

2010 Report of the Arab Forum for Environment and Development

ARAB ENVIRONMENT WATER

SUSTAINABLE MANAGEMENT OF A SCARCE RESOURCE

EDITED BY: **MOHAMED EL-ASHRY**
NAJIB SAAB
BASHAR ZEITON

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Preface

Water: Sustainable Management of a Scarce Resource is the third of a series of annual reports on the state of Arab environment, produced by the Arab Forum for Environment and Development (AFED). The first AFED report, published in 2008 under the title Arab Environment: Future Challenges, covered the most pressing environmental issues in the region. The second report, Impact of Climate Change on Arab Countries, was published in 2009 and addressed the vulnerabilities to climate change facing Arab countries. This report covers water issues in the driest region of the world.

Water is the major challenge facing the Arab region. Arab countries are already in the midst of a water crisis. As early as 2015, almost all Arab countries will be below the level of severe water scarcity at less than 500 cubic meters per capita per year; nine countries will be below 200 cubic meters, six of which below 100 cubic meters. Climate change will worsen the situation. Water flow in the Euphrates may decrease by 30% and in the Jordan River by 80%. An average increase in temperature of 2°C may decrease the flow in the Nile by 50%. Over 85% of fresh water is used for agriculture, with more than half wasted due to unsustainable practices. Efficiency levels of water for human use are low, even in countries depending almost entirely on desalination. Although the region produces more than half of the world's desalinated water, it depends entirely on imported technologies and equipment.

In addition to documenting the latest data on the state of water in the Arab countries, the report is designed to contribute to the discourse on the sustainable management of water resources. The treatment of the subject is both broad and multidisciplinary, thus providing the public, experts and decision makers with critical understanding, without being overly technical or academic in nature. The report combines in one volume a large amount of critical material on water from a variety of sources, analyzes them, discusses success stories as well as shortcomings, and proposes policy measures. While contributing to the dissemination of knowledge and information sharing, the report ultimately aims at inciting action for sustainable water policies.

The Arab water sector has been the subject of numerous studies by government agencies, development banks, and aid organizations. Therefore, critical issues in the Arab water sector have been researched and documented. The World Bank 2009 report, *Water in the Arab World: Management Perspectives and Innovations*, is but one example. This AFED report does not duplicate work already done, but rather builds on it to propose specific reforms and action plan.

Despite investments in Arab water infrastructure, the benefits of a sustainable, secure, and equitable management of water resources continue to elude the region

with serious ramifications on public health and well-being. The report sets the context by laying down why these benefits have been slow to come by and what challenges need to be addressed to attain water sustainability in the region.

The report also describes new trends and the prospects for reforms affecting the future of water in Arab countries. It addresses water governance, management of shared water resources, the role of laws and customary arrangements, the sustainability of desalination, constraints in water reuse, water pricing, use of analytical tools such as remote sensing, and the management of agricultural, municipal, and industrial water resources, among others.

AFED Secretariat wishes to thank all those who supported this initiative, specifically the report's main editor Dr. Mohamed El-Ashry, Dr. Mostafa Kamal Tolba and Dr. Mohamed Kassas who helped in laying down the methodology and appraising of the outcome, and Dr. Shawki Barghouti who put at our disposal the resources of the International Center for Biosaline Agriculture (ICBA). AFED's special thanks go to the OPEC Fund for International Development (OFID) for its continuous genuine support to the Forum's program, the Islamic Development Bank (IDB), and all corporate and media partners who made this endeavor possible. Thanks are also due to the authors and the many experts who contributed to the contents, and the editorial and production team of *Al-Bia Wal-Tanmia* (Environment & Development) magazine for their dedication to produce this report and book up to the highest standards and in record time.

AFED hopes this report will contribute to the ongoing dialogue on the future of water in Arab countries and catalyze institutional reforms. If this report can inform and help shape public policy for sustainable water management in the Arab world, then it would have served its purpose.

Najib Saab
Secretary General
Arab Forum for Environment and Development