

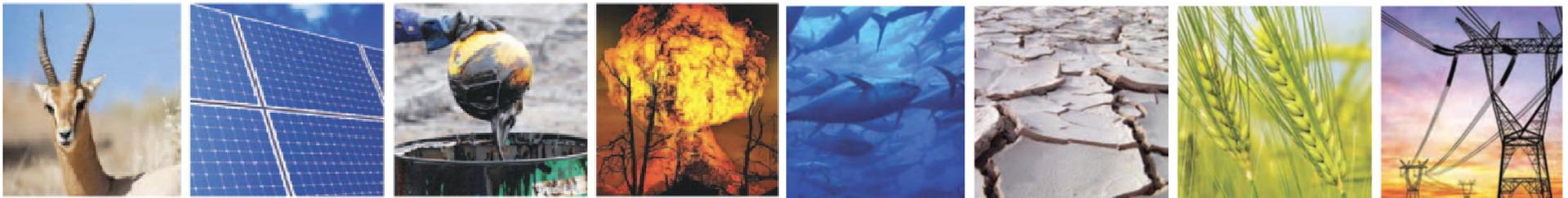
ARAB ENVIRONMENT IN 10 YEARS



2017 Report of the Arab Forum for Environment and Development

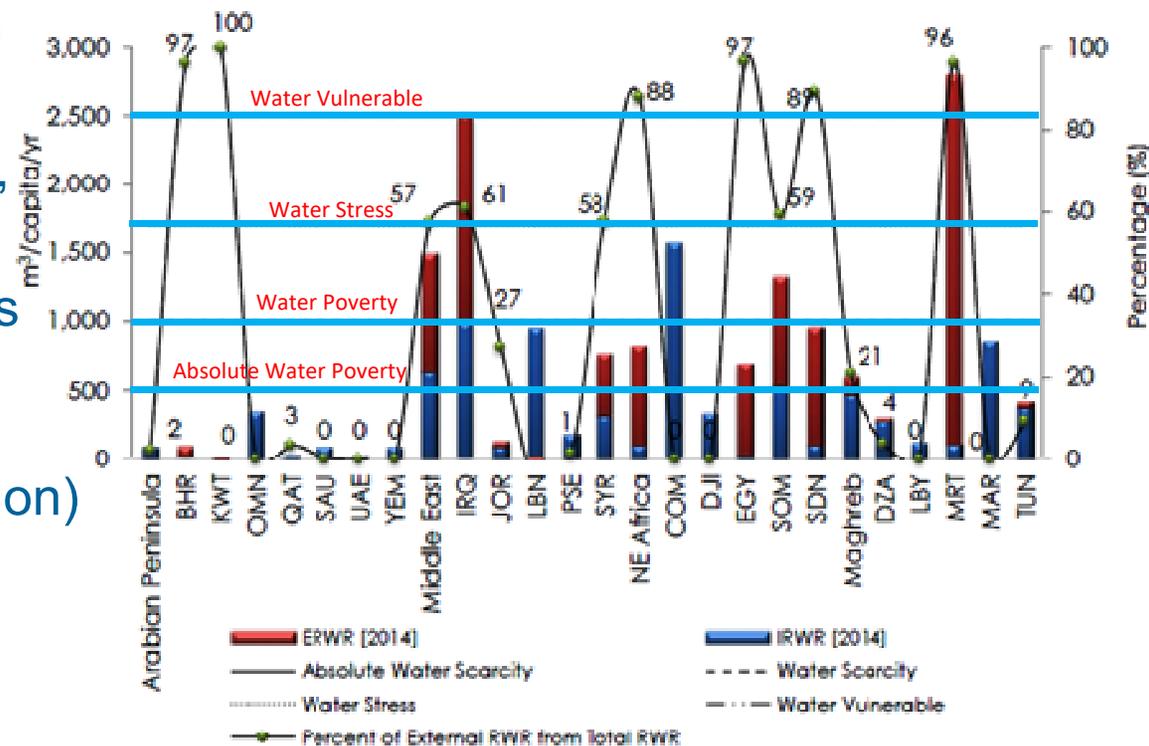
WATER TRENDS

Waleed K Al-Zubari and Alaa A El-Sadek



Water Availability and Variability

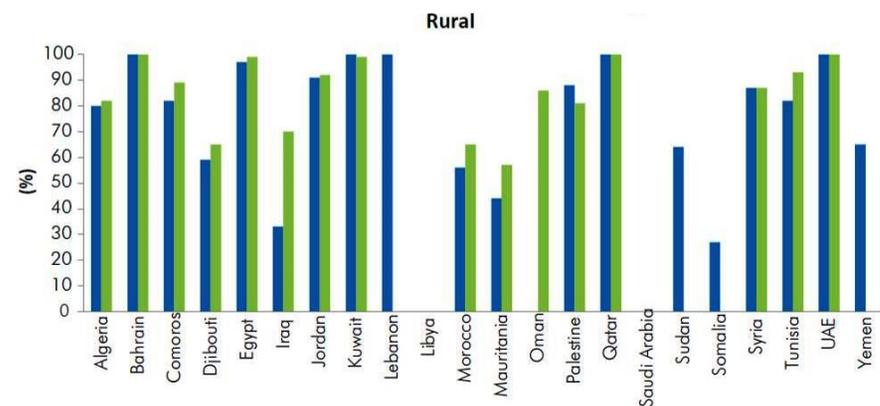
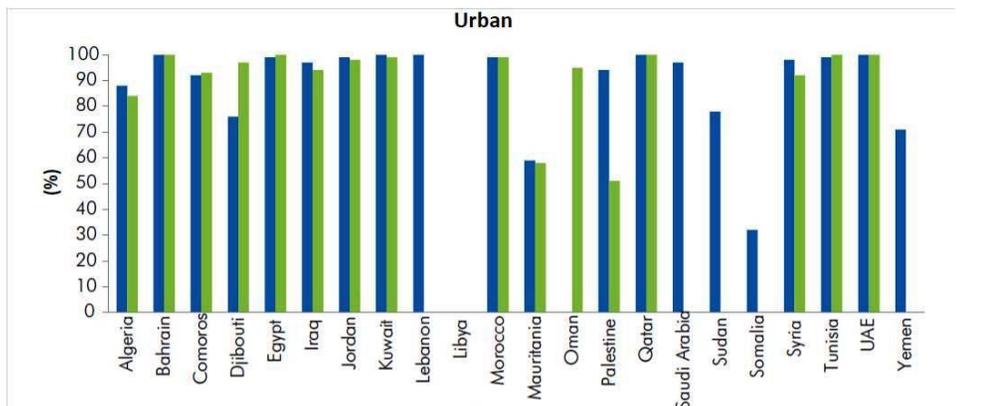
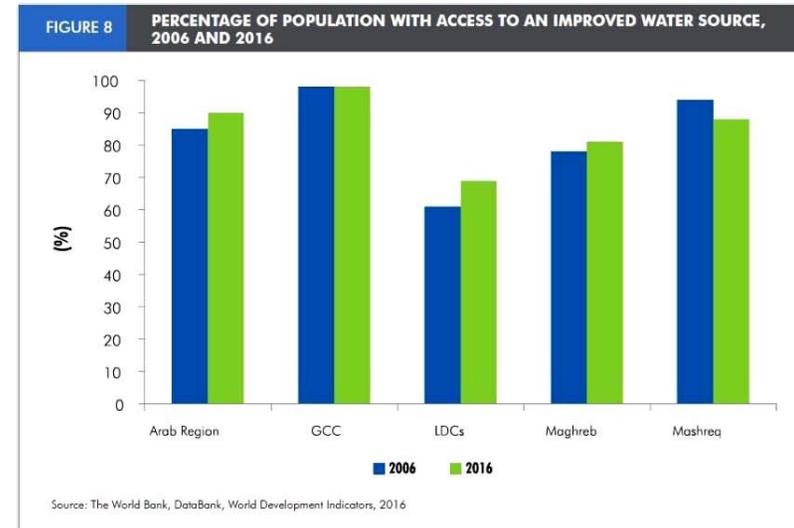
- Continuous reduction in per capita freshwater availability (990 m³/yr in 2006 to 800 m³/yr in 2016); 18 countries below water poverty line; 13 below absolute water poverty line)
- Intensification of drought cycles in recent years (e.g., Morocco, Syria, Somalia)
- Continuation of lack of agreements and conventions on equitable sharing of water resources (>60% inflow from outside the region)
- Continuation of Israeli occupation and control of water in Palestine, Syria and Lebanon



Source: Mohtar et al., 2017

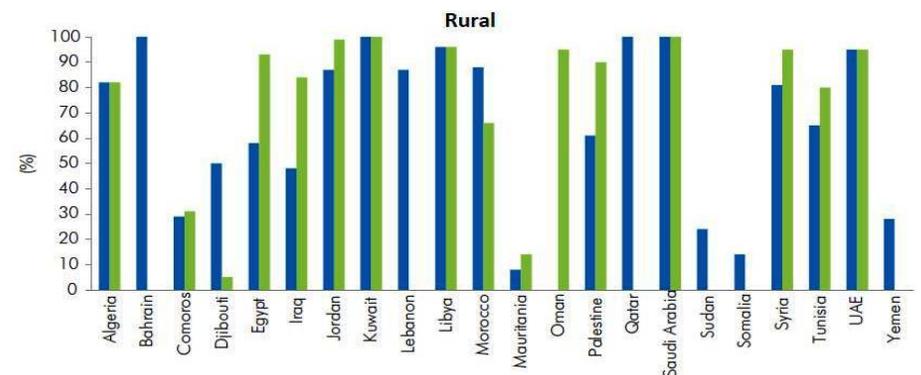
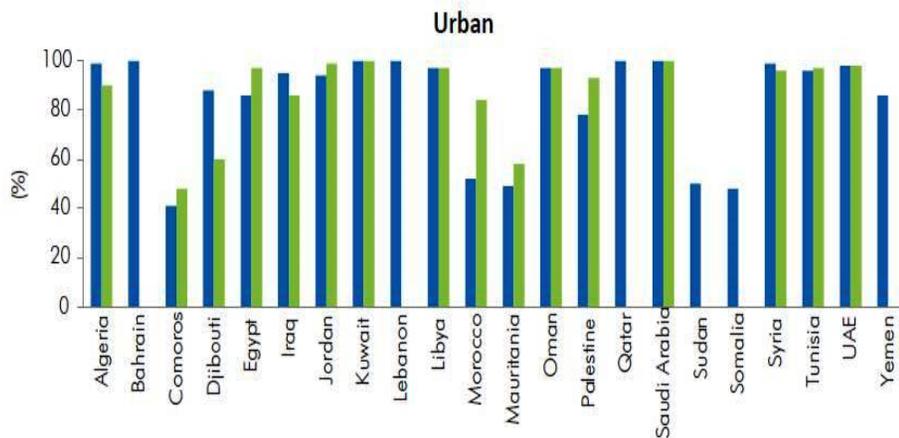
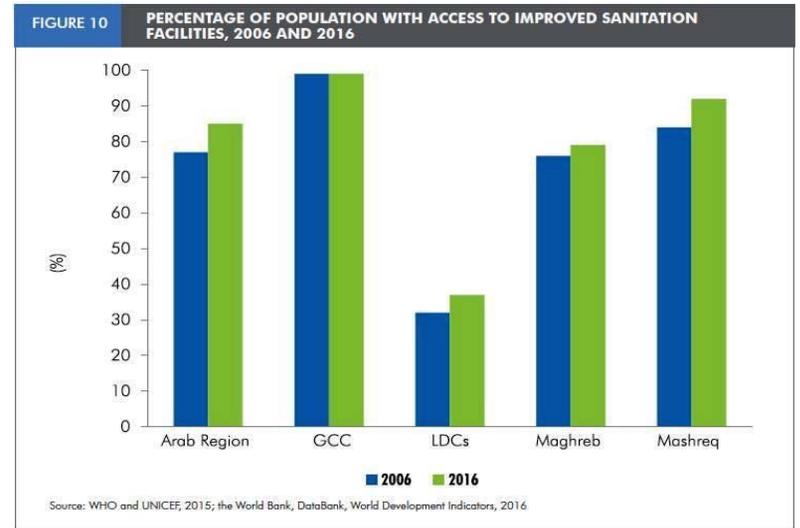
FROM MDGs TO SDGs (Drinking Water)

- ❑ Overall Arab population with access to improved sanitation increased reaching 90% (global average 91%)
- ❑ Deteriorated in Mashreq due to military occupation, civil conflicts, and insufficient investments
- ❑ Disparity between urban and rural continues to be considerably large (especially in LDC)



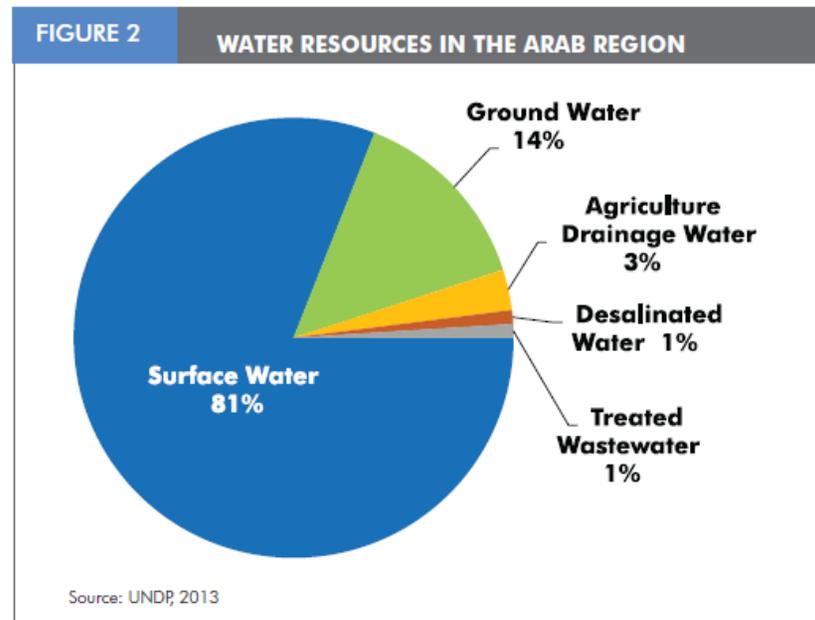
FROM MDGs TO SDGs (Sanitation)

- Overall Arab population with access to improved sanitation increased reaching 85% (global average 67.5%)
- Disparity between urban and rural continues to be considerably large (especially in LDC)



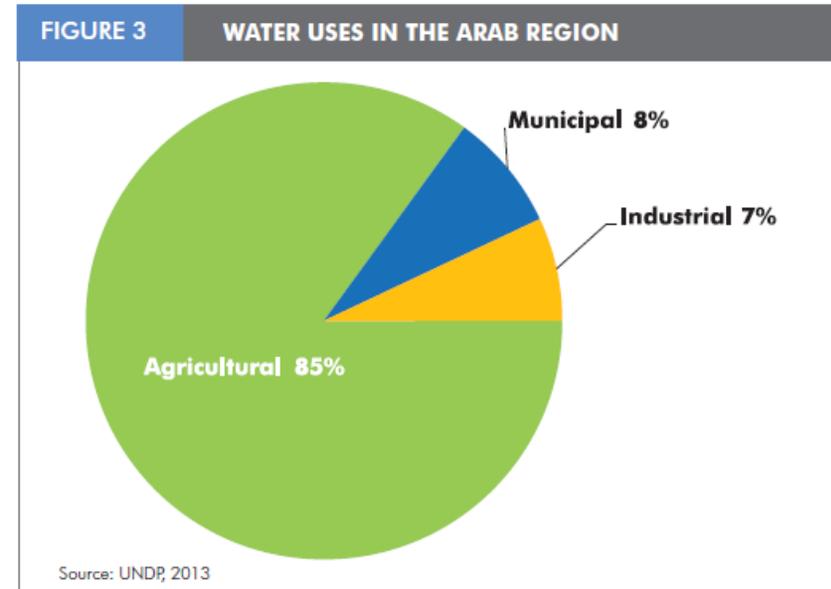
Water Resources Trends

- ❑ Arab countries continue to draw heavily on their water resources to meet their rising demands
- ❑ All renewable groundwater resources in the region are over-exploited (water level decline and quality deterioration)
- ❑ Non-renewable groundwater experiencing fast depletion and many unplanned utilization
- ❑ Desalination continues to emerge as a major water source in the region, however, desalination technology remains imported, capital- and energy-intensive, with limited added value to Arab economies
- ❑ Treated wastewater reuse has been uneven and generally slow across the region, despite scarcity conditions and relatively large volumes generated, representing major lost opportunities



Water Uses Trends

- ❑ Sectoral water competition trend: Shifting water use from agriculture sector towards municipal and industrial sectors
- ❑ Municipal water consumption increased by 50% in 10 years; driving forces
 - ❑ Rapid population and urbanization
 - ❑ Consumption pattern Changes
 - ❑ Supply network losses
- ❑ Agricultural water use increased by 30% in 10 years; yet, agricultural performance and food production failed to advance in many countries, consumption is exaggerated by (half of irrigation water wasted)
 - ❑ predominance of traditional irrigation methods
 - ❑ unrestricted surface water and groundwater abstraction
 - ❑ absence of water tariff for water use in agriculture



Major Developments and Initiatives

❑ National Level

- ❑ Demand management and strong restrictions on groundwater abstraction
- ❑ Full utilization of treated wastewater in the agricultural sector
- ❑ Reduction of physical losses in the distribution network
- ❑ Institutional reforms (coordination of water sub-sectors and with other sectors)
- ❑ Pricing policies reforms (municipal, agricultural, industrial, wastewater)

❑ Regional Level

- ❑ Establishment of the Arab Ministerial Water Council (AMWC) in LAS (2008) leading to stronger technical and political coordination
- ❑ Development of Arab Water Security Strategy/Implementation plan (2010-2030)
- ❑ Development of GCC Unified Water Strategy/Implementation Plan (2016-2035)
- ❑ RICCAR (ESCWA, SIDA, BMZ, FAO, UNEP, WMO, ACSAD, ISDR, UNESCO, SMHI, GIZ,...): better understanding of the impacts of climate change on water resources (vulnerability and adaptation)

Conclusion and Recommendations

- ❑ Universal acceptance in the region of the cost-effectiveness of efficiency and demand management (as opposed to traditional supply-side measures) in enhancing water sustainability
- ❑ Pricing policies reforms are needed in many sectors; low water tariffs and general non-targeted subsidies are the root cause of inefficiency and overuse and are benefitting the rich more than the poor
- ❑ It is imperative to focus efforts on improving efficiency in agriculture where major savings can be achieved (85% of water use with large losses)
- ❑ urgent need for changing the mindset, attitude and practices in Arab societies towards conservation of natural resources in general and water in particular
- ❑ Strengthening of water governance in the region to achieve effective management (stakeholders engagement, legislation and compliance, institutional strengthening and coordination, individual capacity development, monitoring, ...)

- ❑ Mainstreaming climate change policies and measures into national water policies and strategies
- ❑ Implementation of the Arab Water Security Strategy and the GCC Unified Water Strategy will contribute directly to the development goals of the Arab countries and will enhance the overall level of water security
- ❑ Failure to achieve the set targets of these strategies would result in the deterioration of the water sector and increase its associated financial, economic and environmental costs and risks



Thank you

