

TRACKING CHANGE: Local and Traditional Knowledge in Watershed Governance

KNOWLEDGE MOBILIZATION

The “Knowledge Mobilization Plan” will ensure best practices so that outcomes reflect academic excellence and meet partner organization needs. Research outcomes aim to strengthen local and regional stewardship of subsistence fisheries, educate upstream river users of the downstream social-ecological implications of their activities, improve the decision-making capacity of institutions at different scales, and create international awareness of how global pressures manifest in Mackenzie-Mekong-Amazon ecosystems and communities. Knowledge mobilization activities of the partnership will grow year to year with an increasing number of knowledge users benefiting over time. Through knowledge mobilization, we also seek to ensure LTK is closer to the forefront of watershed governance at larger scales.

Networks of Knowledge Sharing

Various approaches to knowledge sharing within each Basin and between Basins through will be facilitated through knowledge networks:

- ***Upstream-Downstream Sharing of Knowledge*** – In addition to neighbor-to-neighbor (adjacent) knowledge translation, a snowballed (additive and cumulative) understanding of changes occurring in the Basin will be shared.
- ***Theoretical and Thematic Knowledge Sharing*** – Knowledge mobilization will occur along theoretical and thematic paths; team members and partner organizations will gravitate to those with similar theoretical interests, concerns and issues. We anticipate significant interest in questions of climate change, resource development, the role of youth and gender.
- ***Global Knowledge Networks*** – Key collaborators and co-applicants will network with others who have an interest in the project and its outcomes but may not be in a position to directly participate. These individuals will participate in distributing research reports and academic papers.

Tools of Knowledge Mobilization

The Tracking Change Network will use various tools and venues for knowledge sharing to multiple and diverse audiences. These will include:

- Website
- Plain language project fact sheets
- Quarterly newsletters
- Annual Reports
- Video series
- Social media (facebook, twitter, etc.)
- Yearly workshops in the Mackenzie River Basin
- Fish Camps in each of the Mackenzie sub-basins
- River Gatherings in yrs. 1, 3 and 5
- Global meetings in yrs. 2, 4, 6. Co
- Outreach events (knowledge fair)

- Seminars
- Conference Presentations
- Academic publications

Improved Social-Ecological Decision-making

Knowledge networks will enable the research team to contribute to watershed governance at different institutional scales:

- Individuals and communities make daily livelihood decisions (e.g., can I eat the fish?) within a local-level institutional frameworks or social norms (indigenous law, rules-in-use).
- Regional governments and co-management boards whose decisions are informed by regulations as well as LTK must also make decisions about many aspects of Basin sustainability through their own mandates (e.g., fisheries management, land use planning, watershed planning).
- Multi-jurisdictional institutions are responsible for decisions of basin-wide governance; of obvious relevance are: the *Mackenzie River Basin Board*, the *Mekong River Commission*, the *Amazon Cooperation Treaty Organization* and their constituent governments. Other such regional organizations as NGO networks also operate at this scale.
- Individuals and organizations interact across institutional scales with the opportunity of informing global governance, including softer principles and processes of law and decision-making. The Partnership will mobilize knowledge within and among these institutions with the aim of increasing individual/household and community capacity to understand and respond to variability and change in valued fish species and fishing livelihoods.

Outcomes of Knowledge Mobilization

I. Oral Traditions and Experiential Learning:

LTK is a way of life with strong traditions of orality and experiential learning. In all aspects of the project, the Partnership will aim to affirm these traditional practices of knowledge sharing. Specifically, we aim to: i) ensure that LTK documented (audio-video recorded) through the project, are also shared in settings that honour oral structure, meaning and transmission (e.g., youth involvement in interviews; sharing in a family or peer gathering). ii) Experiential learning opportunities will be offered at fish places (e.g., setting nets, navigating river channels). The mentorship of community researchers will be a process of experiential learning; skills carrying out research will be imparted through 'doing' rather than telling.

II. Plain Language and Cultural Materials – Canadian partner organizations are fundamentally interested in the condition of the basin from an LTK perspective. Plain language reports (suitable for use in K-12) will integrate teachings from LTK holders. We plan three plain language guidebooks that will speak to the 'how-to' of tracking change. In yr. 1, the focus will be on traditional and contemporary land practices and the generation of LTK; in yr. 3, a guidebook on community-based monitoring will be

prepared (identifying and using LTK indicators for tracking change), and in yr. 5, we plan to develop a guide for organizing, interpreting and mobilizing knowledge in watershed governance. Through this focus on methods, we aim to facilitate continued generation and sharing of LTK beyond 2021.

III. Policy Documents - The project will also focus on the development of policy related materials that will help inform decision-making at various institutional scales; ongoing feedback (quarterly newsletters) for partner organizations will facilitate knowledge being included in regional government decisions on an ongoing basis. Contributions to the *State of the Aquatic Ecosystem Report* for the Mackenzie River Basin Board will also be an important activity. Policy briefs for the MRBB as well as the *Mekong River Commission* and the *Amazon Cooperation Treaty Organization* are also planned on key issues identified as important by Partner Organizations. Through research partners we will also aim report to the *Arctic Council*, and the *Permanent Forum on Indigenous Issues (UNPFII)*.

IV. Academic Publications – The team includes academic experts on themes of: LTK, community-based monitoring, livelihoods and governance (including watershed and indigenous governance); as such we will collaboratively contribute to academic forums (conference/peer reviewed journals), post-secondary teaching, practice (methods); these will include 15-20 theses and academic publications (3 per year related to each basin), and 3 co-edited volumes. By so doing, we anticipate positioning the research team as global leaders in *Tracking Change*.

LTK Ownership, Control, Access and Possession (OCAP)

Principles for protecting LTK will be forefront in the Knowledge Mobilization Plan. The project will generate a significant body of knowledge about social and ecological change in the Mackenzie River Basin. Finding a means of securing this knowledge to ensure local ownership control, access and possession (OCAP)--including terms for protecting intellectual property rights of LTK holders--will be a key challenge. Unlike technical approaches to monitoring, the systematic generation of LTK is rooted in oral traditions and these oral traditions must be maintained to ensure the continuance of LTK generation. Innovations in social media and digital communications have the potential to be transformative for many communities (Ginsburg 2002; Litton-Cohn and Croeser 2013):

- What are best practices for protecting the intellectual property rights and oral traditions of LTK holders?
- What are the kinds of indicators and processes of tracking change that are unique/common to communities in the Mackenzie, Mekong and Amazon?
- What role does social media and digital technology play in the contemporary practices of tracking change?