RETHINKING WATER: A CRITICAL RESOURCE

A workshop to advance water research and teaching at MIT

MAY 20, EVENING
6:00 PM TO 8:00 PM

PUBLIC KEYNOTE ADDRESS

Charles Duhigg
New York Times Reporter and author of "Toxic Waters"

MAY 21, MORNING
9:00 AM TO 12:30 PM

OPENING REMARKS

Susan Hockfield
President of the Massachusetts Institute of Technology

WATER PROBLEMS & WORKSHOP AIMS

Presentations on current and future research in the Schools: Architecture & Planning; Engineering; Humanities, Arts and Social Sciences; Science; Sloan. Presentations will address the following questions:

1. What research projects, academic programs, and agenda do you and colleagues in your School have that relate to water as a critical resource?
2. What do you see as critical water challenges in the coming decades?
3. How does your work connect with other Schools? At the Institute and institutions outside MIT?
4. What new expertise & resources do you need to invigorate the activities (e.g., faculty hires, seed funding, etc.)?

MAY 21, WORKING LUNCH
12:30 PM TO 2:00 PM

BREAK-OUT SESSIONS ON:

1. WATER IN METROPOLITAN LANDSCAPE DESIGN AND REGIONAL ENVIRONMENTAL PLANNING

a. Historical analysis of water in human settlements

b. New technologies for metropolitan landscape design (e.g., constructed wetlands in ecosystem restoration, wastewater treatment, and land reclamation)

c. Expanding the range of choice among design adaptations to climate change, sea level rise, and large-scale ecosystem change

d. Comparative analysis of water policy conflicts and innovations in the U.S., Middle East, and South Asia

2. WATER TECHNOLOGY, ENGINEERING, AND INNOVATION

a. Membranes in water purification

b. Leak detection in water distribution systems

c. Nanostructure surfaces and coating in water systems

d. Desalination technology

e. Clean water and sanitation for the developing world (and "off-the-grid")

3. SCIENTIFIC PROBLEMS IN WATER

a. Climate change and water cycle response

b. Water-energy nexus

c. Hydrologic sciences and sensor systems

d. Water, contamination, and human health

4. WATER POLICY, ECONOMICS, AND BUSINESS

a. Water conflict and negotiation

b. Water valuation

c. Water and food security

d. Water and business

5. MIT'S WATER FOOTPRINT

MAY 21, AFTERNOON
2:00 PM TO 5:00 PM

CROSS-CUTTING PANELS ON:

- **Water - Energy - Food Nexus**
- **Water, Sanitation, Health and Technology**
- **Climate, Hydrology, Risk, and Adjustment**
- **Scaling and Diffusion of Water Solutions**

WORKSHOP ORGANIZERS

Dara Entekhabi
Bacardi and Stockholm Water Foundations Professor
Department of Civil and Environmental Engineering and
Department of Earth, Atmospheric and Planetary Sciences

Raffaele Ferrari
Cecil and Ida Green Professor of Oceanography
Department of Earth, Atmospheric and Planetary Sciences

Charles F. Harvey
Doherty Associate Professor
Department of Civil and Environmental Engineering

Philip S. Khoury
Associate Provost
Ford International Professor of History
Department of History

John H. Lienhard
Samuel C. Collins Professor of Mechanical Engineering
Director, Center for Clean Water and Clean Energy
at MIT and KFUPM
Department of Mechanical Engineering

Harriet Ritvo
Arthur J. Conner Professor of History
Department of History

Kurt Sternlof
Executive Director
Earth System Initiative

James L. Wescoat
Aga Khan Professor of Architecture
Department of Architecture

Thursday Evening, May 20th,
all day Friday, May 21st, 2010

MIT KIRSCH AUDITORIUM
STATA CENTER, 32-123
32 VASSAR ST., CAMBRIDGE

Required and free registration on the web at: mit.edu/water

Funded by: The MIT Environmental Research Council; the Deans of Science, Engineering, Architecture + Planning, Sloan, and Humanities, Arts & Social Sciences; the MIT Energy Initiative; the MIT Earth System Initiative; and the Aga Khan Program for Islamic Architecture