Informing First Nations Stewardship with Applied Research

Key questions to inform an equitably beneficial and engaged research process

Kitasoo/Xai'xais Stewardship Authority

Contributions and Acknowledgements

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Purpose and Scope

>>> The purpose of this guide is to support researchers at all career stages and First Nation stewardship staff alike to **engage in an equitably beneficial research process** in support of conservation and stewardship initiatives.

We note that individual Nations might already have well-developed policies governing their relationships with researchers, which should of course take precedence.

Researchers

Equitably Beneficial Research Process

Nation Stewardship
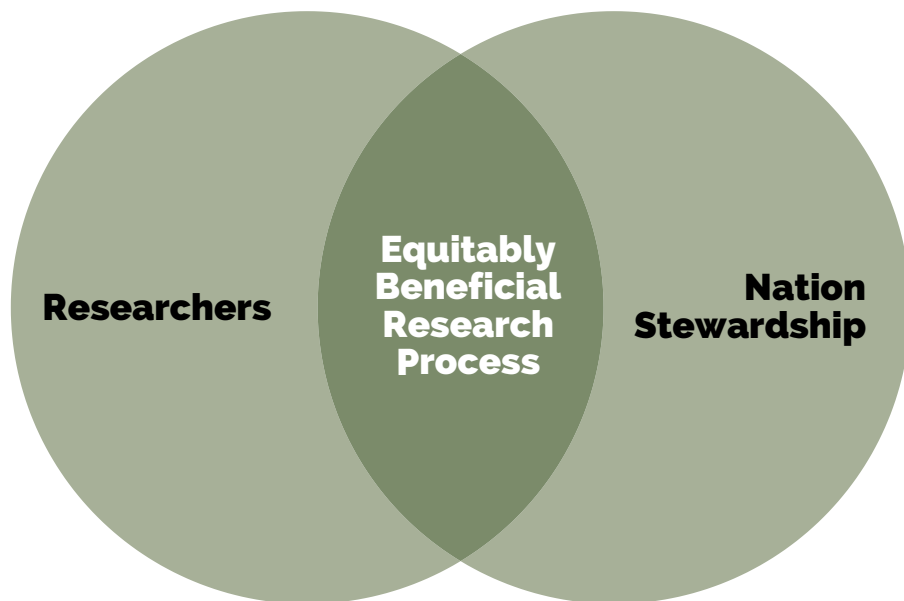
Although this guide was developed from lessons learned from research relationships between Nations and researchers in British Columbia, Canada, the **content is intended to be generalizable** and to be of use (at least in part) by other Nations and researchers from other labs and institutions collaborating on new projects.

As such, all content of this guide is 'open-source' and can be used in full or part by any interested party. A full Word version of the document can be accessed by emailing research@kxsa.ca.

Purpose and Scope

>>> In this report, we offer **key questions and considerations** for researchers and Nation staff throughout the engagement process.

We anticipate that these questions could be used as a guide during **initial scoping conversations** between Nations and researchers to help provide clarity as they begin to build a new relationship or embark on a new research project.

Specifically, this guide may be useful by researchers as they **conceptualize and carry out research projects**, and by Nations as they develop their own **policies and procedures for research engagement**.

Examples: We predict that the discussions that stem from working through this guide can **help structure downstream agreements** between the Nation(s) and the researcher(s), including but not limited to:

- Protocol Agreements
- Data Share Agreements
- Memoranda of Understanding

Purpose and Scope

>>> This guide is **not designed as a flow chart**. If answers to any given guide question are 'no' or 'uncertain', it **does not** indicate that the research partnership is not feasible.

Rather, such a response suggests that the relevant party (Nation or researcher) may wish to give this topic some thought as to whether it is important for them and, if so, it may warrant further discussion between the parties.

As such, it may also be worth revisiting this guide again as the research project progresses.

Recognize Evaluate Reassess

✔ + ⚠ + ✔

We use the broad terms '**the Nation**' and '**the Researchers**' through this document. We suggest each party clarify early on who the accountable person or persons are for each responsibility.

For example: Is the contact person the Nations' research coordinator or Stewardship Lead? Is the research graduating student or the Principal Investigator responsible for communication with the Nation's contact(s)?

Background

>>> Increasingly, academics and First Nations governments are seeking **mutually beneficial research relationships**.

However, research in the context of Indigenous communities has a deep history of being extractive, non-consensual, and damaging.

As such, we offer this guide in part to help navigate how to **reformulate the researcher-Nation relationship** in a way that avoids the harming elements of former research practices.

Though some of these questions can help expedite some important steps of building a mutually beneficial research engagement process, it is important to recognize that **relationship and trust building takes time.**

Though we offer this guide as a very applied 'nuts and bolts' starting place for discussion and relationship building, there are many in-depth academic readings on this subject, some of which we include at the bottom of this document in a 'Suggested Key Reading' section (page 29).

Part 1:
Initial Engagement

In this section, we outline key questions that parties in a research collaboration might consider. We offer these questions as prompts for the scoping of research objectives, the shaping of methodologies, and the foundation for downstream agreements.

Initial Engagement

1. Has the Nation identified a **primary contact person** for research inquiries?

2. Has the Nation articulated its **research priorities**?

3. Does the Nation have an **established process** for intaking and reviewing research applications?

4. Are the applying researcher and their team **qualified and resourced** to address the proposed research priority?

5. Who on the researcher's team should be the **primary contact for initial engagement** (e.g., graduate student, Principal Investigator)?

6. Does the Nation have **existing templates or frameworks** that can be used to draft a research protocol agreement, data share agreement, and/or memorandum of understanding?

| PRIMARY CONTACT (Nation) | RESEARCH PRIORITIES | ESTABLISHED PROCESS | RESOURCES | PRIMARY CONTACT (Researcher) | EXISTING FRAMEWORK |

Formulating a Research Project

Key questions to focus goals:

1 Does the proposed research question have:

A) **relevance**, and/or

B) **benefits** to both parties?

2 Can the project create educational and scholarly **opportunities** as defined by the researchers and/or the Nation?

Key questions in considering scope:

1 Can the project yield outputs on a **timescale that is useful** in a policy context?

2 Will the project:

A) Provide the **foundation** for a longer term research program, or

B) Address an **acute**, but temporally-limited, research need?

3 Does the project, or the components of deliverables, match typical timeframes for **identified student contributions**?

For example: Honours, Bachelor, Masters, PhD, postdoc, or teams of sequential trainees

Communication

1 Beyond the initial inquiry, who are the main points of contact **between the Nation and the research group**?

> **For example:** Stewardship Leads, Council members, graduate students, Principal Investigators, Nation's consultants/collaborators, etc.

> A) Are **'executive' members** (Stewardship Leads, Principal Investigators) involved in regular communication? If so, at what level – strategic only or logistical/practical and ongoing?

2 Are **members of both teams** familiar with their own roles and responsibilities, and those of whom they will engage with regularly?

> A) Are researchers connecting with the **right people on the right issues**?

> **For example:** Are students connecting with stewardship staff, not hereditary leadership, if that is deemed the most appropriate line of communication?

3 Are members of both teams **familiar with each other's constraints** and contextual parameters that define how the other party can engage?

4 What is an appropriate **frequency of communication** for both parties?

Communication

5 Do researchers have a **plan to regularly communicate results** in a technical and/or accessible way to relevant Nation groups (e.g., Nation government, Stewardship board/committee)?

TECHNICAL	**ACCESSIBLE**
e.g., report for Stewardship department, government briefing note	**e.g.,** community open house, newsletters, social media

A) What is the **timeframe** of these commitments?

B) Do the researchers have resources in place for this plan that is **congruent with the Nation's communication process**?

6 Is there a **communication strategy** for academic publication, conference presentations, press releases, press messaging, and/or other publications (e.g., trade books, magazines, etc.)?

For example: Review by Nation staff before submission

A) What **format** should this information be provided in (e.g., full document, short summary, meeting presentation)?

B) What are the **commitments regarding timelines** (e.g., for submission to Nation staff, and for the response from Nation staff)?

Communication

7 Is there a **consent process in place for information, images, and audio-visual footage** to be used in publications or shared in other published or public formats?

8 Is there an **appropriate non-peer reviewed venue** for the research to be shared that can benefit the Nation (e.g., government to government technical meetings, reports, newsletters, and/or community meetings)?

> A) Are there appropriate non-formal venues **outside of the local community** where the researchers can share the results of the work (e.g., seminars, social media, etc.)?

9 What are some contexts in which disputes might arise? Is there a **dispute resolution strategy** in place (i.e., between the researcher and the Nation)?

10 Is there an opportunity for **periodic feedback** to monitor effectiveness, address any issues that arise, and help to improve the process in future collaborations (see Periodic Evaluation Guide; Appendix 1)?

Part 2: Delineating Commitments

When developing a collaborative project, it is important to establish delineated commitments at the outset.

In this section, we offer core concepts for consideration when bringing a research collaboration from the scoping phase towards its implementation phase. Our intention is to provide a guide for key responsibilities and commitments throughout the planning process. We outline key considerations for Nations and researchers to discuss while delineating publishing, collaboration, funding/capacity, and data commitments.

Delineating Commitments

📖 Publishing

1 What are the **intended publications from the research outputs**?

> **For example:** Chapter in a thesis, peer-reviewed publication, policy briefing

2 What **constraints or sensitivities** might there be about publishing in **non-peer reviewed** or popular venues, or through other media?

3 What **constraints or sensitivities** might there be about publishing in a **peer reviewed** venue (and/or a thesis)?

4 Is the **Nation aware of the pros and cons** of open-access data?

> A) Does the Nation have a **policy on open-access data**? If not, has a conversation about this occurred?

5 Is there a protocol to **appropriately display sensitive spatial data** (i.e., confidential cultural or ecological spatial data that the Nation may not want shared in public format)?

> A) If not, **how can sensitive data be displayed**?

> **For example:** Is there a certain spatial scale, resolution, or process of buffering/randomization that can be applied to raw spatial data to make it appropriate for sharing?

Delineating Commitments

📖 Publishing

6 Are there any constraints if the Nation wants to use the research findings towards **policy objectives prior to peer review**?

7 Is there an **opportunity for the Nation to review** non-scientific aspects of the research project products (e.g., the Nation's information and portrayal in a publication)?

> A) If so, what are the **commitments regarding timelines** (for submission to Nation staff, and response from Nation staff)?

Delineating Commitments

🤲 Collaboration

1 Is **authorship from the Nation** staff and/or relevant community members desired?

> A) If so, what criteria must be met by both parties for **meaningful co-authorship**?
>
> B) If collaborators are new to academic co-authorship, how do the researchers plan to **share what the process is like** and what might be expected?
>
> C) How will researchers **engage with community co-authors** throughout the process and especially during the writing phase?

2 How will **Nation contributions be acknowledged** outside of authorship?

> **For example:** Acknowledgement sections of presentations and publications

Delineating Commitments

$ Funding & Capacity

1 **Where** does the research funding come from?

2 Who is responsible for writing **proposals and reporting**?

3 Is there an agreement about who will hold/**administer funding**, and how funds for community engagement will flow to the Nation?

4 Is there a policy on **hiring students or staff from the Nation** to be part of the project? If not, consider discussing potential opportunities.

5 Is the funding secured throughout the **life cycle of the project**?

6 Does the project have **resources to support all phases** of the research process, not just field time?

> **For example:** Community meetings and visits, field research technicians, interview honoraria, analytical/travel/publication costs

> A) If not, are there plans to **secure such funding** as the project advances?

Delineating Commitments

$ Funding & Capacity

7 What **resources are available from the Nation** (e.g., boats, staff, housing)?

> **For example:** Boats, staff, accomodation

> A) Is there **funding available** for the use of those resources, or are they being requested in-kind?

8 What resources can be **provided by the researcher**?

> **For example:** Technicians, honoraria for interviews or staff time from the Nation, trucks or boats, equipment, youth mentoring, stipends to pay students

9 Are there any **synergies between existing projects** that can be leveraged?

> **For example:** Sharing a boat/skipper between projects

Delineating Commitments

📈 Information Stewardship

1 Is there a **shared understanding** of overlaps and/or distinctions between the Nation's knowledge and research data?

2 Who **owns or co-owns the data** from a project?

> A) How **sensitive are the data**? What are the implications of this?
>
> B) Can **data be shared** beyond the Nation and research group? What uses (if any) can be guaranteed at the start by the Nation?

3 How long will the **data be stored**?

> A) Who has **access to the data** and for how long?
>
> B) What happens to the data **after the project is complete**?
>
> C) Does the Nation wish for the researchers to **keep a backup copy** of all data for redundancy? If so, for how long?

Delineating Commitments

📈 Information Stewardship

4 How will data collected from research with humans and animals meet not only **community ethics protocols** but also **institutional research ethical processes** and **permitting processes** by other levels of government?

COMMUNITY ETHICS PROTOCOLS	INSTITUTIONAL RESEARCH ETHICS	OTHER PERMITTING PROCESSES
For example: Nation wildlife policies, Indigenous laws	**For example:** Human Research Ethics, Animal Care	**For example:** Parks permits

A) How will these independent processes be navigated **if they do not align in philosophy/understanding** of governance authority?

5 In what format will the data be **shared with the Nation** (e.g., raw, buffered, interpreted, accompanying metadata)?

A) When will this be **updated/completed**?

Delineating Commitments

📈 Information Stewardship

6 What is the **consent process** for data to be used outside of the scope of a project?

> A) Does the Nation have a **data share agreement** or framework?
>
> B) What if other **research questions arise at a future date** that the data could help answer?

> **For example:** Can the Nation share the data with unaffiliated researchers? Can the researchers use the data for other purposes?

7 Does the researcher **require additional data from the Nation** (or others) to support their analysis?

> **For example:** Does the researcher require traditional use study data or spatial data from external sources?

> A) If so, **is this covered** by a data share agreement?

Part 3:
Methods

In this section, we offer key questions to guide the logistics of the data gathering phase of the research process, whether that be fieldwork, work in community with knowledge holders, and/or analytical work.

Methods Planning - Page 21

Methods Engagement - Page 23

Methods Planning

1 Does the Nation expect the **researcher to gather relevant data** from existing and secondary sources prior to conducting primary research?

> **For example:** Public data, data held exclusively by the Nation or by a provincial/federal agency, data held by third parties, possible inclusion of Traditional and Local Ecological Knowledge (TEK/LEK)

2 Are there **logistical constraints** in collecting desired data?

> A) Is there **flexibility** to address these constraints?

> **For example:** Conducting interviews in the winter when accommodation may be more likely available or people have more time, versus the summer

3 Is there interest from and value to the community to have **new interviews** conducted related to study focus, or have interviews on the subject been completed sufficiently to date?

> A) Are there other concurrent research projects or questions that the Nation would like to **combine into shared interviews**?

4 Do proposed methodologies consider any **interview or logistical fatigue** related to Nation resources and/or what community members may be experiencing?

Methods Planning

5 If conducting interviews, **how will knowledge holders/interviewees be identified**?

> A) **Who will reach out** to them?

6 What is the **consent process** for interviews and for the use of shared knowledge?

> A) How and when will the researchers **follow up** with the interviewees?

For example: Providing transcripts, opportunities to edit

7 If conducting field work, **who supervises crews in the field**?

> A) To whom will the **crew supervisor report**?
>
> B) Which party will **cover WCB and other insurances**?

8 Are there any expectations or guidelines from the Nation regarding **access to sensitive areas (ecological or cultural)**?

For example: Restricted motorized vehicle use, appropriate distances from wildlife, behaviour on site

Methods Engagement

1 Is there **expertise in the community** that could be incorporated into sampling/study design?

> **For example:** Are there people in the community that have been involved with similar work in their territory in the past, or may have expertise as knowledge holders or through their own line of work?

2 Do the proposed methods **align with the Nation's Indigenous laws, principles, or policies** (if desired by the Nation)?

3 Is it **appropriate to host workshops/community meetings** regarding proposed methods to communicate information about the proposed project and solicit input?

Part 4:
Data Analysis
& Results

In this section, we outline key questions to guide the analysis and presentation of results from co-developed research products.

Key Questions for Data Analysis & Results - Page 25

Data Analysis & Results

1 Are the results in a **format that is useful** for the Nation's Stewardship goals?

> A) If not, can they be **converted** into such products?

2 Are there **additional analyses** (i.e., beyond those required for scholarship or those addressing core identified questions of research) that can be conducted to support planning, policy and management, but that **may not be included in academic publications**?

> **For example:** Spatial data files that can be used for land/marine use planning

> A) Do the analyses and results fit with (or can they be converted to) **preferred formats used by the Nation**?

3 Are all methods (field and analysis) **clearly written up and provided to the Nation**?

> A) If the project involves computer coding for analysis, have the commented code and raw data been **shared with appropriate metadata**?

> B) If the project involves interviews or qualitative info, have interview/survey guides, raw data, and coding/interpretation **methods been shared**?

Data Analysis & Results

4 Can researchers **provide a method or analytical tool** that can be easily expanded on by the Nation and/or future researchers?

> **For example:** Can the analysis be continually updated with new data so that the results are relevant in the future?

5 Are both parties **satisfied with how qualitative or culturally relevant data** will be analyzed, so that interpretation will be accurate and fair?

6 Can the results from the initial research **inform and/or lead into future work**?

Part 5:
Reciprocity & Benefits to the Nation

Finally, in this section, we offer guiding questions that relate to building community benefits into research program design.

Key Questions for Reciprocity & Benefits to Community - Page 28

Reciprocity & Benefits to the Nation

1 If desired, is there an opportunity to **provide skills training and capacity building** for (and funding to) community members?

> **For example:** Supervisor training, budgeting, GIS, interviewing, data management, research approaches

2 Are there employment opportunities for community members?

> **For example:** Field technicians, lab workers, boat operators, interviewers, coordinators

3 Are **honoraria paid to interview participants** in line with Nation standards?

> A) **How and when** will they be paid out?

4 If desired by the Nation, are there **opportunities to engage with youth**?

> **For example:** Hiring a youth intern, school visits

5 When researchers have access to project funding, can some be leveraged to **provide certification opportunity** within the community?

> **For example:** Boat operators certification or Wilderness First Aid

Suggested Key Readings

>>> Though we offer this guide as a very applied 'nuts and bolts' starting place for discussion and relationship building, there are many in-depth academic readings on this subject, some of which we include here:

Adams, M., J. Carpenter, J.A. Housty, D. Neasloss, Paul C. Paquet, C.N. Service, J. Walkus, and C.T. Darimont. 2014. Towards increased engagement between academic and indigenous community partners in ecological research. *Ecology & Society* 19 (3): 5.

Baker, K., M. P. Eichhorn, and M. Griffiths. 2019. Decolonizing field ecology. *Biotropica* 51(3):288–292.

Ban, N. C., A. Frid, M. Reid, B. Edgar, D. Shaw, and P. Siwallace. 2018. Incorporate Indigenous perspectives for impactful research and effective management. *Nature Ecology & Evolution* 2(11):1680.

Beveridge, R., M. Moody, G. Murray, C. Darimont, and B. Pauly. 2020. The Nuxalk Sputc (Eulachon) Project: Strengthening Indigenous management authority through community-driven research. *Marine Policy* 119:103971.

Brook and McLachlan. 2008. Trends and prospects for local knowledge in ecological and conservation research and monitoring. *Biodiversity and Conservation*. 17:3501-3512.

Castleden, H., P. Sylvestre, D. Martin, and M. Mcnally. 2015. "I Don't Think that Any Peer Review Committee . . . Would Ever 'Get' What I Currently Do": How Institutional Metrics for Success and Merit Risk Perpetuating the (Re) production of Colonial Relationships in Community-Based Participatory Research Involving Indigenous Peoples in Canada. *The International Indigenous Policy Journal* 6:1–23.

Diver, S. 2017. Negotiating Indigenous knowledge at the science policy-interface: Insights from the Xáxli'p Community Forest. *Environmental Science and Policy*. 73.

Suggested Key Readings

Kovach, M. 2009. *Indigenous Methodologies: Characteristics, Conversations, and Contexts*. University of Toronto Press.

Latulippe, N., and N. Klenk. 2020. Making room and moving over: knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making. *Current Opinion in Environmental Sustainability* 42:7–14.

Sagarin and Pauchard. 2012. *Observation and ecology: broadening the scope of science to understand a complex world*. Island Press.

Salomon, A., K. Lertzman, K. Brown, K̲ii'iljuus Barbara Wilson, D. Secord, and I. McKechnie. 2018. Democratizing conservation science and practice. *Ecology and Society* 23(1).

Schnarch, 2004. Ownership, control, access, and possession (OCAP) or self-determination applied to research. *Journal of Aboriginal Health* 1, 80:95.

Smith. 1999. *Decolonizing methodologies: Research and indigenous peoples*. Zed books.

Tuck, E. and McKenzie, M. 2013. *Place in Research: Theory, Methodology, and Methods*. Routledge.

Velasquez Runk, J. 2014. Enriching indigenous knowledge scholarship via collaborative methodologies- beyond the high tide's few hours. *Ecology and Society*, 19(4):37.

Westwood, A. R., N. K. Barker, S. Grant, A. Amos, A. F. Camfield, K. Cooper, F. V. Dénes, F. Jean-Gagnon, L. McBlane, F. K. A. Schmiegelow, J. I. Simpson, S. M. Slattery, D. J. H. Sleep, S. Sliwa, J. V. Wells, and D. M. Whitaker. 2020. Toward actionable, coproduced research on boreal birds focused on building respectful partnerships. *Avian Conservation and Ecology* 15(1):26. https://doi.org/10.5751/ACE-01589-150126

Wilson, S. 2008. *Research is Ceremony: Indigenous Research Methods*. Winnipeg: Fernwood Publishing.

Suggested Key Readings

Woodward, E. and Marrfurra McTaggart, P. 2016. Transforming cross-cultural water research through trust, participation and place. *Geographical Research*, 54(2): 129–142.

Wong C, Ballegooyen K, Ignace L, Johnson MJ(G), and Swanson H. 2020. Towards reconciliation: 10 Calls to Action to natural scientists working in Canada. FACETS 5: 769–783.

Appendix 1

>>> **Periodic Evaluation Template**

NOTE: Red wording to be completed by Researcher and First Nation Representatives as applicable

First Nation Representative	*Insert name, title, and contact information*
Academic Representative	*Insert name, title, and contact information*
Project Title	*Insert title of research project*
Location	*Insert location of research*
Date	*Insert date*
Agreements Signed	☐ Research Protocol Agreement ☐ Data Share Agreement ☐ Other: _____
Term(s) *Do these need to be extended / terminated?*	Research Protocol Agreement: __ / __ / ____ Data Share Agreement: __ / __ / ____ Other: _____: __ / __ / ____

Current Stage of Project:	**Description:**
Insert Stage: eg. formulating question, methods planning, data collection, data analysis, publishing, community sharing	*Provide more detailed description of where the project is currently at and any changes to the timeline, expectations, etc.*

Review: *Provide more detailed description of where the project is currently at and any changes to the timeline, expectations, etc.*
Funding: *Comments*
Communications: *Comments*
Data: *Comments*
Community Benefits: *Comments*
Do you have any feedback on research effectiveness, issues, or suggestions on this process for future collaborations? *Researcher Comments* *First Nation Representative Comments*