





## ***Environment and Climate Change***

The *Blue Economy Strategy* engagement paper proposes to foster initiatives that encourage job creation and sustainable economic opportunities, as well as a new conservation economy for Indigenous communities with a view to achieving “growth and prosperity for all”. The KEAC is of the opinion that, above all else, conservation is the key to the long-term prosperity of the residents of Nunavik. The region’s natural environment is sensitive and prone to recover only slowly from disturbances, while local communities are reliant on the natural environment for subsistence and cultural purposes. In this context, the KEAC feels a proper balance must be found between conservation and other initiatives. The precautionary principle is particularly relevant in Nunavik, where baseline data is limited and gaps exist in understanding of the important ecological functions of arctic systems<sup>4</sup>.

Climate change and adaptation to unpredictable weather conditions are already a reality in Nunavik. Climate change is a threat to both the integrity and quality of the marine food chain, a source of many elements essential for the health of Inuit communities<sup>5</sup>. Climate monitoring initiatives have been undertaken by the KRG under certain federal-government programs. The *Blue Economy Strategy* could serve to strengthen these initiatives through the development of research activities related to monitoring and community adaptation.

## ***Science and Information***

Research projects that combine traditional knowledge and Western science have been shown to improve environmental and social resilience in the north. The Arctic Corridors<sup>6</sup> project is an excellent example: mixing the two types of knowledge made it possible to identify low-impact marine shipping corridors to reduce the risks posed by increased maritime traffic in the arctic<sup>7</sup>. Simple solutions were developed through this process, including prohibitions from anchoring in certain areas at certain times of the year, slower ship speeds during hunting seasons in order to reduce underwater noise, and no ice-breaking activities at specific times of the year.

A further scientific issue concerns the availability of charting information in the north. Chart data is fragmented and the compilation of more complete information would be useful before any marked increased in maritime traffic occurs in the Nunavik marine region. Comtois et al. (2019) have pointed out that marine carriers possess a large amount of data and that a government strategy promoting intelligent navigation through interconnected information systems would increase the resilience of commercial navigation in Nunavik.

## ***Safety in the Nunavik Marine Region***

In order to support the participation of Nunavimmiut in the blue economy, safety issues must be taken into account. Climate warming will produce more maritime traffic in northern waters and some actors are hopeful use of the Northwest Passage will soon cut travel times and costs

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<sup>4</sup> *Arctic Environment Protection Strategy* (1997). Guidelines for Environmental Impact Assessment (EIA) in the Arctic. Sustainable Development and Utilization. Finnish Ministry of the Environment, Finland, 50 p.

<sup>5</sup> Lemire, op.cit.

<sup>6</sup> <https://www.arcticcorridors.ca/>

<sup>7</sup> <https://nunatsiaq.com/stories/article/research-team-injects-inuit-views-into-ottawas-plan-for-safe-arctic-shipping/>

between the Atlantic and Pacific oceans<sup>8</sup>. However, prevailing weather conditions in Nunavik, such as fog, winds and changing water levels, already have a considerable impact on ship movements as well as on cargo unloading and loading activities<sup>9</sup>. A study carried out by the Ministère des Transports du Québec (transportation, MTQ) and the Université de Montréal in 2019 suggested that “by 2040, access to coastal waters around all the northern villages will face an increase in the level of vulnerability due to climate change related to significant temperature variability (25°C in one day). This vulnerability could affect the manoeuvrability of ships and increase risks for fuel-cargo unloading operations”<sup>10</sup> [translation]. By way of example, the vulnerability factors cited by the study’s authors included reduced visibility and an increased risk of flooding of docks and cargo handling areas.

Currently, no inshore rescue boat stations are present in Nunavik, although the possibility of establishing a station in Kuujuaq was discussed during a CCG–DFO mobilization session for Nunavik representatives in the spring of 2019. In addition, no CCG environmental response equipment storage facilities are present in the region. Fuel is supplied by ship in Nunavik and, while these ships possess all the equipment required by regulation in the event of a spill, additional equipment should be available in key communities to improve response times. The closest storage facilities are currently located in Iqaluit and Churchill. This situation adversely affects response times in case of environmental emergency.

According to the findings of the study requested by the MTQ, the construction of a distress harbour would improve safety for all users of the Nunavik marine region in the context of climate change. A distress harbour “would provide shelter and guarantee the safety of ships in all climatic circumstances. It could be equipped to handle necessary ship repairs and stocked to respond to fuel spills in arctic waters. A distress harbour would also have the capacity to offer medical services for injured individuals and temporary accommodation for other crew members affected by ship breakdowns and accidents”<sup>11</sup> [translation].

Finally, maritime traffic communications in the Nunavik marine region is a concern, in particular as regards the safety of community residents when they travel on sea ice for subsistence harvesting purposes. VHF maritime radios are an important means of communication in the region; however, they may not always be reliable due to equipment age and poor weather conditions. Similar to practices adopted by the Raglan mine, which transmits notices to the communities and regional organizations regarding ship movements near Deception Bay, it would be interesting to contemplate a method for monitoring ship movements throughout the Nunavik marine region. A permanent surveillance system would help communities plan subsistence harvesting activities and request assistance in case of emergency.

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<sup>8</sup> Stephenson, S.R., Smith, L.C., Brigham, L.W. and Agnew, J.A. (2013) “Projected 21st-Century Changes to Arctic Marine Access”, *Climatic Change*, 118: 885-899.

<sup>9</sup> Comtois, C., Slack, B., Champagne-Gélinas, A., Savard, S. and Lagacé, M. (2019) *Transport maritime au Nunavik: Vulnérabilité, opportunités et défis d'adaptation*, Report by the Nord-du-Québec Coordination Office, Rouyn-Noranda: MTQ, 2019, 332 p.

<sup>10</sup> Comtois et al., op.cit.

<sup>11</sup> Comtois et al., op.cit.

## **Conclusion**

The *Blue Economy Strategy* engagement paper states that the arctic region is increasingly important for the blue economy. Activities in the Arctic Ocean are expanding as a result of “land-based natural resource exploration, Indigenous fisheries and traditional livelihoods, increased access for shipping vessels, and unique tourism experiences.” To permit these sectors to lend themselves to new economic opportunities in Nunavik, conservation objectives, the informal Inuit economy and the safety of all users must be prioritized. The KEAC would like to thank the DFO for this opportunity to provide feedback on the *Blue Economy Strategy* and asks to be kept informed of future steps.

Sincerely,

Tunu Napartuk  
Chairperson