

newsletter

Climate Change Adaptation Research
for Forest and Rangeland Ecosystems
Resiliency Implications at the Landscape Level

Issue #2 – Summer 2010

Message from the Principal Investigator

I am pleased to report progress in several areas as we mark the second quarter of our two-year climate change project. The completion of Aboriginal community interviews is just one recent accomplishment. For details about our progress, please read the Resiliency Dimension Highlights section of this e-newsletter.

The focus of this issue is the Human Resiliency Dimension and its relation to climate change; future issues will focus on the Ecological and Economic Resiliency Dimensions. Resiliency is the ability of individual, social, or ecological systems to absorb disturbances while retaining the same basic structure and ways of functioning. Resiliency is that perennial tendency to rebound from stress that seems to be lodged not only in nature, with her amazing capacity to spring back to life after nature disasters, but also to be contained in people, and expressed in our elastic ability to adapt to cultural, social, economic, and ecological change. Members of this Research Study not only assume that resiliency is an inherent strength of nature and humans, but also seek to capitalize on that strength by mapping and predicting ways in which we can use that capacity for resiliency to build a healthy future as the climate changes in British Columbia and throughout the world.

-Dr. John Innes, Principal Investigator



The promotion of Métis Youth activities such as participation in hunting camps in the Kootenays Region supports younger generations of Métis citizens in learning about their shared heritage, culture and traditional ways of living on the land.
Photo Credit: Mark Carlson

Understanding Human Resiliency

According to Decker, Brown & Seimer (2001), the term human dimensions refers to how and why humans value natural resources, how humans want resources managed, and how humans affect or are affected by natural resources management decisions. Human dimensions inquiries strive to understand human traits and how to incorporate that understanding into management planning and actions. It covers a variety of ideas and practices including cultural, social, and economic values; individual and social behavior; demographics; legal and institutional frameworks of management; communication and education; and decision-making processes of management.

Climate change-effects such as natural disasters, particularly wildfires, are becoming larger and more intense in the South Selkirks Region. These changes have an impact on the social, economic and cultural

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well-being of communities. Over time, literature and associated research on human resiliency at the local level has shifted from community stability (ensuring a constant flow of economic benefits) to community resiliency (focusing on adaptation, transformation and change management). Recognition of the human dimension in climate change adaptation is both pragmatic and empowering: “By identifying the Human Resiliency Dimension as a major pillar in climate change adaptation,” affirms Dr. Ajit Krishnaswamy, “there are greater opportunities for local communities to share their experiences and have a stronger voice in coordinated planning and decision-making on climate change-effects in their regions.”

Through interviews with Aboriginal community members, the HRD team gathered information on how people use traditional knowledge to cope with climate change. Interviews were based on positive psychology, a movement that has shifted psychology's preoccupation with dysfunction to a focus on positive human qualities such as optimism and adaptability. Through positive psychology, we can better understand how to build on optimal human behaviours to help communities thrive. The team's application of positive psychology aids them in determining which characteristics and attitudes render communities and individuals less susceptible to climate change. Dr. Howie Harshaw has found that “human resiliency reflects the ability for citizens as both individuals and members of a broader community network to be forward looking, proactive and have the ability to juggle multiple priorities in a manner that is sustainable for people, the economy and local environment.”



Ktunaxa People traditionally lived in teepees and travelled throughout the territory as hunters and gatherers. Land, language and culture are interconnected and interrelated to the identity of Ktunaxa People. At present, Ktunaxa is a critically endangered language with only 22 fluent speakers in the entire Nation.

Photo Credit: Natasha Caverley

Resiliency Dimension Highlights

From April to June 2010, we carried out the following activities

Community Interviews. Dr. Natasha Caverley conducted interviews with members of the Ktunaxa Nation and Kootenays Métis Nation BC Chartered Communities. The interviews examined Aboriginal perspectives on human resiliency to climate change-related effects in the South Selkirks Region. A special thanks to Mark Carlson (BC Métis Assembly of Natural Resources – Kootenays Region) and Dan Wigle (St. Mary's Indian Band/Ktunaxa Nation) for coordinating these interviews.

Ecological Modelling. The Ecological Resiliency Dimension prepared the South Selkirks data and landbase inventory and the Tools for Exploratory Landscape Scenario Analysis (TELSA) model revisions incorporating climate change disturbances.

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Public Opinion Survey. Dr. Harshaw reviewed previous survey instruments about climate change and community resiliency for the design of the public opinion survey. Major themes from the community interviews were also used in drafting survey questions and preparing a questionnaire layout.

Collaboration. Dr. Harshaw is liaising with West Kootenays (WK) Project Team Members in refining questions for the South Selkirks Public Opinion Survey and advising the WK Project Team on its Managers' Workshop Survey.

from the interviews and analysis from the public opinion survey.

Public Opinion Survey. Questions and layout for the survey will be finalized followed by pilot testing of the instrument. The survey will be distributed to Aboriginal communities (Ktunaxa Nation and Métis Nation BC – Kootenays), the general public from municipalities and surrounding communities in the South Selkirks Region, and General Managers in the Kootenays Forestry Sector.

"We are at a turning point where our governance structures, values, choices and ways of life are being challenged by international events such as the accelerated and frequent effects of climate change. At this juncture, western science and indigenous science can share and integrate knowledge by identifying creative solutions which promote ecological sustainability, well-being and economic diversification. This shared approach facilitates a healthy adaptation to environmental change while realizing our potential as members of the global community."

-Dr. Natasha Caverley

"As a Nation, the Ktunaxa People are guided by natural law where we take only what we need, care for the land and the land cares for us. Over thousands of years, our ancestors adapted to climate change and social hardships such as cultural assimilation by adhering to our traditional values of protecting our land, air and water and ensuring long term sustainability of our land and People now and in the future. Compared to other Aboriginal communities in Canada, the Ktunaxa Nation has not been exposed to dramatic impacts of climate change; however, we are cognizant of changing weather patterns which are resulting in extended hunting seasons due to milder winters and berry picking at higher and steeper terrains due to the lack of abundance of berries at lower elevations."

-Chief Cheryl Casimer, ?Aq'am (St. Mary's Indian Band) and Ktunaxa Nation citizen

"From the days of Louis Riel until now, Métis People have persevered and never gave up – standing together to protect our unique culture and way of life. Through social and cultural events and programs in the Kootenays Region, Métis People are adapting to climate change by bringing together the Chartered Communities and supporting our Youth to connect with local Elders in exercising their Métis rights and utilizing Métis Traditional Knowledge in caring for the land and one another."

-Gerry Legare, Kootenays/Region 4 Métis Citizen

Moving Forward

In the next quarter (July – September 2010), the South Selkirks Project Team will be carrying out the following activities:

Community Interviews. A summary will be prepared based on the interviews carried out with Ktunaxa Nation and Kootenays Métis Nation BC Chartered Community Members. Later this year, this summary will be included in a final report which provides findings

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