

Assessing Indigenous Technical Capacity to participate in Marine Spatial Planning Vancouver – February 28, 2019

## What We Heard

"Working together as coastal Nations is very powerful. We have a vision to tie it all together [because] ecosystem-based management is interconnected."

## Technical Interest, Capacity and Expertise in Oceans Management

- Participants included members of a First Nation and an Indigenous Government, neither
  of which belong to an aquatic resource and oceans management group. They are
  interested in learning from oceans management experiences of other Nations;
  especially, related to marine protected and conservation areas and marine zoning.
  - One recently started participating in an offshore marine protected area partnership with other Indigenous Nations through a memorandum of understanding that includes coast-wide, collaborative objectives.
  - The other sits on a number of technical tables to manage resources in marine and riparian areas and expects to participate in joint-government technical tables in the future regarding increased marine traffic and oil spill response.
- Participants stress the importance of fisheries to their Nations. They want to ensure
  continued access to fishing areas and to learn about the tools to protect these areas
  from commercial and recreational fleets, erosion from other industries, and the impacts
  of increased marine shipping and new and expanding ports, including increased risk of
  oil spills and other marine incidents.
  - One has talked to Transport Canada about moving shipping lanes, while the other notes the lack of an established marine shipping lane and the Transport Canada radar system in their region.
  - One has maps of important fishing areas in their territory, while the other wants to
    ensure their fishing economy is considered alongside fishing for food, social and
    ceremonial purposes. "They need to understand the robustness of our economies.
    Within marine spatial planning, we want to communicate the interests of our people."
- Participants expect that meaningful conversations will occur between Governments and Indigenous Nations when oceans management decisions are being considered. "We want the Government to respect the way Nations work together: we have long-standing cultural ties of how we work and we need to assert that onto the marine landscape."
  - One said the Treaty environment required consultation and joint management, but the other said the Department imposed marine spatial fishing closures before consulting their Nation in recent years.
  - There is also some concern about how the management of resources is divided by governments. "Everything is interconnected: vents, seamounts, species, the movement of currents, etc."

### **Technical Roles**

"The biggest thing is funding – we're all stretched to the limit."

- Participants note the importance of funding for capacity building and capacity retention so
  they can fully participate in all of the technical aspects of marine spatial planning. "There
  is no consistent program to fund this." Both stress the importance of attracting youth. "But
  it can't be start and stop, there must be full-time, meaningful employment to attract them."
- Participants have varying technical capacities to participate in marine spatial planning:
  - One has different departments to undertake program management, community coordination and communications, data collection, Indigenous knowledge collection and protection, monitoring and enforcement, biology/ecology expertise, geographic information system (GIS) and mapping, as well as other activities, such as graphic design and translation.
  - The other needs focussed personnel to fill most of these technical roles because their capacity is either partially funded (e.g., for program management, community coordination and communications, data collection, and marine biology); is only funded through specific projects (e.g., Indigenous knowledge collection and protection, and monitoring); or has yet to be developed (e.g., data analysis, enforcement, GIS and mapping).
  - Both participants outsource technical expertise: one for data analysis and the other GIS and mapping services.
- Participants stress the importance of monitoring marine spatial planning and other
  oceans management decisions, as well as having stewardship over their marine areas
  and resources. One monitors a lot of marine and inland sportfishery activity, while the
  other sees a lack of monitoring or assessment of fishing closures in their area.
  - The role of monitoring is considered by one participant to be something that Nations could share; however, the other said these types of collaborations could only be at the technical level.

#### **Technical Tools**

"We have mapping apps to share with others, but to have something more integrated would be great to show layers with our partners."

- Participants have different needs when considering a range of technical tools that may be used to participate in marine spatial planning:
  - The top four tools for one are: collaborative project management software, environmental or biological monitoring and sampling equipment (e.g., marine probes), sensor technologies (e.g., gas, nutrient), and mobile tracking devices. This Nation has all of the other tools listed on the worksheet.
  - The top four tools for the other are: GIS software (ArcGIS), a drone and other camera equipment, and the coast tracker to collect data. This Nation also needs most of the other tools listed on the worksheet. "There's capacity development associated with these tools, too."

- Participants have other technical tools that may be useful in marine spatial planning.
   One has database mapping presentation software, database central collection software, an Elders' group, legislation and regulations, and a GIS department. The other has Avenza systems mapping and language interpretation and translation.
  - Participants also suggested tools, such as: satellite service in areas without cell service, microphones and video recorders for Indigenous knowledge collection, and better database storage and back-up options. "Losing data is a concern with electronic items" according to one Nation, while the other said "housing data is one of our biggest problems."
- One is willing to share environmental and biological modelling software with other
  Nations as well as a protocol or policy for sharing Indigenous knowledge or spatial data;
  especially, one that would be clear about the duration of this kind of sharing. The other
  is concerned about how shared data will be used and would need to have assurance
  that it would not be abused. "We have had trouble with data sharing in the past related
  to species at risk and COSEWIC."

# **Technical Training**

"We want more staff with higher levels of education: diplomas and degrees."

- Participants (or members of their Nations) have taken some of the training listed on the
  worksheets. For example, both have taken safety and vessel training, along with fishrelated technical courses and stewardship or fishery guardian training.
  - One noted that while some of the training courses may have been taken by one
    person, other staff members may still need the training. They also think certain
    technical training certificates may not cover all of the training required for technical
    staff. For example, the stewardship technical training certificate does not cover
    species identification, scale sampling or other assessment-required tasks.
  - The other highlighted the links between the training offered in other Indigenous programs, such as through the Pacific Integrated Commercial Fisheries Initiative, and recommended that the Department consider how they could leverage the training outcomes. "We need a certain amount of sea time to get a Fishing Master IV, so if we could use the vessels to go out for another purpose, this would help."
- Participants support the development of a training program to be involved in marine spatial planning because training offered to Nations is typically linked to a specific funding project not an actual job. "It's all bits and pieces. A training program could tick off a lot of these courses at once."
  - One recommends that an expert be matched to trained personnel in smaller or remote communities so there is someone (e.g., a mentor) who could be called upon to answer questions or assist in certain situations.
- Participants strongly support staff having long-term education in biology, GIS mapping, technology and resource management fields. One Nation has a \$10K annual scholarship in its Trust for long-term education.
- Participants also prioritize environmental and biological training, along with training to use various computer software, to participate in data and Indigenous knowledge

- collection, and to fill the monitoring, evaluation and stewardship roles (e.g., through guardian, equipment use and safety training).
- Participants prefer using training facilities, universities and other educational
  organizations that are locally known and closer to home. One also supports having jointtraining in the Nation (or at a nearby Nation). "Doing joint training has been very
  successful. It's team building for small communities."

## **Partnerships**

"This needs to be woven together and it's not at the marine spatial planning level."

- Participants support more partnerships across federal departments (e.g., Fisheries and Oceans Canada, Parkes Canada, Environment and Climate Change Canada, Transport Canada, and others) as well as with the Province.
- Participants also want to learn from the marine spatial planning and oceans
  management experiences of other Nations. Many Indigenous examples were featured in
  the workshop presentation and examples of marine use plans, the Coastal Stewardship
  Network's coast tracker mobile tracking device, and specific training courses were
  discussed during the course of the day.
  - Participants would welcome more Nation-to-Nation exchanges and networking related to marine spatial planning and oceans management. One thinks these opportunities could result in more technical capacity sharing and future partnerships. The other sees potential for partnerships with commercial industries and consultants.

# **Lessons Learned from the Pilot Workshop**

- Participants suggested the following ways for the Institute to improve the worksheets for future workshops: providing more space on the overarching worksheet but spreading the content over two pages; numbering the training courses one through six and specific courses a. through e. or f.; and having the facilitators offer different options for participants to explain their current capacities and specific needs.
  - These changes were applied to the worksheets used in subsequent workshops.
- Participants also suggested that the glossary profiled in the Discussion Paper be expanded and that a list of acronyms be developed and shared.