



Towards a Sustainable and Inclusive Future: Participatory Monitoring of Marine Protected Areas

Overview

In the past five years, Canada has protected an astounding 9% of its oceans through Marine Protected Areas (MPAs). However, in order for long-term conservation benefits to be achieved, these MPAs must be effectively monitored. Participatory monitoring is becoming a popular model because it empowers local community members and increases monitoring capacity. Therefore, we recommend government organizations should prioritize developing participatory monitoring strategies in MPAs.



Figure 1: Participatory monitoring in action¹

What is Participatory Monitoring?

Participatory monitoring invites a diverse group of stakeholders to participate in monitoring activities. For MPAs, these groups might include fishers, tourism operators, government officials, community members and scientists. Participants are provided training and may be compensated. Data collected through participatory monitoring is analyzed to gain insight on how an MPA is performing and inform changes to regulations or enforcement.

Why participatory monitoring?

Efficient

Participatory monitoring decreases the number of technical professionals required. This:

- ◆ Increases the capacity of projects technical persons can take on
- ◆ Decreases cost

Effective

Participatory monitoring is carried out by local resources users and allows:

- ◆ Higher frequency of monitoring activities
- ◆ Greater sense of ownership
- ◆ Increased stewardship and compliance with MPA regulations
- ◆ Collection of site-specific data that can be high-quality with proper participant training

Socially Inclusive

Participatory monitoring involves multiple stakeholders and allows:

- ◆ Opportunities to include local knowledge into monitoring practices
- ◆ Education of community members on monitoring activities and conservation
- ◆ Increased trust and communication between scientific and local communities

A Proven Success Record

Successful Implementation in Canada

Participatory monitoring has already been implemented in terrestrial and freshwater systems around Canada. For instance:

- ◆ Participatory monitoring in Lake Winnipeg has filled a gap in government capacity and collected vital data on the effect of elevated phosphorus levels. Training and the development of standardized scientific protocols are highlights of this case and led to the collection of high quality data²
- ◆ Participatory monitoring in the arctic has demonstrated marked success in incorporating traditional knowledge. For instance, an Inuit observation that spring had been more changeable recently led to a study that determined there have been significant changes to weather persistence³

Successful Implementation in MPAs

Outside of Canada, participatory monitoring has already been implemented in MPAs in a number of locations around the world. For Instance:

- ◆ Participatory monitoring in a Solomon Islands MPA was not only successful in rebuilding shellfish stocks but increased stewardship within the community to the point where community members suggested stricter regulations⁴
- ◆ Participatory monitoring in Tanzanian MPAs increased monitoring capacity and led to the collection of high quality data in addition to increased compliance to MPA regulations⁵



Figure 2: Brokenhead Ojibway Nation members participating in monitoring freshwater resources.

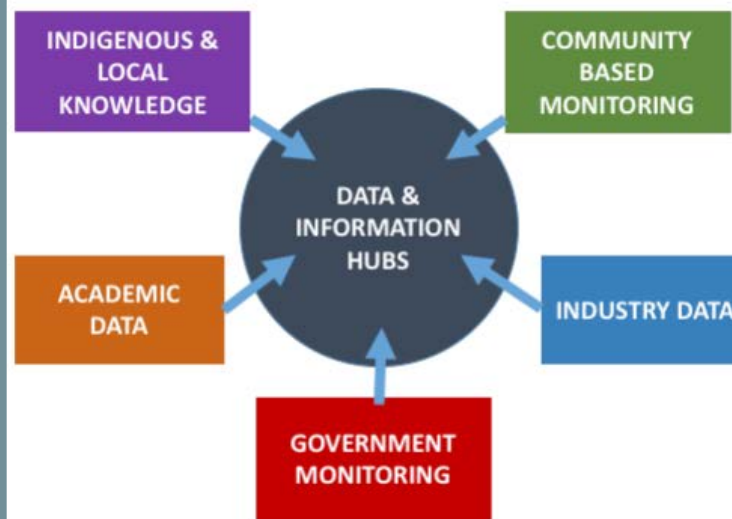


Figure 3: Graphic displaying how a diverse group of stakeholders can enlarge a pool of data more than any individual group could

Recommendations

1. **Pursue participatory monitoring** in Canadian MPAs as an effective, efficient and socially inclusive monitoring strategy.
2. Include **meaningful incorporation of traditional knowledge** sources in initiatives when choosing monitoring schemes and deciding on indicators.
3. Include **auxiliary support measures** such as comprehensive training programs and education on scientific conservation practices.
4. **Maintain community interest** through presentations about outcomes from monitoring activities and consider compensation of participants if possible.
5. Thoughtfully choose participants who represent **multiple stakeholder groups** and clearly define all roles and responsibilities.

¹ <https://medium.com/@TheW2O/citizen-science-and-the-ocean-4dff1b7e0d84>

²Kanu et al., 2016

³Johnson et al., 2014

⁴Aswani & Weiant, 2004

⁵Wagner, 2005

⁶Kanu et al., 2016

⁷Ibid

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