



Canadian Climate Impacts and Adaptation Research Network

<http://waterresources.c-ciarn.ca>

October 2006

C-CIARN WATER RESOURCES

THE C-CIARN WATER RESOURCES NEWSLETTER

This newsletter features information on current water resources and climate change issues in Canada, as well as provides brief updates on recent announcements for funding, upcoming events or other opportunities. More detailed information on items contained in this newsletter can be found on the C-CIARN Water Resources website: <http://waterresources.c-ciarn.ca>.

WHAT'S NEW

Canadian Agricultural Adaptation to 21st Century Droughts: Preparing for Climate Change?

The purpose of the research is to improve our understanding of current adaptation processes and options in Canadian agriculture. The researchers in this study are using the record to near-record droughts of 2001 and 2002 as analogues of future climate change stresses due to droughts and the nature of the adaptation process.

Six principal investigators and many co-investigators from Saskatchewan Research Council, Environment Canada (Adaptation and Impacts Research Division and National Water Research Institute) and the University of Lethbridge are conducting a 3-year study that has four main objectives:

- Compare the 2001 and 2002 droughts with those expected in the future to indicate possible differences for future impacts and adaptations
- Increase the understanding of the adaptation process for the 2001 and 2002 drought years in Canada
- Determine the effectiveness of current adaptation options in reducing the vulnerability of agriculture to the 2001 and 2002 droughts
- Use regional studies set in southern Alberta and western Saskatchewan and southern Ontario, Nova Scotia and Prince Edward Island to enhance the understanding of the vulnerability of agriculture producers to drought.



A nearly dry dugout used for livestock water
Credit: Agriculture and Agri-Food Canada

This study is receiving financial and in-kind support from several organisations including CCIAP – Government of Canada, Saskatchewan Research Council, Environment Canada and the University of Lethbridge. Other in-kind support is from an Advisory Group (which includes representatives from PFRA-Agriculture and Agri-Food Canada, Alberta Agriculture, Food and Rural Development, Saskatchewan Agriculture and Food, Manitoba Agriculture, Food and Rural Initiatives, International Institute for Sustainable Development, University of Guelph, C-CIARN Agriculture and Environment Canada). This project will provide an estimate of current adaptive capacity and will help to decrease vulnerability to future droughts. The research is in the final stages and results will be made available on their web site. For more information:

http://www.src.sk.ca/html/research_technology/environment/climatology/Agricultural_Adaptations/index.cfm



Canadian Climate Impacts and Adaptation Research Network

<http://waterresources.c-ciarn.ca>

World Water Monitoring Day

October 18, 2006

Mark your calendars for World Water Monitoring Day. The Water Environmental Federation (WEF) and its primary international partner, the International Water Association (IWA), are inviting citizens and organizations from around the globe to share in this unique experience of water quality monitoring. Held annually between September 18 and October 18, the program engages communities around the world in performing basic monitoring tests of the condition of local rivers, streams, estuaries and other water bodies. An easy-to-use test kit enables everyone from children to adults to sample local water bodies for a core set of water quality parameters including temperature, acidity (pH), clarity (turbidity) and dissolved oxygen (DO). Results are shared with participating communities around the world through the World Water Monitoring website.

More information, register or order a test kit: <http://www.worldwatermonitoringday.com>

EMPLOYMENT OPPORTUNITIES

Berkeley University of California, CA

An assistant Professor position starting 1 July 2007. The University is seeking a Human Geographer who studies problems of Geographical Vulnerability and Human Security. This is a social science position, but they would look favourably on a social scientist familiar with bio-physical systems and thus able to complement their strengths in the areas of human-environment relations and the geographic dimensions of global environmental change.

More information: <http://geography.berkeley.edu/GeographerWanted.html>

Northern Climate ExChange, Whitehorse, YK

The Northern Climate ExChange is a clearinghouse of climate change information for the North. Its mandate is to provide independent information, develop shared understanding and promote action on climate change. This position will coordinate and supervise the day-to-day operations of the Northern Climate ExChange. Responsibilities include: supporting climate change researchers and decision makers; exploring research and funding opportunities; administering operations and finances; and carrying out public education and outreach activities.

More information: www.taiga.net/nce or www.yukoncollege.yk.ca or email nce@yukoncollege.yk.ca.

UCAR Postdoctoral Fellowship Program at the Naval Research Laboratory Monterey, CA

In cooperation with the Naval Research Laboratory (NRL), the University Corporation for Atmospheric Research is seeking postdoctoral level scientists interested in furthering their research interests and developing expertise in new areas. Scientists who have recently received their PhD have an exciting opportunity to work alongside experienced scientists at the NRL Marine Meteorology Division, which is located in the beautiful seaside city of Monterey, CA.

More information: <http://www.nrlmry.navy.mil>

UPCOMING CONFERENCES AND WORKSHOPS

Climate Change Impacts on the Alpine: The Future of our Mountains

October 10 and 11, 2006, Banff, AB

The Alpine Club of Canada will host the general assembly of the UIAA, and will run a two-day workshop on the impacts of climate change on the physical nature and experience of the world's mountains and how the mountaineering community might respond to these changes. The object of this workshop will be to put forward the latest climate science information and emerging climate change adaptation strategies as basis for establishing a protocol for action that will allow the Alpine Club of Canada to recognize and address climate change impacts on Canadian mountain regions. It is hoped that this protocol will serve as a template for other alpine organizations around the world interested in doing the same. More information: <http://www.uiainbanff.ca/>



Canadian Climate Impacts and Adaptation Research Network

<http://waterresources.c-ciarn.ca>

C-CIARN WATER RESOURCES

Public Health Conference

October 23 – 24, 2006, Montreal, QC

Since its creation in 1997, JASP (Journées Annuelles de Santé Publique) has been striving to offer a large-scale training event that bring together those involved in Québec public health. Ten years later, the event brings together 1700 participants and 300 speakers annually, and is recognized as a continuing education benchmark in public health. There will be talks on climate change and public health.

More information: <http://www.inspg.qc.ca/jasp/programme/2006/default.asp?A=2&Lq=en>

Forum on Hydropower 2006: Partnering for a Renewable Energy Future

October 26 and 27, 2006, Gatineau, QC

This forum is organized by the Canadian Hydropower Association and includes presentations by the Honourable Rona Ambrose, Canada's Minister of the Environment, the Honourable Oscar Lathlin, Manitoba's Minister of Aboriginal and Northern Affairs, John Murphy, Executive Vice President Hydro at Ontario Power Generation, as well as renowned speakers from the National Energy Board, the Business Council for Sustainable Energy, the David Suzuki Foundation, and many others. Climate change will be addressed.

More information: www.canhydropower.org/hydro_e/p_forum.htm

Symposium on Climatology and Adaptation at the Regional Scale

November 2 and 3, 2006, Montreal, QC.

The Ouranos Consortium will be hosting its 2nd Scientific Symposium this year. The symposium aims to showcase their research projects results obtained to its members and its stakeholders. Impact and adaptation themes will focus on hydroelectricity, infrastructure, health, forests, public security, and economy. All persons involved in Ouranos projects, and users of their project data should attend. Advanced registration is required.

Presentation will be given in French. More information: <http://www.ouranos.ca>

CALL FOR PAPERS

FAO - Project on Gender and Climate Change: "Review, Analysis and Assessment of Research Relating to Gender and Climate Change"

The Food and Agriculture Organization of the United Nations (FAO) is funding a small study that aims to review, analyse and assess existing research relating to gender and climate change. One of the main activities includes: Conducting a review to develop a comprehensive overview of data and knowledge relevant to gender aspects of climate change. They welcome you to forward relevant materials, information, links and contacts to them. Their goal is to include existing research (peer review and grey literature) as well as information about ongoing and planned research projects.

Contacts: Ulrike Roehr and Minu Hemmati Fax +49.30.308798-20 www.genanet.de

Assoc. of American Geographers Annual Mtg.: "Climatology and Hazards of Severe Weather"

April 17-21, 2007, San Francisco, CA

This session will explore the climatology and hazards of tornadoes, hail, high winds, lightning, floods, and/or severe winter-weather phenomenon. Contributors are encouraged to provide descriptive or synoptic climatologies of severe weather phenomena assess past hazards or illustrate the future risks and potential vulnerabilities of societies to severe weather events, and/or present novel techniques in overcoming issues related to severe weather reporting procedures. If you are interested in presenting a paper in this session, please let them know (washley@niu.edu) as soon as possible. Abstract deadline Monday, October 23.

More information: <http://www.aag.org/annualmeetings/SF2007/paper.cfm>



Canadian Climate Impacts and Adaptation Research Network

<http://waterresources.c-ciarn.ca>

Development and Adaptation Days at COP-12

November 11 and 12, 2006, Nairobi, Kenya

This event at COP-12 will bring together practitioners, negotiators, scientists and policy-makers to explore key issues related to adaptation to climate change in developing countries; share latest developments and information on climate change and development linkages; and facilitate greater collaborative links between the climate change and development communities. You are invited to submit an abstract that will discuss the linkages between climate change, development and/or adaptation, and one of the following themes: Energy and Sustainable Development, Agriculture and Food Security, Water, Science - Tools and Adaptation, Community-based Adaptation, Experience with National Adaptation Programs of Action.

More information: http://www.eldis.org/fulltext/DA_COP12_Submission.rtf

RECENT PUBLICATIONS

Will Greenland melting halt the thermohaline circulation?

J. H. Jungclaus, H. Haak, M. Esch, E. Roeckner, and J. Marotzke Max Planck Institute for Meteorology, Hamburg, Germany

Geophysical research letters, Vol. 33, L17708, doi:10.1029/2006GL026815,2006

Climate projections for the 21st century indicate a gradual decrease of the Atlantic Meridional Overturning Circulation (AMOC). The weakening could be accelerated substantially by meltwater input from the Greenland Ice Sheet (GIS). Recent experiments are repeated that were conducted for the IPCC, providing an idealized additional source of freshwater along Greenland's coast. For conservative and high melting estimates, the AMOC reduction is 35% and 42%, respectively, compared to a weakening of 30% for the original A1B scenario. Even for the high meltwater estimate the AMOC recovers in the 22nd century. The impact of the additional fresh water is limited to further enhancing the static stability in the Irminger and Labrador Seas, whereas the backbone of the overturning is maintained by the overflows across the Greenland-Scotland Ridge. The results suggest that abrupt climate change initiated by GIS melting is not a realistic scenario for the 21st century.

A simple pan-evaporation model for analysis of climate simulations: Evaluation over Australia

Rotstayn, Leon D, Roderick, Michael L., Farquhar, Graham D.

Geophysical Research Letters, Vol. 33, L17715, doi:10.1029/2006GL027114, 2006

This article shows that a simple model of pan evaporation ("PenPan") can be used to analyze monthly mean output from a global climate model. PenPan is based on a modified version of Penman's potential evapotranspiration equation. Very good agreements were obtained with observed annual pan evaporation for Australian sites when PenPan is forced by surface observations of radiation, wind speed, humidity and air temperature. When PenPan is forced with monthly mean output from the CSIRO GCM, the results are still satisfactory, but pan evaporation is overestimated over southern Australia, primarily due to excessive surface solar radiation simulated by the GCM.