

# Clean drinking water and sanitation: the experience in the Arab region

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The Arab region, for the most part, is characterized by dry, harsh climatic conditions and associated scarce water resources. The average annual rainfall is less than 250 mm in 70 per cent of the region and less than 100 mm in the Gulf Cooperation Council (GCC) countries. The available water resources are estimated at 265 [km.sup.3], with 225 [km.sup.3] of this in the form of surface water and the remaining 40 [km.sup.3] groundwater. Of these available resources, over 65 per cent originate outside the region--flowing into it via the Euphrates, Tigris and Nile rivers--a situation which gives rise to potential conflicts over shared water resources. Seven countries of the region rank among the ten most water-scarce in the world.

The annual per capita share of renewable resources is less than 500 [m.sup.3] in 70 per cent of the region. The average per capita share is 800 [m.sup.3], which varies from 2,181 [m.sup.3] in the Mashriq subregion, down to 374 [m.sup.3] in the GCC subregion. Of this available water, the agriculture sector consumes about 88 per cent, while domestic and industrial consumptions are 7 per cent and 5 per cent, respectively.

The challenge of providing clean drinking water to the population of the region is not just one of supply, but also of quality, with water pollution posing a major threat, in many cases rendering the already scarce water resources unusable. Chronic water scarcity is therefore a major challenge facing the Arab region. This has forced many countries--in their efforts to provide their populations, as well as the agricultural and industrial sectors, with water--to resort to alternative water resources, including the exploitation of fossil groundwater, waste-water reuse and the desalination of seawater--options that involve high cost and adverse impacts on environment and water-resource sustainability.

Water pricing in the region remains at very low rates, which fail to reflect the real economic value of the scarce water resources, and has led to wasteful practices and no real incentives to conserve water. In the majority of the Arab countries, financing for desalination plants has mainly been provided from State budgets and partly from foreign loans. However, with the changing strategies for development during the last two decades and reduced government funding, dependence on external funds has increased, with the Arab States recently turning to the private sector for additional funding.

Access to clean drinking water. High population growth (2.6% a year) and rapid urbanization, coupled with scarce public funds, present major challenges in meeting the increasing domestic water demand in the region. Available information reveals that about 50 million people lack access to safe drinking water, with the supply of water for domestic use lacking particularly in rural areas and in some major cities in the region.

In 2004, rural populations with access to improved drinking water sources stood at 13 percentage points less than those in urban areas. In Morocco, only 56 per cent of the rural population had access to safe drinking water, compared to an impressive 99 per cent of the urban population. The figures for the Arab least developed countries (LDCs) indicate that just under half of the rural population does not have access to an improved water source.

But it is not just access in rural areas that is a challenge for the region. Residents of some major urban areas, for example Amman, Damascus and Sana'a, face regular water shortages and even cuts during the drier summer months. In Yemen, according to the World Bank, annual water abstraction is running at about one and a half times the rate of recharge, with even higher rates in the Sana'a Basin. Rapid population growth in the city (3.6% a year) is outpacing new water supply schemes. Although Sana'a is facing severe water shortage, water resources have been increasingly diverted to grow Qat, a narcotic plant that consumes about 40 per cent of groundwater extraction for agriculture in the basin and more than the water consumption of the city itself. This demonstrates a competing demand overshadowing domestic supply.

In terms of progress towards the achievement of the Millennium Development Goal on ensuring environmental sustainability (MDG 7)--especially target 10, which aims to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation--published literature forecasts indicate that to achieve this in the Arab region will require providing drinking water to 83 million people by 2015. Between 1990 and 2004, access to clean drinking water in the Arab region as a whole remained constant at 82 per cent of the population, but was seen to drop from 68 to 63 per cent in the Arab LDCs. Within the GCC, Mashreq and Maghreb subregions, however, it increased to reach 100 per cent, 94 per cent and 86 per cent, respectively. The lack of overall improvement in the region suggests that significant efforts are still required to halve the proportion of people without sustainable access to safe drinking water by 2015, with a focus on the Arab LDCs, where access has actually declined rather than improved. Interventions will be required at all levels to mainstream water in national development strategies and close the urban-rural divide.

Access to proper sanitation. Within the Arab region, it is estimated that 80 million people lack access to proper sanitation. Access has improved during the last 15 years; however, in 2004, the proportion of the population in the Arab LDCs using improved sanitation facilities was still as low as 42 per cent. This figure was higher for the other subregions, with 99 per cent of the population in the GCC countries and 87 per cent and 84 per cent for the Maghreb and Mashreq, respectively. Without urgent intervention, an estimated 124 million people in the region will be without access to basic sanitation in 2015, half of them living in the Arab LDCs.

Once more, there are major disparities in access to sanitation facilities when comparing urban and rural areas. The proportion of the rural population with access to improved sanitation facilities in the region as a whole has increased from 54 to 59 per cent, compared to a decline in the urban areas, from 87 to 85 per cent, which can mostly be attributed to rural-urban migration and the growing urban population. In the Arab LDCs, only 26 per cent of the rural population has access to sanitation facilities, compared to 60 per cent in the urban areas, again emphasizing the importance of intervention as a priority in the LDCs in establishing the appropriate infrastructures to provide the remaining 74 per cent of the population with access to adequate sanitation. Meeting target 10 of MDG 7 in the region remains a serious challenge for achieving sustainable development and one that has an estimated price tag of \$23 billion. One of the key impacts of such lack of access is the significant health risks associated with poor standards of water and sanitation, as well as water resources pollution.

One mechanism to resolve the problems associated with access to water and sanitation, particularly in terms of supply, is to develop and implement appropriate integrated water-resource management processes, strategies and policies. This would include addressing the

high level of demand and irrational use of the already scarce water resources through the development of water-demand strategies relevant for the region. These efforts should focus on creating and enhancing an enabling environment for policies, regulations and institutional frameworks for implementing integrated water resources management (IWRM) principles. Also important is building national and regional capacities for water and sanitation and water-demand management in the context of IWRM, as well as improving technology selection and investment for developing water resources. Clear information needs to be provided to decision-makers on how to achieve MDG 7, target 10, with a particular emphasis on the LDCs in the Arab region.

## References

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