

Ocean Decade Town Hall Cluster Conversation Summary

This document summarizes the preliminary ideas from the first Town Hall on December 3, 2021 and discussions from the second Town Hall at [MEOPAR's ASM](#) on February 3, 2022, along with relevant resources, under four (4) thematic clusters: Supporting Self-Determined Indigenous Led Research, Climate Change Awareness into Action, National and International Networking and Science as Art.

The Town Halls provided space for conversation to identify how Canada can contribute to the Ocean Decade and the relevant expertise among MEOPAR's network members and affiliates. The goal of the Town Halls was to flush out the foundation of 4 main idea clusters to prepare for and sketch an actionable path forward for future endorsement opportunities.

The Town Halls were convened by the Steering Committee of the [Ocean Decade Community of Practice](#), which includes: [ArcticNet](#), [ASLO](#), [CMOS](#), [CNC-SCOR](#), [ECOP Canada](#), [Hakai Institute](#), [MEOPAR](#), [Québec Océan](#), [Réseau Quebec Maritime](#), the [Tula Foundation](#) and [UQAR](#). This Town Hall initiative has been endorsed by the IOC-UNESCO as an official Ocean Decade Activity.

1. Supporting Self-Determined Indigenous Research

Initial Ideas

- Science by and for indigenous communities
- Coastal camps bringing together indigenous youth, Elders and scientists
- School age outreach programs involving Indigenous and minority communities
- Indigenous community engagement

Cluster Conversation Debrief

Facilitator: Ken Paul

Guiding Question

How can we support self-determined research and initiatives, designed by and for indigenous communities?

Why?

- Interest in how to directly fund Indigenous communities to carry-out their own research.
 - Starting to see indigenous communities leading and being funded for research.
 - How do early career researchers (ECR) participate and/or engage with those group?
- Difficult for new researchers to approach first nation communities.
 - Suggestion to approach an organization that represents first nations, so they can suggest and/or approach researchers who are already working with first nation to provide feedback/guidance.

Need?

- More guidance and information on the "how to engage" Indigenous communities, with emphasis on mentoring ECR interested in working with Indigenous communities.

- Increased funding accessibility for Indigenous communities to lead and carryout research initiatives that address their self-identified priorities and needs.
- Rate information for acceptable compensation for indigenous liaisons. Glassdoor estimation is too low to be acceptable. Having this information on hand could be very useful when designing projects.

Goals & Objectives

- Ken Paul indicated that the most important first step with Indigenous communities is to develop a relationship with the community and then you can start building/developing a project together with the community.

Key Players

- Researchers with experience working with Indigenous communities are good mentors for other researchers on how to engage with Indigenous communities.
- Approaching organizations that represents First Nations can also be a good starting point to seek guidance in engaging with communities.

Supporting Resources

- [Research Guide: Informing First Nations Stewardship with Applied Research](#) – Key questions to inform an equitably beneficial and engaged research process is a guide created to support researchers at all career stages and First Nation stewardship staff alike to engage in an equitably beneficial research process in support of conservation and stewardship initiatives.
- [Guide for Indigenous Engagement](#): The Ocean Frontier Institute (OFI) has developed an Indigenous (Inuit, Métis, and First Nation) Engagement Guide to facilitate efforts toward respectful and meaningful engagement with Indigenous governments, communities, and organizations (Indigenous groups).
- Panel Discussion: [Meaningful Engagement with Northern Communities in Research: Experiences & Lessons Learned](#)
 - This panel discussion was co-hosted by MEOPAR and ArcticNet as part of MEOPAR's 2021 Annual Training Meeting: Building Future Skills to Address Canada's Marine Challenges brought together researchers and practitioners to explore experiences with meaningful engagement of northern communities in research. Panelists collectively reflected on lessons learned especially in regard to bringing together multiple ways of knowing and understanding and which tools, approaches or principles have aided with the co-production of knowledge. Through short presentations from the panelists followed by a question-and-answer period with questions from the co-hosts and audience, participants had the opportunity to discuss approaches to meaningful engagement and knowledge sharing in research when working with Northern communities to yield valuable recommendations for future collaborations.
- Resilience by Design Lab, Royal Roads University – [Resources and Guides](#). Focus on Indigenous and non-Indigenous youth in disaster risk reduction and climate action.
- [Lessons Learned through Research Partnership and Capacity Enhancement in Inuit Nunangat](#). (2019) Natalie Ann Carter, Jackie Dawson, Natasha Simonee, Shirley Tagalik and Gita Ljubicic

- [National Inuit Strategy On Research](#) – A resource for working with Inuit communities
- Summary of Panel Suggestions: [Risk Communication at the Local Level: Towards Meaningful Community Collaborations on Environmental Hazards](#). CMOS Congress & MEOPAR Annual Scientific Meeting, June 14, 2018.
- [Building Indigenous Relationships – Compiled Resources](#). [Science Writers and Communicators of Canada](#) Workshop. Nov 17, 2018 Workshop, Victoria, BC
- [Incorporate Indigenous perspectives for impactful research and effective management](#). Natalie C. Ban, et al. October, 2018. *Nature Ecology & Evolution* 2 , 1680–1683
- [Negotiating Research Relationships with Inuit Communities: A Guide for Researchers](#) (2006)
- [Indigenous Research Ethics Institute](#) – Carleton University, Canada
- [Panel on Research Ethics: TCPS 2 \(2018\)](#) – Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada

2. Climate Change Awareness into Action

Initial Ideas

- Coastal acidification and eutrophication
- An international program researching impacts of climate change (OA, increasing temperature, heatwaves, hypoxia, sea ice retreat, ect.) on organisms, modelling these effects on the future
- Climate model downscaling to assess linkages between environmental drivers and ecosystems
- General topic: communicating climate change science to the community level – could include arts, TK and scientific methods
- Bringing together Canadian voices to push emission reductions
- Fish Health Monitoring / Stock assessment / Pathogen evolution and tracking / Emerging pathogen due to climate change / Toxin and climate change / Relational Big Database / Machine Learning and AI analysis
- Short-term modelling to forecast environmental functioning
- To predict an evolving ocean - how different will the ocean and its variability have changed from the start of the UN Decade to the end, and what are the implications of that change.
- Nature-based solutions to mitigate climate change (coast to coast initiatives); Evaluating potential of nature-based climate solutions through conservation and restoration actions
- Expanding sea ice research for application beyond marine navigation (modelling, observation and experiencing; education and outreach
- Linking marine research to socio-economic and health research in Canada to other countries with an international framework

Cluster Conversation Debrief

Facilitator: Alexa Goodman

Guiding Question

How might we shift climate change awareness into action for the public, policy makers, and business owners?

Why?

- Climate change (CC) is an imminent threat.
- Increasing extreme weather events and abnormal temperature fluctuations, and future projections show no signs of CC slowing down, rather the opposite.
- How do we connect ecosystems services to the national and global economy?

Need?

- Need to get the general population informed about CC implications and impacts and how they can act on this, so that we can hold politicians and corporations accountable.
- Need to show the connection between actions and future economic sustainability. The implications of action versus inaction when it comes to the future of our economy, environment and society.

Goals & Objectives

- Scientists should engage with science communicators, or consult an online resource / tool kit, to incorporate communications plans into research projects from the start.
- Develop simple material in lay language that explains each term related to climate change (from what's the weather to GHG emissions, adaptation etc.). Projects should have a dedicated budget for lay language communication (KTT to public, not scientists).
- Facilitating a shift from knowledge to understanding will require a hands-on action based approach, like bringing the public into meetings, creating of hands-on events/activities, etc.
- Link climate change to present day situations/events and issues in the mainstream news, to climate change. Could use visual images to show impact of climate change over time (with a photo journal for example) or maybe a story on the news.

Key Players

- Science communicators
- Researchers
- Economists
- Mainstream media: radio or news/weather broadcasters

Supporting Resources

- Considerations for effective science communication (Cooke et al., 2017)
<https://doi.org/10.1139/facets-2016-0055>
 - Abstract: "It is increasingly common for scientists to engage in sharing science-related knowledge with diverse knowledge users—an activity called science communication. Given that many scientists now seek information on how to communicate effectively, we have generated a list of 16 important considerations for those interested in science communication: (1) Define what science communication means to you and your research; (2) Know—and listen to—your target audience; (3) Consider a diverse but coordinated communication portfolio; (4) Draft skilled players and build a network; (5) Create and seize opportunities; (6) Be creative when you communicate; (7) Focus on the science in science communication; (8) Be an honest broker; (9) Understand the science of science communication; (10) Think like an entrepreneur; (11) Don't let your colleagues stop you; (12) Integrate science communication into your research program; (13) Recognize how science communication enhances your science; (14) Request science communication funds

from grants; (15) Strive for bidirectional communication; and (16) Evaluate, reflect, and be prepared to adapt. It is our ambition that the ideas shared here will encourage readers to engage in science communication and increase the effectiveness of those already active in science communication, stimulating them to share their experiences with others.”

- [Small Pond Science List of Science Communication Resources](#)
- [Iowa State University Science Communication Project](#),
- [Union of Concerned Scientists— Communication Best Practices](#)
- COMPASS Online, See their blog and COMPASS Points compassonline.org/

3. National Networking

Initial Ideas

- Create a map/inventory list with the people involved in the Ocean Decade CoP, their expertise and contact information
- CIOOS: Capitalize on national and international linkages by aligning with the societal goals of the UN Decade of Ocean Science for Sustainable Development
- Bring together small-scale process modelers in fjords and narrow bays from all three coasts, and around the world to produce a catalogue of modelling tools.
- Shared inventory of success and unsuccessful actions for coastal and ocean sustainable ecosystem health
- Regional networks to rigorously evaluate nature-based solutions to mitigate ocean acidification by sequestering carbon
- Coast-to-coast-to-coast assessment of ocean solutions for Canada project under OceanVisions program
- OBON project proposal idea: Canadian Biomolecular Observing Network (we/Hakai will be submitting something locally for January, but it would be great to think bigger for the next call in June)
- There are already many endorsed UN Ocean Decade programmes, rather than reinventing the wheel it would be good to search through the global stakeholders forum to find places to fit in. eg. for genomics ppl <https://www.oceandecade.org/actions/ocean-biomolecular-observing-network-obon/> is already endorsed and looking for calls
- Initiate an Ocean Action Tracking System, a database of local initiatives fostering positive change in relation to the ocean, inspired by the concept of seeds of good Anthropocenes (<https://goodanthropocenes.net/>)

Cluster Conversation Debrief

Facilitator: Fanny Noisette

Guiding Question

How might we connect intergenerational practitioners and projects to support national and international networking and collaboration?

Why?

- Can only fit into the international/global picture if we present a unified vision from Canada, so this group will focus on national networking.

Need?

- Need a unified vision at the Canadian scale to reduce duplication of efforts and promote cohesion, and to have a common 'face' for the Ocean Decade.
- Is there a single common umbrella organization in Canada?
 - E.g. Mercator in Europe
 - Could MEOPAR play this role, or should it be a larger umbrella cast by government?
- Need a bigger approach to address the Ocean Decade, and the governance system / mandate must be inclusive. The Ocean Decade CoP could start this.
- DFO has a dedicated Ocean Decade office to support effort to mobilize the ocean community, however it's a small team.
 - Establish coordination mechanisms within DFO and between ministries to build on existing networks.

Goals & Objectives

- Unified framework to reduce redundancy between CoP and DFO's initiatives to move forward efficiently together and play a significant role in the international/global effort (as a Canadian whole).
- Identify a "hub" for Ocean Decade information and collaboration within Canada, with inclusivity and diverse representation.
- Reduce duplication of effort across Canada, while working together and leveraging existing networks
 - Create a map of existing initiatives to identify individuals, organizations and networks. This could include an index of expertise for mentorship and professional development purposes.
 - Creating Certified Ocean Professional designation?

Key Players

- DFO (<https://www.dfo-mpo.gc.ca/campaign-campagne/un-decade-decennie-nu/index-eng.html>)
- Industry – OceansAdvance
- Ocean Decade Community of Practice
- At international level, Global Stakeholder Forum launched by the IOC-UNESCO
- Ocean Research Canada Alliance
- ECOPs
- Global Ocean Observing System
- CIOOS
- Catalogue of Expertise

Support & Resources Needed

- Organizations like MEOPAR are needed in playing a connective role
- Best practices and leadership from international organizations

- Mapping existing networks with an extensive resource list
- Long term funding programs
- Efficient communication strategies
- Professional development and certification options recognizing that our human resources need ongoing support.
- Training opportunities encouraging people move between our organizations and networks through their careers.

4. Science As Art

Initial Ideas

Poetry interface with research groups working on UN Oceans Decade actions, create poetry that is also data visualization, perhaps include other forms of artwork as well - eg photography, paintings, music, etc.

Cluster Conversation Debrief

Facilitator: Samantha Jones

Guiding Question

How can we leverage artistic methods and creative mediums to foster connection, highlight beauty and hope, and create space for people to process information and emotions (including frustration and grief)?

Why?

- What about the beauty in science and engineering? For example, coastal engineering.
- There is complexity beyond our capacity to perceive. Art helps bridge the gap.
- Build emotional connection
- Can communicate research

Need?

- Need to overcome language barriers in expressing opinions, knowledge, and feelings.
- Need to overcome barriers of culture, education, language, age groups, etc. Particularly for the UN Decade of Ocean Science as it also transcends time.

Goals & Objectives

- Bring the voices of the people to a project
- Can we level the playing field with art or create common ground?
- Understand and explore complexity of dynamic systems (ecosystem as an example).
- Creating grassroots spaces for artists and scientist to meet? There is potential to create something like this that is event-based (e.g. at a conference or meeting) or group-based (e.g. a working group or community)
- Dialogue – focus on opening space to many types of folks and complementing.

Key Players

- Everyone! This should include scientists, artists, community members – this initiative should be inclusive to folks of all backgrounds



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development



Support & Resources Needed

- Pay artists!
- Professional development activities are an option as a starting point to create collaborative spaces
- Are science projects/funding allowed to spend money on arts? Perhaps under outreach components.
- More detailed list of resources and/or supports will be developed after some scoping work to decide what type of output or engagement this cluster would like to generate

Resources

- Ocean Art-Science Community of Practice: An email list for people interested in creating an Ocean ArtScience Community of practice. This includes scientists interested in art, artists interested in science and everything in between. ocean-artscience-community@oceannetworks.ca (email dwowens@oceannetworks.ca to join)
- Working Group: A shared space for transdisciplinary interactions between ocean art, ocean science and Ocean Memory: https://community.oceannetworks.ca/share/ODiY1-Llt57k01Ye?utm_source=manual
- If you are looking for some science – art inspiration, check out the project examples below:
 - Global Water Futures Virtual Water Gallery collaboration between researchers and visual artists: <https://gwf.usask.ca/outreach/virtual-water-gallery.php#Overview>
 - Consilience Journal online science poetry and art journal: <https://www.consilience-journal.com/>
 - éch2osystème maritime acrobatic performance art by Genèvieve Dupéré: <http://ech2osysteme.blogspot.com/>
 - Collective Listening CLEAR Soundscapes, part of the CLEAR Artist-in-Residence program: <https://civiclaboratory.nl/2021/07/27/collective-listening-clear-soundscapes/>