



Pacific Institute  
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## PICS News Scan – 9 November 2011

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The PICS News Scan is a weekly summary of the major climate-change related science, technology, and policy advances of direct relevance to the BC provincial and the Canadian federal governments and more generally to businesses and civil society. The News Scan focuses on cutting edge climate issues and solutions gathered by the fellows and faculty of [ISIS, a research centre at the Sauder School of Business](#), in partnership with the [Pacific Institute for Climate Solutions \(PICS\)](#). Access to some referenced articles may require a journal subscription or purchase of the article, and appropriate links are provided for this purpose. To be added to the News Scan distribution list or to provide content feedback and/or suggestions about interesting news items, please email [picsscan@uvic.ca](mailto:picsscan@uvic.ca).

Complementing the News Scan is the [PICS Briefing Note Service](#). This service provides timely and concise analysis, as well as suggested policy action, on issues related broadly to BC climate change mitigation and adaptation.

### ***Research Theme I: The low carbon emissions economy***

#### **China moves forward with cap and trade – seventh CO<sub>2</sub> trading scheme announced**

November 4, 2011. [Point Carbon](#) has reported that China intends to establish a seventh emissions trading system, consistent with the economic plans overseen by the country's [National Development and Reform Commission](#) (NDRC). This latest system will pilot in the city of Shenzhen, which is expected to develop its own scheme despite being located in the province of Guangdong - already approved for a cap and trade system. Shenzhen's GDP grew to \$150bn USD in 2010 and the city has a larger economy than countries such as Kazakhstan and New Zealand. The central government of China has identified emissions trading as the most cost effective tool for encouraging companies to cut greenhouse gas emissions, and intends to use the experience from the seven markets to assist with designing and launching a national system in the coming years.

This news follows the [October 25 PICS News Scan](#), which reported on the California Air Resources Board (ARB) unanimously approving a final draft of the state's cap and trade plan. Both Shenzhen and California are high-emitting jurisdictions and recognize that balancing environmental sustainability and economic growth is not a zero sum game. Cap-and-trade systems encourage heavily polluting industries, such as shale gas extraction, to evolve cleaner



business models, while at the same time unlocking the economic potential embedded in the establishment of an entirely new, and multi-billion dollar market. BC Premier Clark has committed to increase the trade of goods and services with China, and is currently there on a trade mission.

<http://en.ndrc.gov.cn/>

## **Insurance companies examine framework to address sustainability risk**

October 20, 2011. The [UN Environmental Programme](#), with the support of the international insurance industry, is developing a new voluntary framework for the industry titled 'Principles of Sustainable Insurance.' The framework, which will be revealed next June, builds off a growing desire by multinational insurers to protect themselves from the reputation risk of being associated with controversial environmental projects. A related [report](#), released last year by the risk management industry group, CRO Forum, argues that multinational insurance companies should use a set of standardized principles when examining projects that could lead to environmental and/or social degradation. For example, before offering insurance, companies could examine whether a project increases emissions, destroys natural habitat, enables illegal logging or increases societal problems like child labour, animal testing and the manufacturing of materials used for warfare. Some industry officials believe climate change deserves to be a focal point considering the rising frequency of natural disasters colliding with growing populations in vulnerable areas. Tony Kuczinski, CEO of Munich Reinsurance America Inc., said last week at a UN conference in Washington: "Because if climate change is real – regardless of your view – if it's real and it has an impact on the atmosphere, it means things like hurricanes and tornadoes, and any weather event you can think [of], having a different outcome in years to come."

Given some of the ambiguity behind these principles, BC could see a range of impacts if insurers were to support such an initiative. Although the Clean Energy Act is in place and BC's government and Crown corporations are generally aligned with these objectives, it is unclear what impact the new framework could have on large projects that might attract controversy because of their environmental impacts. The report identifies project types that could be impacted by the suggested principles, including specific references to the negative impacts associated with hydroelectric projects. If insurance premiums for these projects were to rise, it would have a negative effect on the financial viability of BC Hydro's Site C and run-of-river hydroelectric projects.

<http://www.unmultimedia.org/tv/webcast/2011/10/sector-session-15-uneep-finance-initiative-2011-global-roundtable.html>

## **Research Theme II: Sustainable communities**

### **Metro Vancouver seeking changes to Climate Action Charter deadlines as 2012 carbon neutrality deadline looms**

October 31, 2011. Metro Vancouver municipalities plan to defer their commitment to carbon neutrality by the end of this year, according to the agenda of a recent meeting. All municipalities in BC have been [exempt from the carbon tax](#) since its introduction over three years ago, on condition that they invest in non-emitting space-heating and transportation technologies. At the regular [Metro Vancouver meeting held on 28 October](#), the recommendation was that the board

petition the province to not claw back unpaid carbon taxes, but instead recognize the efforts made by municipalities to lower their carbon footprints over the last three years. Progress by municipalities is unclear, as only [2007 municipal emissions reports](#) are available, but [emissions from the building and transportation sectors in BC actually increased between 2007 and 2009](#).

Municipal success stories, from anti-idling policies to free cycling lessons for children, are [listed on the climate action website](#). The '[Becoming Carbon Neutral](#)' Guidebook published by the province includes more detailed investment guides for projects in each of these categories, for example replacing oil furnaces with air source heat pumps and sealing all gaps and cracks with new weather stripping. The collective procurement process among BC municipalities should help reduce the cost of making these changes. For example, 15,000 vehicles are covered under membership of the [E3 "green fleets" program](#) and [municipalities share lessons](#) in fleet upgrades as well as the use of alternative fuels. However, under a conflicting incentive, the Union of BC Municipalities has negotiated [a discount of 2.0 cents/litre](#) for its members on all grades of gasoline and diesel purchased at Petro-Canada retail service stations.

<http://www.geoffmeggs.ca/2011/10/26/metro-vancouver-seeking-changes-to-climate-action-charter-deadlines-as-2012-carbon-neutrality-deadline-looms>

## **Traditional farm methods help climate adaptation**

*October 30, 2011.* According to researchers from the [International Institute for Environment and Development \(IIED\)](#), agriculture and food systems may be better protected from the effects of climate change through the use of traditional knowledge and indigenous plants, rather than genetically modified crops and intensive agriculture. [A briefing paper produced by IIED highlighted case studies in areas of China, Kenya, and Bolivia](#) where traditional knowledge and agriculture practices helped communities overcome extreme weather and environmental change. Some of the methods include introducing more crop varieties to 'hedge bets' against future climatic events, the use of local plants as pest repellents, and planting traditional resilient crops. The briefing also discusses some of the policy implications of traditional agriculture, including cheaper and more easily accessible varieties, and the important role that local and traditional knowledge can play in climate change adaptation.

In BC, traditional knowledge of plants and ecosystems is maintained by Aboriginal groups throughout the province, yet its potential for supporting climate change adaptation is only now beginning to be recognized. PICS, for example, is currently [supporting a number of graduate fellows](#) conducting research in this area and the [BC Government's Water Smart Program](#) also recognizes the value of traditional knowledge for water systems. However, little information could be found linking traditional knowledge and agriculture. The IIED paper poses some interesting questions for both government and organizations in BC, whose aim is to [improve sustainable food production and mitigate the effects of climate events on agriculture](#).

<http://www.reuters.com/article/2011/10/31/us-food-climate-idUSTRE79U01A20111031>

## **Research Theme III: Resilient ecosystems**

### **Forests not keeping pace with climate change**

*October 31, 2011.* A new [study](#) that examined tree species in the eastern United States found that adaptation to climate change is slower and less consistent than previously predicted.

According to previous models, trees were expected to migrate rapidly to higher latitudes and elevations in response to warming temperatures. What the [new study finds](#) instead is a consistent contraction of range from both the north and south. The migratory behaviour predicted in other studies has been largely absent. The authors of this latest research say that the lack of evidence for tree migration in response to climate change is concerning.

While these findings are interesting, it is not clear whether this study of trees in the eastern US is applicable to forests on the West Coast. One of BC's prominent species, the lodgepole pine, [has been predicted](#) to decline in range and migrate to higher latitudes and elevations in response to climate change. Another recently [released study](#), specific to western forests, suggests the current response to climate change may be different from eastern forests. [The report states that](#) what we are currently seeing in western forests is a display of the survival of the fittest resulting from global warming, insect attack, diseases and fire. Some of the greatest shifts in tree species are expected to occur in British Columbia, Alberta, and California.

<http://www.lifesciencesworld.com/life-science-news/view/198189>

## **Research Theme IV: Social mobilization**

### **Increase of extreme events in a warming world**

November 1, 2011. A new [study](#) published in the [Proceedings of the National Academy of Sciences of the United States](#) examines extreme weather events and their connection to global warming. The study finds that extreme weather, both warm and cold, is connected to global climate change. In its *discussion* section, the report states that almost all recent temperature changes are due to climate warming. The study goes on to acknowledge the overwhelming evidence that most of the warming over the past fifty years has been anthropogenic (man-made), concluding that the recent extremes in temperature would not have occurred without human influence on climate. The study looks at the specific example of the record-setting summer 2010 Moscow heat wave. The findings show an approximately 80 percent probability that the heat wave was a direct result of climate change.

The findings of this study are consistent with what is expected from the Fifth Assessment Report of the [Intergovernmental Panel on Climate Change](#) (IPCC) – currently underway – and with the data used by Al Gore in the [Climate Reality Project](#). It is Gore's belief that in order to mobilize society into action, we must connect local events and human experiences. What this means for BC is that planning and policymaking should assume that extreme weather events will continue to occur and become more intense, and that we should not miss these "opportunities" to communicate the effects of climate change on our daily lives. While it should be made clear that changes in weather are not always linked to, or indicative of, climate, these findings about the connection to both hot and cold weather events mean that BC can expect a greater likelihood of summer droughts and extreme winter storms.

<http://www.pnas.org/content/early/2011/10/18/1101766108.abstract>



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