



C-CIARN British Columbia

State-of-Play Report

2006-2007



C-CIARN British Columbia – State-of-Play Report

*The Status of Climate Change Impacts and Adaptation
from the Perspective of C-CIARN – BC*

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Preface

In the last year of C-CIARN's mandate (July 2006-June 2007), each C-CIARN office was asked to write a report summarizing their perspectives on the state of climate change impacts and adaptation within their region or sector.

The resulting State-of-Play reports identify, from the point-of-view of C-CIARN, the key climate change impacts, as well as the key stakeholders and adaptation decision-makers (including how these stakeholders/decision-makers were most successfully engaged) of each representative region and sector of Canada. The reports also include a description of the important research questions which, from the perspective of C-CIARN, need to be answered, as well as the steps that need to be taken to both increase the level of engagement on the issue and to facilitate the decision-making that is needed to reduce vulnerability, across Canada, to the impacts of climate change.

It is anticipated that the State-of-Play reports will serve as a valuable point of reference for climate change impacts and adaptation initiatives carried out across Canada, post-C-CIARN.

1. Introduction

From the outset the overarching goal of C-CIARN BC was to:

1. Foster the development of a climate change impacts and adaptation (CCIA) community of researchers and practitioners and to facilitate research, communication and understanding of the potential impacts and effects of a changing climate on communities, the environment, and the economy of British Columbia
2. To help increase knowledge of how British Columbians can adapt and respond to these changes by connecting researchers with decision makers and other community practitioners, stakeholders and First Nations.

As the network evolved the primary objectives were refined to include:

3. Emphasis on the social and economic dimensions of CCIA and,
4. Promote development of better knowledge of community stakeholder perceptions and attitudes of climate change impacts and improved understanding of the needs of communities for information, knowledge and tools for adaptation.

Highlights: C-CIARN BC was the first operational office of the national network and broke new ground through organization of interdisciplinary, cross sectoral and multi stakeholder meetings and workshops around the province including Vancouver, Prince George, and Cranbrook. These meetings served to establish a community of researchers and practitioners with an interest in CCIA. Latterly the network has focused on a more integrative

approach through aligning itself with other organizations and events, such “piggy-backing” on other fora has proved an effective means of broadening the reach of the network by bringing it into contact with other interests and constituencies that might not otherwise attend a strictly CCIA workshop.

Just over half way through its original mandate C-CIARN BC came under new management and was moved to the Department of Anthropology and Sociology, the first C-CIARN office to be housed in a strictly social science oriented department. The vision of the new management was to step beyond the bio-ecological focus that dominates most CCIA research and interest in Canada.

C-CIARN BC has been a strong advocate for emphasis and improved understanding of the social and economic impacts of climate change. The office is closely linked with the BC Chapter of National Assessment on Climate Change Impacts and Adaptation as well as with CCIAP funded research currently looking at perceptions and (co)-management of climate change in coastal communities in BC. In both instances C-CIARN BC has helped to ensure a focus on the human dimensions of both impacts and adaptation.

To compliment the social science focus of the post-2004 C-CIARN BC team, management and staff worked to improve understanding and avenues for greater community and stakeholder engagement. A climate change forum proposal for the 2005 UBCM annual conference (Union of BC Municipalities) was successful (one of

four out of a total 80 applicants) and included a panel of paired presentations that featured researcher/stakeholder teams. The forum was attended by 80+ elected municipal officials from around the province.

In order to continue its work forging stakeholder relationships and emphasising the social and economic impacts of climate change C-CIARN BC developed a proposal and strategic vision for a new direction for C-CIARN known as the BC ARC (BC Adaptation Resource Centre). The proposal draws on the strengths and connections of the C-CIARN BC team and seeks to explore the development of CCIA information and tools for communities by first understanding community perceptions and knowledge of climate change and second by seeking input from communities and stakeholders on the type and quality of information and tools that would actually be useful. In the event that the network is extended or a similar CCIA outreach, extension and/or network organization is put in its place C-CIARN BC this proposal provides a framework for future activities and specific strategic objectives that would enhance community linkages and the development of practical, community oriented adaptation research, tools, and knowledge.

Other highlights include development of the C-CIARN BC website, substantially revamped in 2004/05, that became the hub for network communication. The website features include current postings of upcoming conferences and workshops and other CCIA news and events, occasional newsletters and email announcements on specific issues of interest, completion an online membership survey and subsequent report on results to the membership, maintenance of reference and membership databases, maintenance of an archive of previous CCIA presentations, reports and workshop proceedings from around BC.

Collectively these activities have enabled C-CIARN BC to play a key role in contributing to the generation and distribution of information and knowledge on climate impacts and adaptation in British Columbia. This year, C-CIARN BC plans to build upon its legacy and focus particularly on outreach to communities by:

- Targeting a small number of communities from around the province to explore specific information needs and types of tools that would be most practical and useful beginning with the development of simple climate change impact and adaptation checklists.
- Direct participation in several regional municipal association meetings in the Spring 2007 following up on commitments made earlier in 2006 that had to be postponed due to uncertainty around the network's renewal at the end of March 2006.
- Work with provincial counterparts on several initiatives concerning climate change in coastal communities and development of an education kit to compliment the regional poster being developed in conjunction with the National Assessment.

2. Key Impacts on British Columbia

Climate change is one of many natural and human-induced stressors affecting communities, ecosystems, and human activities in British Columbia. The following issues have been identified as key concerns for British Columbian's during workshops, conferences, and networking hosted by C-CIARN BC. These have

further been identified as key issues by scientists and researchers involved with the BC Chapter of the National Assessment on Climate Change. The most pressing climate change impacts that are already being felt in British Columbia include:

2.1 Forestry

The Mountain Pine Beetle forests (see Figure 1 below). While pine beetle is a natural pest, climate change such as hot, dry summers and warmer winters contributes to the effects and spread of pine beetle. Sixty-five percent of British Columbia's wood exports are pine (Hallin (2001), and thus the epidemic will have significant economic impacts on the forest industry and dependent communities. According

to the British Columbia Ministry of Forests and Range, 30 communities in British Columbia will face economic impacts and current estimates indicate that the livelihoods of over 25,000 families are already being impacted (Ministry of Forests and Range 2006a). The social, cultural and economic consequences of these impacts will likely transform many communities in the BC interior, changes that most are only just beginning to contemplate. Through its support of the recently formed Northern Climate Change Network and other initiatives C-CIARN BC is helping to foster further understanding in this area.

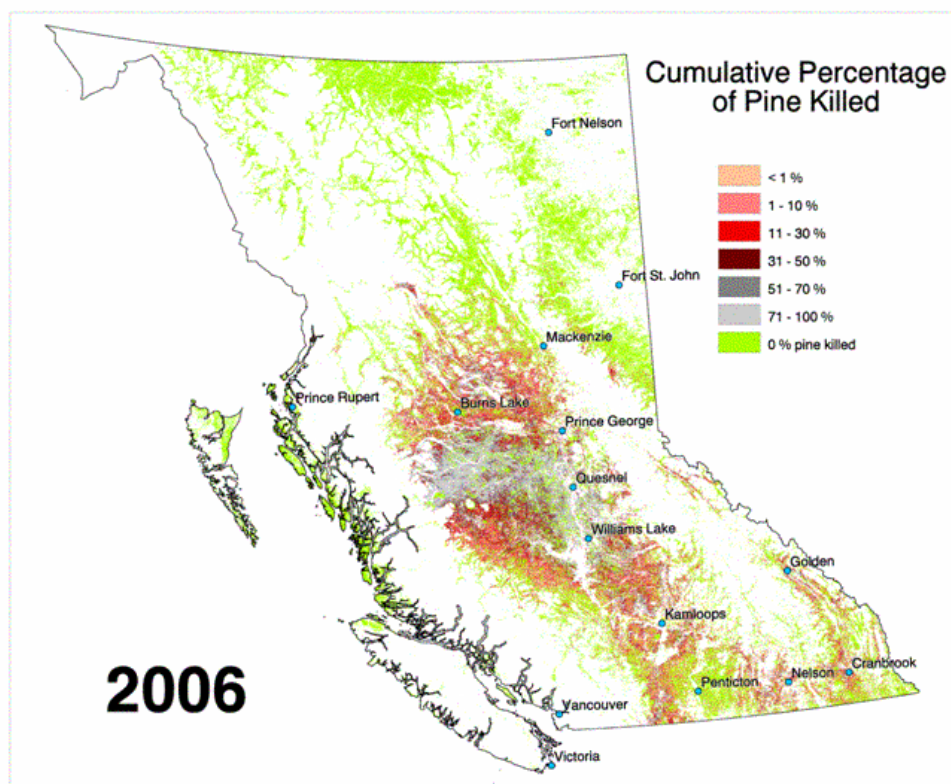


Figure 1: The Cumulative Percentage of Pine Killed by Mountain Pine Beetle (Ministry of Forests and Range 2006b).

2.2 Water Shortages

As is the case across Canada, many areas of British Columbia will be increasingly affected by the impacts of climate change on both surface and ground water resources. Extensive research in the Columbia Basin and Okanagan regions of British Columbia indicate that climate change will affect the amount, type and timing of precipitation and other hydrological events throughout the year. Snowpacks will be lower, spring run off will come earlier and dry seasons will be longer (Cohen et al. 2000, Hamlet 2003, Payne 2004). Water managers and other resource users, stakeholders and decision makers will face extremely difficult trade-offs between the maintenance of aquatic habitat for important fisheries to hydroelectric power generation, from domestic and commercial consumption to agriculture. Furthermore, in many regions the impacts of climate change on water resources will occur against a backdrop of steadily increasing demand brought about by rapid population and economic growth. The potential for economic stress and social conflict is high and poorly understood.

2.3 Fisheries

Climate change is already affecting fisheries in both marine and freshwater environments in BC. In marine environments changes in sea temperature, ocean salinity, ice coverage, water levels, currents, winds, and upwelling (Whitney DFO 2006) all impact fisheries. Freshwater fisheries are also impacted by changes in water temperature, pH, oxygen levels, stream levels and timing

of freshet, and UV-B radiation. Climate scientists and fisheries biologists predict that yields of resident fish are likely to change due to the effects of changes to the marine and freshwater environments (Ware and Thomson 2005).

Impacts on water resources that affect both the quantity and quality of water in the Fraser Basin (Morrison et al. 2002), the Georgia Basin (Whitfield et al. 2002, Quilty et al. 2004), and in the Southern Interior of BC are beginning to disrupt the life and production cycles of salmonids in these regions (MacDonald et al. 2000, Hayee et al. 2003a). Climate change is linked to projected declines in fisheries for some species and increases in the abundance and variety of uncommon or less frequently fished species including ocean squid and mackerel. These changes in fisheries are likely already having social and economic impacts yet they are difficult to discern against a complex backdrop of other socio-economic and cultural change. Over the next 10-25 years such impacts will undoubtedly increase, especially in fisheries dependent rural communities. At the C-CIARN Fisheries conference held in BC in October 2005, (of which C-CIARN BC was a sponsor and organizing partner) participants indicated growing concern with the need to develop adaptation responses to changes in fisheries and engaged in discussions about key adaptation measures and priorities.

2.4 Sea Level Rise

Between 1909 and 1999, the sea level has risen four centimetres at Vancouver, eight centimetres at Victoria and 12 centimetres at Prince Rupert (REF). Although much of BC's extensive coastline is steep and rocky and thereby only moderately vulnerable to the effects of sea level rise (SLR), there are a number of "hotspots" where vulnerability is heightened by topography, sensitive habitats, development and/or critical infrastructure. Low-lying areas on the coast that have been identified as being at risk include Prince Rupert, the north coast of Haida Gwaii/Queen Charlotte Islands, the Fraser Delta, and numerous rural and/or aboriginal communities and heritage sites.

The City of Delta has engaged with NRCan in a study examining potential impacts of sea level rise along the Roberts Bank foreshore. This example illustrates the complexity of interacting and often conflicting interests that may be effected by climate change impacts. In this case the prospect of climate related sea level rise is already aggravating a longstanding dispute between the Tsawwassen First Nation and the Vancouver Port Authority.

Flooding, increased storm frequency and high water events, contamination of drinking water and associated damage to transportation and infrastructure are all potential impacts related to sea level rise. Sea level rise has been a major issue of concern discussed at the Coastal Community Network annual conferences (2005/06) and during climate change panels hosted by C-CIARN BC. The provincial government has developed a storm surge model and is planning to use the model as a

tool to work with communities along the coast of British Columbia.

3. Key Stakeholders

The impacts of climate change are most tangible to communities and individuals in their effects on natural resources and infrastructure. Impacts on the former are particularly noticeable to resource dependent or resource based communities. Infrastructure impacts are assumed to affect both larger and small communities, although in markedly different ways. There is also a difference in the ability or capacity of rural versus urban centres to respond or deal with such impacts. Urban centres are generally assumed to be less directly affected (although this may change in the future) and are considered to have higher adaptive capacity in relative terms to their rural counterparts (Davidson et al, 2003. Adger, 2004). Regional administrative units such as Regional Districts and Improvement Districts have important responsibilities for services such as transportation infrastructure, water supply and stormwater management. C-CIARN BC targets key stakeholders and related organizations in both large and small centres that are on the front lines of managing or otherwise "dealing with" resource and infrastructure issues.

The key stakeholders that must be engaged in climate change impacts and adaptation decision making in British Columbia include community leaders and elected officials, town administrators, resource managers, planners, engineers, regional districts and "improvement districts". These stakeholders include civic and First Nations community

leaders, planners, government, resource and water managers, administrators, and organizations working on projects related to climate change. Workshops, partnering with community organizations and engaging in community extension are all possible means of enhancing stakeholder engagement.

C-CIARN BC has existing or is currently developing network linkages with, among others, the following organizations:

3.1 Non-Government Organizations and Associations

Coastal Community Network

(<http://www.coastalcommunitynetwork.ca/>) – The Coastal Community Network connects communities in coastal British Columbia on social and economic sustainability issues. CCN pays particular attention to supporting coastal communities in addressing issues around resource and marine policy and linking communities with government, industry, the general public, and media. C-CIARN BC is closely linked with the CCN which enhances its work and outreach with coastal community groups.

Fraser Basin Council

(<http://www.fraserbasin.bc.ca/>) – The FBC is directed by its mandate to promote and advance environmental, social and economic sustainability in the region. Since 2002, the FBC has run the BC Climate Exchange which provides public education about climate change to businesses, community organizations, and government. The C-CIARN BC Coordinator sits on the advisory board of the BC Climate Exchange.

Columbia Basin Trust

(<http://www.cbt.org/>)– The CBT works in the

Columbia Basin Region to promote social, environmental, and economic well-being. Climate change and addressing water issues in the area are two key focal points of the organization. C-CIARN BC was involved in a major conference on CCIA in the Columbia Basin in 2003. Direct contact has waned more recently although the organization continues to be active in continuing to advance understanding and knowledge of CCIA in the region.

McGregor Model Forest Network

(<http://www.mcgregor.bc.ca/>)– The McGregor Model Forest Network (MMF) focuses on addressing the challenges and opportunities facing forestry-dependent communities and forests in British Columbia. In May 2006, McGregor Model Forest Network hosted a conference in Prince George that led to the establishment of a Northern Climate Change Network spear headed by the MMF to connect communities and other stakeholders to address climate change issues in Northern BC. C-CIARN BC and the McGregor Model Forest Network have discussed how to work together to improve the “reach” of the climate impacts and adaptation message to key stakeholders throughout the central and northern interior of the province.

Canadian Institute of Planners

(<http://www.cip-icu.ca/>) – The Canadian Institute of Planners works toward advancing the profession of planning in Canada. The CIP works closely with Natural Resources Canada on the *Municipal Case Studies: the planning process and climate change* project, however, to date linkages with C-CIARN BC have been limited. Enhanced engagement with the CIP is a natural fit for community extension

work, especially with planners at the municipal level.

BC Rural Network

(<http://www.bcruralnetwork.ca/>) – The BC Rural Network focuses on building the capacity of rural and remote communities in British Columbia to address the issues they face. Connects stakeholders in rural communities and provides a mechanism for information sharing and action plan development. In 2006, C-CIARN BC assisted the BC Rural Network in developing a climate change panel on planning for climate change impact and adaptation issues. Working with the BC Rural Network provides C-CIARN BC with access to an extensive network of rural and remote communities in BC. The relationship is in early stages of development and has been hampered by uncertainty around C-CIARN's future status and mandate.

3.2 Municipal Associations

Union of British Columbia Municipalities and Regional Municipal Associations

(<http://www.civicnet.bc.ca/>) – These organizations represent the best avenue for networking directly with municipalities and reaching significant numbers of elected community officials and as such are a key vehicle for distribution of information and tools on CCIA. Partnering with these associations is nascent and a key focus of the coming year. Presently there is a small, but emerging awareness of climate change impact and adaptation issues among the UBCM. C-CIARN BC hosted a key climate change panel at the 2005 annual convention of the UBCM.

Federation of Canadian Municipalities

(<http://www.fcm.ca/>) – The Federation of Canadian Municipalities provides an important mechanism for linking with municipalities on a national basis. Direct connections with municipal governments are key for C-CIARN BC to forge alliances to address climate change impact and adaptation issues. On a national scale the FCM provides links to communities that are interested in climate change impact and adaptation projects.

3.3 Government and Government Affiliated Organizations

BC Ministry of Environment and Ministry of Forests and Range

(<http://www.env.gov.bc.ca/air/climate/index.html>) –The Ministry of Environment and Ministry of Forests and Range each are key provincial governmental bodies that deal directly with climate impact and adaptation issues and with which C-CIARN BC has good ties. Strongest links are with climate specialists in the Climate Change Section of Environmental Protection Division within the Ministry of Environment.

3.4 First Nations Organizations

Below is a list of three First Nations organizations in BC that may in the future be important points of contact for furthering engagement of First Nations communities in CCIA. Through overlap of other activities and research in which C-CIARN BC personnel are involved the network is reasonably well connected, especially in coastal BC. That said, CCIA itself is not currently a 'top of mind' issue in many aboriginal communities although the pine

beetle epidemic in the northern interior is beginning to change that.

First Nations Environmental Network

(<http://fnen.org/>) – a national aboriginal environmental organization based in British Columbia.

BC Aboriginal Fisheries Commission

(<http://www.bcafc.org/>) – The work of the BC Aboriginal Fisheries Commission focuses on increasing awareness and addressing issues impacting aboriginal fisheries, consideration of treaty rights, employment opportunities and other fisheries issues. C-CIARN Fisheries sector is well connected.

First Nations Forestry Program

(http://www.pfc.forestry.ca/programs/fnfp/index_e.html) - FNFP is a federally funded program which provides grants and resources for First Nations forestry projects. They have links to BC specific forestry projects and business opportunities and provide financial and technical assistance with First Nations forestry projects.

For additional First Nations Organizations see Appendix 1

As C-CIARN BC begins to develop a closer connection with communities in British Columbia partnerships with the stakeholders and organizations listed above will become increasingly crucial. Such partnerships will assist in facilitating the distribution and development of impact and adaptation tools and information for communities.

4. Strategies for Stakeholder Engagement

Throughout the past five years C-CIARN BC has focused on building a network of researchers and stakeholders primarily through meetings, workshops and conferences. This has included both organization and facilitation of C-CIARN specific events as well as organizing and/or participating other fora hosted by groups or organizations often with a broader or different mandate to CCIA. Major workshops and partnering with other stakeholders has assisted in getting impact and adaptation issues on the table. As C-CIARN BC has evolved, the need has shifted to working with existing forums and structures and engaging in extension and outreach work with communities.

Networking and partnering with other stakeholders on the organization of these events has also facilitated the opportunity for C-CIARN BC to build and maintain face-to-face relationships with many of our stakeholders. This continuity in relationship building proves fundamental to developing trust, knowledge and building capacity within communities. C-CIARN BC also distributes periodic newsletters and announcement emails to our membership and maintains an up-to-date website which lists upcoming events and funding opportunities as well as information on climate impact and adaptation issues. In the fall of 2005, C-CIARN BC also completed a survey of our membership to determine additional ways to engage our members. We found that members primarily joined C-CIARN BC to be kept up to date with current climate change research, especially in BC, and learn about climate change

impacts and ongoing adaptation initiatives. Nearly half of all C-CIARN BC members have attended a workshop facilitated in whole or part by C-CIARN BC (48.3%), and members are most interested in participating in C-CIARN BC through attending and presenting at local workshops on climate change in British Columbia.

While conferences, workshops and newsletters all play a significant role, continuity in the C-CIARN network is fundamental to improving and expanding engagement. Relationship building takes place over time and facilitating action and engagement requires continual effort to keep stakeholders up-to-date on issues and activities. Members have highlighted the importance of continuity and enhancement of C-CIARN BC's community outreach and capacity building surrounding issues of climate change. C-CIARN BC has identified a need to move beyond a focus on formal colloquia to more targeted outreach and extension that would aim to mobilize the knowledge and concerns within various stakeholder groups. Working directly with communities to develop climate impact and adaptation tools and resources is one means of such outreach and extension. The need and interest in tools for organizations and municipalities to use in planning for impacts and adaptation has been highlighted by many C-CIARN BC members and stakeholders, as well as the provincial government climate change section.

5. Engaged Stakeholders

The old adage that, "you can lead a horse to water, but you can't make her drink," holds true for C-CIARN's role with both engaged and unengaged stakeholders. Stakeholders that are already engaged in impact and adaptation issues have made efforts on the issue at varying levels. The primary role of C-CIARN is to introduce the issue(s) and raise awareness through modes of communication and networking described above. Actual engagement must come from the stakeholders themselves.

In certain instances C-CIARN BC's participation at workshops has led to organizations and associations requesting further participation or involvement in their events such as the Coastal Community Network conferences and the BC Rural Network annual conference. This is at least one indication of increasing engagement.

In other cases engagement in CCIA issues has been most successful where stakeholders have partnered with a specific project and researcher or group of researchers. It is at this level that actual adaptations begin to be considered and developed. This level of engagement can be viewed as a "next step" that occurs after awareness has been raised initially through either the emergence of a specific event or problem related to CC or through one or several of the methods pursued by C-CIARN or others to raise awareness around CCIA in general.

5.1 Outstanding Needs of Engaged Stakeholders

In many ways it is too premature to determine which tools stakeholders have used to guide their adaptation decisions because for the most part “tools” don’t exist. The development and use of adaptation tools in British Columbia is a component of the strategic direction that C-CIARN BC has taken for the 2006-07 year. Movement in this direction is based on feedback from stakeholders that there is a need for tools to assist them in planning for climate change.

Other impediments to decision-making around climate change result from a perceived lack of urgency. While in some areas of the province the impacts of mountain pine beetle provide a visible example of climate change related issue, elsewhere the effects of climate change are still subtle or concealed by other issues. The main barriers to decision-making not surprisingly are competition from multiple other issues, uncertainty in differentiating between climate change and climate variability, and a lack of consensus among stakeholders about the urgency of the problem. Providing more regional and sector specific tools for decision makers to incorporate climate change adaptation into their long term planning is one method that some stakeholders have identified as a mechanism to minimize these impediments.

6. Unengaged Stakeholders

Further engagement of stakeholders in climate change impacts would be accelerated by the development of tools and extension efforts to assist communities to incorporate adaptation into their planning and management efforts. Compelling evidence that climate change is happening such as an extreme weather event or a dramatic rise in sea level would also assist in engaging unengaged stakeholders. Further action by the federal government around climate impacts and adaptation and continuity in research projects and the networking, knowledge mobilization and transfer efforts of organizations such as C-CIARN are fundamental to promoting further engagement.

7. Unanswered Research Questions?

The main research questions on the minds of the C-CIARN BC network of researchers and stakeholders are related to regional climate change scenarios, vulnerability assessment methodologies and understanding adaptive capacity in specific local and regional contexts. However, before “tools” can be developed or adaptive capacity enhanced more fundamental questions about how communities and stakeholders perceive climate change, whether as an environmental problem, a scientific issue or even as an economic risk or opportunity need to be answered. Without this understanding it is unlikely that “tools” can be developed from above that will actually be useful and be used at the local level. Related to this it is also

important to learn more about how communities might prioritize climate change adaptation and under what circumstances management of impacts (i.e. adaptation) becomes necessary. Finding more ways to “translate” the impacts of climate change into terms that are relevant and make sense to the stakeholders that manage such changes is also critical. The use of a standard hydrograph for water managers in the Okanagan is a particularly salient example of the effectiveness of this approach.

Through the production of tools, workshops and other resources, the C-CIARN network is well positioned to provide a supporting role for these communities.

8. Advancing the Impacts and Adaptation Issue

Climate change impacts and adaptation issues in BC, as with much of Canada, is overshadowed in the hearts and minds of Canadians and politicians by mitigation issues and concerns. While addressing mitigation is a fundamental component of tackling climate change, adaptation is key to assuring that our communities are prepared for the changes and challenges they face.

Another issues is that the impacts and adaptation research community still remains small and social science researchers have not yet embraced climate change impacts and adaptation as an area of research. Further, there is a need for stronger networking between all levels of government and researchers, industry, First Nations, organizations and community members. This must be backed by

continuity in C-CIARN and other existing networks, and the development of tools and resources for communities and organizations. Community extension work including education and outreach, especially through networking with municipal associations and First Nations in British Columbia, is key to advancing impact and adaptation issues in BC.

From presentation made to public climate change forum in Vancouver (by Sydneysmith):

“Mitigation w/o Adaptation leaves us in harms way – climate change is happening now”

Adaptation w/o Mitigation leads us to harms way – we won’t be able to keep up with climate change”

Appendix 1:

BC First Nations Groups/Organizations with Potential Interest in Climate Change Information

Organization & Contact Details	General Organization Interests
<p>1. BC Assembly of First Nations 605-100 Park Royal South West Vancouver, BC V7T 1A2 Ph: 604-922-7733 Fax: 604-922-7433 http://bcafn.ca/</p>	<p>-assembly of First Nations groups in BC; address a wide range of issues of interest to First Nations</p>
<p>2. First Nations Summit Society Suite 1200 - 100 Park Royal South West Vancouver, BC V7T 1A2 Ph: 604.926.9903 Fax: 604.926-9923 http://www.fns.bc.ca/</p>	<p>-forum for addressing issues related to treaty negotiations as well as other issues of concern to First Nations</p>
<p>3. First Nations Environmental Network First Nations Environmental Network P.O. Box 394 Tofino, B.C. Canada V0R 2Z0 Ph: (250) 726-5265 fax: (250) 725-2357 http://fnen.org/</p>	<p>-national First Nations environmental organization based in BC; have some information on climate change</p>
<p>4. BC Aboriginal Fisheries Commission Suite 707-100 Park Royal West Vancouver, BC V7T 1A2 Ph: (604) 913-9060 fax: (604)913-9061 http://www.bcafc.org/</p>	<p>-increase awareness and address issues impacting aboriginal fisheries; consider treaty rights, employment opportunities and other fisheries issues such as impacts on Sockeye</p>
<p>5. Union of BC Indian Chiefs Vancouver Office: 500 - 342 Water Street, Vancouver, BC, V6B-1B6, CANADA Ph: (604) 684.0231, Fax: (604) 684.5726 http://www.ubcic.bc.ca/ *also have a Kamloops office</p>	<p>-work to unite First Nations communities in efforts to achieve recognition of aboriginal rights to title and respect of their culture and communities -deal with mountain pine beetle and fishery issues</p>

<p>6. British Columbia First Nations http://www.bcfn.org/</p>	<p>-a website designed to connect BC First Nations (has listings of BC Bands) and is a potential source for posting climate change information</p>
<p>7. First Nations Forestry Program Canadian Forest Service First Nations Forestry Program 506 West Burnside Road Victoria, BC V8Z 1M5 BC Branch: Heather O’Leary (250) 363-6036 http://www.pfc.forestry.ca/programs/fnfp/index_e.html</p>	<p>-federally funded program which provides grants and resources for First Nations forestry projects; has links to BC specific forestry projects and business opportunities; provides financial and technical assistance with First Nations forestry projects</p>
<p>8. Fraser River Aboriginal Fisheries Secretariat #274-A Halston Connector Road Kamloops, BC V2H 1J9 Marcel Shepert/Ken Wilson Ph: (250) 828-2178 http://www.frafs.ca/about/index.php</p>	<p>-provides information on aboriginal fisheries on the Fraser River; has links to all of the Bands on the Fraser</p>
<p>9. Inter Tribal Health Authority 534 Centre Street Nanaimo, BC V9R 4Z3 Ph: (250) 753-3990 Toll-Free: 1-877-777-4842 Email: itha@itha.ws http://www.itha.ws</p>	<p>-health service provider</p>
<p>10. Health Canada - First Nations and Inuit Health Branch 540-757 W Hastings Street, 701-1166 Alberni Street Vancouver, BC V6C 3E6 Ph: (604) 666-3331 Toll-Free: 1-800-317-7878 http://www.hc-sc.gc.ca/fnihb</p>	<p>-BC branch of Health Canada; addresses First Nations health issues</p>
<p>11. Aboriginal Health Services Vancouver Community Vancouver Coastal Health Suite 320 - 1290 Hornby Street Vancouver, BC V6Z 1W2 Ph: (604) 714-3484 ext 2258 Fax: (604) 714-3477 Email: aboriginalhealthservices@vch.ca</p>	<p>-aboriginal health service provider</p>

http://www.vch.ca/community/	
<p>12. Sto:lo Nation Health Services Building #7 - 7201 Vedder Rd Chilliwack, BC V2R 4G5 Ph: (604) 824-3200 Toll-Free: 1-877-411-3200 Fax: (604) 824-0276 Email: counselling.intake@stolonation.bc.ca http://www.stolonation.bc.ca</p>	<p>-aboriginal health service provider</p>
<p>13. A-Tlegay Fisheries Society 1441B 16th Avenue Campbell River, BC V9W 2E4 Ph: (250) 287-8868 Fax: (250) 287-8414 Email: atlegay@oberon.ark.com</p>	<p>-aboriginal resource development and fisheries</p>
<p>14. Kwakiutl Territorial Fisheries Commission PO Box 10 Port McNeill, BC V0N 2R0 Ph: (250) 956-2214 Fax: (250) 956-2217 Email: general@ktfc.bc.ca http://www.ktfc.net</p>	<p>-aboriginal resource development and fisheries</p>
<p>15. Native Brotherhood of British Columbia (Head Office) 710 – 100 Park Royal S West Vancouver, BC V7T 1A2 Ph: (604) 913-3372 Fax: (604) 913-3374 Email: nbbc@nativevoice.bc.ca http://www.nativevoice.bc.ca</p>	<p>-support First Nation fishers and shore workers</p>
<p>16. Native Fishing Association (Prince Rupert) 460-309 2nd Avenue W Prince Rupert, BC V8J 3T1 Ph: (250) 624-3888 Fax: (250) 624-9729</p>	<p>-support First Nation fishers</p>
<p>17. Native Fishing Association (Vancouver) 710-100 Park Royal S West Vancouver, BC V7T 1A2 Ph: (604) 913-2997 Fax: (604) 913-2995 Email: nfa@shoal.ca</p>	<p>-support First Nation fishers</p>

<p>18. Haida Fisheries Program Location: 133 Front Street, Skidegate BC Mailing Address: PO Box 98 Queen Charlotte City, BC V0T 1S0 Ph: (250) 559-8945 Fax: (250) 559-8951 Email: chn_hts@island.net http://www.haidanation.ca</p>	<p>-support Haida fishers</p>
<p>19. North East Aboriginal Trappers Society Box 34, Mile 293, RR1, Alaska Highway Fort Nelson, BC V0C 1R0 Ph: (604) 313-2781 Fax: (250) 774-7235 Email: neat@uniserve.com</p>	<p>-support First Nations resource development and trapping</p>
<p>20. Canadian Columbia River Inter-Tribal Fisheries Commission 7468 Mission Rd Cranbrook, BC V1C 7E5 Ph: (250) 417-FISH (3474) Fax: (250) 417-3475 Email: ccrifc@cyberlink.bc.ca</p>	<p>- support First Nation fishers on the Colombia</p>
<p>21. Aboriginal Council of British Columbia & BC Aboriginal Fisheries Commission 707 - 100 Park Royal S West Vancouver, BC V7T 1A2 Ph: (604) 913-9060 Fax: (604) 913-9061 Email: fishing@bcafc.org</p>	<p>-fisheries and resource development</p>
<p>22. Nuu-chah-nulth Economic Development Corporation PO Box 1384, 7563 Pacific Rim Hwy Port Alberni, BC V9Y 7M2 Ph: (250) 724-3131 Toll-Free: 1-866-444-6332 Fax: (250) 724-9967 Email: nedc@island.net http://www.nedc.info</p>	<p>-assist with economic development projects and planning; primarily business related but may be interested in the economic impacts of climate change/resource industry impacts</p>
<p>23. Sto:lo Community Futures Development Corporation 29-6014 Vedder Rd Chilliwack, BC V2R 5M4 Ph: (604) 858-000 Fax: (604) 858-3829 Email: info@stolocf.com http://www.stolocf.com</p>	<p>-assist with economic development projects and planning</p>

<p>24. Tahltan Nation Development Corporation IR 9 PO Box 250 Dease Lake, BC V0C 1L0 Ph: (250) 771-5482 Toll-Free: 1-888-827-8632 Fax: (250) 771-5454</p>	<p>-assist with economic development projects and planning</p>
<p>25. Aboriginal Tourism Association of British Columbia Location: 3144 Dollarton Highway North Vancouver, BC V7H 1B3 Mailing Address: PO Box 2558 Vancouver, BC V6B 3W8 Ph: (604) 980-1088 Fax: (604) 980-1099 Email: info@atbc.bc.ca http://www.atbc.bc.ca or http://www.aboriginalbc.com</p>	<p>-promotes Aboriginal Tourism in BC</p>

Appendix 2:

CCIA Events

If We Snooze, Do We Lose? A Forum on Adapting to Climate Change in the Thompson – Nicola – Shuswap. Sept. 29, 2006 (Kamloops, BC)

Communities and Climate Change: Planning for Impacts and Adaptations - May 17, 2006 (Prince George, BC)

Climate Change Adaptation, Mitigation and Linkages with Sustainable Development - April 19-21, 2006 (Vancouver, BC)

UBC Low Emission Vehicle Event – March 2006 (Vancouver, BC)

Coastal Community Health: A Social Crisis – January, 2006 (Prince Rupert, BC)

Climate and Fisheries: Impacts, Uncertainty and Responses of Ecosystems and Communities – October, 2005 (Victoria, BC)

Communities and Climate Change: Risks and Responses – Union of British Columbia Municipalities 2005 Workshop – September, 2005 (Vancouver, BC)

Adaptation and Vulnerability Assessment in Communities - November, 2004 (Vancouver, BC)

Climate Change in the Pacific Northwest – May 2003 (Victoria, BC)

Climate Change Impact and Adaptation Workshop in the Columbia Basin – January 2003

C-CIARN BC Meeting at OUC – December 2002 (Kelowna, BC)

Climate Scenarios Workshop – November 2002 (Vancouver, BC)

Climate Change Research at UBC – October 2002 (Vancouver, BC)

C-CIARN BC Meeting at the OUC – October 2002 (Kelowna, BC)

Climate Change: How can we Adapt? – October 2001 (Vancouver, BC)

Regional and National Research Network – March 2000 (Vancouver, BC)

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