

High-Level Session at the 7th Arab Water Week on Digital Transformation to Accelerate the Implementation of the Water, Energy, Food and Environment (WEFE) Nexus in the Arab Region



A Middle East Water Forum Publication

Co-organized by the Middle East Water Forum (MEWF) and the Arab Water Utilities Association (ACWA) during the Arab Water Week, which was held at the Dead Sea during the period 4-6/5/2025. The following is a summary of the most important points in addition to the full video recording of the seminar.

Considering the growing and overlapping challenges in the fields of water, energy, food, and environment, the Middle East Water Forum (MEWF) in collaboration with the Arab Water Utilities Association (ACWA) organized a high-level interactive session. The session addressed the role of digital transformation as a strategic tool to accelerate the implementation of the Natural Resource Interconnectedness Approach (WEFE Nexus) in the Arab region, in line with the Sustainable Development Goals and the 2030 Agenda. The session was opened by introductory remarks by His Excellency Dr. Hazim El-Naser, Chairman of the Middle East Water Forum, stressing that the Arab world is going through a critical stage that requires the adoption of modern digital and smart technologies in resource management, in light of climate change, population pressures, and economic challenges. He pointed out that digital transformation represents a qualitative opportunity to make a qualitative leap in resource governance.

The session witnessed rich interventions from experts and practitioners who presented practical experiences in the field of digital transformation:

- His Excellency Prof. Dr. Hani Swailem, Minister of Water Resources and Irrigation of the Arab Republic of Egypt, stressed that digital transformation must first be understood as an intellectual and institutional transformation, pointing out that digitization tools alone are not enough unless accompanied by a change in administrative culture. He pointed to Egypt's initiatives in the field of smart irrigation based on sensor technologies and simulation models, stressing the importance of empowering local cadres and building sustainable partnerships between the public and private sectors.
- Dr. Nouran El-Badawi, Ministry of Water Resources in Egypt: Provided models for effective digital applications in the water sector in Egypt, such as productivity measurement systems and smart distribution control.

- Eng. Ahmed Abu Al-Saud: Presenting the experience of Aqaba Water Company in developing an integrated digital platform to improve the efficiency of operations and customer service.
- Dr. Ziad Khayat (ESCWA): He stressed the need for regional integration and the establishment of open databases to exchange knowledge and enhance resource security.
- Dr. Hassan Abou Alnaga - From the Middle East Water Forum, Dr. Hassan Abou Alnaga, an international expert in integrated water resources management, stressed that digital transformation is no longer an option, but a strategic necessity to implement interconnectivity between inter-sectors by integrating artificial intelligence, digital twins, and the Internet of Things in water resources management systems.
- Eng. Khaldoun Al-Khashman, stressed the need for partnership in capacity building. Eng. Al-Khashman, Secretary-General of the Arab Water Utilities Association, valued the importance of this regional dialogue, stressing the association's readiness to support joint efforts with the Middle East Water Forum to develop a roadmap for digital transformation in Arab water utilities, with a focus on institutional and technical capacity building.

Watch session video here

<https://drive.google.com/file/d/1WD-dQyNAY7Jma6vjKELFRk5d4YAKyF5O/view>