# **Beyond Research:** Talking Climate Change with the Public



## Polar Exploration and Decision Making in Extreme Events

Why do some people willingly expose themselves to extreme situations? CRED researchers presented information on decision making under uncertainty and weather-related risk attitudes at the American Museum of Natural History's International Polar Year Symposium, "New York and Polar Research - A Partnership Spanning the Centuries" on March 10 and 11. The program focused on bringing attention to New York City's century-long involvement with polar exploration.

CRED Associate Director Sabine Marx presented a talk titled, "A Picture is Worth a Thousand Graphs: The Psychology of Environmental Decision Making".

(See highlights to the right.)

As part of the polar fair, CRED researchers administered an online version of the DOSPERT risk taking scale developed by CRED Co-Director Elke Weber. It measures whether an individual is a risk taker or risk averse in different aspects of their life including social, recreational, and weather-related risk.

#### Are you a risk taker?

Take the survey at cred.columbia.edu/tools/informationprocessingtools/surveytool/



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## Experiential vs. Analytic Processing in *Global Environmental Change* (Jan 2007 issue)

CRED research on the mental processing of uncertain climate information suggests that statistical and probabilistic information is best understood when it can be translated into concrete images that evoke emotions, or stories that relate to people's experiences. By tapping into two processing systems in the human brain, one that is suited to handle analytic information, another one that deals with experiential / affective information, CRED examines different methods of communicating uncertain forecasts.

- Personal experiences, often associated with strong feelings, are more memorable and therefore dominate over analytic descriptive information, even though the latter typically provides more—and more reliable information
- While the analytic and experiential processing systems operate in parallel, the experiential/affective system is faster and is a greater motivator to take action
- Translation of analytic information into more salient risk communication through metaphors, analogies, imagery, and relatable stories helps to gain the audience's attention, which then allows the re-introduction of more descriptive and statistical materials.

# TONY LEISEROWITZ'S RESEARCH ON ALASKAN CLIMATE RISK PERCEPTIONS

Most Alaskans believe that global warming is real and consider it a serious problem, yet global warming remains a low priority relative to other national and environmental issues and lacks a sense of urgency

In terms of risk perceptions of global warming in the American mind, Alaskans perceive climate change as a moderate risk that will predominantly impact geographically and temporally distant people and places

We are in the process of compiling a guide with practical ways CRED research can be used by people responsible for communicating environmental information. Some communications guidelines are listed below:

#### Communicating Climate Change TIPS

- Use understandable language.
  - Know your audience.
- Package statistics (abstract concepts) in concrete (vicarious) experiences.
  - Bring the message close to home.
  - Connect extreme events and climate change.



Alaskan Fireweed (epilobium angustifolium). This common wildflower blooms in mid-summer. Alaskan folklore says that when the blooms reach the top of the stalks, winter is only six weeks away. (Leiserowitz, 2005).

# CRED Presentations on Sustainable Well-Being at AAAS

The American Association for the Advancement of Science (AAAS) Annual Meeting is a gathering that draws scientists from around the country to present current research and learn about innovative research being conducted. This annual meeting generates extensive news coverage that furthers the public's understanding of science.

This year's motto was "Science and Technology for Sustainable Well-Being". CRED sent a delegation of representatives to the meeting and presented on topics including:

#### **Panel Presentations:**

Social Goals in Risky Environmental Decisions (Krantz, D.) Communicating Climate Change (Leiserowitz, A.) (See highlights at left.)

#### **Posters**

"Group Affiliation and the Intrinsic Value of Cooperation" (Arora, P.)

"Revisiting framing effects in group decisions: The impact of social goals" (Milch, K.F., Weber, E.U., & Krantz, D.)

"Effective use of scientific information: Social goals, incentive structures, and learning under uncertainty" (Peterson, N., Osgood, D., Sheriff, G., Krantz, D.)

"Interdependent security and environmental decision-making" (Peterson, N., Krantz, D., Cimino, A., Kunreuther, H.)



## CRED and the Double Discovery Center Team Up for High School Education

CRED and the Double Discovery Center (DDC) have partnered to teach local high school students from economically disadvantaged areas in New York City about the social science of climate change. DDC was established at Columbia in 1957 and annually serves over 1,000 students in grades 7-12 from the Morningside Heights area.

On April 20th, Massimo LoBuglio, Debika Shome and other CRED researchers made a presentation on the impacts of climate change and solutions to reducing climate change at an individual and group level. This summer CRED will have a DDC high school intern that will assist with psychology lab projects, help conduct NYC stakeholder interviews and work on local outreach projects. CRED's partnership with DDC will focus on youth environmental education and increasing youth engagement on climate related issues.

# CRED at the 15<sup>th</sup> United Nations Commission on Sustainable Development

CRED has been invited to take part in several activities at the UN Commission on Sustainable Development (CSD) meeting taking place from April 30 – May 11 at UN headquarters in New York. The CSD will focus on developing policy that addresses the climate change aspects of sustainable development.

In the buildup to the conference, CRED will help train the SustainUS (www.sustainus.org) youth delegation on messaging climate change at the conference and in their communities. CRED aims to disseminate tools and case studies through the CSD web matrix.

UN policy often fails to reflect the human response to policy initiatives and technology transfer from the lab to the field. This year's CSD is entering into new territory. The discussions are intent on removing barriers to action-orientated outcomes.

The tone at this year's CSD has been set to emphasize "catalyzing action". CRED research provides valuable insight into the human dimensions of information exchange between producers and recipients of information. This year's CSD provides a unique opportunity to share CRED research with policy makers and NGOs working to create solutions.

### CRED POLICY RESEARCH

Highlights from policy input to the 15<sup>th</sup> United Nations Commission on Sustainable Development:

Participatory processes are currently used as the cornerstone for poverty reduction programs in developing countries.

For participatory processes to be successful, they must be grounded in an understanding of how forms of social organization and norms of social interaction affect the way people participate in groups.

Individual and social goals may determine the outcome of participatory processes. For example, in some cultural contexts, reaching group consensus may have a higher value than representing differences and allowing expressions of everyone's opinions.

These social relations and cultural values may influence not only the end result (e.g., group decisions) but also the process whereby the result is attained (e.g., collective understanding of information provided or of the task to be accomplished).



## **Upcoming Events**

#### **CRED Annual Meeting**

May 3-4, 2007

CRED will hold its annual gathering of staff, researchers and advisory board members to discuss current and future research and outreach opportunities for the center.

# **Urban Climate Change Research Network International Symposium**May 10-11, 2007

Cities are responsible for 3/4 of the world's energy consumption, and the world's largest cities have a critical role to play in the reduction of carbon emissions and the reversal of climate change. Researchers from over 40 world cities will convene in NYC to discuss the current state of research and policymaking on climate change mitigation and adaptation in these cities.

CRED is co-sponsoring this symposium that will introduce policy makers and researchers to CRED research on the human decision making related to climate change. This event partners with the C40 International Mayors' Climate Summit.

#### Perceptions of Global Warming in New York City

Summer 2007

CRED is currently conducting research that examines perceptions of global warming in the New York metro area from the mid-1990s to the present. Similar projects have already been conducted in conducted in Alaska and Florida. A media analysis of local papers is underway. Interviews with people in the media, finance and political sectors will be conducted this summer.

# **CRED Communications Guide** Fall 2007

A compilation of practical ways CRED research can be used by policy makers and others responsible for communicating environmental information. The guide is an evolving document of practical suggestions on how to deal with many common problems in communication strategies.

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