Dibaginjigaadeg
Anishinaabe Ezhi twaad
Doing something based on the Anishinaabe way

Taking Care of Our Land Symposium
gdo akiiminaan ganawendanaan
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Adaptation Resources + workbook

Strategies & Approaches Menus

Menu of adaptation actions

Adaptation Workbook

Structured process to integrate climate change considerations into management.

- Workbook

Swanson et al. 2016 (2nd edition)
www.nrs.fs.fed.us/pubs/52760

Also online: AdaptationWorkbook.org
Adaptation menus + Workbook
Connect the dots!

Management Goals & Objectives
Climate Change Impacts
Challenges & Opportunities
Intent of Adaptation (Option)
Make Idea Specific (Strategy, Approach)
Action to Implement (Tactic)
This isn’t how we’d do it:
The need for a TRIBAL climate adaptation menu.
Introduction: A Tribal Climate Adaptation Menu

- Was developed by a diverse group of collaborators representing tribal, academic, intertribal and government entities in Minnesota, Wisconsin and Michigan.
Introduction: A Tribal Climate Adaptation Menu

- This is the first version of the Menu
  - Based on Ojibwe and Menominee perspectives, languages, concepts and values
  - Designed to be adapted by other Indigenous communities, to engage their languages, knowledges and ways of life
Introduction: A Tribal Climate Adaptation Menu

- Indigenous perspectives and voices in climate adaptation
  - Existing adaptation menus reflected western science and resource-centric perspectives
  - Needed to create a menu that reflects Indigenous knowledges and kin-centric perspectives

Forest Adaptation Menu:

**Strategy 9**: Facilitate community adjustments through species transitions.

**Approach 9.7**: Introduce species that are expected to be adapted to future conditions.

Tribal Adaptation Menu:

**Strategy 11**: Encourage community adjustments and transition while maintaining reciprocity and balance.

**Approach 11.4**: Seek out and share traditional and cultural knowledge of potential new beings from tribal communities where these beings are native.
Follows a tiered process of identifying strategies, approaches and tactics

- Designed so that the practitioner can choose options based on their specific needs and goals
- Avoids a “one size fits all” solution
- Recognizes and promotes ways in which Indigenous knowledges, language, and ways can coexist with western science in climate adaptation
Guiding Principles

- Offers a framework to center Indigenous ways, knowledges, language and histories in climate adaptation planning.
- Can be edited by individual communities to reflect their values, languages, and ways of life.
Guiding Principles

- Describes detailed considerations for working with tribal communities
  - Importance of all our relations and relationships
  - Cultural paradigms
  - Community engagement and decision making
  - Completing projects and sharing information

How to Develop Culturally Appropriate Climate Adaptation Actions

This document is intended to empower tribal governments, federal and state agencies, non-governmental organizations (NGOs), individual landowners and others to incorporate Anishinaabeg perspectives, specifically from the Great Lakes region, into a climate adaptation framework. We recognize the shortcomings of this document in our attempt to incorporate indigenous concepts, language, and cultural practices; a single document written in English can't fully capture what we intend to express. We hope that the perspectives given here offer users an additional lens with which to view the environment and facilitate a more culturally appropriate approach to working with tribal nations.

While the intent of this document is to give specific examples from one group of people; we encourage other tribes to edit these according to the needs of their individual community by adding language, words, and concepts unique to that community. We should stress that the editing process be undertaken first, before initiating any project, as the intent behind this document is to ground climate change adaptation planning in knowledge that is unique to the perspective of each indigenous community.
Scenario: Manoomin & Zaaga’igan (That Lake)

- That Lake historically supported a significant manoomin (wild rice) crop.
- Water levels are now higher and invasive species (Narrow-leaved cattails) have moved in, both impacting historic rice beds.
- Management agencies want to manage the lake to increase diversity (resilience) and expand manoomin harvest opportunities.
Manoomin (Wild rice) Vulnerability

“According to the little bit I know about wild rice, you have to have the water, its gotta be just right in order for, otherwise you’re gonna drown it.”
– Tom Maulson Sr., Lac du Flambeau

Manoomin (Wild rice) Vulnerability

- Natural barriers
- Human land use changes
- Dispersal
- Thermal niche
- Hydrological niche
- Disturbance regime
- Dependence on ice/snow
- Pathogens or natural enemies
- Competition
- Genetic variation
- Documented response to climate change
Community Engagement

Strategies: 1 & 3

- 1.1 Consult tribal leaders (rice chiefs) to better understand That Lake and its history.
- 1.3 Document historical rice camps by working with tribal historic preservation officers, elders and harvesters.
- 1.4 Come together with the communities at a ceremony at That Lake honoring the local manidoog and the manoomin and asking for their help and guidance.
- 3.4 Host presentations within the communities sharing history, vulnerability data and project goals and brainstorming adaptation options.
Adaptation Actions

4.1 & 4.2 Maintain or restore hydrology & soils and riparian areas
- Assess existing culverts (up and downstream) and replace where necessary.
- Reconnect wetlands, meadows and riparian areas.

4.4 Support specific plants/communities
- Modify existing infrastructure to control water levels during rice lifestages to maintain optimum growth.
- Reseed historic rice beds to reestablish a viable population and seed base.
Adaptation Actions

2.1 Learn from beings and natural communities over time.
   - Observe bakaan ingoji ga-ondaadag (nonlocal beings), their interactions with other beings and reaction to changes in water levels.

5.2 Control the impact of bakaan ingoji ga-ondaadag
   - Remove nonlocal cattails after communicating with other local beings to explain intended actions.
   - Offer cattails and other culturally important plants to community members.
   - Encourage the growth of native cattails.
   - Promote sustainable harvest of nonlocal cattails in areas where they remain to limit their spread into areas where rice is to be restored.
Finalizing the project: it never really ends!

Cultural use and respectful harvest = monitoring and adaptive management.

- 1.2 Consider mindful practices of reciprocity - harvest based on traditional practices, offering asemaa and taking only what you need.
- 3.3 Maintain a monitoring program - involve the community by using citizen science tools such as Nature’s Notebook.
- 3.4 Cultural and environmental education - youth and harvest camps sharing traditional teaching, stories and practices.
Want to know more?

Join us for the second TAM workshop in Bay Mills, MI June 3-5, 2019!

Bring a project to evaluate using the Tribal Climate Adaptation Menu, work with your own team or join another team to work through their project.
May your planning be carried out in a good way!

Miigwech!

The TAM Team