



Water in the Arab World: Status, Challenges and Opportunities (WAWCO 2014)

25-27 February 2014

Amman – Jordan

Sustainable water resources management is key to socio-economic development and environment protection. In the Arab world, sustainable water resources management faces serious challenges which slow the socio-economic development as well as negatively impact the environment. Among these challenges are:

1. Drought,
2. Rapidly increasing demand due to the high population growth,
3. Mismanagement of the available resources,
4. Low water use efficiency especially in the agricultural sector which consumes the lion's share of the available resources in most of the Arab countries,
5. High Non revenue water in the domestic sector,
6. Climate change which is projected to reduce the resources and increase the demands consequently increase the gap between them,
7. Lack of financial resources which are necessary to maintain infrastructure and services, staff training and develop new resources,



8. Management of trans-boundary water resources,
9. Improper institutional set up,
10. Lack of legal framework combined with lack of law enforcement,

These challenges resulted in a persisting and growing imbalance between supply and demand in most of the Arab countries which led to negative health, environmental, ecological and socio-economic consequences. Professionals, scientists, decision makers, nongovernmental organizations, private sector, and funding agencies from all over the Arab world and non-Arab countries as well, convene in this conference to share and exchange knowledge, experience and views to address these challenges and identify opportunities (non-conventional resources, executive training and education, institutional development, new technologies, etc.) to overcome these challenges for the ultimate purpose of advancing the socio-economic development in the Arab world.



The conference was held in Amman, Jordan between the 25th and the 27th of Feb. 2014 under the patronage of his Royal highness Prince Hassan bin Talal in the Landmark Hotel. Experts and scientists from the following countries participated in the conference: Iraq, Kingdom of Saudi Arabia, United Arab Emirates, Egypt, Yemen, Algeria, Tunisia, Sudan, France, United States of America, Japan, Turkey and Jordan.

Themes addressed by the conference:

1. Water in the Arab world: Resources and demands.
2. Trans-boundary water in the Arab world: benefits sharing.
3. Challenges to the water sector in the Arab world: Drought.

Mismanagement.



High population growth. Lack of funds.

Climate change.

High Non Revenue Water.

Sustainability of ecosystems and biodiversity.

4. Nonconventional resources: role in bridging the deficit and environmental impacts.

5. The integration in water resources in the Arab world.

6. Water and food security in the Arab world.

7. Water and energy in the Arab world.



8. Water quality in the Arab world: pollution sources and monitoring systems.
9. Role of education in facing the challenges to the water sector in the Arab world: New trends in water research in the Arab world.
10. Water legislations and implementation mechanisms.
11. Monitoring and evaluation tools of water related projects in the Arab world.
12. Role of Nongovernmental Organizations in water resources management in the Arab world.
13. Role of funding agencies in the development of the water sector in the Arab world, and



14. Water footprint.

Organizing committee:

- 1- Prof. Abbas Al- Omari/University of Jordan, Chair.
- 2- Prof. Ahmed Al-Salaymeh/University of Jordan.
- 3- Dr. Abdelnabi Fardous/University of Jordan.
- 4- Dr. Al-Sharifa Hind Jasem/University of Jordan.
- 5- Dr. Munjed Al -Shareef/German Jordanian University.
- 6- Dr. Bashar Al-Smadi/University of Jordan.
- 7- Prof. Ali Elnaqa/Hashemite University.
- 8- Prof. Atef Al-Kharabsheh/Al-Balqa' Applied University
- 9- Dr. Mufeed Batarseh/Mutah University.
- 10- Dr. Osama Mhawesh/Mutah University.



- 11- Mr. Waheeb Karaja/Association of Arab Universities,
- 12- Ms. May Wahbeh/Director of the General Secretariat/Association of Arab Universities,
- 13- Dr. Halim Ben Haj Salah / ICARDA`s Regional Coordinator for West Asia,
- 14- Representatives of the Ministry of Water and Irrigation,
- 15- 15- Mr. Adnan Mashaqbeh/University of Jordan,
- 16- Eng. Haifa Yazjeen/University of Jordan,
- 17- Eng. Faten Al-khateeb/University of Jordan, and
- 18- Mr. Naser Abu nejim/University of Jordan.

Organizers and Sponsors:

- The university of Jordan\ Water, Energy and Environment Center,
- The association of Arab Universities,



- The ministry of water and irrigation,
- The Scientific Research Support Fund in Jordan,
- The German agency for technical cooperation (GIZ)
- Dar Al Handasa Shair and Partners,
- The International Center for Agricultural Research in the Dry Areas (ICARDA),
- The Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA),



- The Islamic Jordanian bank,
- The Hashemite fund for Badia development, and
- Abulhameed Shoman Foundataion.

Recommendations:



- 1- Enhance water use efficiency at multiple scales including farm and regional scales and across sectors.
- 2- Apply holistic approach to water security by implementing the water, Energy food nexus methodologies.
- 3- Improve the dialogue between the scientific community and the policy makers for the purpose of incorporating the findings of scientific research in the decision making process.
- 4- Develop nonconventional water resources such as grey water reuse, wastewater reuse, desalination, and water harvesting.
- 5- Better understand and manage trans boundary water resources and follow up the implementation of trans boundary basins' strategy in the Arab World.



6- Human resources development via education and training directed towards better management of the available resources.

7- Increase the awareness of the challenges to the water sector, water ethics and values in the Arab region. In addition to increasing the awareness of the stakeholders and the public about the methods to save and protect water resources, including campaigns.

8- The importance to protect the available water resources in terms of quality and quantity.

9- Develop and implement adaptation strategies to cope with the available resources through integrated approaches including demand management.



10- Establishment of a platform for researchers and water professionals in the Arab World for the purpose of enhancing the contact and exchange of knowledge and experience between water authorities, water scientists and professionals which is expected to enhance the efforts towards finding sustainable solutions to the challenges that face the water sector

11- The Ministry of Water and Irrigation in Jordan has taken the first steps in this direction by establishing a research unit that is responsible to improve the contact between water scientists and professionals at one side and the ministry.

12- Encourage and enhance the involvement of the private sector in water resources development and management in all dimensions including water related research.

13- Enhance the involvement of local communities in water governance. 14- Incorporate the concept of Integrated Water Resources Management more efficiently in the water sector at all levels.



15- Highlight the economic and social concepts in water resources management.

16- Include water and environmental concepts in the school curricula, 17- Develop telemetric monitoring of water resources and floods to protect people and infrastructure in addition to taking advantage.

