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Documenting TK for Natural Resource Management

Best Practices and Lessons Learned

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My Background



- Social scientist
- Lived and worked in northern Quebec and Nunavut
- Facilitator

- Wildlife Science and Traditional Knowledge Specialist at EC
 - Support researchers in engaging with Aboriginal communities and TK
 - Conduct collaboravtive research on TK and science



Overview

- Documenting TK in natural resource management: benefits and challenges
- Best practices for documenting TK
 - TK Documentation Process (6 steps)
 - Best practices and lessons learned
 - Examples


Documenting TK: Benefits and Challenges

- Benefits

- Better management decisions
- Enhance engagement and collaboration

- Challenges

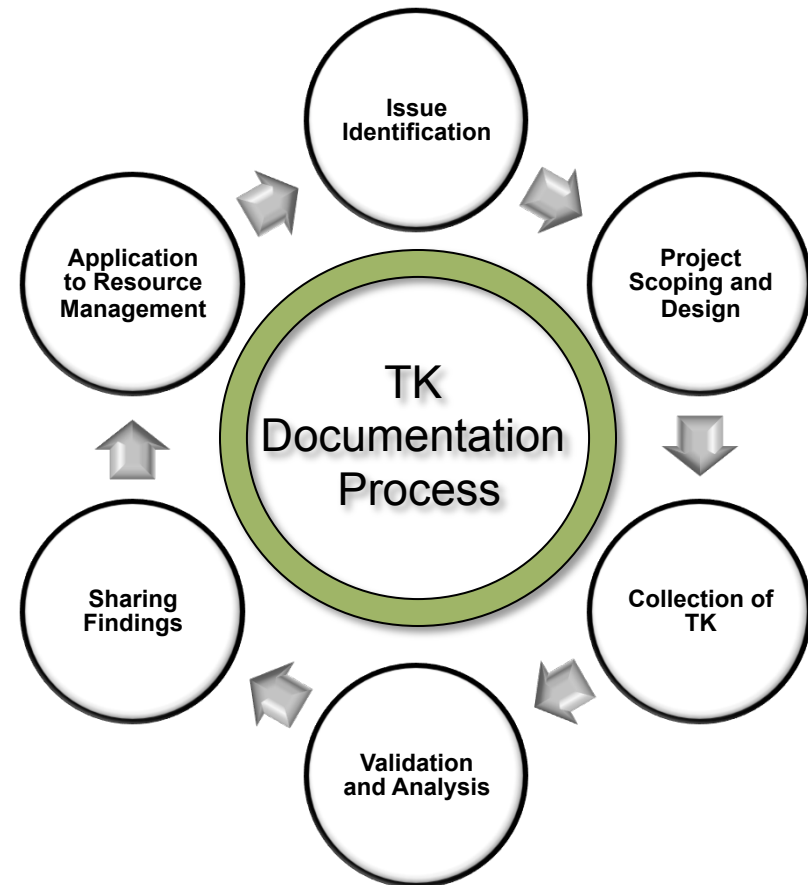
- Acceptance of TK
- Capacity to engage with TK
- TK representation and misuse
- Conflict between traditional and scientific interpretations or conclusions



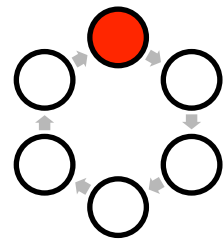
Applying best practices
for documenting TK is
part of the solution!

Documenting TK – Key Steps

- 1 – Identification of Management Issue
- 2 - Project Scoping and Design
- 3 - Collection of TK
- 4 - TK Validation and Analysis
- 5 - Sharing Findings
- 6 - Application to Resource Management

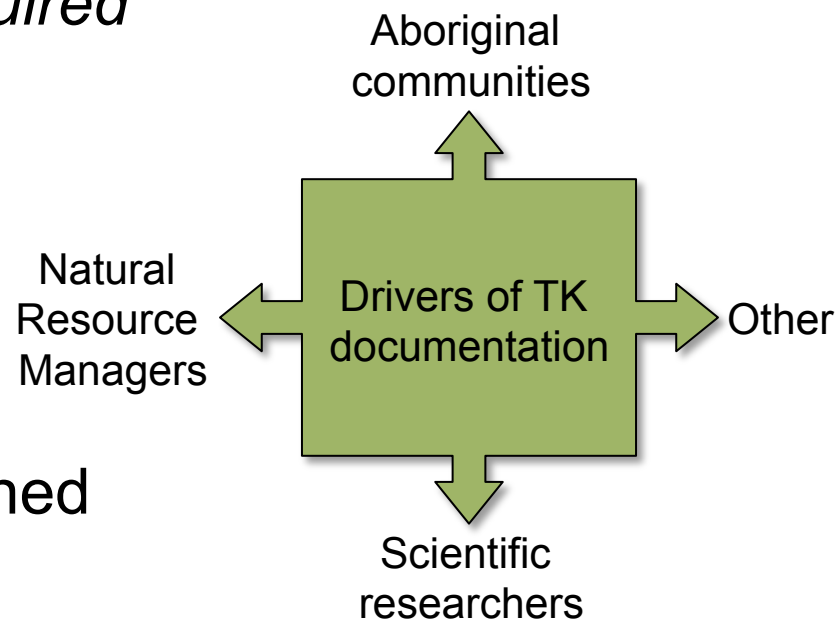


- Why document TK?



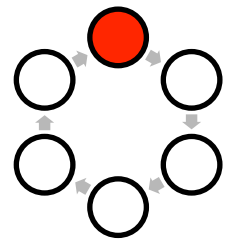
1 – Issue Identification

Identifying natural resource management issue for which TK documentation is required



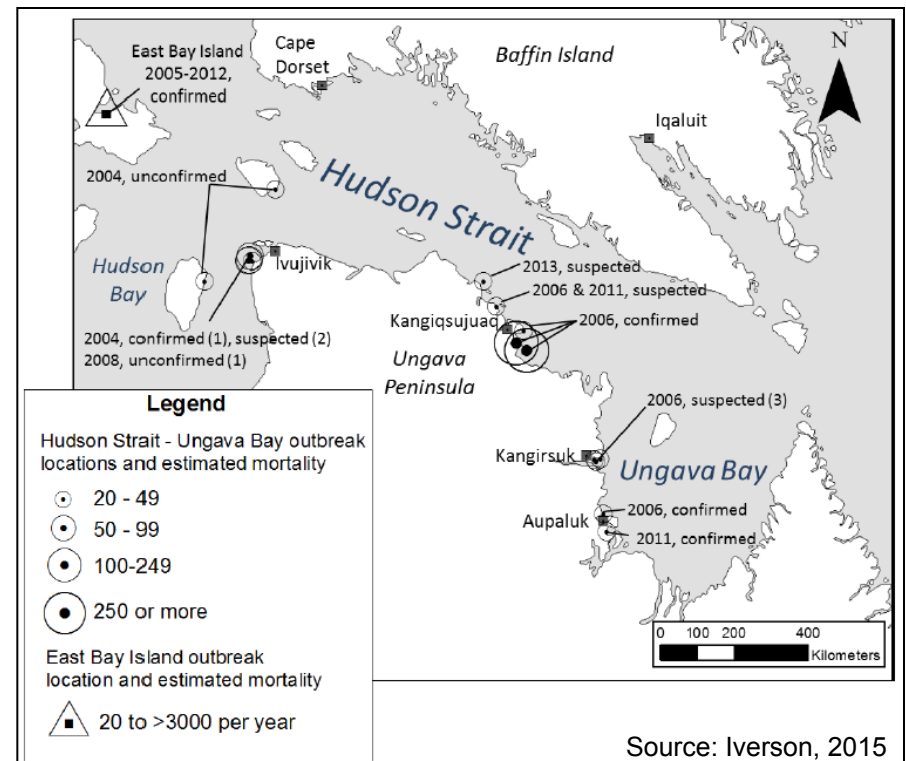
- Best practices and lessons learned
 - Multiple pathways can lead to issue identification
 - Identify and mobilize Aboriginal communities and other partners at an early stage

1 – Issue Identification

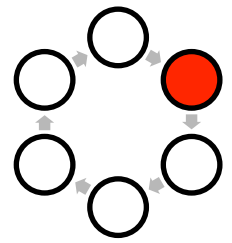


- Example

- Inuit hunters from Nunavik were the first to detect avian cholera outbreaks in the eastern Arctic in 2004, which led to TK documentation and scientific studies (2007-2015)

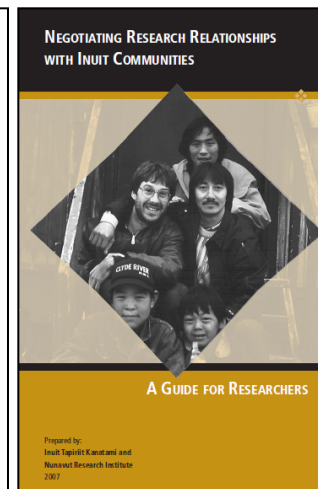
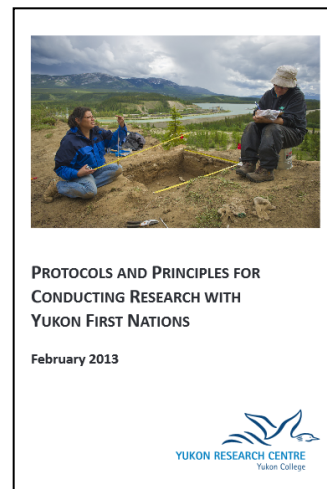


2 – Project Scoping and Design

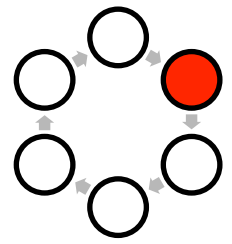


Establishing project objectives, methods and expected outcomes in collaboration with communities/project partners

- Best practices and lessons learned
 - Trustful, respectful and mutually beneficial relationships as foundation
 - Discuss all aspects of the TK documentation process early and determine level of engagement (i.e. no-surprise approach)
 - Consider existing TK studies
 - Follow local protocols and applicable research guidelines (i.e. local research priorities, licensing process, compensation mechanisms)



2 – Project Scoping and Design



- Best practices and lessons learned
 - Agree on TK protection and information sharing procedures (e.g. informed consent procedures, information sharing agreement)
 - Training and capacity building as basis of project activities
 - Consider TK/science relationship carefully to maximize project outputs (i.e. when/how TK and science can be brought together)



Photo credit: EC, D. Henri



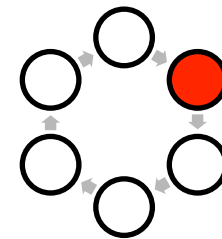
Photo credit: EC, D. Henri



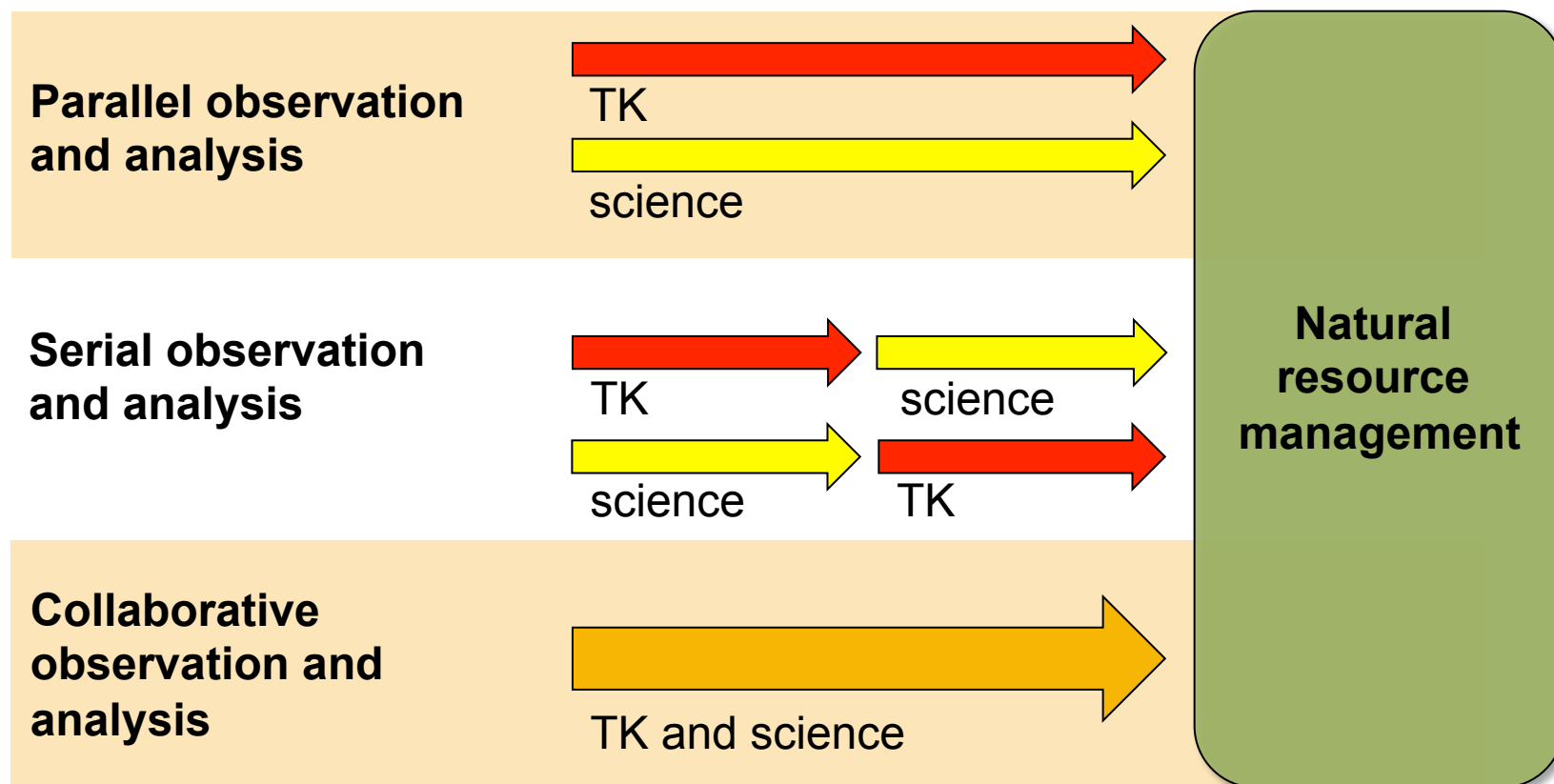
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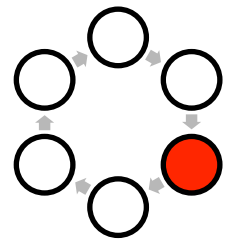
2 – Project Scoping and Design



Approaches for linking TK/science in natural resource management (adapted from Furgal, 2006)



3 – Collection of TK



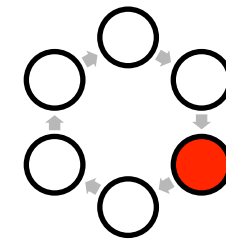
Collecting TK through adapted methods in collaboration with Aboriginal communities and other project partners

- Best practices and lessons learned
 - Various methods exist to collect TK
(e.g. semi-directed interviews, questionnaires, focus groups, workshops, informal conversations)
 - Various levels of community involvement in documenting TK (i.e. from project participants to project leaders)



- Choosing the right approach is context-specific

3 – Collection of TK

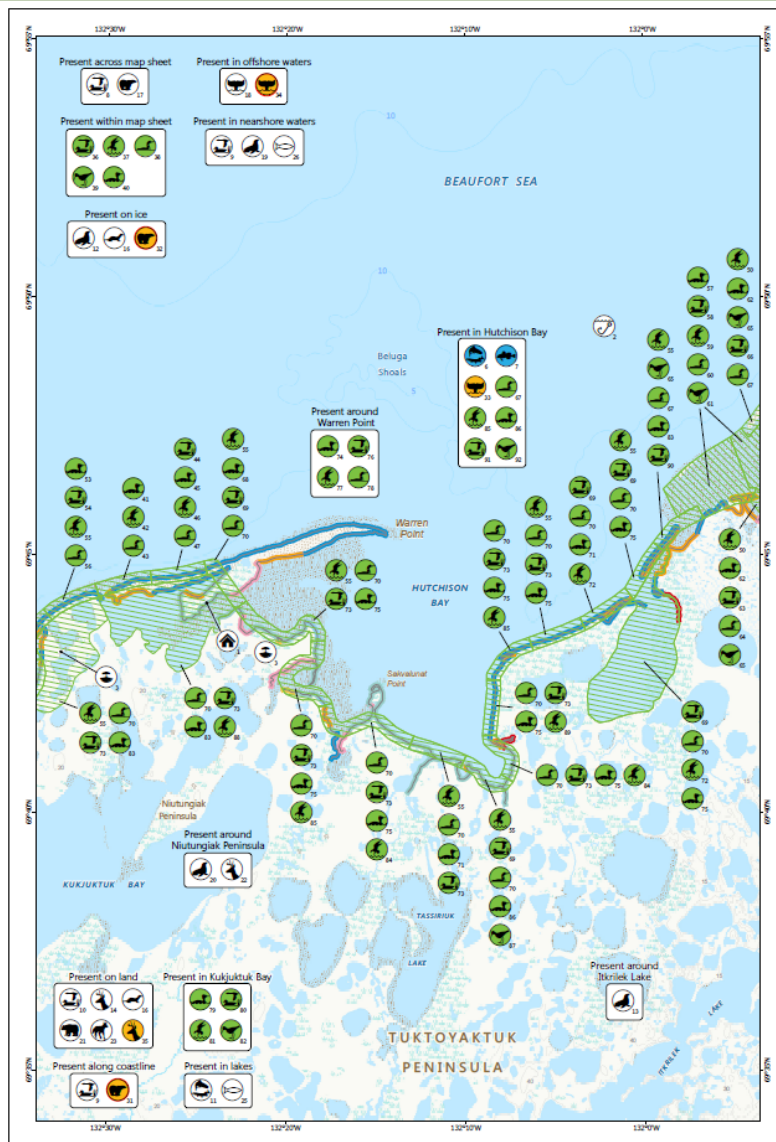
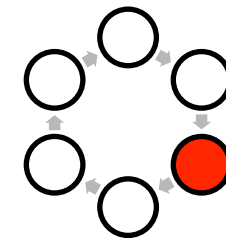


- Example: TK and science documented side by side
 - Beaufort Regional Coastal Sensitivity Atlas (completed in 2015)



A synthesis of environmental information relevant to the planning and implementation of oil spill countermeasures in coastal areas of the Beaufort Sea

3 – Collection of TK



Sensitive Biological Resources

Bird areas

- Seabird
- Seaduck
- Shorebird
- Waterbird
- Waterfowl

Fish areas

- Marine fish
- Anadromous and freshwater fish

Marine mammal areas

- Pinniped
- Polar Bear
- Whale

Terrestrial mammal areas

- Canine
- Rodent
- Ungulate
- Bear
- Weasel

Shoreline Environmental Sensitivity Index

- 1A Exposed rocky shores
- 1C Exposed rocky cliffs with boulder talus base
- 3A Fine to medium grained sand beaches
- 3B Scarps and steep slopes in sand
- 3C Tundra cliffs
- 5 Mixed sand and gravel beaches
- 6A Gravel beaches (granules and pebbles)
- 6B Gravel beaches (cobbles and boulders)
- 6C Rip rap
- 7 Exposed tidal flats
- 8A Sheltered rocky shores (impermeable)
- 8A Sheltered scarps in bedrock, mud or clay
- 8B Sheltered rocky shores (permeable)
- 8B Sheltered, solid man-made structures
- 8D Sheltered rocky rubble shores
- 8E Peat shorelines
- 9A Sheltered tidal flats
- 9B Vegetated low banks
- 10A Salt- and brackish-water marshes
- 10B Freshwater marshes
- 10C Swamps
- 10E Inundated low-lying tundra

Traditional-Use Sites

- Burial Site or Cemetery
- Cabin
- Camp
- Historical or Cultural Site
- Hunting and Trapping Area
- Fishing Area

Culturally Sensitive Areas

- Culturally Sensitive Areas

Traditional Harvesting Areas

Bird areas

- Seabird
- Seaduck
- Shorebird
- Waterbird
- Waterfowl

Fish areas

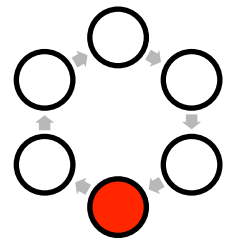
- Marine fish
- Anadromous and freshwater fish
- Fish (unspecified)

Marine mammal areas

- Pinniped
- Polar Bear
- Whale

Terrestrial mammal areas

- Canine
- Feline
- Rodent
- Ungulate
- Bear
- Weasel

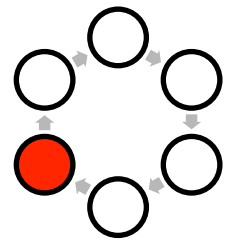


4 – Validation and Analysis

Validating and analyzing TK information collected

- Best practices and lessons learned
 - Significant added value from validation = crucial step (i.e. confidence and credibility)
 - TK holders engagement in validation and analysis



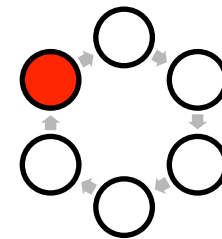


5 – Sharing Findings

Communicating TK findings efficiently to Aboriginal communities and other project partners

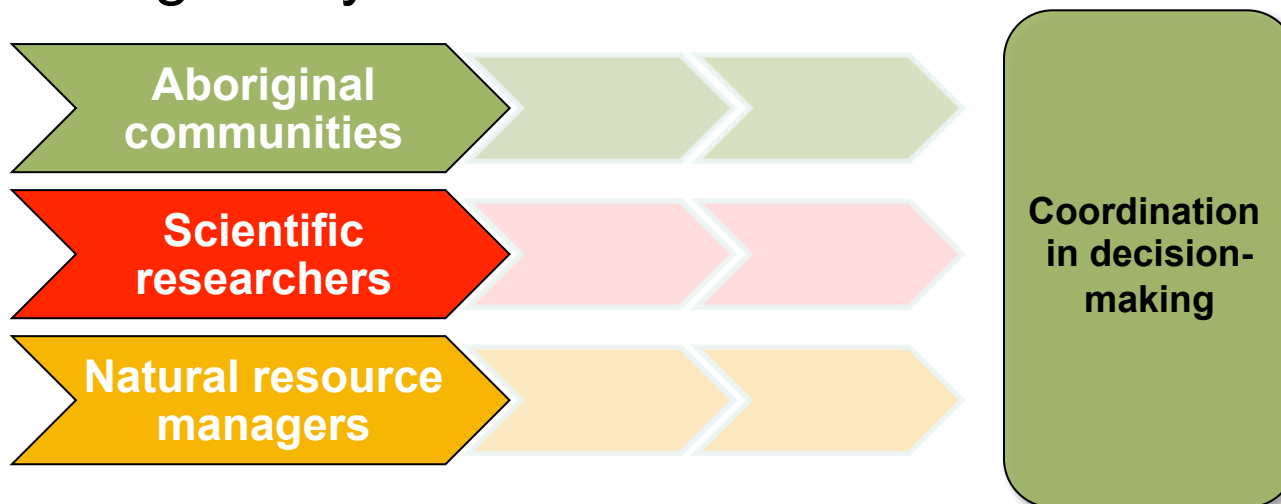
- Best practices and lessons learned
 - Giving back = priority
 - Prepare relevant communication materials
(i.e. format, language, use of technical terms)
 - Choose adequate forums for sharing findings
(i.e. meetings, local radio, conferences, public hearings, school presentation)
 - Discuss expectations

6 – Application to Natural Resource Management

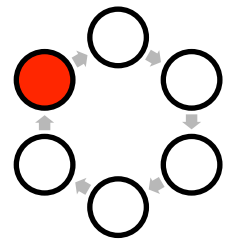


Applying documented TK to resource management issue

- Best practices and lessons learned
 - Presenting TK in format relevant to decision-makers (e.g. summary for decision-makers)
 - Importance of gatekeepers
 - Timing is key



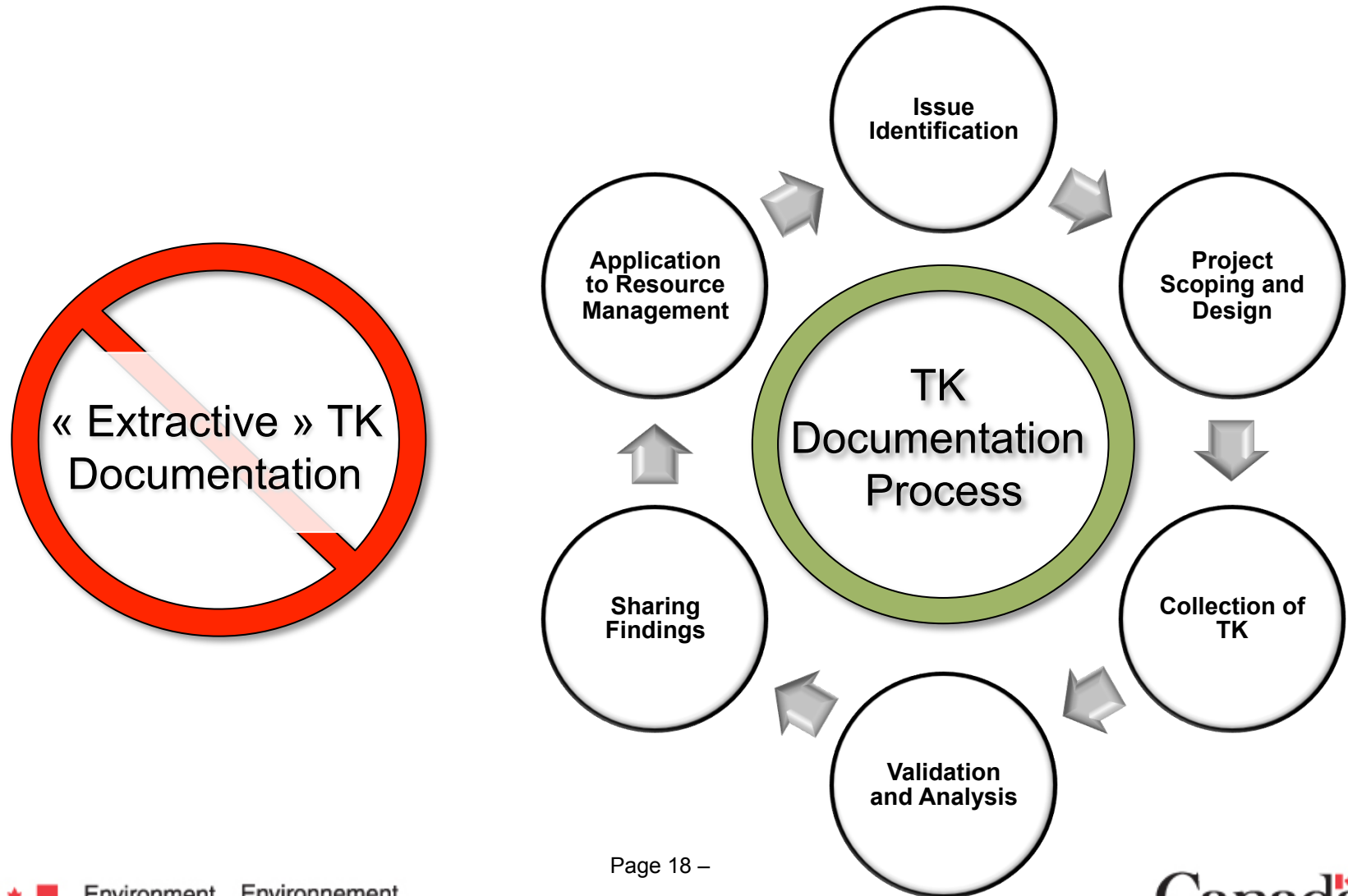
6 – Application to Resource Management



- Best practices and lessons learned
 - Consider spatial and temporal scales of TK/scientific observations
 - Consider values and beliefs that are part of TK



Conclusion





THANK YOU!

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Questions for Discussion

- In your view, what are the key steps and best practices for documenting TK?
- What do you think are successful approaches or mistakes to avoid when documenting TK? What can we learn from past mistakes and successes?
- Do you find the TK documentation cycle approach useful? Can it be improved or refined?