

# Development and Management of Low-Impact Shipping Corridors in Nunavut

## Workshop Report



February 4 - 5, 2019 | Iqaluit, Nunavut

[www.arcticcorridors.ca](http://www.arcticcorridors.ca)

This report was Prepared by the Environment, Society, and Policy Group at the University of Ottawa led by Dr. Jackie Dawson ([www.espg.ca](http://www.espg.ca)). The Workshop was part of the Arctic Corridors and Northern Voices Project ([www.arcticcorridors.ca](http://www.arcticcorridors.ca)).

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**Disclaimer:**

This workshop report is a summary of the ideas and discussions that occurred during expert presentations and a world café. The text represents the opinions and ideas of the individuals that participated in the event and as such are not inclusive of all relevant experts, northern stakeholders and rights holders. The text provided should not be interpreted as recommendations, but rather should be utilized in the ongoing decision making and co-governance processes that support low impact corridors in Arctic Canada.

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# Executive Summary

Climate change combined with other global economic and socio-political factors have facilitated an **increase in Arctic shipping traffic**. The total kilometers travelled by ships in Inuit Nunangat (defined as “the Inuit-preferred name of the geographic, political, and cultural region whose various descriptions include ‘the Arctic’, ‘North’ and ‘North of 60’ in Canada – none of which accurately encapsulate the Inuit homeland”<sup>1</sup>) has nearly tripled since 1990 and most of this increase has occurred in Nunavut waters. Current and expected increases in shipping (movement of goods) and transportation (movement of people) through Nunavut waters will bring both risks and opportunities. The extent to which risks can be minimized and opportunities enhanced will depend highly on the effectiveness of a shared approach to management among national, regional, and local rights holders and stakeholders.

An important initiative for marine shipping and transportation management in Inuit Nunangat that has been established by the federal government of Canada is the ‘**Low Impact Shipping Corridors**’ previously referred to as the Northern Marine Transportation Corridors. The aim of the Corridors initiative is to minimize the impacts of shipping in Inuit Nunangat through the creation of voluntary, incentive-based shipping routes that will guide future regulatory decision-making, infrastructure and investment decisions, and enhance safe navigation that respects both people and the environment.

The Corridors were developed by the Canadian Coast Guard, Transport Canada, and the Canadian Hydrographic Service using historic shipping data and an analysis of shipping risks. In partnership with the Canadian Coast Guard, a research team at the University of Ottawa established the ‘**Arctic Corridors and Northern Voices**’ project (see <http://www.arcticcorridors.ca/>). The project involved working in partnership with 14 communities across Inuit Nunangat to conduct mapping workshops, which revealed local concerns about shipping as well as the identification of culturally significant marine areas (CSMAs) and local recommendations for Corridors management. One of the consistent concerns expressed by community members during these workshops was the need for a shared leadership approach to managing marine shipping and transportation in Inuit Nunangat.

Following up on the important finding that a shared leadership approach to corridors management was identified as a priority for communities, the research team organized a workshop to discuss corridors governance. In February 2019, thirty participants including representatives from the territorial government, Inuit organizations and associations, academia and other key actors met in Iqaluit to critically discuss the development and management of the Low-Impact Shipping Corridors (LISC) in Nunavut. This report includes a summary of the workshop activities and discussions.

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<sup>1</sup> Inuit Tapiriit Kanatami (ITK). (2018). National Inuit Strategy on Research. Pg. 4. ISBN: 978-0-9699774-2-1. Retrieved July 16, 2019 from <https://www.itk.ca/wp-content/uploads/2018/03/National-Inuit-Strategy-on-Research.pdf>.

# Workshop Purpose

**The purpose of the workshop** was to facilitate open discussions with rights holders, stakeholders, and other experts to share knowledge and identify recommendations from participants regarding the management and development of marine shipping and transportation through Nunavut waters through a Low-Impact Corridors approach (see Appendix B: workshop agenda). From the 4<sup>th</sup> to 5<sup>th</sup> of February 2019, thirty participants including representatives from Inuit organizations, associations and corporations; five territorial government departments; three Institutions of Public Government (IPG's); academia, and other key actors were welcomed at the Our Lady of the Assumption Catholic Parish Hall in Iqaluit, Nunavut to share knowledge (see Appendix C and D: list of participants and invitees). Esteemed facilitator Okalik Egeesiak from NVision Insight Group Inc. facilitated workshop discussions.

## Questions Addressed During the Workshop (Day 1)

1. What are the Low-Impact Shipping Corridors?
2. Existing initiatives focused on Inuit involvement, recommendations, and marine vessel monitoring in the development of a management system for marine shipping and transportation through Inuit Nunangat.
  - The University of Ottawa led Arctic Corridors Northern Voices (ACNV) project,
  - The Nunavut Tunngavik Incorporated led Inuit Marine Monitoring Program (IMMP).
3. Arctic shipping today: Geopolitics and current shipping trends.
4. What are some potential approaches to managing marine shipping and transportation through Inuit Nunangat?
5. What “low-impact” means and the cumulative risk assessment (CRA) tool.
6. What are the roles and responsibilities of key actors in terms of governing navigation in Nunavut?

## Discussion Questions Addressed by Participants (Day 2)

1. What are our fundamental goals (common objectives) for governing shipping through the Corridors initiative?
2. What areas do you want more say (influence) over?
3. Who needs to be in the room (involved in discussions and decision-making)?
4. How can we put corridors governance on people’s radars (raise awareness)?
5. How can we better support each other to achieve our fundamental goals (common objectives) for governing shipping through the Corridors?

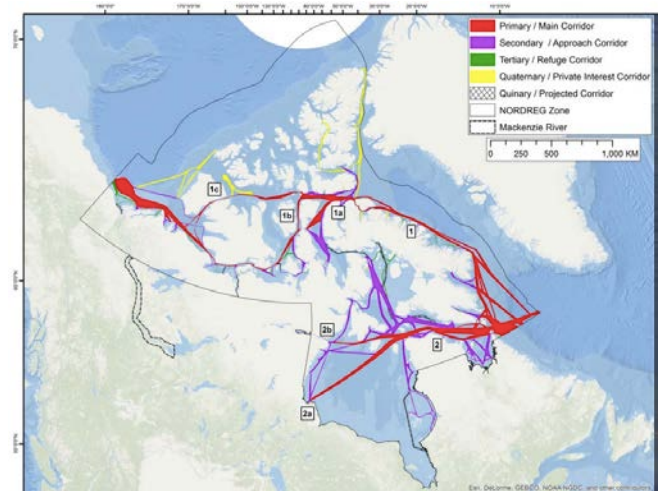
# Background and Workshop Context

## What are the Low-Impact Shipping Corridors?

**Corridors** are shipping routes within which key navigational services such as hydrography (surveying and charting), ice-breaking and aids to navigation are prioritized. The Corridors approach aims to incentivize users, rather than regulate them.

The Corridors were developed by Transport Canada, the Canadian Coast Guard and the Canadian Hydrographic Service in order to;

- Enhance marine navigation safety;
- Create greater predictability for mariners;
- Reduce the risk of incidents; and
- Establish a planning framework for future Arctic investments.



**Figure 1. Original Corridor Concept (outdated map – included for context only)**

## The Arctic Corridors Northern Voices (ACNV) Project

The ACNV project was led by Dr. Jackie Dawson at the University of Ottawa and involved working in partnership with communities across Inuit Nunangat to collect local knowledge and perspectives on shipping risks and opportunities, identify culturally significant marine areas, and create a list of potential recommendations for corridors management. A total of 14 communities participated in the project, including seven from Nunavut (Arviat, Cambridge Bay, Coral Harbour, Gjoa Haven, Iqaluit, Pond Inlet and Resolute). See [www.arcticcorridors.ca](http://www.arcticcorridors.ca)

### ACNV Community Mapping Approach

#### Community Researchers

Through participatory mapping, workshop planning, knowledge documentation, and results sharing exercises community researchers and local partners advised and guided uOttawa researchers in how best to conduct research in their community. Community researchers refined questions to ensure they were locally relevant, culturally appropriate, and phrased to enable participants (topical experts) to meaningfully participate. Community researchers also recruited participants and co-facilitated the workshops.

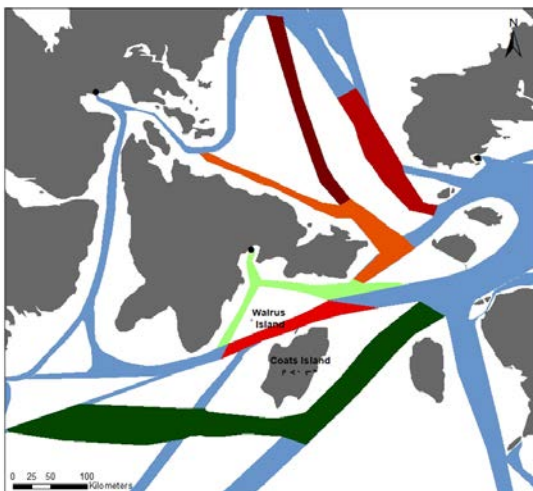
## Participatory Mapping and Discussions

Hundreds of community members (men, women, hunters, Elders, community organization representatives), from across 14 communities shared their knowledge with the research team. The process involved two-day workshops, facilitated by local youth, with participatory mapping exercises and discussions about the seasonal benefits, concerns and impacts of shipping now and in the future, as well as community recommendations for the placement and ongoing management of the Corridors.

## Community Review

After the workshop, uOttawa researchers synthesized and digitized information to create individualized community reports that outlined major concerns, maps of culturally significant marine areas, and maps of recommendations from communities on Corridors placement and management of ships in certain regions of the Corridors. Participants had the opportunity to verify draft reports and maps to ensure accuracy and completeness.

## Example: Coral Harbour



The primary concerns identified by the community was related to the well-being of their walrus population and the potential impact of ships on this species. Elders and community members mapped seasonal hunting areas, ice formations, freeze-up, boating and camping areas, and recommendations for the Corridors. On the map (see left inset), the blue route represents the current corridors, forest green represents the preferred corridors, lime green is the preferred route for community resupply, and red represents “no-go zones”.

*“Hunters have a hard time getting at the animals because they are driven away, it costs more money and gas for them to travel further to catch the animals. If I were to catch a walrus, I could share it with 20 people – that’s what we do” –*

*Bobbie Saviakjuk*

**Figure 2. Recommendations for the Corridors around Coral Harbour**

# The NTI Inuit-led Marine Monitoring Program (IMMP)

## Concept

The Inuit-led Marine Monitoring Program (IMMP) began in 2017 by Nunavut Tunngavik Inc. (NTI) passed a board resolution in 2016 which called on “the Government of Canada to strengthen monitoring and management efforts on marine shipping traffic in Nunavut waters”<sup>2</sup>. The resolution directed “NTI and Regional Inuit Associations (RIA’s) to establish, on a pilot basis, an Inuit-led monitoring system”. The result is a program that takes an innovative approach to vessel monitoring that combines **Inuit marine monitors** with **real-time AIS vessel tracking technology**.

## Core Areas of Interest

A significant amount of information has been collected on core areas of interest, including;

- Ship characteristics;
- Concerns regarding wildlife;
- Noise and pollution;
- Vessel location, speed and heading;
- Behavior, activity and timing;
- Suspicious vessels; and
- Concerns identified by the community.

## Why is this Important?

The program was developed in response to the increase in marine shipping and transportation through Nunavut waters; to address community concerns regarding small vessels transiting near harvesting areas, the potential for marine accidents (pollution, oil spills); wildlife disturbance, and the interference shipping has on hunting and traditional practices. The IMMP also addresses the need for more information on marine shipping and transportation activities, as well as to provide communities the opportunity to have a greater role in marine shipping and transportation management.

## Inuit Marine Monitors

IMMP aims to build a network of experienced hunters to be hired as Marine Monitors during the shipping season to record observations of vessel activities in Nunavut’s coastal areas. The Monitors also participate in organizing and utilizing Inuit knowledge and building local capacity, fill important data gaps on small vessels, and inform and support an emerging dynamic management regime.



<sup>2</sup> Nunavut Tunngavik Inc. (2016). RSA-16-10-23 Shipping Traffic in Nunavut. Annual General Meeting. Retrieved July 17, 2019 from <https://www.tunngavik.com/files/2016/11/RSA-16-10-23-Shipping-Traffic.pdf>.



## Automatic Identification System (AIS)

AIS is a navigation and tracking technology used on large vessels that transmits over radio frequencies. Not all vessels are required to have an AIS transmitter on board, mainly smaller vessels are able to enter Nunavut waters untracked, as there is no legislation to keep AIS on to track vessels under 300 tons. AIS data is primarily used by NTI for vessel tracking and to address community concerns with regards to harvesting, oil spills, interactions between harvesters and vessels, navigation and collision avoidance.

*“Marine monitors fill some of the AIS gaps, as a lot of ships are not required to carry AIS. We need this regulation to change to help (us) better communicate with vessels transiting our waters, (we) need to know who they are and what they are doing - hopefully not disturbing wildlife”*

*Daniel Taukie*

## NTI’s Two Types of AIS Units

**Remote/Off-grid AIS units** are capable of receiving and transmitting live AIS and weather data as well as tracking shipping routes to communities, which is available to the affected community. Powered by two solar panels and a wind turbine, there have been no issues with low temperatures year-round.

**In-town AIS units** are installed indoors with an antenna on the roof of the building and can only transmit AIS data through the internet, which is easier and cheaper than the Off-Grid units.



Figure 3. A remote/off-grid AIS unit used by the IMMP.

## Program Objectives

- Improve AIS network through land-based infrastructure;
- Collect Inuit knowledge, expertise and presence in key areas;
- Improve information for communities and Inuit organizations;
- Increase capacity and coordination marine vessel monitoring in Nunavut;
- Establish a basis of information to support policy-making and participation in the marine shipping and transportation management regime; and
- Educate communities about the IMMP through community visits and recruitment.

## Next Steps for the Program

- Install seven Off-Grid, and three In-Town units to improve technical capacity,
- Conduct vessel traffic reports (six are already completed) within 150km of the community to improve local information use. Launching a public website with a low-bandwidth, real-time vessel tracking map should increase accessibility to community members.
- There is interest in the IMMP including emergency response and community-based hydrography.

## Arctic Shipping Today

### There is Global Interest in the Northwest Passage

- From a global perspective, Arctic Canada attracts a very small proportion of total ship traffic.
- The United States has new legislation with intentions to build more infrastructure around the development of Arctic sea routes;
- China released a white paper in 2018 with explicit intentions of developing northern sea routes;
- Arctic and non-Arctic nations are investing in marine (port) infrastructure as well as official policy.
- Other nations (Arctic and non-Arctic) are outpacing Canada's effort to develop, support, and sustainably manage shipping in the polar regions and including within the Northwest Passage.

*“Canada has a unique opportunity to establish a world-class leading sustainable management plan considering the region has several settled land claims areas and extensive local and scientific knowledge. Canada could become a global leader in marine shipping and transportation governance, but it needs to act now considering expected future increases in marine traffic interest and opportunities”*

*Dr. Jackie Dawson*

### Impacts of Climate Change on Shipping Trends in Nunavut

- In the future, as sea ice reduces in extent and thickness additional ship traffic is expected.
- The open water shipping season in Arctic Canada increased by ~19 days per decade.
- The fastest growing maritime sector is tourism (i.e. passenger ships and pleasure craft).
- Because of changing ice conditions, the greatest risks exist for non-ice-strengthened ships.
- Global trade through the Northwest Passage is not expected to be viable until 2050, although some studies project an ice-free summer by 2030.
- Changes to global trade patterns will influence global power dynamics with uncertain future consequences.

## Approaches to managing Arctic shipping in Inuit Nunangat:

### Global case studies

A recent study examined case studies from around the world of existing approaches to managing shipping in a global context. Ten case studies were identified and assessed in order to identify common factors on successful governance. The factors identified included:

- Balanced priorities for local actors;
- Efficient port services;
- National defense/public safety;

- Emergency, environmental and operational training opportunities;
- Marine sector careers for local residents;
- Leveraging protected or significant areas; and
- Commitment to technology.

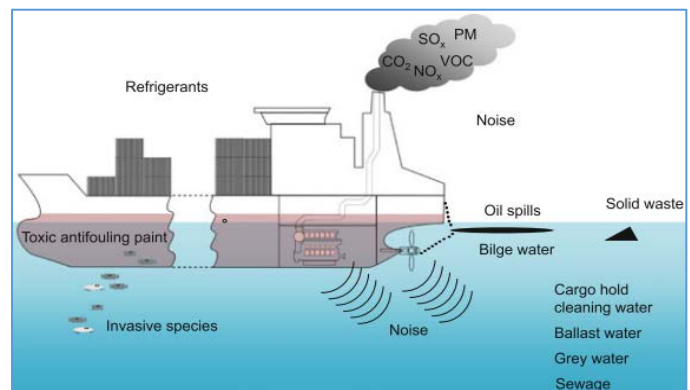
## The Cumulative Risk Assessment (CRA) Tool

A Cumulative Risk Assessment (CRA) can be a useful tool in developing a system for governing marine shipping and transportation by assisting in determining where to focus management and development efforts, as well as where to allocate resources (ie. policies, oil spill response, regulations, inspections...).

**Risk** is the possibility of an unfortunate occurrence, or when there is a hazard in a vulnerable place. Some potential environmental impacts of marine shipping and transportation through Inuit Nunangat, or “stressors” include noise pollution, ice-breaking operations, ship strikes, oil spills, regular discharges<sup>3</sup>, light pollution, invasive species and air emissions.

A **risk assessment** considers what *could* happen (good or bad) that may affect one’s objectives. Shipping comes with many potential impacts, and different agencies and resolutions that deal with different risks. These must be understood and dealt with separately, since there is little value in trying to tackle everything at once. The purpose of a risk assessment is to spatially compare more than one risk at a time.

A **cumulative risk assessment (CRA)** is a tool that supports ecosystem-based management, where instead of focusing on a single stressor, it combines the risk of multiple stressors on multiple receptors in one single equation, compared to a shipping impact study that would normally only cover one stressor, but it is important for policy and decision-makers to appreciate and consider the overall impact of all stressors combined.



**Figure 5. Potential environmental impacts, or “stressors” of marine shipping and transportation.**

*“It is important for decision-makers to consider the overall impact of (multiple) risks combined”*

*Priscilla Schmitz*

<sup>3</sup> Defined by ARCTIS as including oil, ballast water, bilge water, tank washings (oily water), oily sludge, sewage (black water), garbage and grey water. Retrieved July 17, 2019 from <http://www.arctis-search.com/Discharges+from+Ships+in+the+Arctic>.

## **Governing Navigation in Nunavut: Identifying the Roles and Responsibilities of Key Actors**

Shipping governance in the Canadian Arctic is complex considering the multi-jurisdictional nature of ocean governance generally, the overlay of international, federal, and territorial governance, and the existence of robust and settled land claim agreements in the region. Considering Canada's reconciliation agenda, the presence of settled land claim areas, and the legal and moral rights enshrined by these, one of the fundamental questions being asked by Inuit in Nunavut right now is: "*Can we [Inuit] say where ships can and can't go and when?*". In response, there are three lines of inquiry:

### **1. There are existing rights of control and powers over tourism vessels**

The Nunavut Agreement triggers rights of control that must be exercised to the fullest. The Nunavut Wildlife Management Board can focus on local priorities through their power to designate areas for wildlife management; the Nunavut Planning Commission has power to see whether cruise proposals match the land-use plan; and the Nunavut Impact Review Board can hold public consultations, so a proposed cruise itinerary may have to change their routes. The Inuit Heritage Trust also has a role to play in selecting archeological sites and can say whether a ship can go through a site or not, or the conditions involved in traveling through an archeological site.

### **2. There are opportunities for co-management under MPA Agreements**

Marine Protected Areas (MPAs) are a federally adopted marine strategy that involves co-protection of identified marine areas. Article 9 in the Nunavut Agreement is very strong; the first part of the strategy outlines Inuit rights, and the second section discusses co-partnership. However, this must be activated, and whatever role the federal government decides to take is captured by the federal plan and Agreement. MPAs, and any wildlife habitat protected in these areas are useful tools, because the management priorities can be geared towards local priorities. Local concerns may be better responded to here, where they are called "sanctuaries" or "archeological sites". The Nunavut Agreement has specific rights, and MPAs as federally mandated under the Nunavut Agreement are co-responsibilities.

### **3. It is important to participate in initiatives that could influence emerging laws and regulations**

Engaging in some of multiple initiatives can offer results, such as the [Proactive Vessel Management](#) initiative in Cambridge Bay, and initiatives in the west coast. These have the potential to influence emerging laws and regulations and by participating there is a chance to influence the outcome, and to sensitize decision makers to local and cultural issues.

# World Café Approach (Day 2)

On Day two of the workshop a World Café was held. The World Café method is designed to be a “simple, effective, and flexible format for hosting large group dialogue”<sup>4</sup>. Five key components make up the basic model, which were easily modified to meet the needs and purposes of this workshop:

## 1. Setting:

To create a *World Café* environment, tables and chairs were set up to hold discussions for three small groups; with flowchart paper, and coloured pens and markers to record important discussion points.

## 2. Welcome and Introduction:

Our “host”/facilitator Okalik Egeesiak began with a warm welcome, and brief review of events from the previous day. She then explained the process for the day and outlined the four questions that would be discussed in small groups.

## 3. Small Group Rounds:

Three discussion rounds lasting twenty minutes occurred in small groups that were seated at four tables. Every twenty minutes, participants moved to a different table. The facilitators and note-takers remained at the same tables throughout the process to welcome the next group, fill them in on what happened the previous round, and record iterative discussions. The format is designed in such a way to build on the previous group’s conversation instead of repeating.

## 4. Questions:

A set of questions were designed prior to the beginning of the workshop but were refined after Day 1 in order to be tailored to the specific needs, desires, and expertise of the participating experts. An evening dinner after Day 1 was hosted and the main facilitator (Okalik Egeesiak) consulted on process and question design.

## 5. Harvest:

After the three rounds of questions were completed and each group had discussed, individuals were invited to share insights and results from their discussions with the rest of the group. Results were reflected visually by presenting the recorded discussion points from the flowchart papers. New points and ideas from the group discussion were then recorded. The World Café was concluded with an open group discussion about how participants can better support each other to achieve their shared management objectives. This was followed by a short *Post-it Notes Commitments to Action* activity,

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<sup>4</sup> The World Café. (2019). World Café Method. Retrieved July 17, 2019 from <http://www.theworldcafe.com/key-concepts-resources/world-cafe-method/>. For more information on the World Café method, visit this website!

where participants submitted their plans for how they would help to achieve the shared management objectives after the workshop.

## World Café Results

Below is a summary of the World Café discussions. The text below is a summary of the discussions that occurred at the tables during the world café that was facilitated during this workshop. The text below represents the opinions and ideas of the individuals that participated in the event and as such are not inclusive of all northern stakeholders and rights holders. The suggestions below should not be interpreted as recommendations for the federal government but rather should be utilized in the ongoing decision making and co-governance processes supporting low impact corridors in Arctic Canada.

### **What are our shared and fundamental goals (common objectives) for governing shipping through the Corridors?**

#### **To ensure safe navigation through Nunavut waters, with respect for the environment**

This involves improvement of monitoring, enforcement and search and rescue operations through training, and better information sharing. Communities must be aware of seasonal shipping schedules, who is around, where, when, and why, as well as who is available to carry out SAR operations, and who might need SAR support (i.e. vessel type/size). Risks related to ships disrupting travel routes and leaving people stranded; interrupting subsistence hunting; and creating threats to human life must be addressed. Sharing of charting data is also needed since uncharted areas increase the risk of mariners running aground if they are forced to travel off-route.

#### **To determine clear jurisdictional and decision-making authorities**

The Corridors are prioritized travel routes that are not meant to restrict shipping, but to guide decisions (such as, investment and charting). However, the question remains; *who's to make the decisions?* Authority should lie primarily with Government of Nunavut (GN) with the leadership role, in partnership with the Canadian Coast Guard (CCG) (and other federal government agencies). It is acknowledged that knowledge is lacking about federal versus territorial jurisdiction and what specific role Inuit Organizations can and/or should play.

#### **To develop a structure that prioritizes the environment, culture, and human life**

Local community involvement and engagement will lead to improved safety for shipping in the Corridors. Communities must be at the table from the beginning to the end. An “off-shore” co-management board could be established to manage shipping through Nunavut waters with Nunavut Tunngavik Inc. (NTI), GN and CCG, and then a co-management organization could be set up to oversee all operations.

Hierarchically, the board/organization could operate like the Nunavut Marine Council (NMC); based on recommendations. Its roles would be to harmonize initiatives, combine information, and act as a “one-stop-shop” for all shipping communication and knowledge so everything is efficiently accessible to multiple parties; and to conduct risk assessments of the Corridors to facilitate pre-planning responses in the event of an emergency and to be aware of our strengths and weaknesses. Emergency response is a federal responsibility, but communities are generally the first responders, which means they must have spill response kits and be trained to use them, as well as daily marine vessel travel schedules.

*“We don’t need to fight to make space, we are there, but how to do we collectively do this? (We) need a governance model of some sort with the federal (government), regional (governments), communities... how can we come together to discuss this? (...) Maybe the first step is getting everyone under one roof”*

*Udlu Hanson*

### **To develop and manage the Corridors so that the territory flourishes**

Food security will be a huge issue since shipping activity will drive animals further away from communities and as a result will increase the cost of living (expenses for gas/resources to acquire country food etc.). Communities could negotiate for the designation of various areas specifically for harvest, and cargo/re-supply services which are fundamental, basic needs and which need be prioritized. Development and management must occur with, by, and in the North. It is imperative that northerners be involved in to leading, co-developing and co-managing the Corridors using expertise in each community and considering regional systems and differences. Since the Corridors are voluntary, there should be a communications approach to compliance by ensuring that all communities, ship operators and government organizations are all aware of where vessels are within the Corridors to prevent disruption of services and cultural hunts. Communication must be improved through ongoing meaningful consultations to ensure northern voices and IQ are at the foundation of charting the preferred channels. The Corridors should have “standardized” routes for most operations, with flexibility for local environmental and community conditions as well as industry objectives. They must be dynamic, with real-time reactive options, advanced warning and rapid communication. Inuit must also benefit economically from transiting ships through employment opportunities and/or compensation.

### **What areas do you want more say over?**

#### **Jurisdiction of the Government of Nunavut**

The Government of Nunavut (GN) currently has sufficient authority over land-based items, but this must extend into marine-based issues as well, such as; controls on shipping, development permitting and resource development. More marine agreements are needed since at the moment GN has little authority

over the Nunavut Marine Conservation Areas (NMCAs); Marine Protected Areas (MPAs) (which could be a mechanism for multiple levels of management over traffic in different areas); the Ocean's Protection Plan (OPP) Arctic plans; and overall federal plans. Territorial authority may also improve implementation of the Corridors in terms of timing, compliance of ships and responding to local concerns.

### **Development of the corridors and all aspects of Northern shipping**

Continued, local economic development from shipping must be balanced with environmental and social concerns. Inuit must benefit (i.e. revenue, employment) from the development of the Corridors and northern shipping activities *early on*, not after-the-fact. Communities need more say over the behavior of trans-Arctic shipping in terms of the ability to put limitations on types of cargo (i.e. Hazardous and Noxious Substances (HNS) and weapons), and restrictions on the location and timing of shipping activities. Communities must be involved in all aspects of northern shipping, including decisions related to impacts on wildlife and the environment, and all regulations and policies.

### **Federal and industry decisions**

Communities need more power to effectively include input from northern consultations and studies in federal and industry decisions. This requires an ongoing mechanism for northern engagement in decision-making and planning; a high level of political discussions and decisions to include GN in managing shipping through the Corridors; and including GN in and/or letting them facilitate community consultations. Increasing community involvement in deciding what must be considered for Corridors development (i.e. food security issues, how to make them dynamic and responsive) can be facilitated through participant funding to attend community consultations and federal government meetings as well as more local involvement over communications with GN and/or Inuit. Defining the Corridors (in terms of location, whether they shift according to ice conditions, hunting seasons...) and/or running periodic Corridors assessment programs also requires local representatives in order to be locally based.

### **The level of local involvement in managing the Corridors**

Communities need more say in the level of local involvement, particularly in areas such as; monitoring activities through the Corridors; considering different levels of control depending on different vessel activities; enforcing speed limits for federal vessels and cruise ships; simplifying the routing permit process; establishing fuel handling and safety standards; management of dumping; and monitoring for pollution. Communities need more say in developing a general communications strategy with real-time communication between ship operators and communities. Local input must be included in the language and messaging (i.e. "mandatory" vs. "voluntary") of the strategy, as well as using radios, and notice to mariners. Within the Corridors, for all information (i.e. ice conditions, wildlife habitats, hydrography) to be available to mariners requires many people in the North to work closer with stakeholders in order to be efficient and effective. Communities need more input into services and resources, such as the



proximity and availability of emergency response; needs regarding equipment; where to put AIS stations; personnel and training; and updated charts, as well as input into designated research topics (i.e. long-term impacts of oil in ice, noise pollution).

## Who needs to be in the room? Which institutions and organizations should be involved in managing the Corridors?

### Rights holders and stakeholders

- Nunavut Inuit Wildlife Secretariat (NIWS) would represent the Hunters and Trappers Organizations (HTOs);
- Regional Wildlife Boards (RWBs);
- Regional Inuit Associations (RIAs);
- Wildlife Officers;
- Community Land and Resource Committees (CLRCs);
- Nunavut Impact Review Board (NIRB);
- Arctic Marine Council and all Institutions of Public Government (IPGs); and
- Nunavut Marine Council (NMC).

### Government of Nunavut

- Environment, Economic Development and Transportation (ED&T);
- Executive and Intergovernmental Affairs (EIA);
- Community and Governmental Services (CGS);
- Emergency Management; and
- SDC (Deputy level), SDAG (director).
- Fisheries and Oceans Canada (DFO);
- Transport Canada (TC);
- Environment and Climate Change Canada (ECCC);
- Department of National Defense (DND);
- Crown Indigenous Relations and Northern Affairs Canada (CIRNAC);
- Joint Rescue Co-ordination Centre (JRCC); and
- Public Safety.

### Federal Agencies

### Suggest Approach and Local Leadership for the Corridors

**Nunavut Tunngavik Inc. (NTI)** would be responsible for economic balance, represent the communities, look after Nunavut Inuit-owned lands, do complete consultations with each community HTO, the RWBs and meet with presidents of each RIA to gather information about corridors placement and management. The **Inuit Marine Monitoring Program (IMMP)**, **Government of Nunavut (GN)** and the **federal government** would form a cross-cutting steering committee with NTI where each member organization would have one voice but could send multiple representatives. Other members would be the Inuvialuit Settlement Region (ISR), Government of the Northwest Territories (GNWT), and Nunavik. Under the steering committee would be two working groups that would split key responsibilities;

1. Regulations, and
2. Public Safety and Environmental Protection, including impact management, safety management, and risk assessments.

Inuit Qaujimagatuqangit and community perspectives would be cross-cutting and included in both working groups. Every year the Corridors would be shifted to be incorporated in the Nunavut Land Use Plan (NLUP). Because the Corridors are incentivized (not mandatory and enforced) it must be determined whether they would have regulatory authority if the Corridors became a “project” of the Nunavut Planning Commission (NPC) under the NLUP.

**Inuit Tapiriit Kanatami (ITK)** would be responsible for looking after the interests of all Inuit and the Inuit Circumpolar Council (ICC) made up of Regional Inuit Boards (RIBs) from each country; representatives from the Inuvialuit Settlement Region (ISR) and Nunavik; industry such as, re-supply, mines, and oil and gas exploration (Desgagnes, NNSI); and NGO’s such as, Oceans North and the World Wildlife Fund (WWF) would be consulted but would not always be in the room. Industry, scientists (SciBar and CASTnet) and NGO’s would be sub-working groups to ensure they are consulted and that their knowledge is included.

Once the Corridors are implemented, they will require maintenance and ongoing reprioritization. The **roles of the steering committee** will be to;

- Review and define the prioritization of the corridors;
- Identify the highest priorities based on input from the communities; and
- Advise federal government and IPG regulators of projects that fall within their jurisdiction. The federal government would then draft regulations based on recommendations made by the steering committee.

A steering committee with working groups will be complicated, and every steering committee runs into capacity issues. It will be **important to determine**;

- What the steering committee does operationally;
- How often they meet; and
- Who they meet with.

### **Human resources and expertise that are missing/needed**

Capacity limitations will be the most challenging aspect of establishing the steering committee. More people will need to be hired, especially Nunavummiut whose involvement in the low impact shipping corridors needs to become a top priority. Everyone who participated in the Arctic Corridors workshop must also be involved, as well as champions/dedicated hires for managing the Corridors. There needs to be a separate Government of Nunavut department with its own office, funding and employees dedicated to marine issues with the steering committee to feed into it, and a full-time secretariat that is highly

skilled and capable of managing everything without being pulled into other projects. Full-time lawyers and legal scholars must be hired by GN as well to increase capacity for regulations. Funding for this should be provided by the federal government, as that is what is necessary for true and meaningful consultation.

## **How can we put Corridors governance on people's radars?**

### **Increase regional and federal government awareness as partners**

The importance of shipping and co-management is already on the radar for communities, but there must be more awareness at the government level. Making this a priority is challenging because the Government of Nunavut (GN) is busy with other issues, they are given little time to organize by the federal government, jurisdictional boundaries are unclear, and lower capacity limits GN's involvement. Revitalizing the Nunavut Marine Council (NMC) may increase federal involvement, and lead Transport Canada to commission the NMC to develop a marine management plan. Making notes to federal ministers can also get a reaction, since transportation and marine issues are their responsibility.

### **Numbers matter! Calculate the economic (social and cultural) importance of shipping**

A tangible, quantitative argument can help convey the environmental, social and cultural importance of shipping to Nunavut. Both country food, and grocery store food security are nearly 100% reliant on ships. Some smaller communities cannot be serviced by large cargo planes, so without ships re-supply would have to be brought by multiple small flights. A research project could model everyone quantitatively affected by shipping and/or the potential economic impact of a ship that did not make it to a community. Sharing this data at a conference or workshop with researchers and all actors involved in managing and producing legislation might prompt federal involvement with regional governments and organizations.

### **Hold awareness campaigns and FPTI workshop engagement meetings**

Territories can lead awareness campaigns to help determine major players; spread the mandate to GN and the federal government; and use social media outlets, commercials, and news media to reach out to leadership. Engagement meetings and information sessions are needed for follow-up (build accountability into the discussion); to discuss jurisdictional boundaries; and to establish a maintenance plan and processes for the project to continue once the Corridors are implemented.

### **Make Corridors governance an election issue/part of the political agenda**

Make Corridors governance an election issue (all elections, every level) with sovereignty, security, infrastructure, and environmental preservation; since these federal responsibilities have local impacts.

## **Use industry as an ally to raise the profile of Corridors governance**

Mining and economic development take a large portion of federal time, so industry and NGO's (WWF) can play an advocacy role for the value of shipping and Corridors governance, especially since industry are among the most who want to avoid accidents. Baffinland Iron Mines Corporation (Baffinland) may be interested in engaging with communities to build awareness. Corridors discussions can be included in industry impact reviews – it is a powerful message if all players are talking about using them.

## **Develop a practical implementation plan for the Corridors, then make it POLICY**

The impression of the Corridors approach in the North is that they were created, then there was a lot of turnover, and then it was decided to pull back from implementation in order to improve consultations (good!). The problem is now a “chicken-or-egg” dilemma, where people are needed to be involved in implementing and managing the Corridors, but no one will pay attention unless it is already happening. There must be a practical implementation plan and/or policy for the Corridors and marine shipping to encourage people to want to be involved. The Ocean's Protection Plan (OPP) was the last big flagship program, but the “plan” must become “policy” in order to be maintained and survive future elections. OPP workers in the federal government could legitimize the plan through formal processes and implement it as policy. People must be aware that shipping is not a year-to-year activity; there will be implications we are not yet aware of for generations to come; and for the long-term, marine shipping is the greenest, most environmentally sustainable transportation system that exists. From discussion to policy, local engagement is needed from the onset through in-depth, back-and-forth consultations.

## **Connect the dots between initiatives**

Implementation is also challenging due to fragmented initiatives among many different agencies, instead of all falling under one “marine agency” (one-stop-shop). Awareness regarding the importance of Corridors governance should be pushed at the ADM policy level, which requires the Government of Nunavut to be more organized and proactive in preparing these issues in the agenda. Flagship initiatives like the OPP can be built on – they could fund the remaining ACNVs community reports (to be completed by trained community members). With community researchers already there, costs of the project could go down to \$10-20K per community. Developing marine infrastructure requires a similar type of initiative and the Basic Marine Infrastructure in Northern Communities Initiative, could utilize the community reports of the ACNV project to lower costs and increase awareness by identifying maritime users. Having flexible engagements so partners can “piggy-back” off each-others meetings, training sessions and consultations can also help facilitate collaboration between initiatives and increase awareness. The development of the ‘Canadian Arctic Shipping and Transportation Research network (CASTnet), which is a national research group focused on Arctic shipping science, will bring together scientists and community knowledge holders, to provide an important bridge among researchers, industry, government, and communities.

### **Inuit control the messaging**

Inuit must control the messaging of their needs, wants, concerns and of local life. Meaningful terminology is needed in Inuktitut to mitigate communication issues, allow communities to engage more effectively, and account for regional language differences. Flyers, booklets and pamphlets can be distributed, as well as visual aids like maps of the Corridors handed out by local Hunters and Trappers and Organizations (HTOs). Another research opportunity could be ongoing monitoring of marine mammal activity in various areas compared their activity over the next five years, and track the changes. Inuit must be trained in delivering the message and monitoring the animals.

## **How can we better support each other to achieve our shared fundamental goals (common objectives) for governing shipping through the Corridors?**

### **Maintain communication through social media outlets**

Create a mailing list, starting with individuals present at the Arctic Corridors Northern Voices (ACNV) workshop, and make use of the ACNVs website as a repository for news stories, to stay updated on the initiative and improve transparency. Make requests to put information up on the Nunavut Marine Council's website as well.

### **Take advantage of all consultation opportunities**

Convey everything that has been heard and discussed at the workshop, and keep the federal government engaged through the process so that if needed, they may extend timelines and put more time and energy into the project. At the same time, hold them accountable to their commitments and to report positive progress, and challenge their ability to let the program fade away. Ask when the draft of the Corridors is going to be shared with organizations, as this must be shared with everyone.

### **Get the word out!**

A good way to make sure the program goes on indefinitely is to get word of the Corridors initiative into as many meetings, committees and documents as possible to reinforce the concept until it becomes a reality. Reinforce the community message by reaching out to Members of the Legislative Assembly (MLA's), Cabinet members and senior management as well.

### **Have experts develop a strategic plan to get the Corridors going**

The Ocean's Protection Plan (OPP) accepts proposals on an ongoing basis, mostly on search and rescue. Have a subject matter expert to look into the policy guidelines and objectives for accepting proposals under this plan. Funding organizations will need to be allies as well.

### **Hold a fall symposium, and commit to a committee**

It would be valuable to hold a fall policy symposium where everyone can be in the same room. We also need to commit to forming a steering committee, with an ongoing agenda between interdepartmental transportation committee(s). Encourage transparent and open communication; the message should not be restricted. Research opportunities must come from the community level, shared with researchers outside, and all reports and the symposium must be held accountable to report back. Develop a strategic plan to improve communications linkages, and partnerships to build on work being done.

## **Future Needs**

Information in the Future Needs and Next Steps sections was drawn from open discussions with participants during Days 1 and 2. For a more detailed review of discussions from Day 1, see Appendix A.

### **A mechanism to gather and make existing knowledge accessible**

Currently, there is no way to collect all the existing sea-ice and marine data that elders and knowledge holders have been providing for the past several decades, which results in duplicating projects every few years. There must be a more long-term structure that does not rely on five to seven years of funding.

### **To clarify, define and confirm authority**

Marine transportation and shipping is primarily federal jurisdiction, but it is unclear where the Government of Nunavut (GN) fits in terms of jurisdictional responsibilities, and where the authority to implement and enforce shipping limitations is. Lack of knowledge around GN's role results in a loss of regional involvement in federal and other initiatives. Rights holders should say what co-management/co-governance looks in terms of hierarchical power; how sharing works among federal and regional governments and Land Claims Agreements; and how to manage a private sector like ships. Capacity must be built on at the local level.

### **Community-specific guidelines for the Corridors**

The ACNVs community reports must be completed for all 25 communities. The project can be lead and implemented by communities and methods and approaches can be shared by uOttawa researchers to be replicated by existing/trained community researchers. Communities should consult with ship operators regarding the costs and logistics of taking alternative routes, and develop clear restrictions to avoid accidents and encourage operators to comply. Along with local restrictions, there must be exceptions for emergency situations and infrastructure for real-time communications with mariners if ice conditions force a vessel into a restricted area or needs SAR support.

## **Small vessel oversight and risk assessment**

Smaller vessels (pleasure craft/yachts) are difficult to track and monitor since it is not mandatory for them to report themselves, which has severe implications for SAR, the communities as first responders, and marine wildlife. Because the Corridors have little utility for these vessels (yachts would likely want to avoid sailing alongside tankers), there must be a combined approach to managing smaller vessels. Tourists must share their travel plans so they can be monitored and communities can respond if needed.

## **Long-term federal capacity and marine infrastructure in the North**

Local presence can mean in-person, or the federal government can invest in hiring and training locals, but it must be long-term, with more leadership participation and follow-through beyond election times. Regarding infrastructure, updated charting data must be shared with communities in the event a vessel is forced to travel into an uncharted area, and communities need oil spill response kits and be trained in using them. Docking and port infrastructure is also necessary for economic development.

## **Ongoing research and science partnerships**

Possible research projects that were discussed during the workshop included;

- Track events where/when pleasure craft and yachts required search and rescue services.
- Calculate the economic value of shipping to Nunavut/model the impact if a ship did not arrive.
- Track the changes in marine mammal activity over the next five years.

Possible valuable partnerships and initiatives that were suggested included;

- ArcticNet, the Canadian Coast Guard (CCG) and FEDNAV have shown interest in the Corridors and community recommendations from the Arctic Corridors Northern Voices (ACNVs) reports.
- The ACNVs project could partner with the Basic Marine Infrastructure in Northern Communities Initiative to share information and lower costs.
- The Inuit Marine Monitoring Program (IMMP) could partner with CASTnet to fill knowledge gaps; look into work by the OPP's Enhanced Maritime Situational Awareness Initiative; and possibly use satellites (one by the University of Toronto; another with DND) to monitor ships.

## **Possible Next Steps**

### **Create and share a complete inventory of management organizations and institutions who should be at the table when discussing the Corridors**

Start with everyone listed in the "Who needs to be in the room?" World Café discussion question and distribute an inventory of official engagement for Corridors development and management with all workshop participants.

### **Develop a mailing list to facilitate continued open communication and transparency**

Add everyone present at the workshop to the list. This will aid in continuing the discussion, sharing information about the Corridors initiative and improving communication. This will also be useful for organizing future gatherings, such as; a fall policy symposium, interdepartmental meetings and establishing an off-shore co-management board and/or steering committee to manage the Corridors.

### **Organize a fall policy symposium to continue the discussion**

Invite everyone present at the workshop, and representatives from all management organizations and institutions listed in the official inventory for engagement in developing the Corridors. The purpose of the symposium will be to gather all key stakeholders, rights holders, federal agencies, organizations and other players under the same roof to further discuss the development and management of the Corridors and to continue the process of establishing a long-term structure for governing them.

### **Canadian Arctic Shipping and Transportation Network (CASTnet)**

CASTnet is a university led-industry-government-northern community partnership that intends to co-develop a world-class research network to undertake science that supports policy and decision-making for Arctic governance and sustainable shipping; leverage assets (ships, people, and coastal infrastructure) to improve ocean, ice, and atmospheric observations along Arctic shipping routes; and conduct science that supports: 1) Decision-makers to establish evidence-based policy and to position Canada as a global leader in Arctic oceans and shipping governance; 2) Industry to operate more efficiently and in a safer environment; and , and 3) Arctic communities to mitigate local impacts and enhance local economic opportunities. The initial research focus areas of the network are based on end-user surveys that include; the environment, operations, the economy, geopolitics, law and policy. Research projects will be co-developed with partners that respond to identified needs of industry, government (including Inuit organizations), and communities, and which will focus on challenge areas from a variety of lenses.



## Appendix A – Discussion Points (Day 1)

<i>Concerns</i>	<i>Opportunities</i>	<i>Solutions</i>
<p><b>Monitoring and enforcement</b></p> <ul style="list-style-type: none"> <li>➤ It is not mandatory for smaller vessels (ie. pleasure craft) to report themselves, so;               <ol style="list-style-type: none"> <li>1. Less data and knowledge regarding when these vessels enter Arctic waters, how, how often, where they go and where they are at any given time, which means;</li> <li>2. Is very costly and difficult for communities with limited resources who are the first responders to perform SAR operations when an incident occurs.</li> </ol> </li> <li>➤ Lack of enforcement around illegal dumping and community members are not informed on who they can address if they witness it.</li> <li>➤ Non-Inuit owned and operated systems may not function properly in the Arctic climate.</li> <li>➤ How to enforce use of the Corridors since they are voluntary. They cannot be obligatory since the ice is dynamic and natural conditions will also dictate where ships go.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Charge if a vessel does not have AIS and/or does not report.</li> <li>➤ Collaborate with tourism companies using a combined approach since smaller vessels are harder to track and the Corridors have little utility for them.</li> <li>➤ Geo-fencing system - operators receive a “ping” if they travel within a restricted area so they are aware. This can be dynamic; ie. geo-fence for a certain region during a hunt, but not all the time.               <ul style="list-style-type: none"> <li>▪ With Environment Canada, the IMMP is working on geo-fencing lines, so GPS systems/monitors know where to monitor.</li> </ul> </li> <li>➤ IMMP can improve monitoring and enforcement; community members can reach out to them if they witness illegal dumping.</li> <li>➤ Nunavut’s first satellite being built at the University of Toronto with the intent to monitor caribou with no disturbance, could also be used to work with the IMMP and monitor ships.</li> <li>➤ The Department of National Defense’s (DND’s) next satellite intends to track ships.</li> <li>➤ With IMMP, Inuit can own, collect and make data accessible to communities by communities.</li> <li>➤ MEOPAR is developing smaller and cheaper AIS transmitters (~\$500) for smaller vessels.</li> <li>➤ Can enforce use of the Corridors by making them attractive to insurance companies.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Conduct smaller vessel oversight and risk assessments.               <ul style="list-style-type: none"> <li>▪ Example: Inuvialuit Development Corp. is funding small vessel risk assessment.</li> </ul> </li> <li>➤ Tourists and other smaller vessels must share their travel routes so communities are aware of their locations in case of emergency.</li> <li>➤ Establish guidelines for tourism companies with the Nunavut Planning Commission that become federal policy, but territorially enforced by Inuit.</li> <li>➤ Make a list with contact information that is accessible to all communities and individuals of all organizations that can be contacted if illegal dumping is witnessed.</li> <li>➤ Ensure that ownership of data, collection, management and distribution responsibilities lies with the Inuit.</li> <li>➤ Every community carry an AIS transponder while hunting – Inuit should not have to pay for this if AIS becomes mandated.</li> <li>➤ The OPP’s Enhanced Maritime Situational Awareness (EMSA) in Cambridge Bay is looking into what information communities need. The IMMP is part of steering committee with the OPP.</li> <li>➤ Due to natural conditions, there must be exceptions for vessels to go out of the corridors to meet services.</li> </ul>

<i>Concerns</i>	<i>Opportunities</i>	<i>Solutions</i>
<p><b>Unclear jurisdictional boundaries</b></p> <ul style="list-style-type: none"> <li>➤ Where the Government of Nunavut’s role lies regarding management and jurisdictional responsibility is unknown.</li> <li>➤ The Nunavut Planning Commission has been told the land-use plan should not touch shipping restrictions (federal responsibility). However, all the communities want restrictions on various periods of the year.</li> <li>➤ Challenges related to dealing with such a large area where more than one region is involved federally.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Co-management/co-governance can be tri-lateral, then move on to the international level.</li> <li>➤ Responsible, respectful shipping; not saying “no ships”, just limiting, and asking, whether or not these are Inuit waters.</li> <li>➤ Under the Agreement, ‘land’ includes waters – when ships enter Nunavut they must conform to the regional plan and be reviewed under Nunavut jurisdiction. Opportunity for the new plan to include some restrictions as well.</li> <li>➤ Collaborate with the Nunavut Marine Council.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Clarify, define and confirm authority with regards to the role of the Government of Nunavut and key actors so everyone knows where they fit.</li> <li>➤ Communities describe how co-management/co-governance looks for them; how hierarchal power is shared; how it works with the federal government; the Government of Nunavut; the Land Claims Agreements; and how to manage a private sector like ships.</li> <li>➤ Give IMMP intervention/enforcement authority.</li> </ul>
<p><b>Lack of meaningful communication of information</b></p> <ul style="list-style-type: none"> <li>➤ Between ship operators, tourism companies and communities.</li> <li>➤ Issues of duplicate research because there is no way for communities to gather all existing data, build knowledge and make it accessible.</li> <li>➤ Lack of communication between the federal and Nunavut governments and communities means no one is informed about who is involved in Corridors management/their roles. <ul style="list-style-type: none"> <li>▪ The federal government is unaware of who to get information from;</li> <li>▪ Inuit are not warned what information the federal government is looking for and are unprepared to answer their questions;</li> <li>▪ The Government of Nunavut and communities are not informed of federal (OPP) initiatives, therefore;</li> <li>▪ There is a lack of shared knowledge and community input with regards to who is doing what from a territorial and environmental perspective.</li> </ul> </li> <li>➤ Knowledge gaps of the importance of shipping/the Corridors at the jurisdictional level makes it hard for people to contribute to the discussion of managing them.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Collaborate with ship operators, tourism companies on community specific guidelines operators are bound to.</li> <li>➤ Example: Cruise Nunavut – all information is streamlined through them, everyone is aware of what is happening through one window for communication.</li> <li>➤ The Canadian Coast Guard has visions of real-time notices to mariners through an AIS system.</li> <li>➤ CASTnet can be used for information sharing; and bringing together academics, community members, organizations, industry and government agencies in one place so all players are aware what others are doing. <ul style="list-style-type: none"> <li>▪ Work with IMMP to fill information gaps regarding what areas need protecting.</li> </ul> </li> <li>➤ The ACNVs community reports and other media are shared on the ArcticCorridors website. Have also been shared with ship operators who are willing to follow the recommendations if it does not cost them.</li> <li>➤ Public Safety is actively working on an inventory of what assets and infrastructure are available.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Develop an operational standpoint for the Low-Impact Shipping Corridors.</li> <li>➤ Consultations with ship operators to make recommendations for how to use alternative routes, what is logistically possible and what is the cost.</li> <li>➤ Share information regarding small vessels and cruise ships.</li> <li>➤ Real-time communications with operators (AIS).</li> <li>➤ Establish a clear definition of “no-go” areas specified by communities and restrictions during hunting seasons and travel roads to avoid accidents.</li> <li>➤ Use existing platforms or develop one where all information can be shared and accessed to avoid duplicate research and facilitate collaboration between initiatives and organizations working on similar things.</li> <li>➤ Develop and make accessible a complete inventory of management organizations and institutions – who, what, when... for official engagement of who should be at the table when discussing the Corridors.</li> <li>➤ The federal government must dedicate more time hearing from communities before any work is done, through ongoing consultations, not one visit.</li> </ul>

<i>Concerns</i>	<i>Opportunities</i>	<i>Solutions</i>
<p><b>Lack of capacity, resources and infrastructure</b></p> <ul style="list-style-type: none"> <li>➤ The consequences of an incident happening in Canada are so high because communities are unprepared, and the few resources available for SAR operations are taken from the domestic resources of the communities.</li> <li>➤ Not enough federal capacity/bodies in the North.</li> <li>➤ The IMMP received <i>some</i> of the federal funding for the program, but training was delayed and had to be done over the phone.</li> <li>➤ No effective mechanism in place to get funding/resources to communities.</li> <li>➤ Not enough implementation at the local level.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Opportunity for the federal government to train and hire Inuit to fill in federal capacity.</li> <li>➤ CASTnet want to fund science that saves lives and creates economic opportunities led by northern scientists and knowledge holders, same as NorthByNorth.</li> <li>➤ There is a government and organizations in place here ready and willing to do this work. What may have been successful on the East and West coasts cannot be recreated in the Arctic.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Scientists track marine incidents and gather data to support the need for more resources.</li> <li>➤ More investments in training so Inuit as first responders are prepared.</li> <li>➤ Invest in port/dock infrastructure to encourage local economic development. <ul style="list-style-type: none"> <li>▪ Looking at analogues; the ability to build infrastructure in Greenland is ports; the Norway model of docking fees can help relieve infrastructure costs.</li> </ul> </li> <li>➤ Support relevant research that keeps money flowing in areas that are needed.</li> <li>➤ Building capacity must be at the local level in terms of resources and human infrastructure.</li> </ul>
<p><b>Consequences regarding short-term solutions</b></p> <ul style="list-style-type: none"> <li>➤ Governments tend to have 3-year blocks, funding tends to cover a 5 to 7-year program and decisions are not made for the long-term.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Opportunity for a management system that considers the generational context, and lines up with the way people think about the environment and wildlife.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Develop a long-term structure (such as a think-tank) that can facilitate long-term progress and sustainable local economic development.</li> </ul>

## Appendix B – Agenda

### Day 1: Monday, February 4

Time	Item
8:45-9:00am	<b>Doors open</b>
9:00-9:30am	<b>Introduction by Udloriak (Udlu) Hanson (Deputy Minister Economic Development and Transportation)</b> – Okalik Eegeesiak <b>Welcome Note</b> – Udlu Hanson <b>Group Introductions</b> – led by Okalik Eegeesiak
9:30-9:45am	<b>Purpose of the Workshop</b> – Okalik Eegeesiak <b>Background on the Workshop</b> – Jackie Dawson
9:45-10:15am	<b>Arctic Shipping Today</b> – Jackie Dawson <b>What are Low impact shipping corridors?</b> – Jackie Dawson
10:15-10:30am	<b>Break</b>
10:30-12pm	<b>Cumulative Risk – What “low-impact” means</b> – Ron Pelot & Priscilla Schmitz <b>Arctic Corridors &amp; Northern Voices Project</b> – Bobbie Saviakjuk & Natalie Carter
12:00-1:00pm	<b>Lunch</b>
1:15-1:45pm	<b>NTI Inuit Marine Monitoring Program (IMMP)</b> – Daniel Taukie & Izaac Wilman
1:45-2:45pm	<b>Governing Navigation in Nunavut: Identifying the Roles and Responsibilities of Key Actors</b> – Suzanne Lalonde
2:45-3:00pm	<b>Different Approaches to Managing Arctic Shipping: Global Case Studies</b> – Jackie Dawson
3:00-3:30pm	<b>Break</b>
3:30-5:00pm	<b>Plenary discussion: concerns, opportunities, and solutions</b> – Okalik Eegeesiak

### Day 2: Tuesday, February 5

Time	Item
8:45-9:00am	<b>Doors open</b>
9:00-9:15am	<b>Welcome back and re-cap from Day 1</b> – Okalik Eegeesiak
9:15-10:15am	<b>Shared fundamental (common objectives) for governing shipping through the corridors</b> – Group discussion
10:15-10:30am	<b>Break</b>
10:30-12:00pm	<b>World Café Questions and individual group discussions</b>
12:00-1:00pm	<b>Lunch</b>
1:00-2:00pm	<b>World Café Questions and individual group discussions (Cont.)</b>
2:00-3:00pm	<b>Plenary discussion</b> – Individual group presentations based on World Café discussions
3:00-3:30pm	<b>Break</b>
3:30-4:00pm	<b>Commitments, next steps and wrap up</b> – Okalik Eegeesiak

## Appendix C – Workshop Participants

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# Appendix D – Invited organizations and institutions not listed in the Workshop Participants

The institutions and organizations listed below were either invited to participate and were unfortunately unable to make it to the workshop, or the representative(s) of the institution or organization did not provide consent to be identified by name in this report.

## **Non-Governmental Organizations (NGO's)**

- Oceans North

## **Government of Nunavut**

- Department of Finance
- Department of Culture and Heritage
- Department of Executive and Intergovernmental Affairs
- Nunavut Arctic College

## **Institutions of Public Government (IPG's)**

- Nunavut Impact Review Board (NIRB);
- Nunavut Wildlife Management Board (NWMB)
- Nunavut Water Board (NWB)

## **Regional Inuit Associations (RIA's)**

- Kivilliq Inuit Association
- Kitikmeot Inuit Association

## **Inuit Organizations**

- Kivilliq Wildlife Management Board
- Nunavut Inuit Wildlife Secretariat
- Qikiqtaaluk Wildlife Management Board

## **Inuit Corporations**

- Qulliq Energy Corporation