



Yukon North Slope Conference 2015

Best Practices in the Use of Aboriginal Traditional Knowledge (TK) in Resource Management

Breakout Session Reports

Sept 29 & Oct 1

Mobilizing Knowledge:

What does TK provide to wildlife management that science-based knowledge does not?

- TK provides perspectives from generations of travelling, living, fully immersed in the land and dependent on their relationship with the land, wildlife, etc.
- TK is experienced, Science is driven by funders, policy, etc.
- TK is inherent in all aspects of TK holders lives
- TK brings a really strong deep ecological understanding of the entire system and how things function together. It offers integration across subject areas. Unlike a single line of inquiry, with TK all of the other factors are included as well.
 - Science can be shorter in duration and focussed on a particular area
- TK provides continuity of long-term baseline rather than periodic insight. Provides a good comparison with the way things used to be.
- TK offers a transparent value system when we're presenting our thoughts and input into wildlife management – this is hidden in science
- There can be a very practical aspect to TK that is often lacking in science
- TK methods incorporate the rhythm of the land, and wellness - is a "holistic approach"
- Lots of different things that affect TK holders - e.g. homelessness, food security, wellness issues that take people away from what they were taught

- TK is true ecosystem based management, provides people-based concept of conservation – people implement conservation themselves with their own definitions
- TK helps set priorities for management
- We want better decisions, and want to do better job of including TK in decisions - better decisions are going to come out of integrating TK and science into wildlife management.
- Management is embedded in TK and its value system – science can be disjointed at times

What can science provide to TK?

- new tools for communication and understanding TK – eg. mapping platforms
- TK has local and regional perspective, and science can bring in perspective from entirely different worldview or culture, which can contribute back to local understandings
- Science brings things that aren't necessarily observed through eyes or ears
- Allows for future predictions and modelling, guessing how things might happen in the future
- Can confirm concerns communities might have and visualize trends

What does science need from TK in what circumstances and for what purposes?

- Science needs the broader perspective that TK offers – long-term, ecosystem based approach
- TK can provide science with a real world aspect – how does this make sense in the broader context?
- TK can raise and direct questions for science – TK has ability to keep it grounded and directed to those who are most impacted
- There is a difference in how we learn, and science can benefit from a different way of learning about systems

What does TK need from science in what circumstances and for what purposes?

- Scientists need to make sure that as they come into a community with ideas, they are still open to what is known in the community.
- Good science communication can benefit TK holders and decision-makers
- How do we move knowledge into a realm where it wasn't created? Researchers need to understand their audience and the appropriateness of their communication tool.
- The evaluation process is what science can offer back to TK
- TK needs respect and understanding from science. There needs to be space for TK to be reflected on in culturally appropriate way.
- Social science can bring knowledge of ourselves through a systematic approach – it can gather the knowledge of many individuals and represent that in different ways to show broader perspective within the community

How can scientists and TK holders better communicate and work with each other? What barriers need to be overcome?

- Context is important, and the language being used is important. There are multiple ways to interpret language and there should be sensitivity to this (e.g. TK going to be interpreted by different people in different ways).
- Need to know how TK is used - it is used differently by academics, government, industry, and we need to know what kind of processes it will fall under
- There is a lack of acknowledgement or encouragement for researchers to use TK. This is partly due to their environment (e.g. publish or perish), which influences how TK is used and may result in TK not being given the importance that it needs to be. Funding structures also lead to TK being incorporated as an afterthought
- There is a need for guidelines, or better guidelines on the broader acceptance of TK amongst anybody who is trying to use it or incorporate it. Needs to be an acknowledgement that the community is in the best position to say who the appropriate knowledge holders are. These guidelines might also include performance measures that would result in better and more inclusive use of TK in their work. Currently there isn't anything in place that encourages researchers to incorporate TK in their work and there needs to be better set of procedures in place that would facilitate that.

- Can work together collaboratively through co-design – when studies are initiated, that’s where we start. This is the difference between community-based (starts at the local level, integrates TK with design, and TK holders go through entire process, findings stay within community) and community-placed science
 - Relationships are very important –specifically sincerity, honesty, and integrity
 - It is important to find common ground from the start, and understand what is the purpose of the science, making sure the purpose of the science is in line with community values
- Indigenous academics working from the communities
- Need social science training and need to have natural scientists working with social scientists
- There needs to be a breaking stereotypes on both sides of the fence
- There are basic tools in the IFA that can be used to govern how scientists work and what they should be expected to do, what the community should expect.
- Strong policy or legislative frameworks give us the tools to work together better.
- Barriers:
 - There seems to be an inability to leave different worldviews
 - Trust: in the short history we have lived together, there have been a lot of reasons for mistrust. Building that trust means engaging people early on and meaningfully, ensure you’re receiving TK respectfully, ensure you are validating that knowledge
 - Need to better understand barriers that are created by cultural beliefs, values or norms (individual or institutional)
 - It helps if egos are left at the door – we want to bring worlds together in a positive and productive way
 - There is a false idea of TK versus science, when realistically what TK needs is access to decision-makers rather than it being considered a dichotomy

- Lack of communication – often researchers might leave a summary report but there isn't level of engagement that makes the science real for the community and lets them integrate it into what they already know. There needs to be a common vision and shared purpose

How is TK best documented, communicated and shared?

- TK has the most meaning when shared orally and communicated that way – emerging power of social media in communicating TK makes TK more accessible. However, it also brings with it risks with privacy. There needs to be flexibility (some TK should be shared, some should be private)
- We need better communication – integrating the science and TK teams so they're working together from the start. This can lead to buy-in in the community. Communication also needs to be very clear (plain language) and open-minded
- Communities need to take ownership over whatever the project may be so that it can be utilized
- Ill-informed media can be detrimental
- In documenting TK, meeting early is key – to build relationships, and work on questions together to build framework for research
- Requires the development of long-term relationships – bridging between science and TK often has to do with researchers that have been in community for a long time and where knowledge is exchanged in both directions. This also allows you to build on results of the past, should use longer (local) time scale.
- There needs to be relevancy – researchers need to have ability to explain why what they're doing is relevant, helps engage community
- The processes for science and TK are actually fairly similar – both are observing, documenting in one way or another, and doing so repeatedly – but the methods are different. There is a need to bridge the gap in understanding the different methods
- TK is best documented by Indigenous people
- TK needs rigor – how do we set standards for the methods associated with TK?

Questions:

- The notion of concurrent TK and science projects that inform one another – there are huge opportunities here for doing something innovative.
- Inherent in this work is that it's interdisciplinary – looking at a team or collaborative approach across disciplines.
- Early engagement is critical part of this – but funding makes this challenging. Getting into and spending time with community takes money. There have been some efforts to build engagement into funding applications, but the Tri-Agency and federal funders haven't done a good job of doing this. It may be time for a lot of us to push to try and encourage people to build engagement into their funding applications. This would go a long way to working towards these solutions.
- Wary of the approach of evaluating TK. I would like to hear about ways TK could influence management practices.
- Best research seems to be from collaborative efforts that are relevant to the community. The whole key thing is respect, which takes time.

Best Practices and Documenting Traditional Knowledge:

What innovations have been introduced in the collection, documentation and communication of TK?

- Innovation in social media – there are now more opportunities for TK holders to document the information themselves, and info is less distorted because it comes from the information-holders themselves
- Example of project in Aklavik - use of video cameras made the project interesting because the youth were also involved
- Storytelling was very important in the past – memories of the people who tell the stories and what they stand for, because people speak from the heart
- Better technology and ability to store the data means that it doesn't just sit on the shelf and gather dust, TK is actually being used
- Archiving original data (e.g. cultural institutes)
- Connecting with TK holders to make sure we're accessing the right information

- Berger inquiry and land claims negotiation brought awareness of the importance of TK
- Photo, voice and video documentation goes a long ways for ownership in collecting TK
- GIS and using mapping technology (topographic maps)
- Polar Bear TK study is a good example of innovation. It used a lot of improved techniques, rather than totally new tools (e.g. multiple validation processes). It also had a well thought out strategy for sharing of information.

What do you consider to be best practices in the documentation of TK?

- There are existing policies and frameworks that can help guide best practices: Ownership, Control, Access, Possession (national principals guiding the collection of TK), research advisors, research permits and agreements that are done right with a thoughtful process done with the communities, TK ethics panels that guide Universities
- Best practices in designing research:
 - Co-design project (including methodology, data-sharing agreements, ownership of data) from the start and ensure transparency in the process
 - Trust must be built from the start
 - Need to look for partnerships in regards to funding. The best practices for partners are a) those who are really interested, and b) really sensitive to what they're doing and who they're working with (rather than partners who take information and run)
 - Access archival information so you don't have to start from the beginning
 - Researchers need to know the area that they're going into and be familiar with the land claims
 - Communities or local organizations need to be the decision-makers for how much is enough TK. Those local organizations/communities are owners of how and when it is to be used – might need to be capacity building in communities to make sure there is that ownership
 - Need for protocols to guide the work that people are doing and how they engage with the community
- Best practices in collecting data:

- Whoever is gathering the information must be culturally sensitive, and sensitive to the lifestyle of who they are collecting information from
 - TK must be documented in language people are comfortable with. It needs to be documented like it's said.
 - Listen to the whole story, even if it means coming back. Elders like to tell you stories before they give you the information that you want. This doesn't fit well with people who have a limited timeframe. You have to be prepared – can't go into a community and think you will be there a day
 - Visual aids are good – e.g. maps
 - Multiple generations of people that have different types of knowledge – Elders have passed on knowledge to young people
 - Interview tips: using variety of people rather than going to same people repeatedly, communicate with community so they understand interview questions and get community input into questions, interviewees should have questions so they know what is coming, workshop group discussions are better than just asking and answering questions, involve youth in TK workshops, keep questions open-ended
 - Different generations may need different approaches – e.g. Elders may be more comfortable with speaking directly with people – which is why Elder-youth collaboration is so important
 - Need to keep up with technological changes
 - Encourage use of audio, because video can make interviewees nervous
 - The right people should be participating in the research process – need to build capacity, train and involve youth, hire community coordinators, get advice from guiding committees
- Best practices after data has been collected:
 - Verification of TK – use a peer review process whereby TK holders review the TK that has been collected. TK and science are different frameworks so they may require different verification processes
 - Transcripts must be readable

- Co-analysis – coming back to the community and doing analysis together so results are consistent with TK that was given
- It is disappointing when TK is gathered and not used – sometimes scientists aren't equipped with tools or knowledge to take advantage of using TK. It is often the case that biologists have to do social science, which is why it is important to just start the conversation
- Don't dilute TK ("books not tweets")
- Different communities have different approaches to educating youth
- Make people comfortable when you get information to them
- Best practices in data stewardship:
 - Make information accessible to people who have provided it
 - Security of data so things aren't lost
 - Balance complex programs for data management and making it accessible
 - Consider where information will be housed and by whom in the long term (e.g. what happens if the organization holding the information folds?). Programs must remain manageable and maintained so that data is available in the long term
 - Archiving requires infrastructure to store data and allow it to be usable

What current practices should be discouraged or prohibited and where are improvements needed?

Practices to be discouraged or prohibited:

- Fly-in fly-out research
- Not using Indigenous academics or youth involvement
- No verification process
- Over-reliance on public meetings
- Need to make sure some data isn't prioritized over others, because knowledge has lots of different formats – information associated with a place, stories, legends

- Innovation could be less expensive. Funding is always a problem, and there is not enough money to build capacity in the community
- Information shouldn't be altered to meet the needs of the person receiving the information – it has to be gathered and documented in the language of the TK holder

Improvements:

- Better protection of TK over third party use (e.g. Greenpeace) – how do we make sure not just anyone can use it in ways that aren't appropriate?
- Researchers often conduct literature review – need same type of review done in TK so we can use what has already been collected rather than asking same questions over and over again
- Ownership of information remains with the person, community, region, etc.
- Need to have the ability to use legislation wherever we can to protect the work of TK
- Could be improvements in consistency and processes (e.g. who researchers contact in the community)
- Information needs to be stored locally, which has implications for infrastructure that will be used to house information
- Better permitting process
- Make sure there are no language barriers and that people are in comfortable setting
- TK is out there but not well archived or catalogued (difficult to find)
- Connecting ethics approval with community so they can review it to make sure it fits
- There is danger in relying on technology instead of focusing on the information that you're looking for
- Student programs should be developed
- Consistent reporting on the whole project
- Clear agreements with governing body and community
- Mechanisms to enforce licensing and OCAP
- Involve community through whole process

- “Living documents” like community conservation plans can continue to be built upon

What methods of collection and documentation best respect the nature of TK?

- Document stories in the language - a lot of the TK is in the language
- Spending time with people before the interview and getting to know them
- Need for cultural orientation training – people conducting interview should have social science training and cultural training (e.g. Nunavut has training via Literacy Coalition)
- Community is part of developing methods and methodology
- Examples - video, photovoice, small documentaries so that they can knowledge can be educational tools
- Use best tool for collecting data and reporting data according to circumstance, and this varies (e.g. technology may be appropriate depending on who you are interviewing)
- Culture camps gets Elders and youth on the land

Traditional Knowledge in Research and Management Decision Making:

What institutional arrangements and prejudices exist that undermine or disadvantage the treatment and use of TK in research and resource-management decision-making?

- There is no obvious way that these two forms of knowledge can be integrated – this is part of an education process, but also an evolution
- May not be TK holders at every level in the decision-making hierarchy
- TK gets less funding
- Issues on what type of compensation and how much compensation is appropriate for TK providers - must be decided on a case by case basis
- TK not being seen as credible
- Increased relationship the main bureaucracy has with decision-makers and communities – increase more people that have TK on their minds

- Reduction in funding over the past few years for community-based or TK projects reflects political changes
- Seems very confrontational
- Right now there are no mechanisms to enforce recommendations that have been made in the review process
- Governance structures – within Western governance, information is sent to managers and they make decisions. But in communities, TK is held within a community and decisions are made via consensus.
- Different priorities, mandates, and timelines
- Stories and song aren't always accepted by governance structures or management frameworks
- Degree = done → but learning is a continuous process
- Bias – need to pay for TK to be done, having middle party to present results to boards and organizations
- Tribunal process is rigid and doesn't allow for TK to be integrated – bringing these panels to the communities helps, as well as bringing them to schools to involve youth
- Administrative frameworks like tribunals can sometimes constrain the inclusion of TK – the frameworks themselves are largely foreign for Indigenous people and aren't always welcoming to TK holders, can be confrontational
- At a political level, political will seems to be lacking in terms of inclusion of TK
- Institutional prejudices based on settler-based ideals (e.g. administrative boundaries can be divisive), don't incorporate or respect Indigenous thinking, "science trumps"
- Understanding the world through Indigenous eyes is a new idea
- Next generation doesn't get to spend as much time on the land as people used to
- Loss of language ("use it or lose it")

How could these obstacles be overcome?

- There are basic steps you need to get right throughout the entire processes before you get to decision-making

- Having more of a culture of TK embedded in institutions that don't have that
- Reverse the paradigm – how does science fit into TK (rather than vice versa)?
- There needs to be a fundamental shift in perspective. In this room we consider them on equal status, and we need to bring that into management frameworks.
- Might have to think about different decision-making framework. Are these types of knowledge addressing the same question?
- Direct research towards decision-makers needs
- Education around land claims and history/culture
- Increasing transparency around where decisions are made so people can feed into decision points
- Better communication within Aboriginal organizations themselves so feedback is brought back to communities
- Communities need to be involved from the bottom-up – this is the only way things will work
- Mutual respect
- There are shades of grey – may not be TK or science, but something in between depending on your goal
- Could have sessions before tribunals to let TK holders know what it will be like – might help alleviate stress of these processes
- Need to take time and effort to make frameworks work better and to ensure they are being inclusive as they can – there is some self-evaluation in this
- Could recommend that there could be TK knowledge holder evaluation process – those involved in processes could have their own evaluation for how they felt their input was included in the process, and then do analysis to compare what processes are working from TK holder perspective and where there are gaps
- Education for politicians on land claims processes and TK
- Should take the time to increase the education for the youth on the land claims agreements and their history, the context they were derived from because youth will be future decision-makers

- Need to share holistic worldview
- Ensure right groups have right funding – e.g. funding for TK studies should be in the hands of the communities that they’re in
- Bring decision-makers to special places – this takes a lot of trust
- Important to teach Canadians about Indigenous values
- In Universities there is currently a demand for students wanting the skills to go into communities
- Allow for opportunities for Aboriginal peoples to bring values into settler-based thinking
- When we’re involved in court cases or negotiate with industry, our organizations get a kick at the can every time
- Cross-cultural training – we’re falling short of this at the community level

What approaches and practices could apply to better integrate science and TK-based knowledge and research in decision-making?

- Several existing documents that highlight multiple inputs
- Increasing transparency at decision-making points
- Emphasizing co-design, addressing whole body of questions or just one specific one
- Multi-level approach
- How does government acknowledge traditional law? How does this work?
 - on some of the co-management bodies, there is representation from different levels of government so at that level TK is shared
- Communication is very important right from the start
- When a decision is made, we need to know what they considered, how did they approach it? If it doesn’t involve TK, we should have the ability to say “go back and get that information”.
- Use TK as the baseline foundation for projects, use it to guide policy and the review process

- There are some good news stories out there – they are successful when communities take ownership over projects and have been involved from the start
- Need to engage 100%
- Sometimes communities just want straight answer about what is going on
- There is a need to communicate science and TK in plain language to bring them to the same level
- There is powerful legislation in place, but it's only as powerful as those who know it
- Resource centers are in place that aren't being utilized – when projects are being developed, they should put the search through the resource centers and libraries to look for gaps
- We get to pick and choose how we want to design research because we have that process under our claim

Where findings from science and TK-based research conflict, how could these differences be addressed by decision-makers and other users of this information, as well as researchers?

- Give public time to digest science and TK, room and space for public processes (e.g. Berger inquiry)
- Reorient differences so they're not confrontational – how can you look at it differently to have that narrative go further?
- Consensus development rather than labelling it black and white
- Validation – check for flaws in project design, verify science and TK
- Recognize appropriate manner in which knowledge is applied – where each kind of knowledge does best
- Move away from using TK as observations and consider TK and the values it brings to decision-making itself (e.g. moose and salmon conversations that are happening in the Yukon)
- People in the sciences need to be educated about other ways of knowing. There also needs to be an understanding that science has something to offer as well, although there are some challenges in teaching science at the community level.

- Ensure that youth within communities that science is ok – we won't always agree, but mutual respect is important
- An acknowledgment that part of the story is missing
- Take a second look at the data – have someone reinterpret it, maybe there is something that was missed
- Use best available information
- Conflicts can blow up, but there are a lot of positives to conflict as well – can promote change, test the strength of the relationship being built
- Decision-makers allowing the time and space to resolve the conflicts in the process
- If decisions are required, preliminary decisions should be revisited in the future that respect the conflict and both sides of the argument
- Ensure peer-review and validation on both sides
- Having other community structures to advise (e.g. Elders committees)
- An ideal is to have coproduction of information or evidence – even if there is a conflict, there should be people in the room who can work together to find a solution
- Both parties keep open minds in pursuit of knowledge