2nd INTERNATIONAL CONFERENCE WATER, ECOSYSTEMS AND SUSTAINABLE DEVELOPMENT IN ARID AND SEMI-ARID ZONES

May 2009, (Tehran - Yazd), Iran



Ecole Pratique des Hautes Etudes (Sorbonne)



UNIVERSITY OF TEHRAN (IRAN)









http://www.ut.ac.ir/watarid.htm

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Introduction

For scientists working on water-related issues, the world's arid and semi-arid zones provide a veritable life-size laboratory. Due to their size, their history, and the complexity of Man's relationship with water, these particularly vulnerable regions represent ideal objects of study.

In arid and semi-arid zones the question of water resources, and of how to conserve and use them, is a major issue. For thousands of years, societies living in these vulnerable areas have been obliged to accumulate knowledge and develop techniques adapted to their sometimes parlous circumstances. Due to demographic growth, water resources are coming under increasing pressure, a situation which is creating new tensions that need to be studied as a matter of urgency.

The International Conference on Water, Ecosystems and Sustainable Development intends to provide an original contribution to the field. Characterized by a multidisciplinary approach – including input from environmental and social scientists, as well as men and women involved and their theoretical and practical achievements – the Conference will focus on the use of water in the light of both ancient and modern practices; on the one hand, agricultural techniques, irrigation, construction and water use; and traditional, remote sensing and digitalization. Cultural heritage, recent evolutions, and emerging problems (Stalinization and pollution, for example) will be described and explained in the context of present practices.

1. Background

The Conference is part of an academic cooperation program set up in 2004 by University of Tehran, Xinjiang University in China and the Ecole Pratique des Hautes Etudes in France. The aims and issues of the Conference are based on the empirical and theoretical foundations of projects on water-related questions carried out in the Xinjiang region in China and vast areas in Iran within the framework of the cooperation program.

The first International Conference on "Water, Ecosystems and Sustainable Development in arid and semi-arid zones" organized by corporation of Xinjiang University in China, University of Tehran, the Ecole Pratique des Hautes Etudes and CNRS held in Urumqi, China on October 2006.

2. The 2nd International Conference

According to planning and resolution of 1st international conference, it has been agreed to have the 2nd conference to be held in 2009 in Iran. and the final conference to be held in Paris in the year 2010. The overriding aim of the Conference is to promote awareness amongst the international scientific community of the merits of an interdisciplinary approach in developing more effective ways of analyzing and improving the management of water resources.

Complexity of issues concerning water has encouraged the development of joint-projects with other institutions, including:

- Iranian Ministry of Energy
- Organization of cultural heritage-Iran
- The Iranian Academy of The Arts
- SISYPHE (CNRS UPMC EPHE ENSMP IRD) in the life and earth sciences,
- MAP (Modelising architecture, CNRS DADP French Ministry of Culture) in the restitution of data on the architecture of the city of Kashgar (an approach which is set to be extended to other sites).

Graduate students in this program are based at PRODIG (CNRS – EPHE – Paris 1 – Paris 4 – Paris 7).

> Aims

The aims of the 2nd International Conference are:

- To draw up an inventory of water resources in arid and semi-arid zones
- To offer an overview of the evolution of agricultural techniques and practices
- To analyze the cultural and material structures about water management in arid and semi-arid zones
- To produce an historical, empirical and theoretical analysis of the relationship between human beings and water

In this perspective, the International Conference, which is being organized in conjunction with three major universities (University of Tehran in Iran, Xinjiang University in China and the Ecole Pratique des Hautes Etudes in France) renowned for the quality of their research into arid zones, intends to make a valuable contribution to the debates launched at major summits and international symposia on water resources and contemporary environmental issues.

Earth and social scientists – hydrologists, engineers, biologists, historians, economists, geographers, legal experts, etc. – as well as managers and decision-makers, will meet to draw up an inventory of the present state of research into the various themes of the Conference. Using an interdisciplinary approach, the Conference will attempt to identify opportunities for research and development projects.

Responsibility for the scientific organization of the Conference was accorded to the "rés-EAU-ville" research group (CNRS Research Group 2524) working in conjunction with Xinjiang University and Tehran university with a view to promote this interdisciplinary approach as effectively as possible amongst the scientific and technological communities working in the field of water-related issues.

Papers and presentations will cover hydrology, the collection of data from arid and semi-arid zones, and the history of languages and literatures, religions, art, and technology.

In order to examine the issues concerning access to water in arid and semi-arid zones and propose suitable sustainable development projects it is essential to revisit the heritage and experiences of the communities who live in these areas. For example, water supply management techniques developed over the centuries in China and Iran present a vital object of study. The various approaches taken by individual communities provide a global perspective on the question of "water, ecosystems and sustainable development in arid and semi-arid zones". Such a perspective can only be elaborated by combining data derived from the observation of physical phenomena with data on social and cultural practices at various levels.

Conference themes

• 1st Theme: Water and the environment

Aim: to draw up an inventory of water resources in arid and semi-arid zones.

- Impact of climate change on water resources
- Desalinization of soil and water resources
- o Ground water conservation and rehabilitation
- o Analysis methods of water management future perspective

• 2^{ed} Theme: Water demand and consumption management

Aim: to offer an overview of the evolution of agricultural techniques and practices.

- o Improving of productivity in various consumptions (domestic, industrial and agriculture)
- Technical system and water management (legal concepts, traditional and modern methods,...)
- Water losses and consumption control

3rd Theme: Water and cultural- natural heritage

Aim: to produce a historical, empirical and theoretical analysis of the relationship between human beings and water

- Social- cultural systems of water exploitation
- Architecture and historical hydraulic structures
- Water legal system
- Water traditional economy
- o Historical experience of water resources management

• 4th Theme: Future optimum water management and operation

Aim: major international orientations in water management

- o Water and globalization
- o Effective water governance
- Virtual water trade
- Integrated water resources management

Organization

1. Organized by

- Ministry of Energy Iran
- University of Teheran Iran
- Ecole Pratique des Hautes Etudes France
- University of Xinjiang China
- Organization of cultural heritage of Iran
- The Iranian Academy of The Arts

2. Co Presidents

- Esfandiar MASHAlpresident of Organization of cultural heritage-Iran
- Ali MOOSSAVI MOVAHEDI, Vice-president of research of Teheran university Iran
- Rasul ZARGAR, vice president in Ministry of Energy -Iran
- Rasul ZARGAR, vice president in Ministry of Energy -Iran
- Jean-Claude WAQUET, President of Ecole Pratique des Hautes Etudes France
- Marie-Françoise COUREL, Director of human and social science of CNRS France
- NAMVAR MOTLAGH, Vice-president of research, Iranian Academy of the Arts
- Tashpolat TIYIP, geographer, Vice President, Research, Xinjiang University China

3. Scientific responsible of conference

• Mahmoud TALEGHANI, Professor, University of Tehran - Iran

4. Scientific Committee

An international Scientific Committee has been set up to oversee the development of the conference's major themes and to select papers.

- Mahmoud KAMAREI, Electronic and communication, President of Scientific Committee of the conference, pedagogic vice president of Tehran University -Iran
- Ali-Reza DAEMI, hydrolic, Iranian Ministry of Energy Iran

- Mohamed BEHESHTI, Architect, President of Encyclopedia of history of Iranian architecture Iran
- Jeannine LE RHUN, Historien, Master of conference in Ecole Pratique des Hautes Etudes France
- Christophe BALAY, Persian Language and Iranian Civilization, Professor of INALCO university France
- Philipe CHAMARD, Geographer, Professor of Paris X university France
- Robert G.VARADY, Ecosystem, Professor of Arizona university, United State of America
- Hamid YIMIT, Ecosystem, Vice-president of Xingjiang university China
- Morteza REZVANFAR, Archeology, Director of Ethnology Institute of Organization of Cultural Heritage - Iran

5. Committees of Experts

- **5.1.** Committee of " Water and the environment " with direction of Marie-Françoise COUREL Aim: to draw up an inventory of water resources in arid and semi-arid zones.
 - o Hamid YIMIT, Ecosystem, Vice-president of Xinjiang university China
 - o Xi CHENG, Hydrology, Director of Xinjiang Institute of Ecology and Geography, China
 - Zhihui LIU , Dean of School of Resources & Environment Science, Xinjiang University,-China
 - o FAHMI, Hydrology, Director of Research, Iranian Ministry of Energy Iran
 - o Jean-Paul AGHE, Geographer, Master of conference, Res-Eau-Ville, GDR2524 France
 - o Cheik Hamala DIAKITE, Geographer, Director of Research, Institute of Rural Economy, Bamako Mali
 - o Agathe EUZEN, Anthropology and science of environment, Researcher of CNRS, reseau-ville, GDR2524 France
 - o Jean MARGAT, hydrology, international expert, France.
 - o Yalkum TASHI, Geographer, Member of Committee, Master of conference in Xinjiang university China

5.2. Committee of "Water demand and consumption management" with direction of Alireza DAEMI

Aim: to offer an overview of the evolution of agricultural techniques and practices.

- o Tri COVILLE, Economist, Professor of commerce room of Paris
- o Alicia FERNANDEZ CIRELLI, Water management, Professor, University of Buenos Aires-Argentina
- o Ghislain de MARSILLY, Continental Hydrology, Professor of UMR Sisyphe University of Paris VI/EPHE, Member of Science Academy- France
- o Emilio J. LENTINI, Economist ,Economics Department of the water and sewerage services regulatory agency of Buenos Aires Metropolitan Area- Argentina
- o Wolfgang KINZELBACH, Hydrogeology, Professor, Institute of polytechnic of Zurich-Suisse
- Anoush NOURI ESFANDIARI, Water Economy, Director of Water economy in Ministry of Energy-Iran
- o Sattar MAHMOUDI, Industrial Management, Director General Water Resources

 Management Co, Iran

5.3. Committee of " Water and cultural- natural heritage " with direction of Mohamed BEHESHTI

Aim: to produce a historical, empirical and theoretical analysis of the relationship between human beings and water

- o SEMSAR YAZDI, Water Civil, President of linternational Center about Kanat and Historical Constructions Iran
- Marc GRODWOHL, Archaeology, Creator of Alzas Eco-museum, researcher of Groneuble University - France
- Pierre LEBIGRE, Architect, General Secretor of CIERA, Researcher of EVCAU, Paris –
 France
- o Patrick CURRAN, Architect, Researcher and professor of Hypermedia's department (University of Paris 8), Coordinator of @PROSPECTIVE Group (consortium of 4 Laboratories) France
- o Dejanirah COUTO, Historian, Professer of Ecole Pratique des Hautes Etudes France
- Jean-Louis BAQUET GRAMMOND, Language and Civilization, President of CIERA,
 Director of Islamic world research. In CNRS France

5.4. Committee of **«Future optimum water management and operation "** with direction of **Reza MACNOUN**

Aim: major international orientations in water management

- o Maurice AYMARD, Sociology, professor of MSH, Paris France
- o Xiaolei ZHANG, Geographer, Director of Xinjiang Branch of Chinese Science Academy
- o FAHMI, Hydrology, Director of Research, Iranian Ministry of Energy Iran
- Sedighe TORABI , Water Management , Director of Water Management Group in Ministry of Energy - Iran

Executive Committee

The executive Committee is responsible for ensuring that the Conference runs smoothly. The committee works in close collaboration with the Scientific Committee, and acts as a link between inside and outside bodies of the conference. It also manages publishing of selected conference papers in 3 languages of English, Persian and French in conference reference book.

- Sobhan AHANI, Architect, Responsible of Committee, Researcher in Institute of Iranian Cultural Applied Researches (IICAR), Tehran university – Iran
- Marie therese TEXERAUD, Member of Committee, Director of international relationship of university city of Paris
- Bahieh JAFARI ,Hydraulic Structures, Member of Committee , Ministry of Energy Iran
- Yalkum TASHI, Geographer, Member of Committee, Master of conference in Xinjiang university
 China