

Empowering Indigenous Communities Through Data Sovereignty

Workshop #2 Summary

Date: October 8th, 2024
Time: 9:00 AM - 4:00 PM
Location: Tigh-Na-Mara and Zoom

Facilitated by: Peter Evans and Beth Keats, Trailmark Systems

Hosted by: Nick Chowdhury & Sonora Morin, Island Marine Aquatic Working Group (IMAWG), & Jordan Bromley, Q'ul-lhanumutsun Aquatic Resources Society (QARS)

Attended and co-presented with: Lee Croft and David Collister, Fisheries and Oceans Canada (DFO), Sonora Morin, and Nick Chowdhury, IMAWG

Background

To support self-determination and self-government, Indigenous Peoples must own and control their data and information. This can be achieved through the assertion of Indigenous Data Sovereignty. Guidance materials for the practical application of Indigenous Data Sovereignty are needed to ensure that the theoretical aspects of data sovereignty (e.g., the First Nations Principles of Ownership Control Access and Possession (OCAP) and The Global Indigenous Data Alliance (GIDA), and the Collective Benefit Authority to Control Responsibility Ethics (CARE) Principles for Indigenous Data Governance) can be operationalized. These materials will help communities achieve their data sovereignty goals and assist Fisheries and Oceans Canada (DFO) in fulfilling its responsibilities to respect and support Indigenous data sovereignty.

To address this need, the Island Marine Aquatic Working Group Society (IMAWG), the Q'ul-lhanumutsun Aquatic Resources Society (QARS), and DFO are conducting a series of three collaborative workshops with Indigenous communities and Indigenous fisheries

organizations focused on discussing and co-developing guidance materials for Indigenous Data Sovereignty. This report presents the findings from the second workshop.

Workshop Goal:

- » **Understand** the Indigenous experience with data use within the context of fisheries and DFO
- » **Brainstorm** examples of what Indigenous Data Sovereignty looks like
- » **Identify** practical ways to operationalize Indigenous Data Sovereignty
- » **Explore** strategies for safeguarding and respectful use of Indigenous Knowledge (IK)

Workshop Overview & Methods

The workshop was designed to encourage participants to share their insights and experiences with the challenges and issues related to Indigenous Data Sovereignty and begin to identify potential solutions in relation to their community's fisheries organization.

Workshop participants were invited to share experiences, identify real examples, and brainstorm solutions to challenges relating to the topics presented, first through a plenary discussion with all participants, then in rotating break-out groups in the afternoon. We chose these techniques to have the benefit of allowing participants to relate and hear from one another's experiences, as well as apply solution-oriented focus on specific issues. The rotating stations allowed for participants to see and build upon the work of previous groups.

To ensure that we were validating and building off what we heard in Workshop #1, we used the issues and challenges identified by participants in Workshop #1 as examples to discuss and identify possible recommendations in the focus group activity.

During both engagement activities, note takers created digital sticky notes on MIRO reflecting the themes of the discussions, enabling online participants to follow along and engage with the ongoing conversations, and for those in person to watch and track ideas shared. Summaries of both these discussions are provided in the section *Workshop Results Summary* below.

Introduction and Presentations

- » Wayne Paige Senior (Cowichan Tribes) led the opening prayer, and Nick Chowdhury provided an overview of the workshop goals, plan and agenda. Nick Chowdhury (IMAWG) also facilitated introductions for both in-person and online participants.
- » Lee Croft (DFO) reviewed the key themes from Workshop #1 including data collection, use, access, representation and interpretation, and decision-making processes.
- » Peter Evans (Trailmark) presented materials on the principles of OCAP¹ (Ownership, Control, Access, and Possession) and CARE (Collective benefit, Authority to control, Responsibility, and Ethics),² as well as definitions of data and Indigenous Data Sovereignty from the Global Indigenous Data Alliance (GIDA).

Plenary Discussion

What does Indigenous Data Sovereignty look like in your community's fisheries organization?

Following a refresher on terms and principles relating to Indigenous Data Sovereignty, this discussion canvased the workshop participants to describe their experiences with data management, control, sharing and any aspect relating to data sovereignty within their work with/for Indigenous fisheries organizations. Note takers captured what was shared to a MIRO board that was shared on a screen and online for everyone to see. A summary of this discussion is provided below in the Workshop Results Summary.

Polling on Sharing and Using Information from the Workshops

This workshop series coincides with the United Nations Declaration on the Rights of Indigenous Peoples Act Action Plan (UNDA)³ shared and cross-cutting priorities, specifically:

- » Priority 30: “Continue to support Indigenous Data Sovereignty and Indigenous-led data strategies [...]” (pg.32)

¹ <https://fnigc.ca/ocap-training/>

² <https://www.gida-global.org/care>

³ Department of Justice Canada. (2023). United Nations Declaration on the Right of Indigenous Peoples Act Action Plan. United Nations Declaration on the Rights of Indigenous Peoples Act Implementation Secretariat.

- » Priority 40: “Develop and employ mechanisms that respect and incorporate Indigenous Knowledge [...] in the management of fisheries, fish habitat, conservation, marine safety and protection of the marine environment (p.35).

Since these priorities align with many federal government agency initiatives within DFO and beyond, workshop organizers presented a poll to understand how participants felt about sharing workshop summaries or reports to a wider audience. Using Slido, a polling software tool, participants were asked, “How can information from the workshops (e.g., the summaries) be shared and used?” Results of this poll are summarized below in the Workshop Results Summary.

Breakout Group Discussions

Participants were divided into four breakout groups (three for those in person and one for online participants) to identify and discuss possible recommendations or solutions to the issues and challenges we identified in Workshop #1. The groups were organized by stations focusing on a stage in the “Data Cycle” illustrated in *Figure 1*.

Station 1 was focused on Data Collection, Station 2 on Data Stewardship and Governance, and Station 3 on Data Sharing. Each group recorded their notes on both a whiteboard and in MIRO, and these were later summarized and presented to the larger group. Each group rotated through each station and so were able to see, discuss, and build on what the preceding group had recorded. This iterative process allowed for creative brainstorming and learning from others for collective benefit.

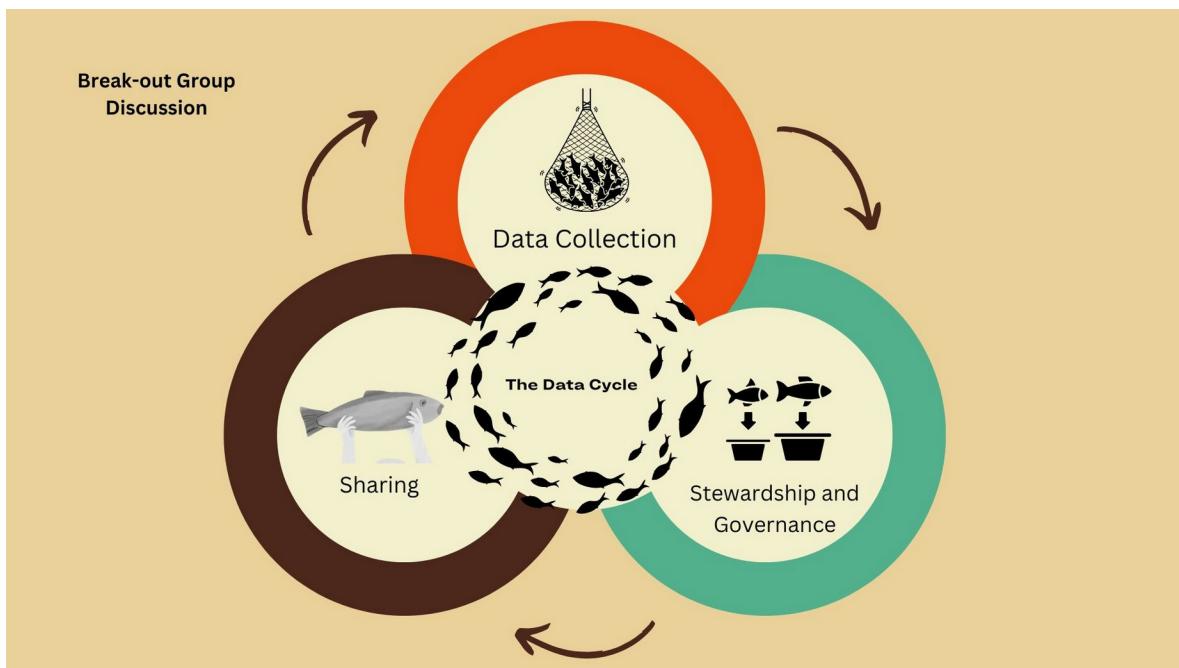


Figure 1. The Data Cycle used to organize focus groups on identifying recommendations according to each stage.

Workshop Results Summary

Data for this analysis was compiled from three key sources gathered during the workshop:

- Digital sticky notes from the Miro board;
- Whiteboard notes from breakout sessions; and
- Personal notes taken by participants throughout the day.

These sources captured key discussions, ideas, and concerns related to Indigenous Data Sovereignty, focusing on data collection, stewardship, and sharing.

We systematically reviewed and categorized the data, identifying recurring topics and key themes. Using a thematic analysis approach, we grouped similar ideas and statements and coded them into broader themes. Through multiple iterations, we refined these themes to ensure they accurately reflected the participants' concerns and insights.

This process enabled us to capture a wide range of perspectives, ensuring that the analysis represents the diverse views and experiences shared during the workshop.

Plenary Discussion

Current Status of Indigenous Data Sovereignty in Community Fisheries Organizations

Q. What does Indigenous Data Sovereignty look like in your community's fisheries organization?

Workshop participants were asked to describe their experiences with data management, control, sharing and any aspect relating to data sovereignty within their work with/for Indigenous fisheries organizations. Many, if not most, participants provided a thorough description of the state of Indigenous Data Sovereignty within their fisheries organizations. Many participants drew connection to a variety of challenges experienced at the intersection between IK, Indigenous data, and fisheries data and methods used by DFO. The general themes that arose through this discussion are summarized below.

Challenges in Funding and Support for Indigenous Data Stewardship

Indigenous fisheries organization staff expressed concerns about the limited resources available to their organizations, noting that funding and support are often insufficient. They feel this lack of resources creates a disconnect from decision-making processes and limits their capacity to steward, govern, and share data. Some Nations have invested significant resources and personnel to build data storage and management capacity, marking a valuable step toward data sovereignty. While this progress is a clear achievement, participants state that ongoing recognition and supportive resources are essential to maintain and build on these achievements.

Relationships as the Core of Knowledge

Participants expressed that IK is deeply rooted in relationships—between people, fish, and the environment. They emphasized that these relationships must be central to any data sovereignty discussions because they reflect the holistic nature of IK.

"Everything is one; everything is connected."

"Indigenous knowledge is not simplistic; it's based on a holistic understanding of the environment."

Valuing Indigenous Science Equally with Western Science

Participants emphasized the importance of recognizing and respecting Indigenous Science—including observations, stories, and qualitative data—on par with Western Science. They highlighted that Indigenous communities have long held knowledge systems that are integral to environmental understanding.

"It's respected and taken at face value—held to the same standards as DFO."

Indigenous Knowledge should be reframed as Indigenous Science. Before colonization, we had engineers and mathematicians. Now, institutions have Indigenous Studies and Indigenous buildings, but it needs to be valued the same as Western science.

Incorporating Indigenous Science for Holistic Decision-Making

Participants also noted the necessity of incorporating Indigenous Science into decision-making, with decisions that consider the interconnectedness of ecosystems, people, and culture. This approach ensures that Indigenous Science is not only included but regarded as essential to comprehensive, culturally appropriate outcomes.

"Decisions need to be made from a holistic and fisheries-based perspective."

Challenges Related to Knowledge Authority and Representation

Participants stated that incompatible differences exist between how DFO perceives IK and how Indigenous fisheries organizations define, value, and document it. For example, DFO tends to focus on catch data gathered by certain methods and does not incorporate data and knowledge gathered using methods associated with documenting IK to include in decision-making. Participants described related experiences with DFO questioning the validity of Indigenous data leading to skepticism and a loss of faith in collaborative efforts.

"DFO sees IK as catch data and dismisses the lived experience."

"Salmon observations by FN communities have been considered low-quality data in DFO databases."

"DFO needs to trust data (of all forms) coming from Nations rather than questioning or doubting it."

Participants emphasized the need for structural changes to prioritize IK and values.

"DFO vs Indigenous community perspectives on the environment and interconnections are very different."

"Credibility must be given to the people collecting and providing data."

Together, these issues culminate in a general lack of trust in DFO's data-sharing processes.

"Faith in the data-sharing process is lost when it is misinterpreted; mechanisms are needed to restore that trust."

Misuse of Data

Participants expressed concern that data shared with DFO has been used against Indigenous communities, or simply misused, as a form of control. This has created deep mistrust in the data-sharing process, leading to reluctance to provide data at all.

"Catch data shared has been used against communities by DFO—used as colonial control."

"Hesitancy to share data because of misuse."

Sovereignty Over Data Interpretation

For participants, data sovereignty means Indigenous communities have control not only over data collection but also over how their data is interpreted and used. Participants stressed the need for mechanisms that ensure data interpretation involves Indigenous parties who have familiarity with it and can add consideration of community values. One example brought forward is to create space within discussions for perspectives on data interpretation and adding these to briefing notes.

Involvement in Decision-Making

Participants called for increased involvement of Indigenous communities in decision-making processes. Indigenous organizations should be authors of policies and management frameworks, not just contributors.

Consent and Data Sharing Agreements

Participants shared current examples of data sovereignty of developing their own consent processes and data sharing agreements to ensure transparency and ethical use of shared data. These agreements include clear explanations of how, why, and for how long data will be used.

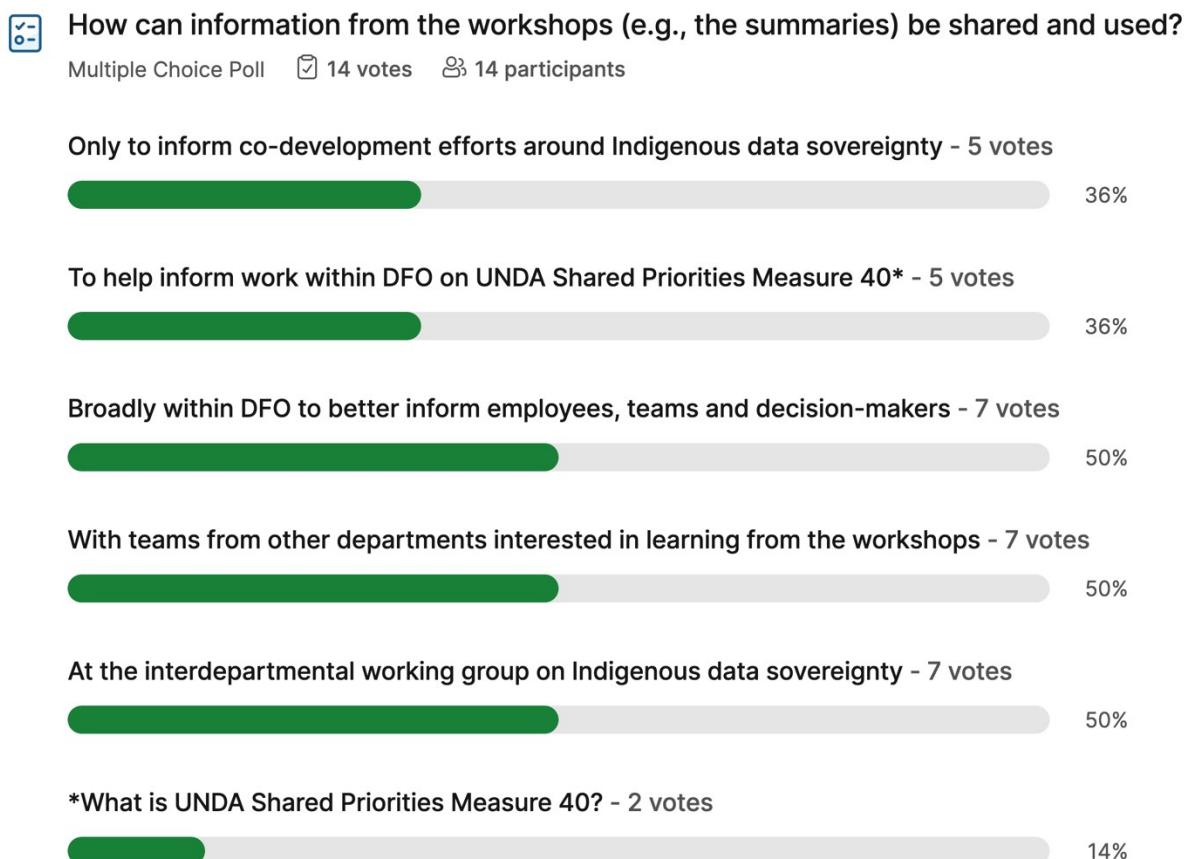
"Access to historical and past data needs to be easier—centralized or more accessible."

Need for Structural Change within DFO

Participants spoke from experiences that indicate a need for structural reforms within DFO to ensure data-sharing processes support Indigenous Data Sovereignty. This includes creating fair, accountable mechanisms and moving away from political and commercial drivers undermining collaboration.

Poll: How to Share and Use Information from the Workshops

The poll allowed the 14 participants to select more than one answer for a total of 32 votes across the 5 questions, and 1 clarification question (“What is UNDA Shared Priorities Measure 40?”). The results, visualized below, suggest participants support sharing results to a wider audience within DFO and beyond, slightly more than just keeping the results specifically to inform co-development efforts around Indigenous Data Sovereignty and to help inform work within DFO on Shared Priorities measure 40.



slido

Figure 2. Sharing and Using Workshop Information Poll Results

Since this poll shows no clear preference from the group, in Workshop #3 we recommend returning to this question to review in greater detail what could be shared, with who, and

how external parties would potentially benefit from and use the outcomes of our work together.

Rotating Break-out Group Brainstorm: Recommendations and Solutions

This section presents proposed solutions and recommendations provided by participants during the rotating break-out group session focused on ways to improve Indigenous Data Sovereignty, structured around key stages in the data cycle: data collection, stewardship and governance, and data sharing.

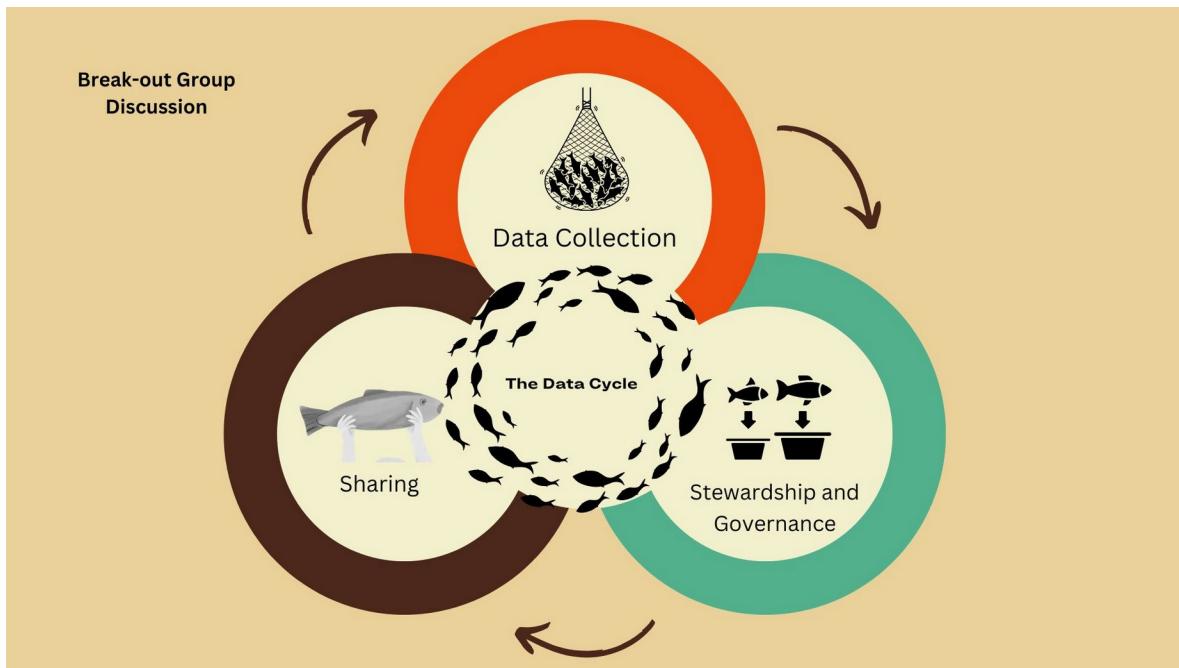


Figure 3. The Data Cycle used to organize focus groups on identifying recommendations according to each stage.

Data Collection

Building Trust Through Transparency and Acknowledgement of Past Harms

Participants stressed that historical harms must be acknowledged meaningfully before the data collection stage, and that transparent communication at this critical point is essential for rebuilding trust between Indigenous communities and external agencies like DFO.

Better Definition of Data and Recognition of Regional IK Systems

Participants expressed the need for a better definition of data, or clearer description of various forms of data, to accurately reflect the breadth and depth of IK systems. They

emphasized that data also includes stories, traditions, oral histories, and cultural practices that are integral to their communities. Participants also noted that IK systems and people are regionally and culturally specific. External agencies like DFO must recognize this diversity and avoid generalizing Indigenous groups under a single label.

"Instead of 'Indigenous,' we should say 'regional First Nations' so DFO understands who the Coast Salish are."

Meaningful Informed Consent Process

Participants stated that the process for gaining informed consent for information sharing should respect generational differences. For example, Elders may require additional time and support to provide consent for their participation in research efforts.

"Informed consent depends on the age/generation of the person you are gathering knowledge from."

Intergenerational Learning and Community Engagement

Participants highlighted the importance of involving youth in the data collection process to foster intergenerational learning and ensure the continuity of cultural knowledge.

Community Involvement in Data Analysis and Follow-Up

Participants expressed that ongoing communication and accountability after data is collected are crucial. Communities should have a role in analyzing and interpreting the data, with follow-up mechanisms in place.

"Closing loop with collected data, with community, verification, circling back: this is how it was used."

"Everyone should see the data. Then we have a meeting where we cut the pie."

Data Stewardship and Governance

Infrastructure, Resources, and Control

Participants emphasized the need for long-term technical infrastructure and resources to enable Nations to steward and house their own data. Participants also expressed that this technical capacity needs to include support for Nations to maintain full authority, access, and control over their data, even when collected by hired external organizations.

Clear Agreements and Accountability Mechanisms

Participants raised concerns about the exploitation of IK for commercial gain. Consequently, they emphasized the necessity of robust safeguards to prevent misuse or commodification of their data. Specifically, participants stated that strong data-sharing agreements should clearly define how data is shared and used, with accountability mechanisms ensuring transparency and protecting the integrity of Indigenous data.

"Some kind of mechanism if agreements are not followed, some kind of accountability."

Data Sharing

Respect, Trust and Reciprocity as the Foundation for Data Sharing

A common theme that emerged throughout the discussions is that respect, trust, and reciprocity are fundamental to effective data sharing. Participants recommended focusing on building respect through engaging in meaningful and equal conversations and identifying the reciprocal nature of data-sharing through establishing mutually beneficial processes.

Indigenous-led Data Sharing Processes

Participants highlighted the importance of data sharing **processes** being **Indigenous led**, enabling communities to design, manage, and distribute their data according to their **needs and** priorities. Utilizing IK to develop these systems ensures that data management reflects Indigenous perspectives and methodologies.

Ethical Use of Data and Clear Protocols for Data Sharing

Participants stressed that any use of data should respect the cultural context in which it originated. To uphold this principle, they advocated for the establishment of clear protocols and data sharing agreements. These agreements should ensure that the use of data aligns with the intentions and consent of Knowledge Holders, thereby protecting their rights and maintaining the integrity of their knowledge.

Shared Platforms and Regional Data Hubs

Some participants suggested the creation of shared platforms or regional data hubs to facilitate data sharing between Indigenous Nations and external agencies like DFO. Within these hubs, Indigenous Nations would determine access permissions and set conditions for sharing to ensure that data sovereignty and community priorities are respected, while facilitating access to valuable data.

Greater Institutional Stability and Capacity

Participants expressed frustration with high staff turnover at DFO, which disrupts long-term relationships and undermines continuity in data-sharing practices. They recommended finding ways to create greater institutional stability and improved staff retention to foster enduring relationships with Indigenous Nations and build trust and capacity.

"High turnover in DFO, less knowledge passed on to support ongoing relationship between DFO and community."

Summary of Findings

The workshop revisited known key challenges experienced by individuals working with or for Indigenous Fisheries Organizations to advance data sovereignty, and then used these issues, organized according to stage in the data cycle, to hear participants' ideas and recommendations for resolving these challenges. Throughout the workshop, participants consistently emphasized the importance of Indigenous communities leading the collection, interpretation, and management of their data as a core element of data sovereignty. Current data-sharing and use practices with the DFO were criticized for lacking transparency, undermining trust, and often reflecting a colonial mindset that devalues IK.

Central to these discussions is the respect for relationships between fish, people, and the environment, which are foundational to IK. Concerns were raised about the misuse of shared data, particularly instances where catch data was used against communities. This has led to hesitancy in sharing information with DFO. To move forward, participants stressed the need for mechanisms that ensure data is used in ways that align with Indigenous values and is governed by clear agreements to prevent exploitation.

Finally, participants underscored the need for increased funding and resources to build internal capacity for data governance, stewardship, and management. Many communities lack the infrastructure to store, manage, and interpret their data, which is essential to maintaining sovereignty over their knowledge systems.

Recommendations for Workshop Module #3

For the next Workshop, the planning team will amalgamate and summarize all accessible guidance materials, toolkits, frameworks, and papers, relevant to Indigenous Data Sovereignty produced by other partnerships or agencies, in different regions of Canada. We will organize the findings of this review according to the key issues and data cycles identified in Workshops 1 and 2.

Using this summary, we propose to draft ideas for recommendations and guidance for each data cycle stage and present these to participants in Workshop #3 for discussion and ensuring they meet the specific cultural, ecological, and governance needs of regional Indigenous communities.

A discussion of how the outcomes of this workshop series will be used, including whether they could be used to benefit other federal agencies, will be brought forward to the group as part of canvassing for and clarifying next steps.