



**A Workshop/Writeshop on
METRICS AND MEASUREMENT OF ADAPTATION:
Advances in Water Research in the Arid Americas**

**October 1-3, 2014
University of Arizona
Tucson, Arizona**

In many arid regions of Latin America and North America, research teams are conducting studies on how water governance actors and networks are confronting the challenges of global change including climate change and globalizing markets. Water governance actors—water managers, farmers and irrigators, non-governmental organizations, urban communities, and rural inhabitants—in these arid regions on the whole are knowledgeable and skilled in managing water supply and innovating new ways of meeting water demand, and they tend to be sophisticated users of climate information (e.g., projections). However, less is known about the adaptation strategies seeking to achieve water security and environmental sustainability that are effective in these arid regions, and there is even less systematic knowledge about the adaptive capacity of water governance networks. **In short, how can adaptation and water security be measured?**

This meeting will bring together a group of approx. 15-20 researchers and water resources policymakers working to understand adaptation in water-short regions of the Americas and other arid-semiarid areas of the world—including Chile, Mexico, Argentina, Brazil, and the southwestern U.S. The goals of the meeting are: 1) to share research experiences from distinct contexts; 2) to begin to synthesize common or related findings from across the region; **3) to develop a synthesis article on the metrics of adaptation for submission to a high-impact journal (e.g., *Nature Climate Change*; *PNAS*);** and 4) to discuss potential future collaboration on metrics and measuring adaptation.

What does adaptation in water governance mean in the context of such regions? How can adaptation and water security be measured? What metrics are appropriate? Adaptive capacity is defined as the ability to respond and cope effectively with the challenges of climate variability, climate change, and related environmental stresses. Resilience refers to the capacity of a system to continually change and adapt yet remain within critical thresholds. And water security can be defined as the sustainable availability of adequate quantities and qualities of water for resilient societies and ecosystems in the face of uncertain global change.

A critical element of adaptation is its operationalization through specific indicators. What are the components of adaptive capacity and water security (institutional, sociodemographic, and physiographic)? What key indicators increase resilience and enhance adaptive capacity in water governance and management, and as an end-product, security? Can we arrive at a reliable, quantifiable measure in the form of an index that can be tailored to and used in a variety of settings? How can we include stakeholder-defined priorities and indicators in our formulation?

The meeting begins with a reception for those who arrive on 1 October and continues 2-3 Oct., 2014.

Schedule:

Wednesday, Oct. 1

Workshop participants arrive Tucson and are transported to Marriott University Park

Evening

6:00-9:00 p.m. Reception, Marriott University Park

Thursday, October 2 at Marshall 531

8:30-8:45 Welcome and Discussion of workshop goals – Margaret Wilder
8:45-9:00 Background and Context—Robert Varady
9:00 – 9:30 Introductions—Chris Scott
9:30 – 10:00 Maria Carmen Lemos, University of Michigan—
“Understanding institutional adaptive capacity in water governance”
10:00 – 10:15 Q/A
10:15 – 10:30 *Break*
10:30 – 11:00 Diana Liverman, University of Arizona—
“Why create metrics?: Understanding the role of evaluation and assessment in
climate adaptation”
11:00 – 11:15 Discussion

Public portion of workshop ends

11:15 – 12:15 Presentation of framing concepts from participant input –Gregg Garfin,
Rapporteur
12:15 – 1:15 *Lunch*
1:15 – 1:30 Reconvene for instructions for the afternoon--Gregg
1:30 – 3:00 Break-out session 1 with specific writing tasks -
3:00 – 3:30 *Break*
3:30 – 5:00 Break-out session 2 with specific writing tasks
5:00 – 5:30 Report back to full group
5:30 pm Guests return to Marriott Hotel
6:40 pm* Shuttle pick up at hotel, departs to *dinner*
(Wild Garlic Café, 2530 N. 1st Avenue)

**Tentative time—check schedule in workshop packet for final departure time*

Friday, October 3 at Marshall 531

8:30 – 9:00 Rapporteur summary and wrap-up from Day 1 – Gregg, Rapporteur
9:00 – 10:30 Break-out session 3 with specific writing/presentation tasks
10:30-10:45 *Break*
10:45 – 11:00 Short group presentation of main points from Thursday
11:00 – 12:15 Whole group discussion of draft, needed changes, and assignment of
responsibility. Brief discussion of timeline.
12:15 – 1:15 *Lunch*
1:15 – 2:30 Continuation of pre-lunch discussion on draft, changes, etc.
2:30 – 3:30 Discussion of potential future collaboration and funding sources and proposals to
continue research on AC index—Margaret, Chris, Bob
3:30 pm Writeshop adjournment--Margaret

7:00 p.m. *Dinner* in Tucson for those available

[Incorporation of sections into a single draft document; dissemination to participants.]