

PAC Update



Harvey Hill, Manager
Climate Decision Support and Adaptation Unit, AAFC,
Third Drought Research Initiative Workshop
Sheraton Suites Eau Claire, Calgary AB
January 17-19, 2008



PAC committee formed

- **Harvey Hill**, PAC Committee Chairman
- **Rick Lawford** - Network Manager, Drought Research Initiative
- **Bill Girling**, P.Eng. Manitoba Hydro
- **Irene Hanuta**, Ph.D.
Senior Policy Analyst - Climate Specialist, AAFC-PFRA
- **Bart Oegema**, MAsc. P.Eng., Sask. Watershed Authority
- **Ryan Cossitt**, Environ. Science Research Officer, Sask Ag.
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- **Elaine Wheaton, Unit Manager, Climatology, SK. Res. Council**
 - **Alf Warkentin, Senior Hydrologic Forecaster, Manitoba Water Stewardship**
 - **Itenfisu, Daniel, Manager and DroughtModeller, Alberta Agriculture**
 - **Keller, Ray, Team Leader, Flow Forecasting, Alberta Environment (Former member)**
 - **Andy Nadler, Agricultural Meteorologist, Manitoba Agriculture, Food and Rural**

PAC Committee Meeting, October 2007

- Alberta Agriculture
- Interpolation questions
 - What are the quantified dangers of using interpolation schemes? What are the benefits?
 - Ralph Wright raised concerns about using probabilistic and inaccurate forecasts for policy decisions
- **Possible Action for DRI:**
 - DRI should place more emphasis in providing the accurate comprehensive data related to evapotranspiration, precipitation, etc needed to drive models.
- **Questions regarding the reliability of indices was also raised**

Issues Continued

- Forecasting of soil moisture and drought
- Manitoba hydro requires hydrologic forecasts up to 12 months.
- They need to understand the frequency of wet and dry cycles for reservoir management and electrical production.
- Paleo-climate information desired to understand climate drivers of droughts. (El Nino, AO, etc.)
- Possible Action for DRI:
 - DRI could assist in documenting the threshold conditions for drought caused by climate variations and contribute to the determination of drought predictability by region

■ Manitoba Water Stewardship needs better understanding of how climate change may affect climate and hydrologic variability to address:

1. Flood avoidance and
2. Coordinate agricultural uses with downstream risk management.

Possible DRI Action:

- DRI could facilitate linkages of Manitoba and Alberta soil moisture data and experts such as Julian Brislow and Rick Raddatz to support DRI research and improve estimates of soil moisture conditions with existing technology.

Issues Continued

- Saskatchewan Agriculture needs reliable drought indices, better model parameters and drought impacts and adaptation information.
- Manitoba Agriculture needs better soil moisture and drought indice forecasts and drought probability predictions.
- Also noted was the importance of information on snow pack and snow melt.

Group Discussion:

- Can DRI support the **Prairie Provincial Water Board?**
- Need an improved understanding of **multi-year droughts, their magnitudes, spatial extent.**
- **Evapotranspiration** processes are important to the applied community.
- A **review journal article** collaboration between DRI scientists and the applied community was discussed.
- **The accuracy and timeliness of drought information needs better resolution to support decision making.**
- **Drought indices beyond precipitation and temperature** such as soil moisture variability required.
- Suggested PAC meet with DRI Investigators to explore some of these issues in greater depth at this workshop.

Next Steps

- How to get research to applied community
- A possible approach maybe to adapt the NOAA Climate Transition Program to the Canadian reality
http://www.climate.noaa.gov/cpo_pa/nctp/
- Also want to explore how the recent CFCAS funding competition might facilitate linkages between the two communities.

Next Steps (Continued)

- Will continue to work with the Network Manager to explore some form of larger meeting with the adaptation community
- Will explore with the network manager the development of the journal article



Questions?