



UNIVERSITY of CALIFORNIA • IRVINE



First Announcement

International conference on
WATER SCARCITY,
GLOBAL Changes,
and **GROUNDWATER**
MANAGEMENT RESPONSES

1-6 December 2008, University of California, Irvine, United States

Convened by UNESCO and the University of California, Irvine



RATIONALE

Global changes, such as population growth, climate variability, expanding urbanization, often combined with pollution, severely affect water availability and lead to chronic water shortage in a growing number of regions. It is estimated that, within 25 years, two-thirds of the world's inhabitants will live in countries with serious water problems.

Inventive approaches and innovative technologies have to be developed to call for every possible water resource. It has become evident that groundwater is one of the most important natural resources, being the sole resource for some countries, and the main basis of irrigation worldwide, with more than one-third of the landmass irrigated by groundwater, and the main source of drinking water for a number of countries .

Water scarcity is not always the result of a physical lack of water resources but also the result of inadequate institutional and managerial organization. For instance, according to the 2nd World Water Development Report, an estimated twenty-six countries, totalling more than 350 million people, with an apparent adequate availability of water, suffer from severe water scarcity because of problems in water management and governance.

An especially critical issue, where science alone is insufficient, concerns shared water resources, with a special attention to internationally shared aquifers: scarcity increases competition among users, potentially leading to tensions and conflicts whose solutions involve a multi-disciplinary approach, based on political, cultural, ethical and scientific instruments.

Therefore, while water scarcity and global change certainly ask for innovative scientific and technological solutions, they also pose technical, socio-economic, cultural and ethical challenges. This requires a multi-disciplinary approach that integrates science, technique, institutional organization, management, economy, culture and history, combined to a good perception of risk and an adequate use of risk/benefit analysis. Education and communication are critical connectors of the components of such an approach.

Examining all types of water resources available in a watershed or a region, stressing the unique role of groundwater in water-scarce areas and its significance in most other areas, identifying the difficulties due to the specific characteristics of groundwater and evaluating the adaptability of existing or new methods and instruments to these specificities, the conference should serve as a place to:

- share knowledge, experience and know-how on water scarcity and, more generally, climate change science and the anticipated effects of global changes, either natural or induced by human activities, on water and, specifically, groundwater resources, such as desertification, health aspects, poverty and hunger, among others;
- learn about professional practices, intended to cope with water scarcity and global change effects and relating to decision, risk/benefit analysis, action, finance and communication;
- present and discuss innovative scientific, technological, policy, economic and institutional instruments and methods, and emphasize multi-disciplinary approaches and the improvement of communication between stake-holders;
- establish long-term collaborations.

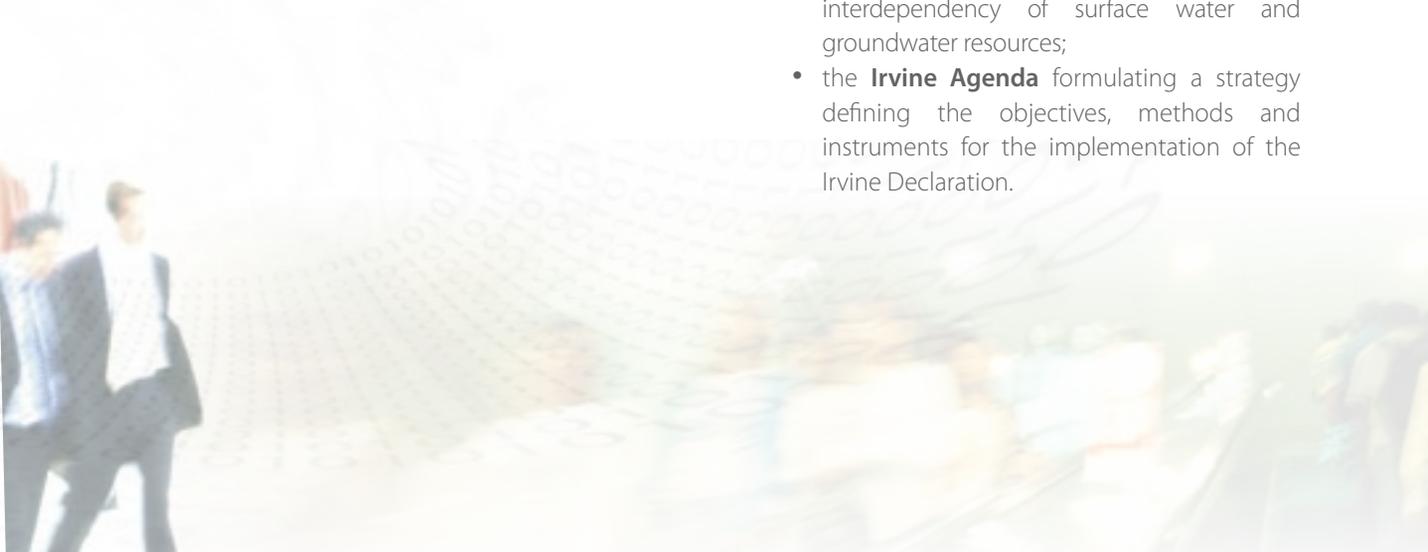




OBJECTIVES OF THE CONFERENCE

Bringing together leading water management and climate change experts, scientists and engineers, policy-makers, lawyers and economists, and executives of water services of local and regional authorities:

- 1) Present innovative and appropriate technologies to address water scarcity and global change effects on water availability and quality, explore the specific scientific and technical tools for groundwater studies and management, and discuss how to incorporate such technologies into short-term decision-making and long-term water management and policy-making;
- 2) Exchange ideas on communication among political decision-makers, financial actors, scientists, technical services of local and regional authorities, service and engineering companies, operators and builders, as a tool for improved management of water scarcity and global change effects on water availability and quality, with an emphasis on groundwater aspects;
- 3) Exchange ideas and experience concerning the involvement and education of civil society in water scarcity understanding and evaluation, in the planning of solutions and the evaluation of their consequences, in the learning of groundwater realities, specificities and significance, with an emphasis on elementary and high school students and their teachers;
- 4) Establish mechanisms for international cooperation and experience-sharing among institutions for higher education and research, local authorities, consulting and engineering firms and practitioners, and others, taking into account cultural, historic and, in general, human dimensions, in relation to water scarcity and global change studies;
- 5) Produce a policy proposal and an action plan for a concrete and practical follow-up to the proposed conference and, also, to contribute to the IHP-VII, UNESCO's International Hydrological Programme Seventh Phase (2008-2013), and prepare for the 5th World Water Forum (Istanbul, Turkey, March 2009). Specifically:
 - the **Irvine Declaration** identifying water resources management principles aimed at answering global change and scarcity challenges, and recognizing the role and significance of groundwater and the interdependency of surface water and groundwater resources;
 - the **Irvine Agenda** formulating a strategy defining the objectives, methods and instruments for the implementation of the Irvine Declaration.





CHAIRPERSONS

- Dr Andras Szollosy-Nagy, Director of the Division of Water Sciences, UNESCO
- Dr Matt Larsen, USGS, Chair of the US IHP National Committee
- Prof. William Cooper, Director of the Urban Water Research Center, University of California, Irvine

Scientific and Executive Director

- Prof. Jean Fried, University of California, Irvine and UNESCO

ORGANIZING COMMITTEE

(to be confirmed)

- Chair: Dr Alice Aureli, UNESCO-IHP
- Prof. Soroosh Sorooshian, University of California, Irvine, USA
- Dr Jose Luis Martin Bordes, UNESCO-IHP
- Prof. Scott Samuelsen, University of California, Irvine, USA
- Prof. Jay Famiglietti, University of California, Irvine, USA

SCIENTIFIC COMMITTEE

(to be confirmed)

- Chair: Prof. Joseph Westphal, University of Maine, USA
- Prof. Arturo Keller, University of California, Santa Barbara, California, USA
- Prof Raul Lejano, University of California, Irvine, USA
- Prof. Ramon Llamas, Complutense University of Madrid, Spain
- Prof. Gatze Lettinga, Wageningen University, The Netherlands
- Prof. Perry L. McCarty, Stanford University, California USA

- Prof. Sherwood Rowland (Nobel Prize, Chemistry, 1995), University of California, Irvine, USA
- Dr Shammy Puri, IAH
- Dr Wilhelm Struckmeier, BGR, Germany
- Dr Stephano Burchi, FAO
- Dr Didier Pennequin, BRGM, France
- H.E. Dr Ali S. Al-Tokhais, Deputy Minister, Ministry of Water Affairs, Saudi Arabia
- Prof. Uri Shamir, IAHS
- Dr Phera Ramoelli, SADC
- Dr Peter Letitre, IGRAC (UNESCO/WMO Center)
- H.E. Dr Nadhir Hamada, Minister of Environment and Sustainable Development, Tunisia
- Dr Richard Meganck, UNESCO-IHE, The Netherlands

DATES

The Conference will be held at the University of California, Irvine, from December 1st, 2008 to December 6th, 2008

LANGUAGE

The language of the Conference will be English

IMPORTANT DATES

First Announcement	July 2007
Second Announcement and call for papers including scientific programme	End Sept. 2007
Submission of abstracts	January 2008
Third Announcement and final programme	End Oct. 2008

CONTACT DETAILS

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