

Facts and Figures

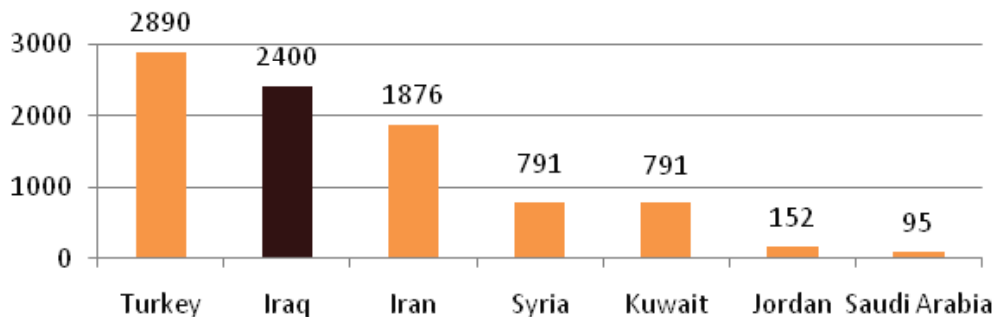
Three decades of war, armed conflict, sanctions and neglect of infrastructure – combined with limited environmental awareness – have undermined Iraq's water resource management system. Improvements in management of the country's water resources will have a profound effect on Iraq's efforts to reduce poverty and hunger (MDG 1), reduce child mortality (MDG 4) and ensure environmental sustainability (MDG 7).

Iraq faces difficulties in meeting the target of 91% of households using a safe drinking water supply by 2015.¹ Currently 20% of households in Iraq use an unsafe drinking water source² and a further 16% report that they have daily problems with supply.³ The situation is much worse in rural areas, where only 43% have access to safe drinking water,⁴ and water for agriculture is often scarce and of poor quality. This has caused many to leave their rural communities in search of water and livelihoods, increasing urbanization.

Quantity

Current estimates of water available for Iraq are 2,400 m³ per person per year. With the

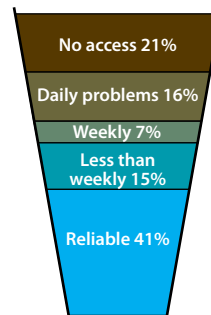
Water availability (m³ per capita)



Source: Ministry of Water Resources Iraq 2010

exception of Turkey, Iraqis have more water available to them than their neighbours.⁵ Reservoirs, lakes and rivers are diminished to critical levels and water levels in the Tigris and Euphrates Rivers, Iraq's primary sources of surface water have fallen to less than a third of normal capacity. More people are relying on groundwater; although these are showing signs of decline.⁶ Management of aquifers and their recharge have been minimal, impacting the level and quality of groundwater supplies. Iraq relies on precipitation falling outside its borders for more than half of its water, making it vulnerable to climate change and storage projects in Turkey, Syria and Iran.⁷

Access to safe drinking water sources



Source: UNICEF/COSIT/KRSO/MOH Multiple Indicator Cluster Survey 2006

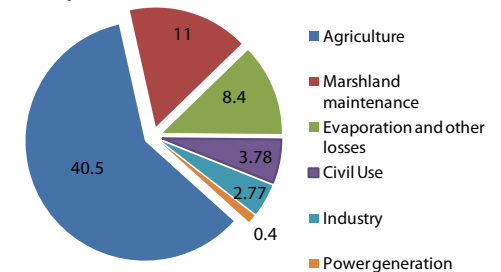
Quality

Quality of water used for drinking and agriculture is poor, violating Iraq National Standards and WHO guidelines.⁸ Leaking sewage pipes and septic tanks contaminate the drinking water network with wastewater.⁹ 80% of households do not treat water before drinking.¹⁰ Furthermore, just 18% of wastewater is treated, with the rest released directly into waterways.¹¹ Much of the groundwater along the developed central plain is unusable due to high salinity and pollution. Despite this, 8% of the rural population use saline shallow village wells as a main drinking source.¹²

Lack of safe household sanitation exposes the population to disease, with young children particularly at risk. Poor sanitation can cause diarrhea and causes outbreaks of cholera to spread rapidly, compounding other health problems experienced by the young. In 2010,

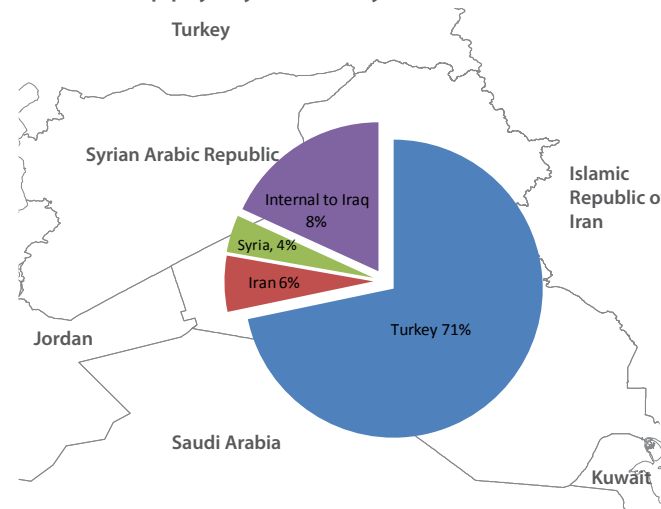
there were almost 884,000 diarrhoea cases, a result of polluted drinking water and poor hygiene practices, 57% of which were among children aged < 5 years old.¹³ 41 of every 1,000 children in Iraq die before reaching their fifth birthday.¹⁴ Improved sanitation systems are an important part of Iraq's efforts to reduce this figure to 21 by 2015 (MDG 4).

2015 forecast for water requirements (billion m³)



Total required: 66.85 billion cubic meters
Source: Ministry of Water Resources Iraq 2010

Water Supply by Country



Source: Ministry of Water Resources Iraq 2010

Competition over Resources

Agriculture accounts for the vast majority of water consumption in Iraq, withdrawing 92% of total freshwater for irrigation and food production.¹⁵

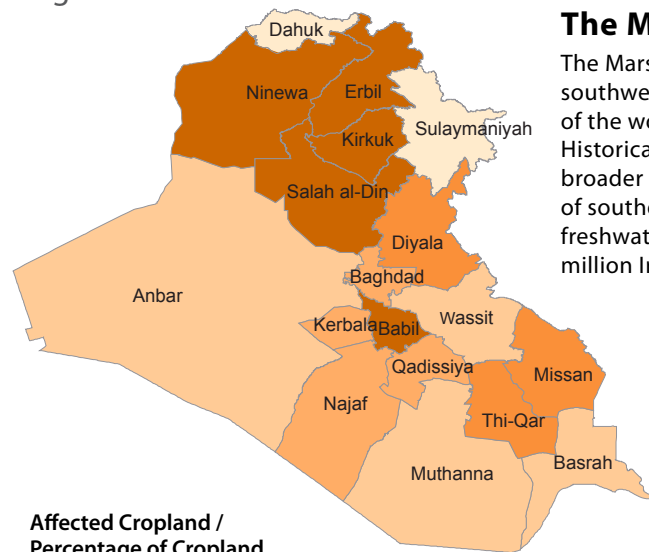
Demographic growth will impact water supply. Iraq's population tripled to 30 million between 1970 and 2007 putting further strains on access to water resources. Planned storage and agricultural development upstream will lead to an

average annual downstream shortage of 18 km³ per year for irrigated agriculture and 26 km³/year for the Iraqi Marshlands between 2007 and 2040. The Tigris and Euphrates Rivers might be depleted by 2040.¹⁶

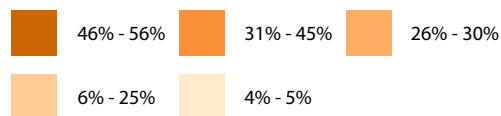
Climate change and drought

Climate change will continue to render Iraq more vulnerable to natural disasters and environmental challenges.

Drought and Impact on Agriculture



Affected Cropland / Percentage of Cropland



Source: FAO, IAU (2009)

While the drought has receded since 2009, Iraq is still attempting to recover from its effects.¹⁷ Between 2007-2009, almost 40% of cropland throughout Iraq, experienced reduced crop coverage¹⁸ and livestock was decimated. The situation caused 20,000 rural inhabitants to move in search of more sustainable access to drinking water and livelihoods.¹⁹ Similar occurrences in the future will further increase the pressure on the urban water systems and economy.

The Marshlands

The Marshlands are the largest wetlands in southwest Asia and are recognized as one of the world's most exceptional ecosystems. Historically, the Marshes contributed to the broader human welfare of the population of southern Iraq through the provision of freshwater and livelihood for almost half a million Iraqis.

The draining of the wetlands in the 1980s had a very negative impact on people living there. By 2002, the Marshlands had been reduced to only 10% of their original size.²⁰

UN and Government Response

One of the principal challenges in water management is the coordination of diverging ministerial and regional interests within Iraq. Awareness of the degradation of Iraq's natural resources and ecosystems is high among Iraqi decision makers, but concrete

"The Marshlands had been reduced to 10% of their original size."

actions at the local and national levels remain uncoordinated and limited.

The UN is supporting the Government of Iraq in an integrated manner to reform water resource management. Through the Public Sector Modernization Programme

UN HABITAT and UNICEF will support the Government of Iraq efforts at modernizing and reforming its public sector with a focus on water and sanitation. This includes support to the development of a national water and sanitation policy.

Having provided assistance to 1 million children and over 200 schools since 2009, UNICEF is continuing to support the construction and management of a wide variety of water access, treatment and quality control projects, with a particular focus on deprived communities.

UNESCO is leading the UNCT and UNAMI's efforts to draw up an integrated strategy for supporting the restoration of the Marshlands. UNESCO has also launched a scientific survey of Iraq's groundwater to improve government capacity to address water scarcity and improve agricultural planning.

FAO is supporting the Ministry of Water Resources and the Governorate of Erbil in the rehabilitation infrastructure to enhance water supply and drainage across eight governorates. WHO and UNICEF are working with the Kurdistan Regional Government in Sulaymaniyah to enhance the quantity and quality of water delivered to underserved residential areas.

Endnotes

1. UNCT, Government of Iraq, The Millennium Development Goals in Iraq (2010)
2. UNICEF/COSIT/KRSO MICS 2006
3. UNICEF/COSIT/KRSO MICS 2006
4. UNICEF/COSIT/KRSO MICS 2006
5. FAO 2010
6. Government of Iraq Ministry of Water Resources
7. FAO AQUASTAT 2009
8. Earl Goodyear, The State of Disaster Risk Reduction in Iraq (2009)
9. UN Country Team in Iraq, Common Country Assessment (2009)
10. World Bank/COSIT/KRSO IHSES 2007
11. UN Country Team in Iraq, Common Country Assessment (2009)
12. World Bank/COSIT/KRSO IHSES 2007
13. WHO, Weekly Situation Report on Influenza like Illness, Diarrhoea and Cholera in Iraq, week 52, 2010
14. UNICEF/COSIT/KRSO MICS 2006
15. Water Resources Institute. Inefficient use of water in 2005 resulted in farmers achieving only 20% of potential production in rain-fed crops. United Nations World Water Development Report 3 2009
16. Dr. Jon Martin Trondalen, "An Independent Technical Study: The Euphrates River and the Tigris River Water Resources Management," in Water and Peace for the People –Possible Solutions to Water Disputes in The Middle East (Geneva: CESAR Foundation) 2006
17. Disaster Risk Reduction Strategies and Risk Management Practices: Critical Elements for Adaptation to Climate Change; The Informal Taskforce on Climate Change of the Inter-Agency Standing Committee and The International Strategy for Disaster Reduction (2008)
18. FAO/IAU Drought Mapping Analysis 2009
19. IOM, Emergency Monitoring and Needs Assessments: Post-2006 Displacement in Iraq - 1 October Monthly Report (October 2009)
20. Canada-Iraq Marshlands Initiative, Managing for Change: The Present and Future State of the Marshes of Southern Iraq (2010)

