PRIORITIES IN THE CONTEXT OF CLIMATE CHANGE

1. BIODIVERSITY, HARVESTING AND LAND

Climate change leads to major changes in the distribution and abundance of animal and plant species in Eeyou Istchee, along with transformations in the conditions of access to land. The rapidly changing environmental conditions raise new issues for the pursuit of traditional activities and the transmission of traditional knowledge. Many participants have highlighted that unpredictable weather is already disturbing hunting activities. Three main responses have emerged from the discussions, and concrete propositions have been laid out for each of these responses.

1.1. Protecting biodiversity and accessing wild food

The state of biodiversity and availability of game are important preoccupations. Many participants have voiced concerns that species, such as the caribou, are declining and may disappear in the next years. As environmental conditions change, the variance of species distribution needs to be monitored carefully; this may require improved fauna management strategies. One avenue could be to revise the maximum number of animals that can be harvested and create new conservation areas. It was suggested that climate change themed information exchange sessions could be provided to tallymen and land users.

Access to wild food is of primary importance given its nutritional and cultural value among Cree people. However, climate change impacts in combination with natural resource exploitation activities are causing major changes in harvesting conditions. The increase in logging road density has cumulative impacts on ecosystems. The increase in access could potentially lead to an increase in poaching. As a result, many participants in the forum suggested that it might be necessary to consider reducing the intensity of forestry and mining operations. Moreover, some participants lamented the new overharvesting trend and the decline in food sharing.

Climate change adaptation remains largely dependent on financial capacities, especially when it comes to maintaining harvesting activities on the land. As such, safe access to traplines may be only possible by helicopter or plane during parts of the year, which is a major financial constraint for some families.



Table 1. Summary of priorities and actions for biodiversity and wild food

Priorities	Actions
Achieve a better balance between economic development and environmental protection	 Conduct research on the cumulative impacts of resource exploitation Reduce the intensity of forestry and mining operations Enforce rules to control poaching and game overharvesting Design a Cree network of protected areas
Adapt harvesting strategies to the new reality	Monitor vulnerable speciesCombine unwritten rules with harvesting guidelines
Ensure proper land and fauna management	- Support tallymen in their role by providing relevant climate change information

1.2. Promoting Cree knowledge and land-based skills

Most participants recognize the crucial importance of ensuring the transmission of Cree knowledge pertaining to life on the land and harvesting activities. It is deemed important to occupy the land for cultural reasons but also to assert sovereignty. However, in the context of climate change, many realize that a large part of this knowledge needs to be updated, especially regarding animal behaviour and location. Because of the need to ensure dynamic transformation of Cree knowledge, it is important that the younger generation can participate in hunting and harvesting activities with their parents and grandparents. Programs that encourage youth to participate in activities of the Multi-Service Day Center (MSDC) could also be extended to activities on the land with elders. It would be beneficial if programs for socially vulnerable youth who have been suspended from school allowed them to go on the land and benefit from the support of an elder. The Cree Hunters and Trappers Income Security Program (ISP) is currently undergoing changes to allow more youth presence in the territory.

Many participants have expressed concerns about the transmission of traditional knowledge on wild food harvesting and preparation. According to many elders, techniques, such as smoking and drying meat, and traditional cooking, should be taught to the younger generation. Traditional medicine is also an important aspect of Cree culture that is intrinsically related to life on the land and knowledge of biodiversity. Transmission of Cree knowledge must, however, maintain intellectual property and avoid appropriation of traditional Cree knowledge for commercial purposes.

Elders could play a prominent role in the development of training courses on survival skills, thus, allowing for the transfer of traditional knowledge and values. The Cree Trappers' Association and Cégep de St-Félicien are currently working on such a program. Moreover, activities that seek to improve spiritual well-being and mental health could be integrated in the school curriculum. It was also suggested to take advantage of the fact that most youth already have access to smartphones to diffuse Cree language and content about life on the land.

Table 2. Summary of priorities and actions to promote Cree knowledge

Priorities	Actions
Ensure the transmission of traditional knowledge	 Support learning experiences on the land and youth participation in traditional activities Teach the youth about the importance of culture and language when pursuing seasonal activities on the land Integrate activities of spiritual well-being and mental health into the curriculum
Improve access to hunting grounds and traplines	 Teach land survival skills to improve resilience to accidents or extreme weather events Encourage families who have access to a trapline to share access with those who do not Set up community freezers to store and share wild food
Promote traditional activities	 Provide training courses for the youth to encourage living on the land Demonstrate the importance of family values to support the development of youth Develop programs for socially vulnerable youth to experience life on the land

1.3. Improving safety for travel and harvest

In the context of climate change, access to the land is increasingly challenging given that weather conditions are less predictable. Some risks have increased, notably those associated with ice travel and forest fires. One important means to maintain safe access to the land and hunting grounds is to expand safety programs. Ice monitoring programs should be set up in all communities and accompanied by a more systematic approach to training since new skills are required to assess risks related to travel on frozen lakes and rivers.

Improved safety can be gained by a better knowledge about the land, and survival skills. Risks need to be well understood by all, and it is important to be prepared in case of emergency situations. Many consider there is a need for tallymen to re-familiarize themselves with the changing territory, and new weather conditions.

Forest fires are a growing concern among many participants in the Forum. Security of the population is important, especially during travel by road. Considering the remote location of most traplines in Eeyou Istchee many consider that it is important to implement new monitoring techniques and raise awareness about the importance of radio and social media communication to stay informed about fires or other disturbances.

Another aspect that needs to be evaluated is the access and availability of past and present climate and hydrological data for the region. In order to make accurate predictions and recommendations, it is first essential to identify and document the changes. The Cree should have the necessary capacity to document relevant meteorological data to prepare for future scenarios such as forest fires and flooding.



Table 3. Summary of priorities and actions to improve safety

Priorities	Actions
Ensure ice monitoring at the regional scale	 Hire a regional coordinator for ice monitoring to make sure all communities have access to the same information Hire regional and local communication officers to provide information about safety issues on social media, radio and television Extend existing programs and funding to all communities Provide training to all stakeholders and the public to raise awareness about the risks and emergency measures
Improve emergency preparedness in communities	 Run surveys and assess preparedness and potential risks in all communities (i.e. floods, fires, etc.) Identify communities who perform well, analyze their practices and diffuse information Hire local coordinators to continue and improve existing programs Develop new local pilot projects on emergency measures Maintain collaborative activities to share knowledge and proposals between communities
Provide knowledge and raise awareness about safety issues	 Hold information sharing sessions on safety issues related to climate change to all tallymen and land users Combine scientific and traditional knowledge to improve understanding of safety issues Adjust safety protocols in case of forest fires
Improve communication mechanisms	 Improve and maintain internet resources such as Geoportal that provide information about climate change and environmental conditions Create a new database to improve monitoring of environmental conditions for all seasons Ensure coherence and consistency in data for monitoring Develop smartphone applications to keep people updated about weather conditions and safety of travel routes