



SPRING 2010

## From the Director



New records for global average temperature are now being established: according to data compiled by NASA's Goddard Institute for Space Studies, December 2009 to the end of April 2010 comprise the

warmest five-month period in recorded history. In southern British Columbia, we enjoyed an unseasonably warm winter, the result of an El Niño event now over that began last summer. Such regional experiences reinforce the fact that changes in the weather in any given area are delivered against a background of long-term trends in climate change coupled with episodic events of multiannual climate variability, all of which have varying geographical expressions.

Given ongoing inaction internationally on reducing carbon emissions, we can anticipate that average monthly or annual temperature records will continue to be set. But rising temperatures are only one piece of a climate-change jigsaw. Precipitation patterns are predicted to change over the course of this century: dry areas like the northern Mediterranean or southwestern North America are likely to become drier on average while wet areas get wetter. Extreme weather events may well become more frequent. Shorelines will creep inland as the sea, now rising at  $3.4 + 0.4$  mm/year, inexorably transgresses low-lying continental margins. How will societies actually adapt to such changes, and what are the social, physical and economic implications of various forms of adaptation? What are the specific implications for British Columbia and the Pacific Northwest, and what can we do to prepare ourselves, to build adaptation into our social, economic and infrastructural planning? Such questions lie at the very heart of the Adaptation Strategy the Government of British Columbia released earlier this year (see <http://www.livesmartbc.ca/government/adaptation.html>).

The strategy is founded on three defining positions that require government to:

- Build a strong foundation of knowledge and tools to help British Columbia prepare for a changing climate;

- Make adaptation a part of the government's business, and ensure that climate change impacts are considered in planning and decision-making across government; and
- Assess risks and implement priority adaptation actions in key climate-sensitive sectors.

PICS and our sister organization at UVic, the Pacific Climate Impacts Consortium (PCIC), are working with the Province to meet the first requirement: provision of the applied scientific and social scientific knowledge that we need to prepare for the climate change in the pipeline. The task is complex: using highly sophisticated computer models, future climate scenarios underpin the physical scientific component of the effort. These are being developed on the regional scale by Ouranos in Montreal in conjunction with PCIC. At the same time, PICS is working within our four-university consortium and with the BC Climate Action Secretariat to explore socioeconomic and social mobilization aspects. There is some urgency to this work because infrastructural initiatives under consideration **now** must take into account and be built for conditions **then**, often decades into the future.

All four of PICS' primary research themes—the low carbon emissions economy, sustainable communities, resilient ecosystems, and social mobilization—explicitly include consideration of future adaptation requirements. Although we are in the early stages of our work in these areas, we are already beginning to produce applied knowledge that will help BC meet the adaptation challenge. For example, one of our PICS graduate fellows, Ian Picketts, recently received a Master's degree in Natural Resources and Environmental Studies from the University of Northern British Columbia. In his thesis research, Ian worked closely with PCIC and the City of Prince George to describe and understand the impacts that the city will be facing, including increased risk of flooding, more frequent forest fires and the degradation of transportation infrastructure. With Ian's help, responsive and appropriate measures that lower risks have been developed and will be incorporated into the Prince George Integrated Community Sustainability Plan and the Official

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Community Plan. His work serves as a model that can be used by other communities to incorporate climate change adaptation into their land use plans.

PICS continues to move forward on many other fronts. On the communications and outreach side, we launched our lecture tour of northern BC at a large public gathering in Dawson Creek in March. Nancy Olewiler, a noted economist from SFU, and I presented discussions on climate science and BC's carbon tax. In early March, we hosted an evening session at SFU downtown on communicating climate change, in which Jeffrey Simpson of the Globe and Mail and others spoke to the role of the print media. In April, we presented at UVic a highly successful public forum entitled, "Climate Change and the Media: Scientists, Scribes and Spinmeisters" in which expert panelists presented perspectives aimed at encouraging the public to determine the truth behind the headlines. The event can be viewed in streaming video on the PICS website at <http://www.pics.uvic.ca/events.php#ccm>.

Our Pacific Climate Seminar Series, hosted jointly by PICS and PCIC, continues to inform with recent presentations by Dr. Barry Carin on an outside-the-box approach to climate change negotiations and Ben Kangasniemi from the BC Climate Action Secretariat on the province's climate-change adaptation strategy. In late April, we hosted Dr. Sabrina Schulz, head of the climate security project at the British High Commission in Ottawa. Dr. Schulz drew upon British and European perspectives in exploring likely future impacts of climate change on human and national security. One question she asked has profound implications: Afghanistan is expected to become drier in the future, and under drier conditions, what cash crop is the most agriculturally sustainable in that region? The worrying answer: poppies. Early this month, we hosted Dr. Andreas Rechkemmer from the Global Risk Forum in Davos, Switzerland who spoke on new approaches to global climate change governance. Almost all of our seminars and presentations are webcast, and for those of you reading this in remote locations, I hope you'll take advantage of that technology and join us for future events -- advance notice is posted on our website, and I encourage you to keep tabs on upcoming initiatives. There is a lot going on!

## Climate Change and the Media: Scientists, Scribes and Spinmeisters

On April 8, PICS hosted an exciting panel discussion designed to inform the community about the facts on climate change and the challenges faced by media in reporting them.

Despite being held in UVic's largest lecture theatre in the new Bob Wright Centre, the over 400 people who turned up exceeded the room capacity and an overflow room with a live webstream had

to be put into service. An additional 175 people watched the live broadcast on computers across North America and in a theatre at SFU downtown. The panelists were: Peter Calamai, former Science Writer, Toronto Star, Lucinda Chodan, Editor-in-Chief of the Times Colonist, Jim Hoggan, Co-author of the bestseller, Climate Cover-Up, and Tom Pedersen, PICS Director. UVic VP Research, Dr. Howard Brunt served as moderator.



UVic's VP Research, Dr. Howard Brunt takes questions from the audience at the Climate Change and the Media panel on April 8, 2010. The panelists were Peter Calamai, Lucinda Chodan, Tom Pedersen and Jim Hoggan (L to R).

Working to determine the facts behind the headlines, the discussions and debates focused on how best to communicate climate science and how scientists and the media can work together to correct the misinformation that is currently being used to confuse and distort the real climate issues.

## Northern Lecture Tour in Dawson Creek

On March 25 and 26, PICS inaugurated its lecture tour of Northern Communities with a visit to Dawson Creek by PICS Director Tom Pedersen, SFU Economics Professor Nancy Olewiler and PICS Communications Officer Ivan Watson. The community is home to BC's first operational wind farm at nearby Bear Mountain and is a hub of alternative energy and climate policy advocacy and development.

Right: PICS Director Tom Pedersen and Operations Manager Don Hallam inspect one of the facility's 34 wind turbines at the Bear Mountain Wind Farm just outside of Dawson Creek, March 26, 2010.



Tom and Nancy discussed climate science and the rationale for BC's carbon tax at a well-attended public forum. Other visits included a presentation to Mayor Mike Bernier and City Council, and meetings with Northern Lights College and the South Peace Energy Cooperative Association, who are spearheading the redevelopment of the community's old pool into "Centennial Green" a renewable energy and sustainable living centre. The College's energy house initiative, currently under construction on the parking lot of the main campus, will be an innovative and interactive educational facility built to LEED Platinum standards. The College also offers a student training programme for wind energy technicians that is a very popular offering, oversubscribed since it began.



PICS Director Tom Pedersen, Dawson Creek Mayor Mike Bernier, and Bob Haugen, Renewable Energy Program Coordinator, Northern Lights College inspect building progress on the College's innovative Energy House development, an eco-friendly classroom, training centre and showcase for clean technologies being constructed in front of the campus. The College has also instituted an innovative and well-received accreditation program for wind energy technicians.

As part of PICS' mandate to communicate climate change issues to the public, we are planning further tour stops in BC communities. We were warmly welcomed by the people of Dawson Creek and thank them for their hospitality. We also applaud their innovative leadership in alternative technologies and willingness to seize opportunities posed by the transition to a sustainable future.

## Carbon Management in BC Forests

On March 22 and 23, PICS brought together experts in academic, government, environmental non-government organizations, and industry to debate and discuss the salient issues regarding carbon management in BC forests. The workshop's key themes included carbon accounting and offsets, bio-energy, modeling, soils and best forest management practices. The sessions focused on four areas: risks and effectiveness of mitigation strategies, the costs, benefits and guidelines for mitigation and adaptation

strategies, co-benefits including conservation and implementation issues.

Minister of Forests and Range Pat Bell opened the sessions and raised issues of leakage and carbon storage in wood products and emphasized that carbon storage in wood products requires full cost accounting from beginning to end.



Pat Bell, BC Minister of Forests and Range welcomes and addresses participants at the carbon management workshop.

James Mack, head of the BC Climate Action Secretariat (CAS), stressed the urgency of this individual and collective action on climate change. BC forests will play a vital role in the government's reduction targets (i.e. reducing greenhouse gases 33% and 80% below 2007 levels by 2020 and 2050 respectively). The targets require development of sound carbon management policies that must be BC specific while recognizing extra-provincial influences and opportunities. A detailed report on the workshop proceedings will be released shortly and made available on the PICS website.

## Pacific Climate Seminar Series

The Pacific Climate Seminar Series, co-hosted by PICS and the Pacific Climate Impacts Consortium (PCIC) is a monthly lecture series taking place at UVic and webcast live on the PICS website.

Over the past few months, speakers and topics have included: Dr. Barry Carin, Associate Director, UVic Centre for Global Studies on "An Outside-the-Box Approach to Climate Change Negotiations" and Ben Kangasniemi, Acting Head of Science and Adaptation at BC's Climate Action Secretariat, who discussed



Ben Kangasniemi from the BC Climate Action Secretariat outlines the BC government's climate change adaptation priorities on February 17, 2010.

British Columbia's Climate Change Adaptation Strategy, now available online at [http://www.livesmartbc.ca/attachments/Adaptation\\_Strategy.pdf](http://www.livesmartbc.ca/attachments/Adaptation_Strategy.pdf).

All presentation notes and a full recording of each webcast are available for downloading on the PICS website or by contacting [pics@uvic.ca](mailto:pics@uvic.ca).

## Social Mobilization Theme Launched

On March 11 and 12 in Vancouver, PICS hosted a highly successful workshop around the theme of social mobilization, one of four core pillars in the PICS strategic research plan. Participants comprised leading academic researchers from the disciplines of behavioural psychology, visualization theory and practice as applied to societal change, NGO members, Climate Action Secretariat representatives, as well as graduate students and post-doctoral fellows conducting research in the general area of social mobilization.

The workshop benefitted from international perspectives offered by Rob Hopkins, leader of the Transition Town Network in the UK who participated by video from England; Elke Weber, Professor of Psychology from Columbia University in New York; Claudia Pahl-Wostl, Professor of Mathematics from the Institute of Environmental Systems Research, Osnabruck, Germany; and Susanne Moser, Research Associate at the University of California-Santa Cruz Institute for Marine Sciences and a former Research Scientist at the National Center for Atmospheric Research in Boulder, Colorado.

The over-arching theme of the workshop was "What works - identifying, developing, and evaluating effective social mobilization solutions on climate change". Four key research thrusts emerged, all of which the PICS consortium will now tackle: identification and resolution of social barriers and incentives to clean energy solutions; development of practical evaluation metrics for defining and measuring outcomes of social mobilization on climate change; effectiveness

evaluation of ongoing social mobilization activities, pathways, and processes related to climate change in BC; and improvement in the use and potential of existing digital media and development of new digital media and tools to engage the 'silent majority'.

Social mobilization, i.e. fostering human behavioural change, is one of the most difficult challenges facing climate-change adaptation and mitigation efforts internationally, and through this theme, PICS is very pleased to support a full exploration of 'what works and what doesn't' for British Columbia.



Globe and Mail columnist Jeffrey Simpson speaks about the Canadian media context at the Communicating Climate Change session at SFU's Segal Graduate School of Business, March 10, 2010.

## FutureGrid

### BC's Energy Options in a Changing Environment

**June 14-16, 2010 | Wosk Centre for Dialogue, Vancouver BC**

How is a modern carbon-constrained energy system going to shape British Columbia's energy future? How will changing climate regimes, low carbon emission constraints, technological advances, the cost of new infrastructure, rising energy demands, market restructuring and NIMBYism challenge the province's strategists, policy-makers, resource managers and end users? PICS is devoting its annual forum to exploring these and other questions. At FutureGrid, participants will take a critical look at BC's energy options from global, continental, regional and local perspectives.

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