



Pacific Institute  
for Climate Solutions  
Knowledge. Insight. Action.

## Briefing Note 2010 – 20

17 September 2010

### **Climate Change Adaptation Expertise and BC Planners**

Author: Ian Picketts, PhD Candidate, Natural Resource and Environmental Studies,  
University of Northern British Columbia

#### **Issue**

Climate change will have a significant impact on communities throughout British Columbia. Environmental planners must be aware of how changes in seasons, temperatures and precipitation regimes will affect the cities and towns that they work in. Proactive planning for adaptation means preparing for both the positive and negative impacts of climate change before they occur, rather than waiting and reacting to these changes after they have happened. To proactively adapt planners must understand future climate projections, and interact with local and provincial experts to determine what the greatest impacts will be in their communities.

#### **Background**

In June 2008 the Planning Institute of British Columbia (PIBC) had their annual conference in Prince George. The conference was entitled 'planning for change' and focused on the role that planners have in mitigating and adapting to climate change. Researchers at the University of Northern British Columbia (UNBC) conducted a workshop on adaptation at the conference, and also surveyed planners' knowledge on the subject. One of the principle objectives of these events was to gain a better understanding of the current level of knowledge of climate change adaptation amongst planners in BC

The workshop used the community of Prince George as the example case study. Participants were provided with downscaled climate change projection information created by the Pacific Climate Impacts Consortium (PCIC), and spent the day in focus groups discussing climate related impacts in BC and in Prince George. The workshop generated a great deal of productive discussion about climate change adaptation, and participants indicated that it was highly relative to their jobs. However, transcripts from the focus groups revealed that planners had trouble focusing on adaptation, and frequently deviated to mitigation topics. The groups were not able to discuss topics at the level of detail that was expected, and were not able to generate results that were relevant to Prince George. This is partially attributable to the ambitious workshop timeline, however it also indicates that the participants did not have a solid understanding of climate change adaptation and how it differentiates

from mitigation.

A total of 78 respondents filled out a detailed questionnaire on adaptation at the PIBC conference. The questions were designed to get a better understanding of planners' knowledge of, and experiences related to, climate change adaptation. The vast majority of respondents were professional planners that were engaged in the local processes in their communities, therefore the results are highly relevant to community planners.

Some of the outputs from the survey are very intriguing. When asked to self-assess their knowledge of climate change adaptation, nearly two thirds of the 78 respondents indicated that they had 'some' knowledge of adaptation (a '3' on a scale of '1' to '5'). Approximately equal numbers indicated that they had 'minimal' knowledge and 'extensive' knowledge respectively. Not a single respondent answered that they had 'no' knowledge, nor did anyone state that they had 'expert' knowledge. This response is interesting as many of the people at the conference were presenting on climate related topics. The literature on self-assessments indicates that people tend to accurately self-assess only if they are experienced and competent. The conservative assessment gives evidence that planners as a group are aware of their lack of knowledge, and are more likely to seek outside advice and support. The least knowledgeable people in a given area tend to lack the awareness that they are not experienced, and self-assess far beyond their actual abilities.

Other responses in the survey gave evidence that planners are not well versed in the field of climate change adaptation. Seventy percent of respondents stated that they had no previous involvement in climate change adaptation planning. Participants also did not consistently indicate whether or not their communities had begun to consider adaptation. In other words, planners from the same cities and towns were not sure if adaptation planning had occurred in their municipalities. Respondents specified that politician knowledge was the biggest barrier to implementing effective adaptation planning actions. Surprisingly, planner knowledge ranked as the lowest barrier; behind planner workload, public interest, funding, projection information and action plans.

Participants were also asked to indicate the greatest climate related impacts that they expected to face in their communities in the province in 50 years. The impacts selected for communities varied significantly between the different regions of the province. This supports the background literature, which states that adaptation strategies need to be designed for the case specific needs of communities. Planners felt that the biggest future impacts in the Province would be related to: forests; agricultural changes; increased river flooding; affects to transportation infrastructure; and water quality degradation.

## **Options**

The research indicates that planner education on climate change adaptation needs to be a high priority in British Columbia. First Nations, local, regional and provincial governments, as well as planning institutes and academics, should endeavour to help planners learn more about this important issue. Workshops are an effective method to encourage dialogue on the subject. However, these workshops should not be expected to produce information that can be used for future plans. Planners must become leaders in adapting to and mitigating the effects of climate change in British Columbia.

## Sources and Further Reading

- Bizikova L., Neale, T. and Burton, I. 2008. Canadian communities' guidebook for adaptation to climate change, First Edition. Environment Canada and University of British Columbia, Vancouver BC.
- Cohen, S. and Waddell, M. 2009. Climate Change in the 21st Century. McGill-Queens University Press, Montreal.
- Füssel, H.M. 2007. Adapting planning for climate change; concepts, assessment approaches, and key lessons. *Sustainability Science*. 2: 265-275.
- Jacques, P. 2006. Downscaling climate models and environmental policy: from global to regional politics. *Journal of Environmental Planning and Management*. 29(2): 301 – 307.
- Kruger, J. and Dunning, D. 1999. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*. 77(6): 1121-1134.
- New Zealand Ministry of the Environment. 2008. Climate Change Effects and Impacts Assessment: A Guidance Manual for Local Government in New Zealand, 2nd Edition. Wellington, New Zealand.
- Patton, M. Q. 2002. *Qualitative Research and Evaluation Methods: Third Edition*. Sage Publications, California.
- Rodenhuis, D., Bennett, K., Werner, A., Murdock, T. and Bronaugh, D. 2007. Hydroclimatology and future climate impacts in British Columbia. Pacific Climate Impacts Consortium, University of Victoria, Victoria BC.
- Swart, R. and Raes, F. 2007. Making integration of adaptation and mitigation work: mainstreaming into sustainable development policies. *Climate Policy* 7(4), 288– 303.
- Walker, I.J. and Sydneysmith, R. 2008. British Columbia in *From Impacts to Adaptation: Canada in a Changing Climate*, edited by D.S. Lemmen F.J. Warren, K. Lacroix and E. Bush; Government of Canada, Ottawa ON. P. 329-386.