



## Examining Climate Change in the South Selkirks Region

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“...(there is an) unbreakable and sacred connection between land, air, water, oceans, forests, sea, ice, plants, animals and our human communities as the material and spiritual basis for our existence” (The Anchorage Declaration, 2010, p.1).

From January 2010 to December 2011, Principal Investigator Dr. John Innes (University of British Columbia – UBC) and his multidisciplinary research team are examining climate change in the South Selkirks region of British Columbia (BC). Funded by the Future Forest Ecosystems Scientific Council (FFESC) and BC Hydro, this research study utilizes a holistic approach in addressing climate change – an approach that respects social and cultural, ecological and economic interests as a benchmark for forest management practices.

The focus of this research is the resiliency of social and ecological systems in the South Selkirks. Resilience is the “ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organisation, and the capacity to adapt to stress and change” (Pachauri & Reisinger, 2007). The emphasis of the study centers on examining three Resiliency Dimensions:

- **Ecological Resiliency Dimension (ERD).** The ERD team is examining projected climate change scenarios and recommending adaptation practices that encourage resiliency while maintaining ecosystems. The project leader is Dr. Walt Klenner from the BC Ministry of Forests, Mines and Lands;
- **Economic Resiliency Dimension (ECRD).** Led by Drs. Howard Harshaw and Harry Nelson from UBC, the ECRD team is analyzing economic resiliency of lumber firms in the Kootenays Region; and
- **Human Resiliency Dimension (HRD).** Co-leaders Drs. Natasha Caverley (Turtle Island Consulting Services Inc.) and Howard Harshaw are determining which adaptation practices

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maintain or enhance existing social and cultural values from both Aboriginal and non-Aboriginal perspectives.

This approach involves assessing potential climate change impacts on the relationship between people, forests, water, land, air, plants and animals – thereby, honoring the strengths of sharing, acknowledging and utilizing indigenous science and western science approaches in understanding our changing climate. Climate change-effects (e.g., extreme weather events) are altering forest landscapes and have the potential to impact the cultures of those who are most dependent on the land and its resources such as indigenous people.

The research team is comprised of Aboriginal (Métis Nation British Columbia – Kootenays Region and Ktunaxa Nation), academia, Government of BC, Nature Conservancy of Canada (BC Region), forest industry representatives, non-profit organizations and consultants who specialize in natural sciences, social sciences and indigenous science.

The Métis Nation British Columbia (MNBC) is a strategic partner in this research study. MNBC representatives and citizens are active team members working on the project and/or serving as research participants. The MNBC is well represented on the research team by Mark Carlson (Kootenays/Region 4 BC Métis Assembly of Natural Resources Captain), Gary Ducommun (MNBC Director of Natural Resources) and Gerald Legare (Kootenays/Region 4 Métis citizen). MNBC citizens in the Kootenays Region were offered an opportunity to participate in interviews last Spring/Summer and/or a Public Opinion Survey in early 2011 on the social and cultural implications of climate change in Métis communities in the South Selkirks region. The research team extends its thanks and gratitude to Kootenays Métis citizens who participated in the study and shared their thoughts and expertise with the team. This participatory approach ensures that the research study's aims, objectives and methodologies are developed in collaboration with participating clients like MNBC and clearly reflect their respective interests on climate change adaptation in the South Selkirks.



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Later this year, the research study will provide recommendations on forest management and planning that foster resiliency under expected climate change scenarios as well as meet the social and cultural values identified by local Aboriginal and non-Aboriginal community members. The recommendations will inform strategic partners (First Nations, Métis Nation, Government, industry and academia) about multidisciplinary and cross-cultural methods, practices and strategies that integrate ecological, economic, social and cultural dimensions of forests and rangelands. We anticipate that by explicitly incorporating indigenous and western science approaches, this research will be able to provide fresh perspectives about how to address climate change issues in BC.

Upon completion of the study, a follow up article will be prepared to explain the results. Also, information will be posted on [www.south-selkirks-survey.ca](http://www.south-selkirks-survey.ca)

If you have any questions and/or comments about this research project, please contact either Dr. John Innes at [john.innes@ubc.ca](mailto:john.innes@ubc.ca) or Dr. Natasha Caverley at [natasha@turtleislandconsulting.ca](mailto:natasha@turtleislandconsulting.ca)

### **About the South Selkirks Region**

The South Selkirks region is situated in the Kootenays (BC, Canada). The municipalities of Nelson, Creston, Salmo, Trail, Castlegar and outlying rural/settlement areas represent western/non-Aboriginal boundaries for this particular region. This region is known for its mountainous landscapes, valleys, rivers and lakes with extensive backcountry for recreation and sustenance with the wilderness literally in community members' backyards. The West Arm Provincial Park, NCC (BC Region) Darkwoods Property and the Creston Valley Wildlife Management Area are located in this region. The South Selkirks region contains a diverse array of flora (e.g., Bitterroot, Choke Cherry) and fauna (e.g., Columbia spotted frogs, elk, moose and mountain caribou) (Ahearn, 2005). Key trees in this region are fir, pine, western larch, balsam, spruce, aspen, poplar and birch, while the Kootenay and Columbia Rivers and Arrow Lakes are the major waterways (Ahearn, 2005). There is a concerted effort by Métis citizens in this region to continue their traditional ways of living on the land and exercise their Aboriginal rights on the land (e.g., fishing, hunting and trapping). The MNBC – Kootenays Region describes itself as being friendly and relatively close knit with family connections and networks very important to them.



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Young Bull Moose in the Boundary Lake area  
Photo Credit: Dean Tichit



Four generations of the Carlson family – an active Métis hunting family in the Kootenays Region (MNBC Region 4)  
Photo Credit: Cindy Carlson

## References

- Ahearn, J. (2005). *Indigenous Peoples of the West Kootenays: A resource guide for students and teachers*. Nelson, BC: School District #8 (Kootenay Lake).
- Anchorage Declaration (April 24, 2010). Anchorage, AL: Indigenous Peoples' Global Summit on Climate Change.
- Pachauri, R.K., & Reisinger, A. (Eds.). (2007). *Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Intergovernmental Panel on Climate Change. Geneva, Switzerland: p. 104.

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