



COMMUNITY
APPROACHES TO
WILDLIFE
MONITORING

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Photo: Pat Kane Photography

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A Practical Guide for Indigenous
Guardian & Stewardship Programs

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MASICHO

MASICHO to all the guardian and stewardship program staff for being so generous and sharing your knowledge and experience for others to learn from.

MASI to Nature United, MakeWay and the Conservation Coaches Network for making these important planning and knowledge resources available to guide guardian programs.



Photo: Pat Kane Photography

COMMUNITY APPROACHES TO WILDLIFE MONITORING

INTRODUCTION

Sharing knowledge across the North about Indigenous guardian and environmental stewardship programs.

This knowledge resource was developed by İdaà Strategies for MakeWay to facilitate knowledge sharing amongst Northern environmental stewardship and guardian programs on the topic of Community Approaches to Wildlife Monitoring. It is intended to be a gathering place for the knowledge and expertise of guardian and environmental stewardship program managers and coordinators from across Northern Canada.

There are many ways to approach developing a monitoring program that involves active participation by community members, general land users, or harvesters. This resource will provide information about the different ways that Northern guardian programs engaged community members in wildlife monitoring activities and data collection, the benefits and challenges, and lessons learned. This report walks through the key steps in the monitoring planning process using existing monitoring guidebooks and information from the Healthy Country Planning¹ process.

Indigenous worldviews are not accurately captured in commonly used monitoring terminology like “wildlife monitoring” or “collecting data”. The work led by guardians is about being in relationship to the land and wildlife. Not separate from, not simply observing or monitoring, not extracting or collecting data, but maintaining and strengthening deeply spiritual and cultural connections and relationships with the land and animals. While this work addresses technical components of “wildlife monitoring”, it is grounded in and guided by respect and understanding of Indigenous ways of life that lead this important work.

¹ Healthy Country Planning is a participatory planning process that develops adaptive management plans with local communities for Indigenous land management programs. Link: <https://www.ccneglobal.com/resource/healthy-country-planning/>

USEFUL & EXISTING MONITORING PLANNING RESOURCES

1

NATURE UNITED INDIGENOUS GUARDIAN TOOLKIT

This online toolkit provides information designed for Indigenous guardian programs to learn how to build and run a guardian program.

Link: <https://www.indigenousguardianstoolkit.ca/>

2

HEALTHY COUNTRY PLANNING

Healthy Country Planning is a participatory planning process that develops adaptive management plans with local communities for Indigenous land management programs.

Link: <https://www.ccneglobal.com/resource/healthy-country-planning/>

3

DATA TOOL SELECTION: AN INTRODUCTORY GUIDE FOR NORTHERN INDIGENOUS STEWARDSHIP PROGRAMS

This guide provides a five-step decision-making process that can be used to support Northern Indigenous stewardship managers as they work to choose appropriate data tools for their programs.

Access: Contact Stephen Ellis, Northern Program Lead, MakeWay at steve.ellis@makeway.org.

4

INDIGENOUS GUARDIAN TRAINING NEEDS SCAN

This report provides insights into the training programs used by guardian programs across the North and the opportunities for future collaboration amongst programs to address training needs.

Access: Contact Stephen Ellis, Northern Program Lead, MakeWay at steve.ellis@makeway.org.

LEARNING FROM THE EXPERTS RESEARCH APPROACH

This knowledge resource is intended to share useful information based on experiences of established programs, about the steps that Indigenous governments and organizations (IGOs) can take to design a culturally-rooted approach to wildlife monitoring, that upholds Indigenous laws and stewardship protocols, and identifies opportunities for engaging community participation. This resource includes:

- Case studies of monitoring programs that have collected data from the public, harvesters or general land users
- Ideas and discussions from Indigenous leaders on the ways in which Indigenous laws and cultural protocols have been or can be included in monitoring processes and protocols; and
- Existing resources that can be used to guide the design of community approach to wildlife monitoring
- Key steps programs can take to design a wildlife monitoring program and process
- Discuss the benefits and challenges of engaging the public to participate in monitoring activities

RESEARCH METHODS

- Conversations with guardian/stewardship program staff
- Group discussions with guardian/stewardship program staff
- Literature review of existing resources
- Online survey
- Build on information shared in previous stewardship reports including the Indigenous Guardian Training Needs Scan and Guidebook, and the Indigenous Stewardship Data Tools Solutions Initiative Background Report.



Photo: Pat Kane Photography

GUIDING RESEARCH QUESTIONS

A survey was done with guardian and stewardship program staff to understand what areas of monitoring protocols and processes they were most interested in learning about. From that survey the following research questions were developed:

1. How are Indigenous laws and cultural protocols represented in wildlife monitoring processes and protocols?
2. What is needed to strengthen the inclusion of Indigenous laws and cultural protocols in wildlife monitoring processes and protocols?
3. How have programs involved community members in monitoring of wildlife and what lessons have been learned?
4. What steps can Indigenous governments organizations take to implement an Indigenous and community wildlife monitoring program?

COMMUNITY APPROACHES BENEFITS + CHALLENGES

BENEFITS

There can be many benefits to designing monitoring programs that involve community participation including:

- Stronger community support for and understanding of the stewardship work
- Stronger community participation and input into wildlife management decision-making
- Cost-effective
- Able to cover larger geographic scope for monitoring than possible with just paid staff
- Land-users and harvesters can offer deeper knowledge and information based on knowledge passed down for generations
- Can provide valuable information about wildlife such as migration routes

CHALLENGES

- Harvesters may be reluctant to share information about where they harvest
- There might be distrust in sharing data with 3rd parties such as government agencies or universities
- May be difficult to convince harvesters to provide biological samples of wildlife, if that organ is something they would normally eat or use (ex: harvesters may prefer to harvest the kidneys of a moose to eat, as opposed to giving up for research)
- Studies dependent on harvester data, such as harvesting studies, require enough participation for data to be reflective and accurate representation
- Western science approaches needs to be well explained to community members
- Collecting data may not be convenient for harvesters, for example it may require extra work for a harvester who is working in very cold winter temperatures

COMMUNITY APPROACHES TO WILDLIFE MONITORING

DEVELOPING A MONITORING PLAN

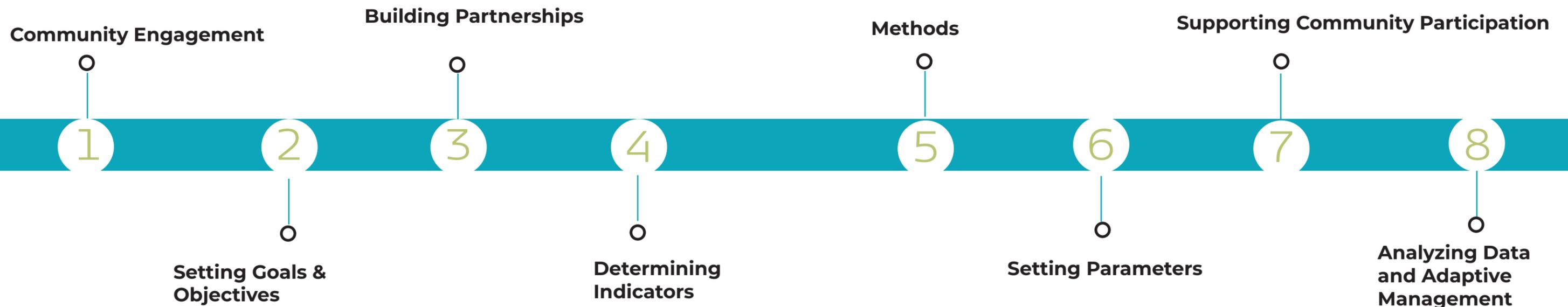
Indigenous guardians and community members play an important role in observing and documenting what is occurring on the lands and waters. They are often the first people to observe environmental concerns, damage to cultural sites, or the cumulative impacts of resource use.

The value of these observations cannot be overstated. Monitoring can be understood as the process of documenting this information in a purposeful and consistent manner so that the data can be compiled and observations can be tracked over time.

Data are the concrete pieces of information that are produced by your monitoring activities. Data is collected, stored in some way, and analyzed so that the community can use it to make decisions or share it with external groups to inform and influence outcomes.

- Nature United Indigenous Guardian Toolkit

Key steps in developing a participatory process for community members to be involved in a wildlife monitoring plan:



1 DEVELOPING A MONITORING PLAN COMMUNITY ENGAGEMENT

PHASES OF INVOLVEMENT

PHASES OF PROCESS THAT MIGHT INVOLVE COMMUNITY MEMBERS:

Community members could be engaged in a monitoring project during the following phases of the process:

1. Designing the monitoring plan:
 - Setting monitoring goals and objectives
 - Establishing indicators
 - Establishing a baseline or assessing the current state of health of a population
 - Determining methods for collecting data
 - Collecting Data
2. Analyzing or understanding results
3. Making management decisions that respond to the information

WHAT IT HELPS ENSURE

ENGAGING COMMUNITY MEMBERS IN DESIGNING THE MONITORING PLAN HELPS TO ENSURE:

- Their input is included in determining goals and objectives
- They understand the reasons for doing the monitoring
- Their knowledge and expertise is used to determine appropriate indicators of health
- The methods of data collection proposed are practical for community members when they are out on the land
- Stronger support for the overall monitoring program and resulting management decisions
- Local and traditional knowledge are the foundation of the monitoring plan
- More active community participation in the data collection
- Identify any challenges, concerns or barriers that community members may be faced with, so that those can be addressed

ENGAGEMENT METHODS

METHODS FOR ENGAGING THE COMMUNITY IN MONITORING PLAN DESIGN:

- Public community meetings
- One-on-one interviews and conversations
- Focus groups

When community members with specific knowledge, such as elders or harvesters, are targeted to participate in design meetings, they may be offered an honorarium.

Example:
If harvesters are concerned or distrusting about sharing data with a third party, if this is identified earlier on, efforts can be made to strengthen community relationships with the third-party partner and build their understanding of exactly how data will be used and not used.

DISCUSSION QUESTIONS

QUESTIONS THAT CAN BE USED TO GATHER INPUT FROM COMMUNITY MEMBERS:

Assuming decision has already been made to monitor a specific species, these questions can be asked during an engagement session to help draw out knowledge and information that can help to shape the monitoring plan goals, indicators, and methods::

- Why is monitoring this animal important?
- What do we know about the animal?
- What is threatening the animal?
- What should we look for to understand the health of the animal?
- What ways could community members participate in collecting information about the health of the animal?
- What Indigenous laws or cultural protocols need to guide this work?
- What should be our goals in monitoring the animal?

② DEVELOPING A MONITORING PLAN GOALS & OBJECTIVES

“Consider bringing in additional technical expertise to help think through specific pieces. The right advisor can help ensure you have a monitoring plan that is clear and doable. You also want to set up a monitoring plan that can be built upon over time as experience is gained, baseline information is gathered, and monitoring and data needs change.”

-Nature United Indigenous Guardian Toolkit

SETTING GOALS FOR THE MONITORING

Setting the goals and objectives will help to outline the reasons for doing the monitoring and identify desired results. The goals will serve as a guide through the monitoring.

Reasons for doing monitoring:

- Deepen understanding and mitigate threats to a species
- Establish baseline data about the health of population of a species
- Contribute evidence for management decisions such as thresholds or effectiveness of an intervention, or information on what management options will work/are working
- Understand the state of a system without interventions ¹

Questions to help set monitoring goals

- What are the reasons for monitoring?
- Why is it important to monitor this species?
- What will the data change or result in?
- Will these goals improve the health of the animal or reduce threats to them?
- How does it fit with the overall stewardship program vision, objectives or strategic plan?

¹ Reynolds, J.H., Knutson, M.G., Newman, K.B. et al. (2016). A road map for designing and implementing a biological monitoring program. Environ Monit Assess 188, 399. Web: <https://doi.org/10.1007/s10661-016-5397-x>



3 DEVELOPING A MONITORING PLAN

BUILDING PARTNERSHIPS

Partnerships can help to provide additional funding, human resources, equipment, and knowledge to community monitoring programs. Many guardian programs have established partnerships with universities, government agencies, or other organizations for specific research or monitoring projects. Partnerships may want to be explored early on in the planning, so that they can be factored into the knowledge and capacity available to support monitoring goals.

UNIVERSITIES & ACADEMIC INSTITUTIONS

Universities have a growing interest in Northern research and many Canadian universities have Northern research or partnership programs. Many guardian programs have partnered directly with universities, and/or Masters or Phd students to collaborate on research or monitoring projects

BENEFITS

These collaborations have benefitted guardians by providing:

- Funding for monitoring or research programs
- Support for funding proposal writing
- Specialized equipment that is left behind for the program after
- Scientific, technical or other knowledge and expertise for designing the program or analyzing data
- Field researchers or capacity
- Co-authorship of publications
- Networks for sharing information about outcomes

SUPPORTS OFFERED BY GUARDIANS

Some of the things that communities or guardian programs have offered the university partners:

- Written consent/support for their research program
- On-the-ground logistical support for their time in the North
- On-the-land guidance and accompaniment by guardians to complete field work
- Support, guidance, or collaboration with community engagement

GOVERNMENT & RESOURCE AGENCIES

Chapter 15 of the Nature United Indigenous Guardian Toolkit addresses building relationships with resource agencies. Access here: <https://www.indigenousguardianstoolkit.ca/chapter/establish-relationships-resource-agencies>

From the toolkit:

The general term “resource agency” is used to capture the range of crown government entities involved in stewardship and natural resource management. Some of the resource agencies that Indigenous Guardian programs may interact with include:

- Federal agencies such as Fisheries and Oceans Canada, Environment Canada, Parks Canada, Canadian Wildlife Service
- Provincial/territorial ministries responsible for environmental protection, lands, water, wildlife management, protected area management, forestry, energy, or mining
- Municipalities or regional agencies that play a role in resource stewardship

Developing relationships with resource agencies can be an important part of Indigenous Guardian programs.

Explore this section to learn:

1. How the on-the-ground effort of resource agencies is changing.
2. The benefits of working with resource agencies.
3. The challenges of working with resource agencies.
4. Some ways to engage with resource agencies.
5. How relationships with resource agencies can be formalized.

Lessons learned about partnerships:

1. Be active in research licensing process and be aware of what is going on
2. Ask for the data and establish an agreement to access data or address intellectual property rights
3. Build relationships and your networks will expand over time that result in more opportunities

4 MONITORING PLAN INDICATORS

Community engagement processes are important to gathering information about the animal that can be used to develop indicators of health that are rooted in local and Indigenous knowledge, as well as indicators and methods that can be feasibly tracked by land users. Public community engagement sessions can help to identify Traditional Knowledge that can be used to understand and track the health of an animal, but it is recommended that a smaller team of program staff, experts and knowledge holders apply the information gathered into the process for establishing the monitoring indicators, methods, and parameters.

The indicators established will affect the data collected and produced. This where it is also important to consider the partnerships involved in the monitoring and the capacity you have to manage and analyze different kinds of data.

Steps to design indicator metrics:

1. What are the attributes of the wildlife that community members discussed that can help to determine the health of the animal?
Example: (Fur/coat, fat, organs, calves)
2. For each attribute, brainstorm what signs of that attribute indicate poor, fair, good and very good health.
Example: Ekwò Nàxoède K'è looks for discoloured, patchy hides to indicate poor health and nice colour with no patches to indicate good health on a caribou
3. Determine a baseline by ranking each attribute on the scale from poor to very good health.

Example of Indicator Scale for Caribou Hide:

Poor Health	Fair Health	Good Health	Very Good Health
Discoloured and patchy	Discoloured, no patches	Nice colour, some patches	Nice colour, no patches

↑
Current Status

CASE STUDY EKWÒ NÀXOÈDE K'È

Ekwò Nàxoède K'è, formerly Boots on the Ground, is a participatory action research project modeled after a traditional caribou hunt. The program was created by Tłı̨chǫ Government to monitor the barrenland caribou and understand declining herd numbers. A group of elders and traditional knowledge holders are hired each year to travel and live on the barrenlands for several weeks to observe and monitor the barrenland caribou and share knowledge.

Community Involvement:

Three teams alternated two-to-three-week shifts monitoring. Each team consisted of one elder, a younger hunter, one youth, a hunter/safety person, two local guides, a cook, and a TK researcher.

Frequency:

Annually - The first year was 4 weeks, now it is up to 3 months

Partnerships:

GNWT Environment and Natural Resources provided funding and collar data and the Cumulative Impacts Monitoring Program provided funding.

Field Methodology:

“Do as hunters do “

- Use traditional hunting methods to find and observe caribou
- Ethnography, through interacting with Elders as junior researchers
- Using modern technology to observe and document caribou
- Recording observations as detailed field notes
- Integrating traditional Tłı̨chǫ language, knowledge and concepts

These indicators are assessed through detailed observations of caribou over the course of the research program, and are described in qualitative and quantitative terms. We believe that a qualitative analysis of individual animals, and of the herd behavior can provide a wider understanding in the context of our research. Meanwhile, we use quantitative indicators to quantify numbers and perform specific forms of data analysis.

Methods:

Field note-taking, GPS, photo documentation, collar data provided by ENR,

Indicators Used To Monitor Caribou Health

Caribou Habitat and Environmental Conditions

- Daily weather pattern (temperature, wind direction, humidity, barometric pressure)
- Caribou behaviour in response to weather
- Daily insect activity in response to weather
- Caribou and predator behavior in response to weather/ insect activity
- Conditions of vegetation and caribou forage
- Effects of environmental changes on habitat and caribou

Predators

- Number and location of caribou predators Signs: tracks, kill sites,
- Relationship between caribou and predators

Industrial Disturbance

- Caribou behavior and movement affected by visible presence, noise, scent from industrial infrastructure and activities

Caribou

Caribou health

- Unhealthy: skinny; bony; fatigued
- Healthy: normal conditions. No bones visible on rump and back
- Healthy: Layer of fat shows on the neck and back, and back to rump. Look at tail; if it's short, then the animal is fat and healthy

Hide color

- Unhealthy: discoloured; patchy
- Healthy: nice color; no patches. In July: white colored hide (shed winter coat in June- July), August: darker color and shorter hair (new winter coat is coming).

Walking posture

- Unhealthy: walking with lagging head –
- Healthy: prancing, or normal posture: head straight or slightly down when walking

Injured animals

- Number of caribou injured in the herd
- Types of injuries
- Signs of disease

Calves

- Cow-to-calf ratio
- Number of cows without calves i. When no calves: sign of unhealthy herd, and cows under stress
- Number of twins: sign of a healthy herd, as the cow is healthy enough to support two calves— demonstrates cows have not been under stress, and good habitat quality

References & Resources:

- “We Watch Everything” A Methodology for Boots-on-the-Ground Caribou Monitoring: https://research.tlcho.ca/sites/default/files/we_watch_everything_a_methodology_for_boots_on_the_ground_caribou_monitoring.pdf
- Ekwò Nàxoède K'è 2019 Results: Tłı̨chǫ Traditional Knowledge and Land Use Study (2020). https://research.tlcho.ca/sites/default/files/2019_ekwo_naxoede_ke_results_report_1.pdf

5 DEVELOPING A MONITORING PLAN METHODS

WHAT ARE THE METHODS TO HELP GATHER INFORMATION?

DETERMINING DATA NEEDS AND TOOLS

The Data Tool Selection: An Introductory Guide for Northern Indigenous Stewardship Programs was previously commissioned by MakeWay and provides “a number of important questions, background information, lessons learned from others and, most importantly, some considerations to think about before investing in and implementing a data management approach. Reading this resource as you develop your monitoring plan can walk you through the considerations and steps that guardian programs should think through when selecting data management tools and technology.

The five-step guide includes:

1. Clarifying Monitoring Goals, Objectives and General Methods: “What” are you monitoring, “why” are you doing it, and “how” will you do it?
2. Considering Lessons Learned: How can “lessons learned” from other groups help you in selecting the right data tool?
3. Framing Your Needs: What information are you collecting? What are your “user needs”? What is your Government/organization’s operating environment?
4. Matching the Tool(s) with our Needs – What data tool characteristics best fit with our situation and what do we need out of that tool?
5. Evaluation and Adaptive Management – How will you evaluate to determine if these tools are working?

What kind of data will be produced?

Quantitative: information that can be counted or measured

Qualitative: descriptive information such as observation

METHODS USED TO GATHER DATA

Methods used to gather data from community members:

- Verbal reports of what was observed
Example: Community members are invited to drop into the office after spending time on the land to share information while a staff person documents it in writing
- Written reports of what was observed
Example: Forms are made accessible to community members to download or carry with them to record observations. Some programs have started trying to use apps.
- Photographs/videos
Example: Community members upload or submit photographs or videos to data management system or coordinator
- Specimen samples collected post-harvest that can be submitted and scientifically analyzed. Partner organizations may have kits to provide to community members with the equipment needed to collect the data
Example: submission of organs or a piece of organs such as the femur bone, kidneys, liver or fur
- Specimen samples collected from the land and submitted
Example: caribou scat

How will the data be collected from community members?

- Scheduled or walk-in interviews with land users
- Reports/forms that can be submitted (one guardian program has a form that people can download onto their phones, whereas another program had harvesters use technology to upload data directly into the Trailmark System)
- Photo or video submissions
- Collecting information/written or verbal reports door-to-door
- Submission of biological samples using provided instructions or kits

Lesson learned about gathering specimens:

The Sahtú Renewable Resources Board has found that harvesters do not have time to focus on collecting specimens while they are out harvesting. However, the board has found that having paid monitors collect caribou scat or other kinds of genetic samples (eg. flesh of harvested caribou) is an effective non-invasive method of doing caribou monitoring.

This approach is strongly supported by communities as an alternative to invasive approaches like collaring. Caribou scat includes genetic information, and can provide answers to a number of community questions and concerns, including information about caribou relationships, health, and distribution.

6 DEVELOPING A MONITORING PLAN SETTING PARAMETERS

Parameters narrow the details of how to implement the monitoring program and may be influenced by budget or capacity requirements:

- What geographic area will data be collected from?
- For how long will data be collected?
- Who will collect what data and how frequently?

Programs may design their monitoring program so that community member data is complemented by regular data collected by guardians or staff monitors.

“One of the benefits of engaging the community in data collection is that it allows us to cover a much larger geographic scope than we ever could on our own.”

-Patrick Riley, KFN Guardian Coordinator

HARVESTER STUDIES

Harvester studies represent one of the most popular ways that Northern stewardship programs have engaged community members in monitoring activities and collecting data to increase capacity of Indigenous governments to make evidence-based management decisions.

Harvester studies typically collect data about what, where, and when an animal was harvested, as well as general observations about behaviour or health, directly from the harvesters.

The Inuvialuit Harvest Study which began in 1987 and is coordinated by the Joint Secretariat serves to establish a continuous, long-term study on harvest data on all species harvested by Inuvialuit in the Inuvialuit Settlement Region. Some important reasons for doing a harvest study such as this may include:

- To contribute reliable harvest data and Indigenous knowledge to inform and support co-management boards
- To build and increase community capacity to meaningfully participate in local and regional research and monitoring
- To establish long-term harvest monitoring to meet the needs of local/regional decision-makers and knowledge holders
- To corroborate any potential claims related to future harvest loss connected to environmental change, degradation or destruction (IRC Community-Based Monitoring Program: Inuvialuit Harvest Study presentation (2016))

7 DEVELOPING A MONITORING PLAN SUPPORTING COMMUNITY PARTICIPATION

“Sometimes it comes down to respect and trust. Going to a harvesters door and asking he/ she to share their personal harvest with the understanding it will be shared discreetly through data collection that will benefit their respective communities by applying it to comparable data from previous years. Using this harvest study methodology helps us compile and compare what was harvested from the current season to the previous year’s identifying if our animals harvest patterns are getting harder to hunt. It Just comes down to respect and trust.”

-Kirt Ruben, Community-Based Monitoring Program Manager, Inuvialuit Settlement Region Joint Secretariat

MANAGING CONCERNS/HESITANCY

Community members and harvesters may be hesitant to participate for a number of reasons which may include:

- Distrust in sharing data with other government agencies or universities
- Reluctance to give up location information about where they harvest
- Reluctance to give up biological samples for wildlife organs they would normally eat or use
- Fear of getting in trouble with enforcement agencies if they get information about their activities

Building and maintaining trust with community members and land users is very important. Provide very clear information on how data will be used and not used, who will get access to the data, if data providers will remain anonymous, how information such as geographic coordinates will be used, and why collecting this information is important for the program and community (ie: how will it factor into decision-making).

BUILDING CAPACITY

It may be necessary to offer training to community members about how to follow the monitoring protocols. Some programs have done general public outreach efforts to inform the community in how to participate in data collection, others have targeted specific knowledge holders, such as harvesters, and invited them to training sessions.

COMPENSATION

Having incentives to encourage community members to participate was identified as being key. Compensation such as gas cards, grocery cards and cash that typically ranged from \$20-\$50 have been effective.

CASE STUDY

KÁTŁ'ODEECHE FIRST NATION (KFN) TRADITIONAL HARVESTING STUDIES

KFN runs multiple harvesting study programs. They have been able to capture nearly 100% of band members large game harvest. They also study small game and berry harvesting. The KFN harvesting studies are based on traditional harvesting methodologies.

Wildlife Monitored:

Caribou, moose, fish, duck, geese, and small game that can be trapped. Berries are also monitored.

Frequency:

Harvesting studies are done year round and prize draws are done quarterly

Methods:

1. Harvesters fill out a form on what was harvested and approximately where it was harvested, or harvesters can come into the office and provide a verbal report that gets documented.
2. KFN Guardians keep their ears to the ground and report on the harvests of non-KFN members and other local harvesters.
3. KFN organizes community hunts and sends harvesters and guardians out together to do harvesting and monitoring activities, such as a fall hunt.

Communications and Outreach:

After 3 or 4 years, it has been long enough that community members are aware, but the most effective way of communicating is through Facebook and posters at the band office and the store.

Benefits:

- Provides important information and scientific data on wildlife populations.
- Helps KFN to understand how much harvest affects population dynamics.
- The evidence produced has led to wildlife management decisions made by KFN, such as self-imposed harvesting moratoriums.
- Provides the GNWT Environment and Natural Resources with much-needed data to help monitor population dynamics and harvesting numbers

Compensation:

Community members are given \$50 gift cards for reporting. Quarterly draws are also performed for cash prizes, hunting gear and field supplies.

Partnerships:

Have partnered with the GNWT Department of Environment and Natural Resources and used their kits to get biological and genetic testing done. The Cumulative Impact Monitoring Program was also a funding partner. Most importantly, KFN also has an agreement so that they get access to all the data.

Lessons Learned:

“Right from the beginning, you have to let people know that it will be completely anonymous and the hard part is informing and convincing them why it is important.”

- Patrick Riley, KFN Guardian Coordinator

8 | DEVELOPING A MONITORING PLAN

DATA ANALYSIS AND ADAPTIVE DECISION-MAKING

DATA ANALYSIS

The ways in which you analyze data will very much depend on the type of data collected and the technology used to manage it.

The scale that you established for determining indicators process provides a tool that can be used over time to continually reassess the health of the animal. This helps to provide information about whether current conservation or management approaches are working towards improving the health and reduces threats to the animal. It may also point to the need for new measures or activities that need to take place to support the well-being of the animal.

ADAPTIVE DECISION-MAKING

The information that your monitoring provides you over time can ultimately give you evidence for making informed decisions about wildlife management. As the data informs you about population dynamics, wildlife behaviour and health, harvesting practices, local and Indigenous knowledge, you can use this information to make decisions or host further discussions with the community about how to respond.

Photo: Pat Kane Photography



COMMUNITY-BASED APPROACHES TO WILDLIFE MONITORING REFERENCES

SURVEY RESPONDENTS

Doug Yallee
Hannah Taneton
Patrick Riley
Alice McCulley
Dahti Tsetso
Daniel Taukie
Stephanie Behrens
Tanya Ball
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INTERVIEWS

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Tanya Ball
Lisa Shepperd
Hannah Tanneton
Cyre Yukon

RESOURCES & ARTICLES

Conservation Coaches Network. (2017). Healthy Country Planning. Web: <https://www.ccnetwork.com/resource/healthy-country-planning/>

Dena Kayeh Institute. (2018). Dane nan ye dah Network Strategic Plan 2018 – 2022: <https://kaskadenacouncil.com/download/dane-nan-ye-dah-network-strategic-plan-2018-2022-dena-kayeh-institute-2018/?wpdmdl=5451&refresh=603c3268d11db1614557800>

Etiendem, D.N., Jeppesen, R., Hoffman, J., Ritchie, K., Keats, B., Evans, P., & Quinn, D. (2020). NRC Research Press. Nunavut Wildlife Management Board's Community-Based Monitoring Network: documenting Inuit harvesting experience using modern technology. 307-325. Web: <https://cdnsiencepub.com/doi/pdf/10.1139/as-2020-0008>

Inuvialuit Regional Corporation. (2017). Community Based Monitoring Program: Inuvialuit Harvest Study Presentation. Web: <https://www.jointsecretariat.ca/new-page-2>

Larter, N.C. (2009). Program to Monitor Moose Populations in the Dehcho Region, Northwest Territories, Canada. Alces Vol 45. 89-99. Web: http://sdw.enr.gov.nt.ca/nwtdp_upload/PAPER_PUBLISHED_IN_ALCES.pdf

Nature United. Indigenous Guardian Toolkit. Web: <https://www.indigenousguardianstoolkit.ca/>

Racher, K. & Cowell, S. (2021). NWT Healthy Country Planning Training: Adaptive Management for Conservation Training: Apply Healthy Country Planning. Print.

Reynolds, J.H., Knutson, M.G., Newman, K.B. et al. (2016). A road map for designing and implementing a biological monitoring program. Environ Monit Assess 188, 399. Web: <https://doi.org/10.1007/s10661-016-5397-x>

Tides Canada. (2018). Data Tool Selection: An Introductory Guide for Northern Indigenous Stewardship Programs. Print.

Tides Canada & Blythe & Bathe. (2019). Indigenous Guardian Training Needs Scan. Print.

Thcho Government. (2020). Ekwq Naxoède Kè 2019 Results: Thcho, Traditional Knowledge and Land Use Study. Web: https://research.tlcho.ca/sites/default/files/2019_ekwo_naxoede_ke_results_report_1.pdf

Thcho Government. (2017). “We Watch Everything”: A Methodology for Boots on the Ground Caribou Monitoring. Web: https://research.tlcho.ca/sites/default/files/we_watch_everything_a_methodology_for_boots_on_the_ground_caribou_monitoring.pdf



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MASICHO!

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