



## **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 fish-related 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 joint-training 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, Parks 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.