benefits while also allowing for impact mitigation and the implementation of benefits. Before the LNG plant, Hammerfest was a town in recession and the population was declining. The proponent had a unique and ultimately very successful approach to establishing business in Hammerfest by focusing on supplier development, cooperating with the municipality and good interest groups management.



Photo: Harald Pettersen

CASE 14

Koppera Wind Power Plant | Norway with impacts to Sweden



THEME: TRANSBOUNDARY IMPACT ASSESSMENT & MEANINGFUL ENGAGEMENT

Transboundary EIA project where weight was given to opinions from both Norway and Sweden.

DESCRIPTION

The Norwegian authority notified Sweden in 2012 in accordance with the Espoo convention regarding an extensive wind power farm very close to the Swedish border. Early in the EIA-procedure there was an information meeting in the nearby tourist village, Storlien, on the Swedish side and after the EIA report was submitted, the interest groups from the Swedish side were invited to a joint meeting on the Norwegian side in Meråker. The meeting was announced in the local media.

The comments from the Swedish side were very negative regarding the project, even after the design had been changed and the most critical wind power plants were removed and rearranged. The comments from Sweden focused on the harm to the Sámi community, nature conservation, outdoor recreation, the arctic landscape, as well as endangered species and tourism.

As a result, the project was rejected both from the Norwegian permit authority and, after appealed by the proponent, also by the final decision-maker, the Norwegian Ministry of Petroleum and Energy in 2017. In the decision statements from local, regional and central authorities in Sweden were given a heavy weight.

REASONS FOR HIGHLIGHTING THIS PROJECT

Meaningful engagement was carried out both in Norway (the state of origin) and Sweden, where project impacts were also felt. The process worked well and reflected the values of both Sweden and Norway. Public input from both countries clearly affected the outcome to the point where the project was rejected.

CASE 15

Sakatti Mine Project | Finland³⁷



THEME: MEANINGFUL ENGAGEMENT

Early coordination between the authorities; a comprehensive pre-consultation before the EIA started.

DESCRIPTION

The Sakatti project is a Copper-Nickel-Platinum discovery that is situated 150 km north of the Arctic Circle in Finland. The proponent is AA Sakatti Mining Ltd, an affiliate of Anglo American, a South African company with headquarters in Johannesburg and London. Part of the planned mine site is situated on a Natura 2000 nature conservation area, making the conditions of the planned mine specifically sensitive.

Before the start of the EIA in 2017, there were three preliminary consultation meetings held that included the proponent, participants from various authorities including those that oversee the EIA process (EIA competent authority), permitting, the Nature Conservation Act, Reindeer Husbandry Act, and Mine Act as well as representatives from Sodankylä municipality, and the regional authority in charge of land use planning.

REASONS FOR HIGHLIGHTING THIS PROJECT

Preliminary consultation has resulted in better coordination among the various authorities in terms of overall project planning and has been beneficial to the proponent, as it helps them integrate and streamline studies and manage the intricate web of necessary approvals. It also facilitates planning meaningful engagement with the public, as the whole process is better planned and coordinated by the EIA competent authority, other authorities and the proponent.

Guide for Impact Assessment on Reindeer Husbandry | Finland³⁸

Guide to examining reindeer husbandry in land use projects (2014) is published by the Reindeer Herders' Association of Finland. The Guide can be a useful source of information to all states where reindeer herding is practiced. The Guide is available in Finnish, English and Russian.

Mine Closure Toolbox and Socio-economic Assessment Toolbox³⁹

The Mine Closure Toolbox (2013) and Socio-economic Assessment Toolbox (2003, last updated in 2012) are relevant guidance for mining companies. Although developed by Anglo American, they are publicly available online.

Preliminary consultations between the proponent and authorities have been widely used in Finland, and the good experiences have led to their incorporation into legislation. Preliminary consultation was added to the Finnish EIA Act in 2017.



CASE 16

Yamal LNG Project | Russian Federation



THEME: MEANINGFUL ENGAGEMENT & EMPHASIS ON SOCIAL IMPACTS

International standards through an Environmental and Social Impact Assessment go beyond a traditional project-level EIA by highlighting the social impacts and providing a road map to both the environmental and social mitigation measures needed.

DESCRIPTION

Yamal LNG Project, operated by Joint Stock Company Yamal LNG, is an integrated project for gas production, liquefaction and shipment at the Yamal Peninsula. In addition to Russian law, codes and standards the Project needs to be consistent with international lender requirements like the International Finance Corporation/World Bank Group's Environmental, Health, and Safety Guidelines (April 2007), the Equator Principles (2013) and OECD's (Organization of Economic Cooperation and Development) Common Approach. These international standards emphasize the need for stakeholder engagement and are of key importance especially to ensure the opportunity to provide input to the impact identification, mitigation and monitoring process and that the performance of the project results in the greatest possible benefits to the community.

Processes have been put into place through which these guidance documents are operationalized, one of the most important of which is the Environmental and Social Impact Assessment (ESIA), which was carried out in Yamal LNG Project. An ESIA is a requirement of all the documents mentioned above and, using the World Bank as an example, is part of the process of compliance with the World Bank Safeguard Policies in relation to a project. More specifically, the ESIA provides a path for determining the environmental measures needed to prevent or mitigate negative environ-

mental and social effects associated with the project. The ESIA also documents all engagement with interested parties and summarizes how they have been informed and consulted on matters that could potentially affect them.

REASONS FOR HIGHLIGHTING THIS PROJECT

The Environmental and Social Impact Assessment (ESIA) for the Yamal LNG Project developed a detailed social baseline that demonstrates how environmental and social performance will be improved through a process of performance monitoring and evaluation. The ESIA provides a framework for how the project aims to maintain a process of meaningful engagement with interested parties over its lifetime.

CASE 17

Sakhalin II Project | Russian Federation⁴⁰



THEME: MEANINGFUL ENGAGEMENT & EMPHASIS ON SOCIAL IMPACTS

Implementation of international standards for Indigenous Peoples, and implementation of social impact management systems including a partnership programme Sakhalin Indigenous Minorities Development Plan.

DESCRIPTION

The Sakhalin II Project is an integrated oil and gas project for the international export of crude oil, condensate and LNG from Sakhalin Island operated by Sakhalin Energy. International lender requirements have been applied to Sakhalin II Project; and Environmental and Social Impact Assessment has been carried out and emphasis given to social issues.

The company has established a social impact management system to manage project activities that may impact on communities. The social impact management system includes the provision of a social performance policy and a rolling five-year social performance plan that defines key

performance improvement activities and targets for key performance indicators. To meet the social commitment, the social impact management system uses various processes already in place including the Sakhalin Indigenous Minorities Development Plan implementation plan.

There are roughly 4000 Indigenous Peoples who live in Sakhalin and they belong to four main ethnic groups: the Nivkh, the Uilta, the Evenki and the Nanai. Since 2006, the Company has been implementing a partnership programme called the Sakhalin Indigenous Minorities Development Plan in collaboration with the Regional Council of authorized representatives of the Sakhalin North Indigenous Peoples and the Sakhalin Oblast Government. The Development Plan is based on the international standards concerning Indigenous Peoples. The main objectives of the plan are to improve the quality of life of the Indigenous Peoples of Sakhalin, and assist them in the preparation of an independent fund to ensure the continuation of their way of life. All decisions on the distribution of funds are taken by the representatives of the Indigenous Peoples elected from each district of their traditional habitation.

Since most consultations for the Sakhalin Indigenous Minorities Development Plan took place during the winter months, a special focus was on enabling the most disadvantaged members of the local community, such a senior citizens, to attend. Vehicles were provided to those who needed them and younger community members escorted the elderly. Where possible, consultations were timed to start after the end of the day's fishing trips. Time was allocated for the participants to share their problems and concerns. The organizers made sure that all those present were treated respectfully and efforts were made to reach a consensus. As a result, the meetings turned out extremely long, but people felt that their presence mattered.

REASONS FOR HIGHLIGHTING THIS PROJECT

There is good consideration of social aspects in the project both on a programmatic level and in the concrete level in terms of paying attention to how and when people are able to engage and how that can be facilitated.



Photo: Sergey Sizonenko (photographer unknown)



Photo: Sergey Sizonenko

6

Models for Meaningful Engagement of Indigenous Peoples

Photo: Kaisa Sirén



This chapter highlights different models on the engagement of Indigenous Peoples that could assist the planning of meaningful engagement in the EIA process specifically within Indigenous communities. It also provides examples that illustrate these models. Some of the models represent emerging practices in environmental impact assessment, including Indigenous-led Impact Assessment and Indigenous knowledge-based Impact Assessment. Those concerning Collaborative Mitigation are more established and therefore are more widely used. The latter could be used in any arctic community as well as those models under Specific Impact Assessment. The content of this chapter was provided by a sub-project carried out by the Arctic Centre (University of Lapland) in close cooperation with the Arctic EIA project.⁴¹

Indigenous-led impact assessment

Indigenous-led impact assessment is a form of assessment that serves the purposes of Indigenous Peoples by empowering them to manage the impact assessment process themselves. The indigenous-led impact assessment can be defined as “a process that is completed prior to any approvals or consent being provided for a proposed project, which is designed and conducted with meaningful input and an adequate degree of control by Indigenous parties – on their own terms and with their approval. The Indigenous parties are involved in the scoping, data collection, assessment, management planning, and decision-making about the project”⁴². This approach relies on and aims for the protection of Indigenous culture, language, and way of life.⁴³

Indigenous-led impact assessment provides Indigenous oversight of a planned project’s EIA. It is an approach where the impact assessment is driven by Indigenous Peoples’ needs for information, priorities, worldview, and custom⁴⁴. The aim is not only to produce appropriate information that is beneficial for Indigenous communities, but it also seeks to strengthen engagement in decision-making. This approach can secure Indigenous Peoples’ engagement throughout the EIA-process. Previously Indigenous-led Impact assessments have been applied outside of legislated environmental assessment processes, but the situation is gradually changing. These processes are currently developed by Indigenous governments and groups. Indigenous-led impact assessment can be divided into three categories depending on the relationship with whom the assessment is realized: 1) Independent Indigenous Impact Assessment 2) Co-developed Impact Assessment with a proponent and 3) Co-managed Impact Assessment with government.⁴⁵

1. Independent Indigenous impact assessment

The assessment process is considered to be independent if Indigenous Peoples set up their own assessment for a proposed project, followed by a conditional setting process where Indigenous Peoples are free to provide or withhold consent. The proponent may wish to include such assessment in the project planning and provide the needed resources. Independent Indigenous impact assessment may

require more financial and human resources, but on the other hand independence can be a powerful tool for asserting and protecting Indigenous Peoples’ rights and empowering Indigenous communities.⁴⁶ If Indigenous Peoples are free to provide or withhold consent the process can be considered independent from the permitting point of view as well.⁴⁷

EXAMPLE CASE

The Squamish Nation Case of the Woodfibre LNG, British Columbia (Canada). Although not taking place within the Arctic region, this example is provided to illustrate how a project went through an independent Indigenous-led impact assessment designed by the Squamish Nation.⁴⁸

2. Co-developed impact assessment – Indigenous Peoples with the proponent

These models are co-developed by a proponent and Indigenous government. The idea is to create an impact assessment process that can benefit both parties by building a strong and lasting relationship between the proponent and Indigenous party early in project planning. The level of engagement can vary depending on the project. This type of relationship with the proponent in the co-development model could lead to negotiation of Impact and Benefit Agreements (IBA).⁴⁹

EXAMPLE CASE

Raglan Nickel Mine, Arctic Quebec (Canada), please refer to case 9 on chapter 5 (page 38).

3. Co-managed impact assessment – Indigenous Peoples with the government

In a co-managed impact assessment, the Indigenous party assesses the impacts of the proposed project alongside the governmental agency in the EIA process. Ideally, the co-management process is based either on a legislated framework or a signed agreement between the Indigenous party and government enabling joint decision-making, thus meeting the goals and aspirations of Indigenous parties.⁵⁰

EXAMPLE CASE

Tłıchǫ of the NICO Project, Northwest Territories (Canada) Please refer to case 8 on chapter 5 (page 37).

EXAMPLE CASE

The North Yukon Land Use Plan (Canada). The plan was completed in a democratic process for regional land use planning based on the Umbrella Final Agreement between The Yukon First Nations⁵¹, the Government of Yukon and Government of Canada. The regional plan was prepared by the Regional Land Use Planning Commission with members representing both the Yukon Government and the First Nations, which engaged stakeholders and the public in the process and assessed the social, environmental and economic values of the region.⁵²

Photo: Ole Geertz-Hansen

Strategic Environmental Assessment in land-use planning before EIA

Co-management can also be extended to land use planning. Land use planning aims to identify future land uses and depending on the planning, the impacts on environment can be assessed on a local, regional or strategic level. Even if the engagement of Indigenous Peoples is early in the EIA process, it is late in terms of influencing the nature and path of regional resource development. Agreements between government agencies and Indigenous Peoples can be drawn to allow engagement in the management of land and natural resources in government controlled land. This approach allows Indigenous Peoples to have a larger influence on the policies, planning processes and regional resource development to ensure that it reflects the community's economic, social, cultural and territorial vision of development. There is a wide spectrum of possible co-management systems, ranging from Land Claim Acts, institutionalized co-management, Co-operative and Co-management Agreements for fisheries, wildlife and other natural resources to different kind of joint monitoring systems.

MODELS

Indigenous knowledge-based impact assessment

Indigenous knowledge-based impact assessment is where the impacts of planned projects are assessed based on Indigenous knowledge. Ideally this approach can secure the use of Indigenous knowledge in decision-making processes. Moreover, it allows Indigenous Peoples to assess impacts on their language, culture and traditional livelihoods. In this approach the evaluation, verification and communication of analyzed information is conducted by Indigenous knowledge holders with appropriate expertise. This is in order to maintain the integrity of specialized information and avoid misinterpretation of Indigenous knowledge.

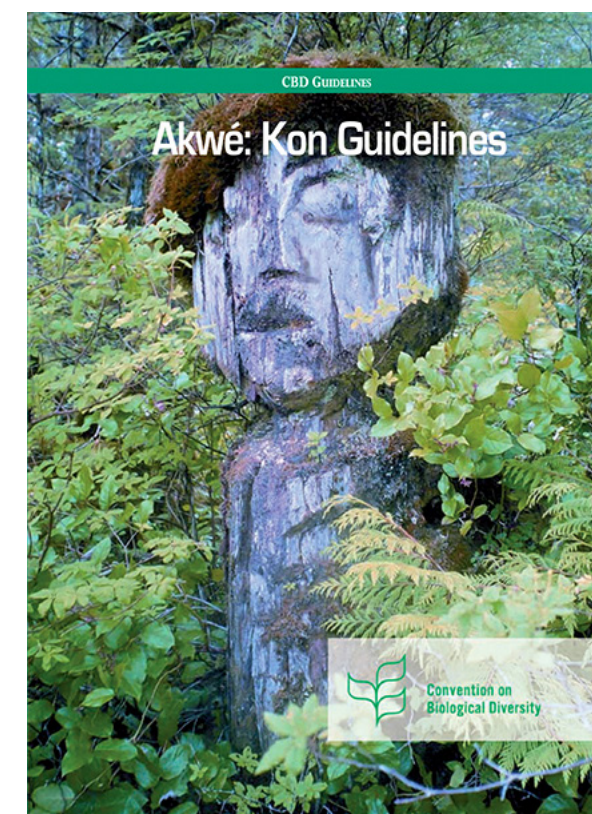
Akwé: Kon Guidelines

The Akwé: Kon Guidelines provide an example of how Indigenous knowledge-based impact assessment can be performed. The Guidelines can be referred to as a participatory mechanism and tool for the co-production of knowledge. These voluntary guidelines have been developed in accordance with Article 8(j) of the Convention on Biological Diversity⁵³. They are intended for the conduct of cultural, environmental and social impact assessment regarding developments proposed to take place on, or are likely to impact on, sacred sites, lands and waters traditionally occupied by Indigenous communities. Ideally the Guidelines provide a collaborative framework ensuring full involvement of Indigenous Peoples, including women, the youth, the elderly and other groups, in the assessment of the impacted area. Moreover, guidance is provided on how to utilize Indigenous knowledge as part of the impact assessment. The aim is to produce information on the impacts of proposed projects and thereby help to prevent negative impacts on the Indigenous Peoples' livelihoods.⁵⁴

The name Akwé: Kon is a Mohawk term, which means “*everything in creation*”, to emphasize the holistic nature of this instrument⁵⁵. The Akwé: Kon Guidelines can be applied in EIA processes and land use planning.

EXAMPLE CASE

Hammastunturi Wilderness Area land use plan (Finland). Metsähallitus⁵⁶ – a state-owned enterprise – and the Finnish Saami Parliament decided to collaborate and pilot the application of the Akwé: Kon Guidelines in compiling a management and land use plan for the Hammastunturi Wilderness Area. Finland was the first country in the world to apply Akwé: Kon Guidelines in environmental decision-making.⁵⁷



Secretariat of Convention on Biological Diversity,
CBD Guidelines Series (2004): Akwé: Kon Guidelines

Specific impact assessments

Health impact assessment (HIA)

For Indigenous Peoples, the natural environment is inseparable from culture and health. Health impact assessment is an approach for estimating the potential negative or positive impacts of proposed projects on health and well-being for Indigenous Peoples. The assessment should be carried out in a holistic and culturally appropriate way. For this purpose, indicators for health can be selected under Indigenous health frameworks, such as the Medicine Wheel. Assessment of health impacts provides Indigenous communities with data on health and well-being that is needed in EIA and supports Indigenous social and cultural determinations in health issues.

EXAMPLE CASE

Red Dog Mine, Alaska (USA), please refer to case 2 on chapter 5 (page 28).

The Medicine Wheel is a tool that has been used for health and healing by Indigenous Peoples of North America. There are more than one type of Medicine Wheels and the significance and use of the Wheel is culture-specific. In many Medicine Wheels, the circle represents the interconnectedness of life which is expressed in Four Directions: East, South, West, and North.

Ethnological expertise

Ethnological expertise is a model that can be carried out in places where projects can impact on Indigenous Peoples’ traditional lands and socio-cultural situations.

Example procedure: Law on Ethnological expertise, Republic of Sakha, Yakutia (Russian Federation). The regional law applies “in places of traditional residence and traditional activities of Indigenous Peoples of the North of the Republic of Sakha”. According to the law, ethnological expertise is a scientific study of how changes in the native habitat of Indigenous Peoples, as well as their social and cultural situation, would influence the ethnic group. Eleven ethnological examinations have been carried out and nine permissions for project realization have been approved between 2010-2018 in the Republic of Sakha.

Cumulative impact assessment

Cumulative impacts mean the overall impacts that are likely to result from a designated project in combination with other projects that have been or will be carried out, i.e. impacts on the environment, which result from actions of a proposed project when added to other past, present, and future actions. Indigenous knowledge can provide a holistic understanding of the cumulative impacts that can result from individually minor, but collectively significant, actions taking place over a period of time. Cumulative impact assessment can be referred to also as cumulative effect assessment. In general, there is a need for a better assessment of cumulative impacts in EIAs.

Example research case: Contested landscapes: Navigating competing claims and cumulative impacts in Northern Sweden (CO-LAND research project at Stockholm Environment Institute, Sweden). The project explored approaches to manage the cumulative impacts of multiple pressures in the traditional lands of the Sámi people. The focus is on the connectivity and quality of reindeer pastures, which serve as “indicators” for impacts.⁵⁸

Collaborative mitigation

Collaborative mitigation

...can be defined as an approach where Indigenous Peoples take part in a collaborative process to identify and implement measures to avoid, minimize, mitigate and/or compensate negative impacts, or potentially promote the positive impacts, of a project on the environment. The aim is not only to mitigate risks but also to maximize the benefits of affected Indigenous communities. An important aspect is capacity building at the community level. The collaborative process and involvement of Indigenous Peoples are intended ensure that mitigation measures take into a consideration Indigenous concerns.

Impact Benefit Agreements (IBA)

Impact benefit agreement is a contract made between a community and the proponent that requires the proponent to provide specific benefits and mitigation to Indigenous Peoples. In exchange, Indigenous Peoples agree to give their consent or support for a project to proceed – or at least not to oppose it. The capacity to negotiate and implement contractual agreements, such as IBAs, is vital in ensuring that proposed developments generate substantial benefits for Indigenous communities, and that the negative impacts are avoided or minimized.⁵⁹ IBAs can be negotiated as an adjunct to the EIA process. The negotiations can take place in different phases of the EIA process – prior to, during or after environmental assessment.

Example toolkit: IBA Community Toolkit: Negotiation and Implementation of Impact and Benefit Agreements⁶⁰ provides general information on the negotiation of impact and benefit agreements on Indigenous lands in Canada. It provides materials, tools and resources for communities engaged in negotiating IBAs with mining companies to help them address the process and content issues relevant to negotiating these agreements. The toolkit focuses on the mining industry but is relevant for other industry sectors as well.

Retrospective impact assessment

A retrospective impact assessment looks at changes that have occurred over time during the life of an existing project and compares them to predictions made prior to the project being approved. Results gained through retrospective impact assessment may be valuable to build into long-term impact benefit agreements.⁶¹

EXAMPLE CASE

Raglan Nickel Mine (Canada). Please refer to case 9 on chapter 5 (page 38).

Conflict Avoidance Agreements (CAA)

Conflict Avoidance Agreements may be used to avoid adverse impacts on the environment, to avoid conflicts and to ensure the solving of such conflicts, if a conflict takes place despite precautionary actions. The agreement is usually made between Indigenous Peoples and the proponent.

EXAMPLE CASE

Alaska Eskimo Whaling Commission Conflict Avoidance Agreement (USA). The Alaskan Eskimo Whaling Commission works annually with industry partners to develop mitigation measures that allow industry to conduct their work while maintaining the availability of marine mammals for Indigenous subsistence hunters.⁶²

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Appendix I – Country Specifics of EIA Legislation in Arctic Countries

CANADA

At the **federal level**, the *Canadian Environmental Assessment Act* (CEAA) dictates Canada’s EIA process for much of the country, notably the southern provinces. In addition to federal legislation, Canada’s provinces also impose requirements for environmental impact assessments. The Government of Canada has a duty to consult, and where appropriate, accommodate Aboriginal Peoples when it considers conduct that might adversely impact potential or established Aboriginal or treaty rights. In the Canadian legal context, the state’s duty to consult is not informed by international law obligations but is seen first and foremost as a basic constitutional right.

In Canada’s north, where there are territories, not provinces, and where most of the land is covered by modern land claims agreements with the Indigenous Peoples, processes for land and resource management (including environmental and socio-economic impact assessment) are set out in those agreements and implemented through associated legislation. This is generally referred to as a co-management process or co-management of resources, which mandates Indigenous involvement in the independent review bodies for EIA. This role is secured through the modern treaties negotiated between Indigenous Peoples and Canada. Various boards (e.g., land use planning boards, impact review boards, wildlife management boards, water boards) established under the agreements are responsible for assessing projects, from conformity with land use plans, through impact assessment and the subsequent regulatory processes. Review Boards make recommendations to federal, territorial, and Indigenous government decision makers.

The EIA regime in **the Northwest Territories** is divided between the Inuvialuit Settlement Region and the Mackenzie Valley. The Northwest Territories has assumed control over land and resource management through devolution agreements.

In **Nunavut**, environmental impact assessments are required under the Nunavut Agreement and the Nunavut Planning and Project Assessment Act. Reviews follow the Rules of Procedure of the Nunavut Impact Review Board (NIRB).

Yukon Territory has assumed control over land and resource management through devolution agreements. The Yukon Environmental and Socio-Economic Assessment Act (YESAA) requires environmental impact assessments when a project activity is specifically listed and requires a permit, authorization or transfer of land, or utilizes federal funding. The body administering the YESAA is the Yukon Environmental and Socio-Economic Assessment Board (YESAB).

FINLAND

As Finland is a member state of the European Union (EU), the *EIA directive* of the EU sets a minimum framework for the national legislation laid out in the *Act on the Environmental Impact Assessment Procedure* (252/2017). EIA can be conducted as a separate procedure or in a joint process with a project specific land use plan. The competent EIA authority in Finland is generally the regional environment authority. For nuclear energy projects, the competent authority is the Ministry of Economy and Employment. The scoping phase is compulsory. Preliminary negotiations between the proponent, competent authority and other applicable authorities are a distinctive feature of the EIA process in Finland. In these preliminary negotiations the best practices to carry out the EIA are identified. The idea is also to support and streamline the planning of the whole process, including EIA, land use planning and permitting.

The proponent is in charge of completing the scoping document and the EIA report. The competent EIA authority allows the public access to both documents for 30 to 60 days. Other authorities and the public can express their views during this time. The competent authority writes a statement on the adequacy of the scoping document and a reasoned conclusion on the EIA report, which includes an opinion on the significant impacts of the project. This reasoned opinion will be later taken into account in the permit consideration.

The *Constitution of Finland* from 1999 grants the Sámi linguistic and cultural self-government, which is related to the Sámi as an Indigenous Peoples. It is in addition reiter-

ated in the Act on the Sámi Parliament (974/1995), which also includes a provision on the authorities’ duty to negotiate with the Sámi Parliament in all far-reaching and important measures which may directly and in a specific way affect the status of the Sámi as an Indigenous People and the Sámi homeland. The voluntary Akwé: Kon Guidelines (discussed in the chapter 6) are recommended to be taken into account in the preparation, planning and assessment of impacts of projects affecting the Sámi homeland.

ICELAND

The first Environmental Act in Iceland was passed in 1994. The EIA legislation has evolved since its adoption in Iceland and the EIA law has been revised in various instances. Iceland has signed the European Economic Area agreement and implemented the EU EIA Directives into its domestic legal system.

EIA in Iceland is regulated by *Environmental Impact Assessment Act (No. 106 of 2000)*. The Act applies to proposed projects, which may have significant environmental impacts on land, in Icelandic territorial waters, air space or the Icelandic pollution zone. The Act lays out the projects which are always subject to an EIA and projects that need to be notified for a decision on the application of EIA. The competent authority in the EIA process is the National Planning Agency. The National Planning Agency decides on a case-by-case basis whether or not they are subject to an EIA. When EIA applies to a project, the project will not be granted consent before an EIA has been carried out. The decision to grant or withhold a permit takes into account the outcome of the EIA. The Environmental Impact Assessment Act includes the provisions on public participation and informing the public.

Distinctive features in Iceland’s EIA process include assessing a project’s impact on the visual landscape. Some EIAs carried out in Iceland have had a very detailed assessment of visual impacts. Further, the assessment of visual impacts has been given particular attention in the EIA research in Iceland. There are ongoing efforts by private industry collaborating with Reykjavik University to establish criteria for evaluating the effects of projects on the visual landscape.

KINGDOM OF DENMARK, GREENLAND AND FAROE ISLANDS

Greenland has two EIA processes, one for mineral extraction projects governed by the *Mineral Resources Act* (MRA) and another for all other projects under general EIA legislation under the *Environmental Act*.

The Mineral Resources Act was passed within six months of the switch to self-governance in 2009 and has been later amended in order to engage the public earlier in the EIA process. A social impact assessment is required for mineral and for oil or gas projects. The Mineral Resources Act lists those activities for which a license will only be granted after an EIA.

All projects not subject to the Mineral Resources Act, are subject to national EIA legislation that resembles the EU’s EIA Directive: The Environmental Act supplemented by the *Protection of Nature Act* of 2003, which requires an assessment of consequences for nature. For projects that affect the marine environment, Greenlandic and Danish acts regarding the protection of the marine environment need to be taken into account. A social sustainability assessment (SSA) is required for activities assumed to have significant impact on social conditions.

The Act on Greenland Self-Government (Act no. 473 of 12 June 2009) contains jurisdiction of the Self-Rule governance of natural resources, which provisions need to be taken into account in EIAs in Greenland. When the wording *National EIA Legislation* is used for Greenland, it means legislation passed by the native Greenlandic parliament Inatsisartut and implemented by the Greenlandic Government Naalakkersuisut, representing Greenlandic people.

Faroe Islands. As a self-governing territory of Denmark, the Faroe Islands’ EIA legal framework is a combination of provisions given by Faroese and Danish authorities. For onshore environmental affairs, the Faroe Islands has sole legislative and administrative authority. Marine environmental protection is considered a common affair; therefore, it belongs within the competence of the Danish authorities.

NORWAY

Norway is not a European Union (EU) member, but as a member of the European Economic Area, it has incorporated the *EIA Directive* of the EU into its domestic legal system. The system consists of three separate processes, one for land-based projects, one for maritime projects, and one exclusive for projects on Svalbard. Onshore projects, which meet specified criteria, are governed by the *Planning and Building Act*. Offshore oil and gas projects are regulated by the *Petroleum Act*. The Planning and Building Act (PBA) includes a *Regulation on EIA to the PBA*. It applies to national, regional and local projects and encompasses both community and land use planning. It contains a list of projects, whose environmental impacts will always be significant enough to require an EIA.

The impact assessment shall identify and describe the factors that may be affected and assess significant impact on the environment and society, including nature diversity, ecosystem services and Sámi nature and cultural foundation. The cumulative impact of a plan or initiative shall also be considered in light of the plans or initiatives that have already been implemented, adopted or approved in the influence area. Where reindeer interests are affected, the overall impact of the plans and initiatives within the relevant reindeer grazing district shall be considered. The impact assessment shall also contain a description of the methods used to identify the impact on the environment and society. The impact assessment shall describe the planned initiatives in order to avoid, limit, remedy, and if possible, compensate for the significant adverse effects on the environment and society both in the construction and operation phase. The description shall include planned monitoring schemes, as well as impacts across national boundaries.

Participatory mechanism for the meaningful engagement of Indigenous Peoples: The consultation procedures are based on article 110a of the Norwegian Constitution and two consultation agreements (Basic Consultation Agreement and Consultation Agreement on Conservation 2007).

RUSSIAN FEDERATION

Environmental impact assessments are mandatory in Russia for planned economic activity and projects that may have a direct or indirect impact on the environment, as laid out in *The Federal Law on environmental protection No.7-FZ, 10 January 2002*. Article 42 of *The Constitution of the Russian Federation* states: “everyone has a right to a favorable environment, as well as reliable information about it”.

The Regulation on the Assessment of Environmental Impact *Order of the State Ecology Committee of the Russian Federation No.372, 16 May 2000* describes the main principles, procedure and requirements for EIA materials as well as public participation. There are two main forms of EIA consultation of local people and Indigenous communities. *One under the system of National Cultural Autonomy (NCA)*. *The Law on National Cultural Autonomy 104 (NCA Law)* defines an NCA as a form of national and cultural self-determination. The second is Multiple mechanisms of consultation, which includes various (non-NCA) consultative councils, public chambers, and Houses of Nationalities.

Federal Law on ecological expertise (*No.174-FZ, 23 November 1995*) sets out requirements for ecological experts to review EIAs. Ecological expert reviews are carried out by the following institutions: State ecological expertise (*gosudarstvennaya ekologicheskaya expertiza*) and public ecological expertise (*obshchestvennaya ekologicheskaya expertiza*), with the addition of anthropological expert review (*etnologicheskaya expertiza*).

SWEDEN

The European Union EIA directive sets the framework for the Swedish EIA legislation. The EIA process and the content of the EIA report are set out in Chapter 6 of the Environmental Code (1998:808) and in the underlying Environmental Impact Ordinance (2017:966). An EIA report must be prepared before the permit application is made, and it should be submitted as a supplement to the application.

Other legislations as The Minerals Act (1991:45) that regulates the concession for mining activities refers to the EIA legislation in the Environment Code. For example, the infrastructure legislation on Road and Railway (1971:948, 1995:1649) contains references to specific paragraphs in the Environmental Code.

When preparing the permit application and the EIA report, the applicant is obliged to consult the County Administrative Board, the supervisory authority and the private individuals likely to be particularly affected by the activity. For activities which typically have significant environmental impacts, the applicant is also obliged to consult central government agencies and the municipalities, the public and the organizations that are likely to be affected by the activity. These consultations are a major input in determining the scope and scale of the EIA report and must therefore be carried out in good time before the report is finalized. Upon receiving the EIA report, the permit authority is obliged to publicly announce the report and make it available to the general public. The public should be given the opportunity to comment on the EIA report.

The permit authority is also obliged to give a reasoned conclusion on the significant effects of the project and to decide if the requirements of the EIA legislation have been fulfilled.

UNITED STATES

The United States government is legally required to undertake an assessment of environmental effects of proposed actions prior to their implementation under the *National Environmental Policy Act* (NEPA) passed in 1969 and enacted in 1970. The State of Alaska does not have its own EIA legislation and uses the Federal rules, when it is implementing a Federal action, such as a transportation project under a memorandum of understanding, with the U.S. Department of Transportation. The unique legal status of American Indian and Alaska Native tribes creates an important requirement for governmental entities, and other EIA stakeholders, to understand that the federal government has to consult directly with tribal governments when contemplating actions that may affect the tribal lands, resources, members, and welfare. The Federal government collaborates directly with tribal governments in a consultative process, which leads to decision-making.

In Alaska, the two primary state agencies who participate in the EIA process are the (1) Department of Environmental Conservation, which regulates air quality, spill prevention and response, environmental health, water quality, food safety, contaminated sites and environmental crimes, and (2) the Department of Natural Resources, which manages most state-owned lands, water and natural resources.

The Department of Natural Resources consists of smaller divisions, which oversee oil and gas, land and water, mining, forestry, agriculture, outdoor recreation and geological and geophysical surveys. These two agencies work together with proponents, federal agencies and Indigenous representatives to collect data, to understand the current environment and to recognize and assess potential effects of proposed actions. There are over two hundred federally recognized Alaskan Native Tribes with individual knowledge bases. The EIA process often has to face difficulties, such as the vast distances, harsh climates, and limited access. Despite this, there is an opportunity for the public to comment throughout the different stages of the process.

**Executive Order 13175 of November 6, 2000 Consultation and Coordination With Indian Tribal Governments*
**The White House, Presidential Memorandum on Tribal Consultation Memorandum for the Heads of Executive Departments and Agencies*

Appendix II – Definitions for the Purposes of the Report

Arctic – refers to the polar region that comprises the Northern regions of eight states: Canada, Finland, Iceland, Kingdom of Denmark, Norway, the Russian Federation, Sweden and the United States. The Arctic has also vast areas beyond national jurisdictions.

Competent authority – usually a government agency, the competent authority has the legal authorization and responsibility to carry out specific actions in the process of environmental impact assessment.

Dialogue – interaction that emphasizes listening, exchange of opinions, talking about experiences and seeking out common understanding in respectful conditions.

Environment – in the context of EIA, the definition of environment typically encompasses the entire ecosystem including people and communities, nature and resources, as well as the cultural setting and identity of places. However, the definition of the environment may vary in different jurisdictions.

Environmental impacts – based on the ‘broad definition’ of the environment above, environmental impacts refer to impacts on the natural, social and cultural environment.

Environmental Impact Assessment (EIA) – refers to the assessment of impacts of a proposed project on the natural, social and cultural environment. In some states there are environmental impact assessments – referring thus on natural environment only – and social impact assessments (SIA) separately.

EIA report – the Environmental Impact Assessment report is typically prepared by the proponent and provides a non-technical executive summary, describes the project, the process of meaningful engagement, the potential impacts on the environment, alternatives of the project, and mitigation measures to reduce adverse impacts.

EIS, Environmental Impact Statement – in essence, contains the same information as the EIA report. EIS is a term used mainly in USA and Canada.

Espoo Convention – the United Nation’s Economic Commission for Europe’s Convention on EIA in a Transboundary Context. It lays down the general obligation of states to notify and consult each other on projects with likely significant adverse impact across boundaries.

Indigenous knowledge – is a systematic way of thinking and knowing that is elaborated and applied to phenomena across biological, physical, cultural and linguistic systems. Indigenous knowledge is owned by the holders of that knowledge, often collectively, and is uniquely expressed and transmitted through Indigenous languages. It is a body of knowledge generated through cultural practices, lived experiences including extensive and multi-generational observations, lessons and skills. It has been developed and verified over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation.

Local knowledge – refers to knowledge of all Arctic residents, who inhabit a specific geographical area. Local knowledge is adapted to the local culture and environment and is embedded in community practices and institutions. It can include experiences, skills, practices and learning that have been developed, used, sustained and passed on from generation to generation within a community. It can also include knowledge derived from formal schooling.

Meaningful Engagement – refers to a process of participation that is promoting and sustaining a fair and open dialogue. It recognizes the needs, concerns and values of the public and provides the public a genuine opportunity to influence decisions made during an EIA.

Memorandum of Understanding – A memorandum of understanding (MOU) is a nonbinding agreement between two or more parties outlining the terms and details of an understanding, including each parties’ requirements and responsibilities. A MOU is often the first stage in the formation of a formal contract.

Proponent – A project proponent is most typically a company proposing a development; however, a proponent can also be a government entity or organization, such as an NGO. The proponent is the one that either formally initiates the EIA process and/or the permitting and licensing procedures. The word “developer” is also used in some jurisdictions in the same meaning.

Traditional ecological knowledge – refers typically to Indigenous knowledge that is determined above.

Traditional knowledge – refers typically to Indigenous knowledge that is determined above.

Transboundary impact – means any environmental impact within the affected state that is caused by an activity located in another state. In Canada, transboundary means additionally impacts between territories or territories and provinces.

White Paper – in connection to Social Impact Assessment (SIA) for mineral projects in Greenland, a White Paper is a public document which has a clear structure and is designed to answer relevant consultation statements and comments on the project which have emerged during the consultation phase. The structure of the White Paper ensures listing of questions, replies to these questions and references to how and where the outcome of the replies will be adjusted in the SIA report.

Appendix III – Sources

Sources marked with a * can be found at the SDWG webpages: www.sdwg.org/activities/sdwg-projects-2017-2019.

Questionnaire reports:

Analysis of the (on-line) Questionnaire of Arctic EIA – General questions about EIA. Compiled and assessed by Aino Voutilainen, University of Jyväskylä, January 2018. *

Questionnaire Summary of the Arctic EIA. Compiled and assessed by Aino Voutilainen, University of Jyväskylä, January 2018. *

Summary of the answers from Russia for the EIA Analysis Questionnaire. Compiled and translated by Marina Nenasheva and Alexander Saburov (Northern Arctic Federal University at Arkhangelsk), April 2018. *

Workshop reports:

Alaska Workshop Summary and Report: Meaningful Engagement of Indigenous Peoples within the Environmental Impact Assessment, Utqiagvik, Barrow, November 27–29, 2017. *

Nordic Workshop Summary: Tomorrow’s Arctic EIA – Possibilities and Perspectives to Environmental Impact Assessment in the Arctic, Rovaniemi – Finland December 11–12, 2017. *

Canada Workshop Report: Arctic Environmental Impact Assessment Workshop, Yellowknife, Northwest Territories, April 24–26, 2018. *

Environmental Impact Assessment Workshop Report. Gwich’in Council International’s Workshop in Inuvik, April 19–20, 2018 [<https://gwichincouncil.com/arctic-environmental-impact-assessments>]

Draft report of an Arctic EIA workshop (1,5 h) in the Annual meeting of the Arctic Economic Council in Kiruna, Sweden. Conducted by the Editorial Group members Kjerstin S. Lange and Pamela Lesser. May 2018.

Other main sources:

Guidelines for Environmental Impact Assessment (EIA) in the Arctic. Arctic Environment Protection Strategy. 1997. *

Gibson, Ginger; Hoogeveen, Dawn & Alistair MacDonald & The Firelight Group. 2018. Impact Assessment in the Arctic – Emerging Practices of Indigenous-led Review. Gwich’in Council International. [<https://gwichincouncil.com/arctic-environmental-impact-assessments>]

Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA) – Report Part I – Arctic Council and Indigenous Engagement – A Review. [<https://pame.is/index.php/document-library/pame-reports-new/pame-ministerial-deliverables/2017-10th-arctic-council-ministerial-meeting-fairbanks-alaska-usa/274-meaningful-engagement-of-indigenous-peoples-and-communities-in-marine-activities-mema-part-i-report-for-information/file>]

Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA) – Part II Report – Findings for Policy Makers. Draft, December 20, 2018.

Koivurova, Timo & Lesser, Pamela. 2016. Environmental Impact Assessment in the Arctic: A Guide to Best Practice.

Appendix IV – Objectives, Approach, Procedure and Organization of the Arctic EIA Project

Good Practice Recommendations for Environmental Impact Assessment and Public Participation in the Arctic (Arctic EIA project) was an endorsed project of the Sustainable Development Working Group (SDWG) of the Arctic Council. The Arctic EIA was led by Finland during the Finnish Chairmanship of the Arctic Council 2017–2019. The project was co-led by Canada, the Kingdom of Denmark and the Gwich’in Council International, all of whom formed the Steering Committee of the project.

The Arctic EIA project continued the previous cooperation of the Arctic states in furthering the good practices of EIA in the region. The previous cooperation was initiated in the 1990’s during the Arctic Environmental Protection Strategy (AEPS), the predecessor to the Arctic Council. The result of that cooperation, *Guidelines for Environmental Impact Assessment in the Arctic* was published in 1997. The Arctic EIA project was building on top of that work, with the focus on addressing more recent developments.

The objectives of the Arctic EIA project set in the beginning of the project were:

1. To ensure that environmental considerations specific to the Arctic, including social and health aspects, are explicitly addressed and incorporated into the planning, design and decision making of large-scale economic projects.
2. To identify existing good practices through sharing and learning with the aim of developing good practice recommendations for EIA in the Arctic.
3. To promote meaningful practices of public participation, especially the participation of Indigenous Peoples, and the integration of traditional and local knowledge in EIA within the Arctic.
4. To build a viable network of Arctic EIA actors.

From the outset, the approach of the project was an expert group study adhering to the principle of knowledge co-creation. The core of the expert group consisted of a full-time project coordinator and a part time project lead from the Finnish Ministry of the Environment, and a part time project assistant from the Arctic Centre, University of Lapland. The larger pool of experts consisted of the project team, called the *Editorial Group*, who voluntarily gave their time and devotion to the project in addition to their own work.

The Arctic states – Canada, Finland, Iceland, the Kingdom of Denmark, Norway, the Russian Federation, Sweden and the United States – each nominated an expert to the Group as did the six organizations of Indigenous Peoples who comprise the Permanent Participants of the Arctic Council: Aleut International Association, Arctic Athabaskan Council, Gwich’in Council International, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North and Saami Council. In the Editorial Group there was also a representative from the Arctic Economic Council, and the project assistant of the Arctic Centre participated in the Editorial Group’s work. The Group was chaired by the Finnish Ministry of the Environment.

The 1997 *Guidelines for Environmental Impact Assessment* in the Arctic was used as a starting point, but not aimed at renewing them. Instead, the project sought to find recent good practices, identify areas for improvement and formulate good practice recommendations for EIA and public participation, which later was superseded by the term ‘meaningful engagement’. Because the context, EIA legislation and common practices differ in the Arctic, there is no one model good practice for all. At the same time experiences can be shared and ideas circulated and further refined based on shared good practices and lessons learned.

There was an online questionnaire in English on good practices available on the internet from September to December in 2017. The Russian language version was translated and distributed separately within the Russian Federation by the Russian member of the Editorial Group. Information about the questionnaire was distributed by the Editorial Group members and in the Newsletter of the project. There were 37 answers in English from seven countries and 26 answers in Russian. The information gained has been evaluated.

ed by the Editorial Group and the subsequent reports of the questionnaire are found on www.sdwg.org.

When formulating the questionnaire at the beginning of the project, there was considerable discussion about the criteria for determining a “good practice”. Instead of a rigid definition, the Editorial Group decided to go with the following expressed in the introduction of the questionnaire:

“ Different actors have different views on what works well and what does not in the process of EIA. Generally good practice can be defined as practice that has proven to work well and has produced good results, and can therefore be recommended as a model.

The determination of good practice was left up to the respondents who answered the questionnaire and has therefore been part of a process to which one could contribute to the project as part of knowledge co-creation.

There were elements of participatory observation in the work of the Editorial Group, since many of the members participated in some, and some participated in all, of the workshops that were arranged by the Arctic EIA project in cooperation with local partners. The three workshops were:

- 1. **Meaningful Engagement of Indigenous Peoples within the Environmental Impact Assessment** held in Utqiagvik (Barrow), Alaska, United States on November 27–29, 2017
- 2. **Tomorrow’s Arctic EIA: Nordic Possibilities and Perspectives to Environmental Impact Assessment in the Arctic** held in Rovaniemi, Lapland, Finland on December 11–12, 2017
- 3. **Arctic Environmental Impact Assessment Workshop** held in Yellowknife, Northwest Territories, Canada on April 24–26, 2018

Altogether there were about 180 participants in the workshops. The presentations, reports of the workshops and discussions with the workshop participants were important in the process of knowledge co-production. The presentations and reports are available on the webpages of the Sustainable Development Working Group (SDWG) of the Arctic Council www.sdwg.org.

The Arctic EIA project included a sub-project entitled *Enhancing Indigenous Participation in the Arctic Environmental Impact Assessment* carried out by researcher Assi

Harkoma from the Arctic Centre of the University of Lapland in conjunction with the Sámi Parliament of Finland.

The Editorial Group held three meetings that were important milestones of the project: June 2017 in Rovaniemi the project was kicked-off and it was agreed how the project will proceed in its work. April 2018 in Yellowknife where key themes and the structure of the report were discussed. October 2018 in Helsinki, which was the final face-to-face meeting of the group, the draft of the report and recommendations were further refined. Additionally the group worked electronically and had two teleconference meetings. The report including recommendations was delivered to the Sustainable Development Working Group (SDWG) of the Arctic Council in January 2019.

Thanking the organizers and sponsors

Alaska workshop organized by Institute of North and Voice of the Arctic Iñupiat, and assisted by Inuit Circumpolar Council Alaska. Sponsors: North Slope Borough, North Slope Science Initiative, ConocoPhillips and ExxonMobil.

Rovaniemi Nordic workshop organized in cooperation with Stockholm Environment Institute (REX-SAC & CO-LAND projects; Resource Extraction and Sustainable Arctic Communities & Contested landscapes: navigating competing claims and cumulative impacts in Northern Sweden) and the Swedish University of Agricultural Sciences (Indigenous Rights and the Global Politics of Resource Extraction: The Case of Mining in Sápmi). Sponsor: Nordic Council of Ministers.

Yellowknife (Canada) workshop organized and sponsored by Indigenous and Northern Affairs Canada, Canadian Northern Economic Development Agency, Government of Northwest Territories and Mackenzie Valley Review Board.

In addition Gwich’in Council International organized a Gwich’in workshop on Environmental Impact Assessment in Inuvik, Canada, April 19–20, 2018, and produced a research paper Impact Assessment in the Arctic – Emerging Practices of Indigenous-led Review (2018).

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**“ To communicate and truly collaborate –
that’s what the question is about.**

This quote was expressed in one of the workshops organized as part of the Arctic EIA (Environmental Impact Assessment) project when seeking themes needing specific attention to improve EIAs in the Arctic. Improving meaningful engagement when implementing environmental impact assessments was identified as a top priority. Another identified priority was the utilization of Indigenous knowledge and local knowledge in addition to acquiring data by conventional ways. The third theme emphasized was the importance of completing transboundary environmental impact assessments when necessary.

The report introduces the three themes, concludes with good practice recommendations and highlights these through various case examples.

The Arctic EIA project was completed under the auspices of the Sustainable Development Working Group of the Arctic Council during the Finnish Chairmanship 2017–2019.

ARCTIC EIA



Sustainable Development
Working Group



ARCTIC COUNCIL