# **CLOSING SESSION**

### 56 presentations

## So, let's say what needs to be done

### **Objective:**

 To develop a consensus on the critical elements to be included in a science plan on understanding and adapting to extremes.
To develop a strategy for implementing a project to address these science and policy issues.

# QUESTIONS

1. What is our vision in regards to adaptation to extremes ?

2. What is the status of our current knowledge and capabilities?

3. How do we move forward? motivation science issues focal points? data, model ... partners communication timing?

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### **TWO BREAK-OUTS**

Summary of each yesterday

These still need to be merged

Additional comments in plenary discussion: ISO standards

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#### PLEASE SEND ME YOUR ADDITIONAL INSIGHTS

# WHAT WE HAVE

Many:

Extremes-related efforts similar/unique motivations complementary objectives participants and organizations suggestions for outreach/communications

Would benefit from: more communication: example, this workshop



## WHAT WE ARE MISSING

An obvious funding source for a collective effort

# LINKS - International

#### National:

government priorities (food, water, energy, standards...)

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#### International:

Integrated Research on Disaster Risk (ICSU) WCRP - Extremes GEO U.S. Efforts (TRACE ...)

## ACTIONS

Immediate/very soon:

 Press release . ? two drafts probably needs a couple of days not sure about 'approval'

2. Letter to NSERC (others?)

week-1 month:

Meeting summary along with more specific actions importance .. central role in many areas ... current situation ...

opportunity: .. contribute to these issues, many smaller efforts, US, international, technology, etc.

#### and to shortly follow:

CMOS Bulletin with focus on research priorities -other such publications? other communities?

Eighty of Canada's top scientists met in Winnipeg Feb. 7-9 to develop a strategy for dealing with the increasingly numerous and severe weather events that are hammering Canadians. -loods, droughts, tornadoes, heat waves, severe storms and other phenomena can overwhelm communities, causing nardship, property damage, economic losses and deaths. The weather experts noted that global climate is changing and Canada is not being spared. We must therefore adapt to the ncreasing number of weather extremes, by improving predictions and taking steps to reduce risk and /ulnerability. This requires faster weather warnings, building standards geared to anticipated, as opposed to past, conditions, greater emergency preparedness and most mportantly, improved knowledge of what to expect in the uture. International reports have already told us that we will nave hotter drier summers, more freezing rain in the east and greater fire risk in our western forests; but above all, more ntense weather events.

Collaboration between the climate scientists, hydrologists, meteorologists, statisticians and planners will improve understanding of these extreme events and of the opportunities they present. This information will help in formulating adaptation and policy recommendations to governments. Most importantly, it will help our citizens prepare for changing conditions and improve their safety and security. Participants at a national weather extremes conference, held in the flood-prone Lake Winnipeg Basin, concluded this week that the hydrological cycle in Canada is changing and this is making us more vulnerable to disruptive storms and droughts. Scientists attending the conference worried that our prosperity and sustainability as a nation would hinge on how well we are able to cope with increasingly unpredictable weather, like the conditions we saw across Canada this winter, and the kinds of floods we are expecting this spring on the prairies. "Our monitoring capacity", said conference chair Dr. Ron Stewart, 'is not adequate to allow us to predict violent weather in order to prevent costly disasters now and in the future. We do know, that we are becoming more vulnerable to weather extremes such as big snow storms, torrential rains, floods, drought, tornadoes and hurricanes. "If we do not address our growing vulnerability to such events, it could cost us our prosperity and diminish Canada's status in the world. We urge governments at all levels to take our growing vulnerability to extreme

- We need to invest in better monitoring and more research so that we can improve forecasts of extreme weather.
- We need to invest in better climate models so we can improve the accuracy of our predictions.
- We need to understand better how we should build our cities and design our roads and other infrastructure to make them more resilient in the face of increasingly severe conditions. We also need to identify how we can best protect our agricultural sector from more intense storms and from deep and persistent drought.
- And we need to prepare Canadians actively to adapt to what is ikely to be a more climatically tempestuous future".
- Many of the participants in this conference also saw real opportunity in responding proactively to the threat of extreme weather. Dr. Henry Venema of Winnipeg's International Institute for Sustainable Development pointed out that an
- opportunity exists to improve Canada's economic performance by exploring links between water, food and energy security

We thank you for your participation and we hope that you have enjoyed the workshop.

The workshop on Red River Flooding starts right here at 1 pm