

## **Meeting of the CWC with the Office of Development and Office of Research**

March 25, 2008, room 140 Scott Hall (Byrd Polar Research Center)

Meeting convened by Doug Alsdorf of the CWC

Attendance: Jody Bopp, Carolyn Chapman, Julie Dials, Bob Killoren, Matt Meyer, Tammy Parker, Ton von Sadowszky, Sheila Smith, Deanna Stewart, Mary Yerina

I very much appreciate your willingness to meet and discuss development, foundation, and industrial partnership opportunities within the Climate, Water, and Carbon Program (CWC is the top-ranked OAA TIE).

### **Meeting Agenda:**

1. Introductions
2. What is the CWC?
3. What should the CWC do to enable quality development and industry partnerships?
4. Develop a plan, with timeline, for connecting the CWC with your office
5. What are the common problems and how should we overcome these?

### **The “Longevity Plan” for the CWC**

The goal of the Longevity Plan is to demonstrate that the CWC is a coordinated set of actions by an integrated group of researchers resulting in a viable Program. The Plan is divided into the following three parts: (1) identification of CWC products, (2) empowering CWC researchers to build the products, and (3) connecting external users of the products with the CWC. CWC researchers are already familiar with this approach when considering that products can be new scientific knowledge and breakthroughs; that empowerment can be federally funded grants; and external users are government granting agencies, e.g., NSF. This typical academia approach is usually associated with one or two PIs seeking to grow their individual research programs. To sustain the CWC, the Program needs to expand beyond this typical grant approach by including partners from industry, philanthropy, and foundations who, like the CWC, seek answers to the three core questions. Such partners will want to know that their investments in the CWC are being used in a well-planned manner.

### **Are these the correct steps?**

The steps needed to build partnerships include the following. (1) Conduct a series of small, one-on-one meetings with potential industry, foundation, and philanthropic partners. These meetings will be designed to determine the exact needs of potential partners and how the CWC can meet these needs. While developing these partnerships, the CWC will remain focused on addressing the three founding questions. (2) Conduct workshops at OSU with the goal of developing synergistic needs of potential partners. Outcomes of the one-on-one meetings might identify key, unmet climate, water, and carbon related needs of the potential partners. The CWC could meet these needs by forming a consortium of partners. An outgrowth of the workshops would be the formation of a CWC Board of Advisors with membership from CWC partners. (3) Not only would an ideal outcome of the consortium be an income stream for the CWC, but also the winning of new funds for consortium partners, e.g., winning a Third Frontier grant ([www.thirdfrontierproject.com](http://www.thirdfrontierproject.com)) from the State of Ohio.

## **Examples of Partnerships**

An insurance company (Table 4, item 1) wishes to understand their risk exposure to development along a lowland river corridor, and thus needs to construct models of flooding. The company will seek the state-of-the-art modeling (Table 2, item 18) as constrained by observations (Table 2, items 20 and 22). Given that the availability of observations in developing countries is poor, the best constructed models require space based observations as well as any available in-situ data. It is unlikely that the insurance company has such expertise in-house, given that two-dimensional hydrodynamic models are only just now becoming available, that these require supercomputing power, and that space-based observations are only recently being distributed. The company may fund a post-doctoral researcher to construct the models (Table 3, item 5) and produce maps of inundation under varying forcing conditions (Table 2, item 19; storm surges, fluvial flood waves, local precipitation patterns, etc.). The CWC is well-suited to deliver these products because the CWC is partnered with the OSU Geodetic Science program, recognized worldwide for its space-based measurements, and with the Ohio Supercomputing Center, and with key international researchers who have developed the basic structure of the hydrodynamic models.

A group of consulting engineering firms (Table 4, item 1) wish to develop their capacity for understanding the water cycle, particularly as future global warming impacts the availability of water to be impounded by dams or causes greater fluctuations in river, lake, and groundwater water supplies (Table 2, item 21). Like the CWC, these firms may recognize the potential of creating high-technology jobs in the State of Ohio, and thus would partner with the CWC in writing proposals to the Third Frontier program (Table 3, item 5). Federal programs could also be targeted. Winning one of these multi-million dollar proposals would allow the CWC to develop hydrologic models and observations while the engineering firms would target these for key projects and geographic locations. A growth in clientele for the engineering firms would create more jobs.

Global warming is altering the water cycle but how these changes will impact countries depends on geographic location, economic strength, and government structure. The CWC would enable key individuals from non-partisan policy groups, foreign governments, foundations, and industry (Table 4, items 1, 2, and 3) to come together at OSU (Table 3, item 6). Each would contribute to a CWC researcher's salary, thus enabling their interaction with CWC expertise in climate, water, and carbon. Each consortium participant would benefit by interacting with the others, by asking questions and getting answers, by understanding the observations and model runs, and by producing their own publications, impact statements, policy adjustments, or directing their own internal funds toward key issues.