

Beyond Scarcity

Water Security in the Middle East and North Africa

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MENA Focus: Water Security and Water Integrity challenges in the MENA region

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Water security: an assessment

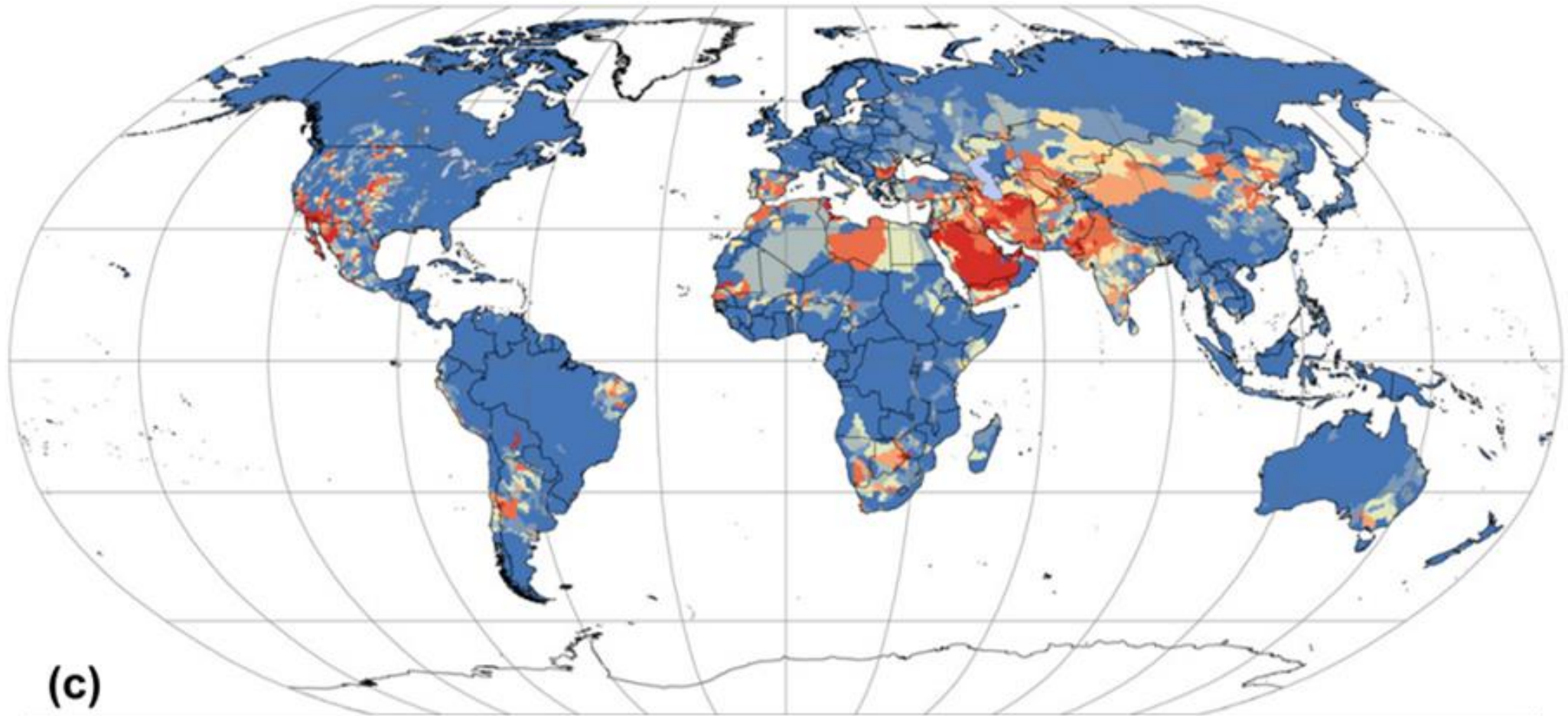
Water resources
are not managed
sustainably

Access is
improving, though
challenges remain

Water-related
risks are growing

UNSUSTAINABLE USE

Greatest depletion rates - especially of groundwater – in the world



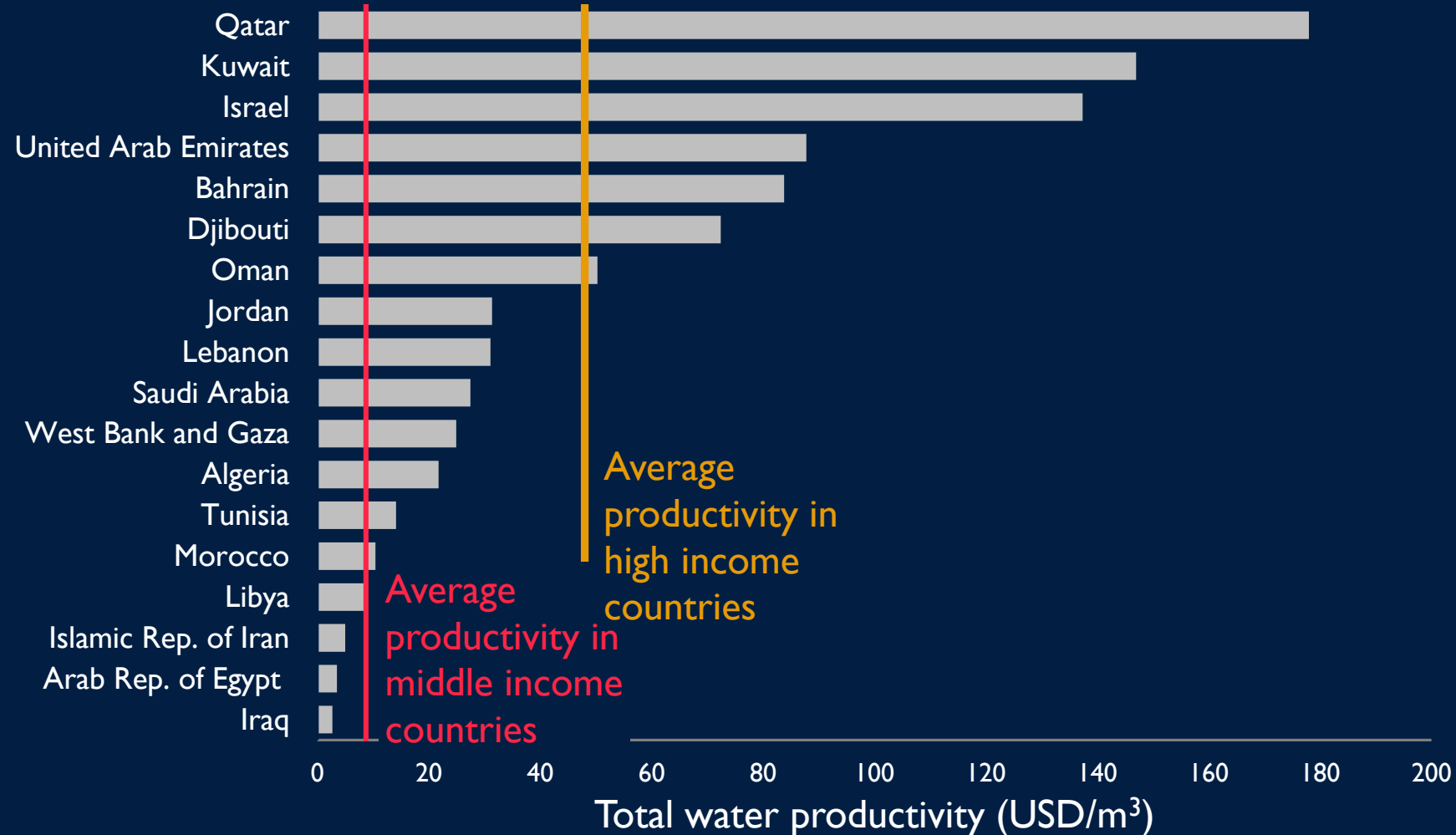
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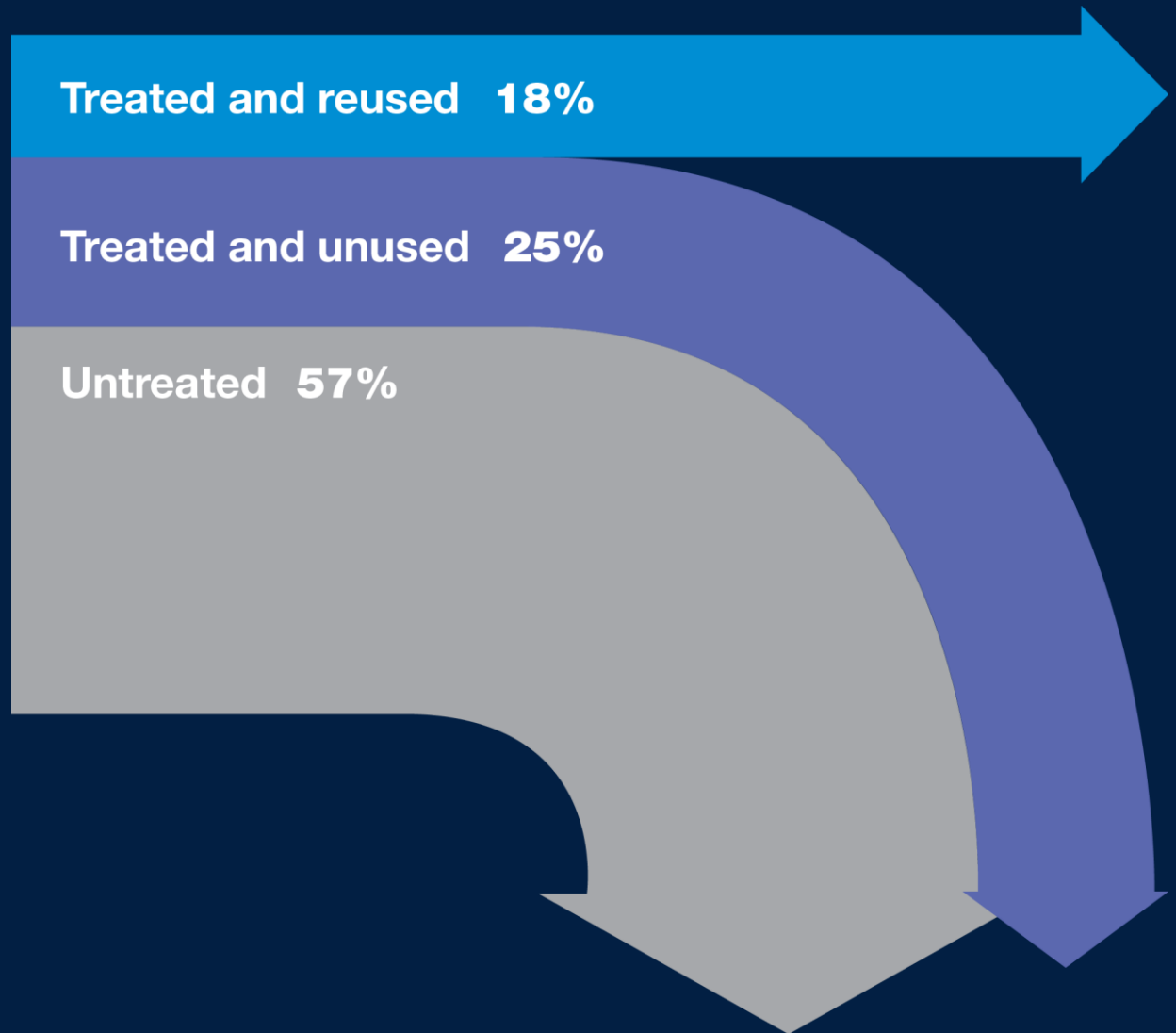
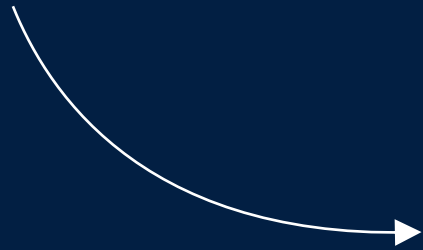
UNSUSTAINABLE USE

Some are not making the most of the scarce resource

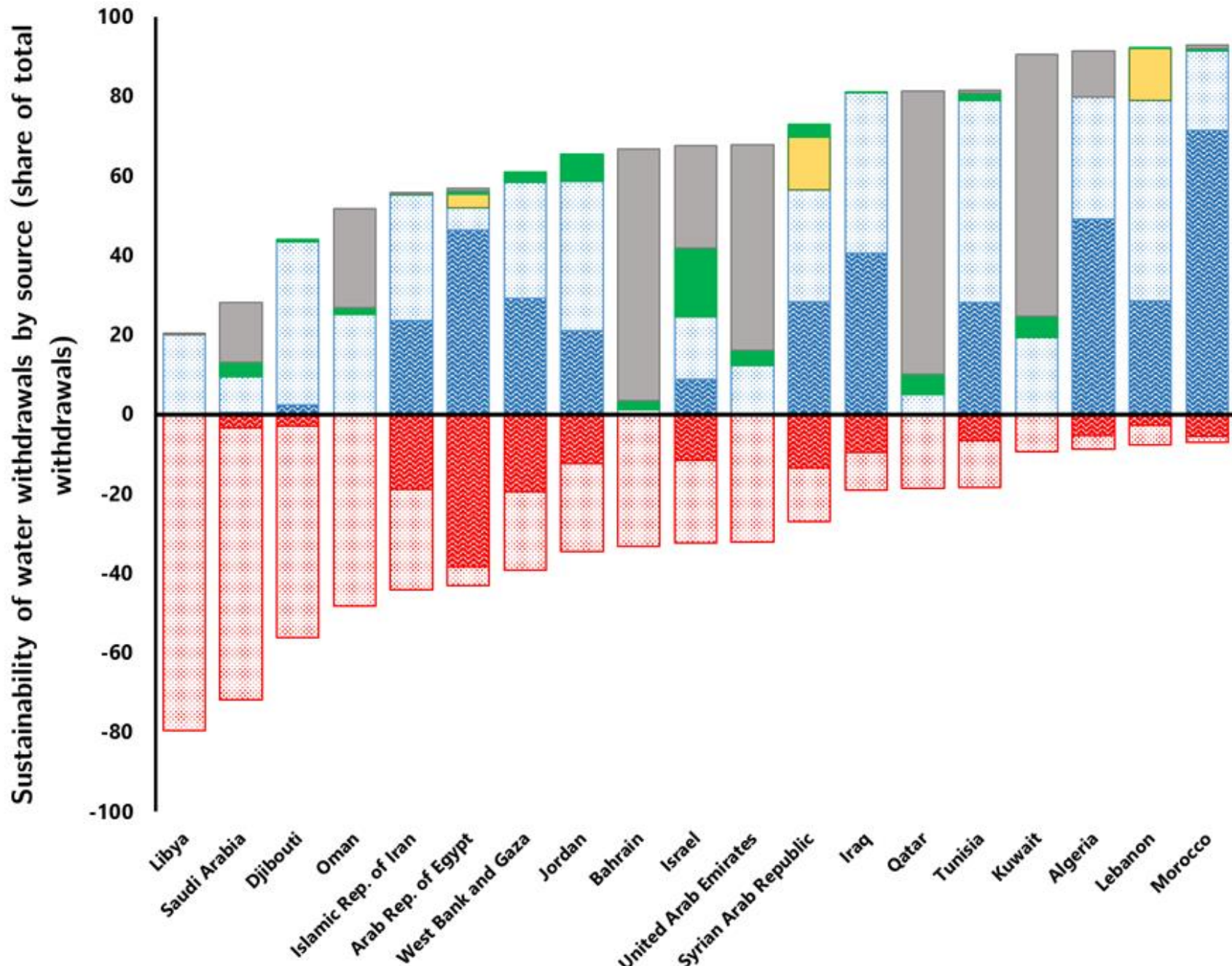
TOTAL WATER PRODUCTIVITY



Recycling water is a
massive opportunity



82% not recycled



Diversified water supply contributes to resilience and helps reduce depletion

Water security: an assessment

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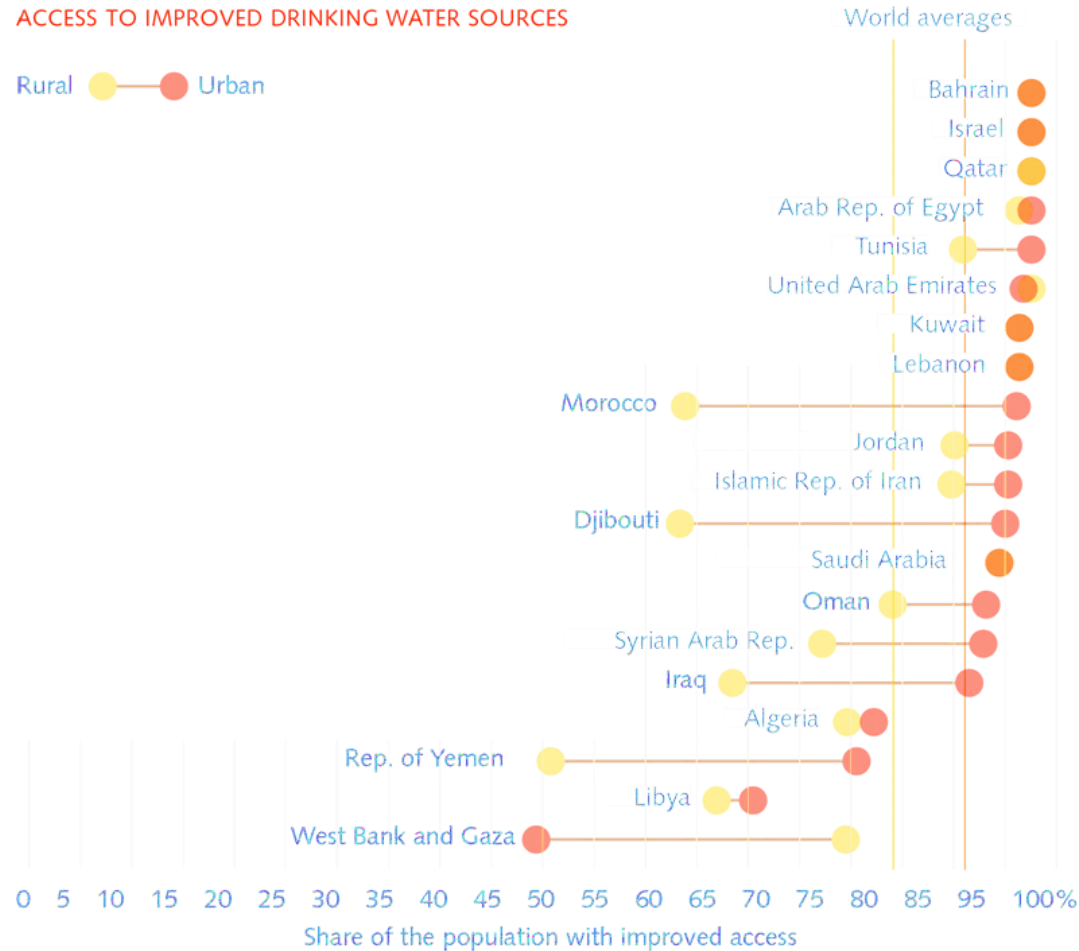
Water-related
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ACCESS TO WATER SERVICES IS IMPROVING

Large disparities remain

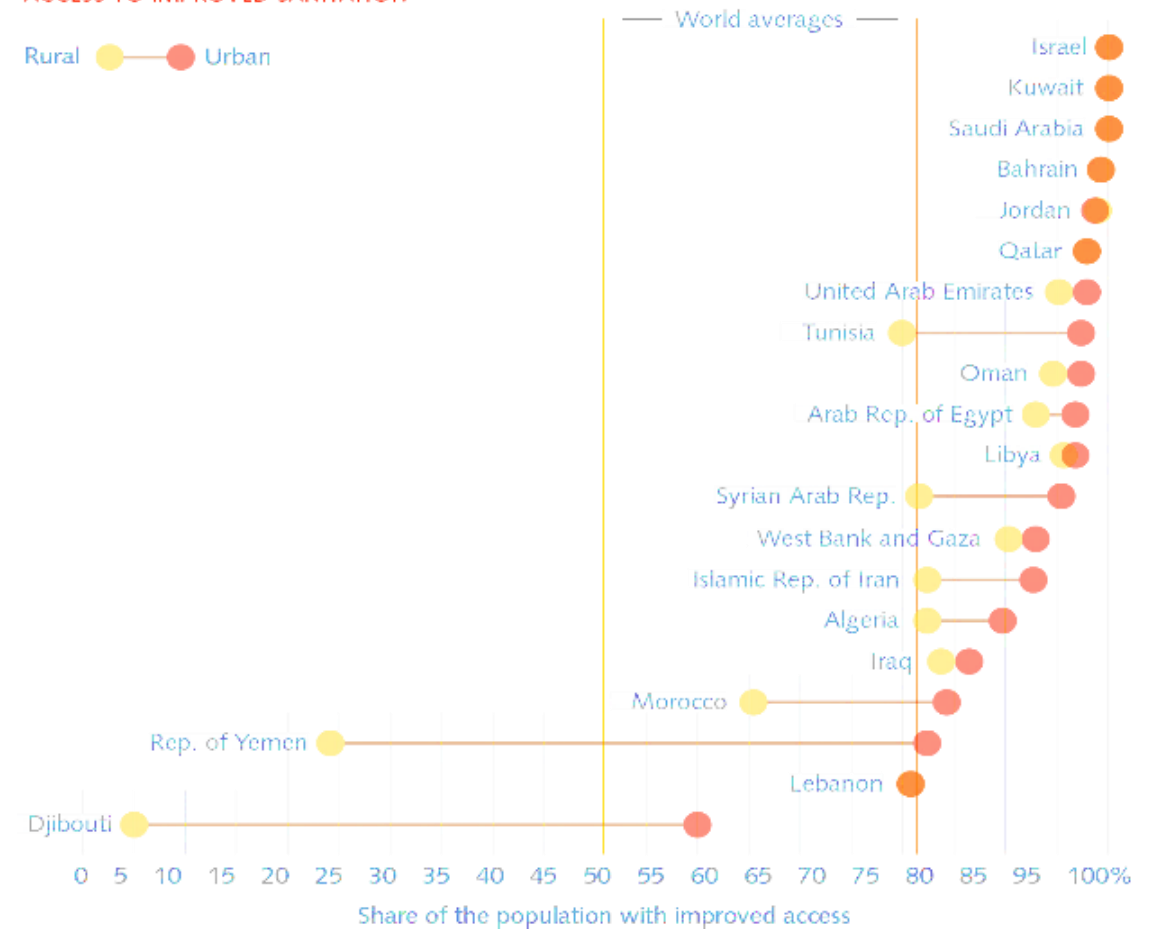
ACCESS TO IMPROVED DRINKING WATER SOURCES

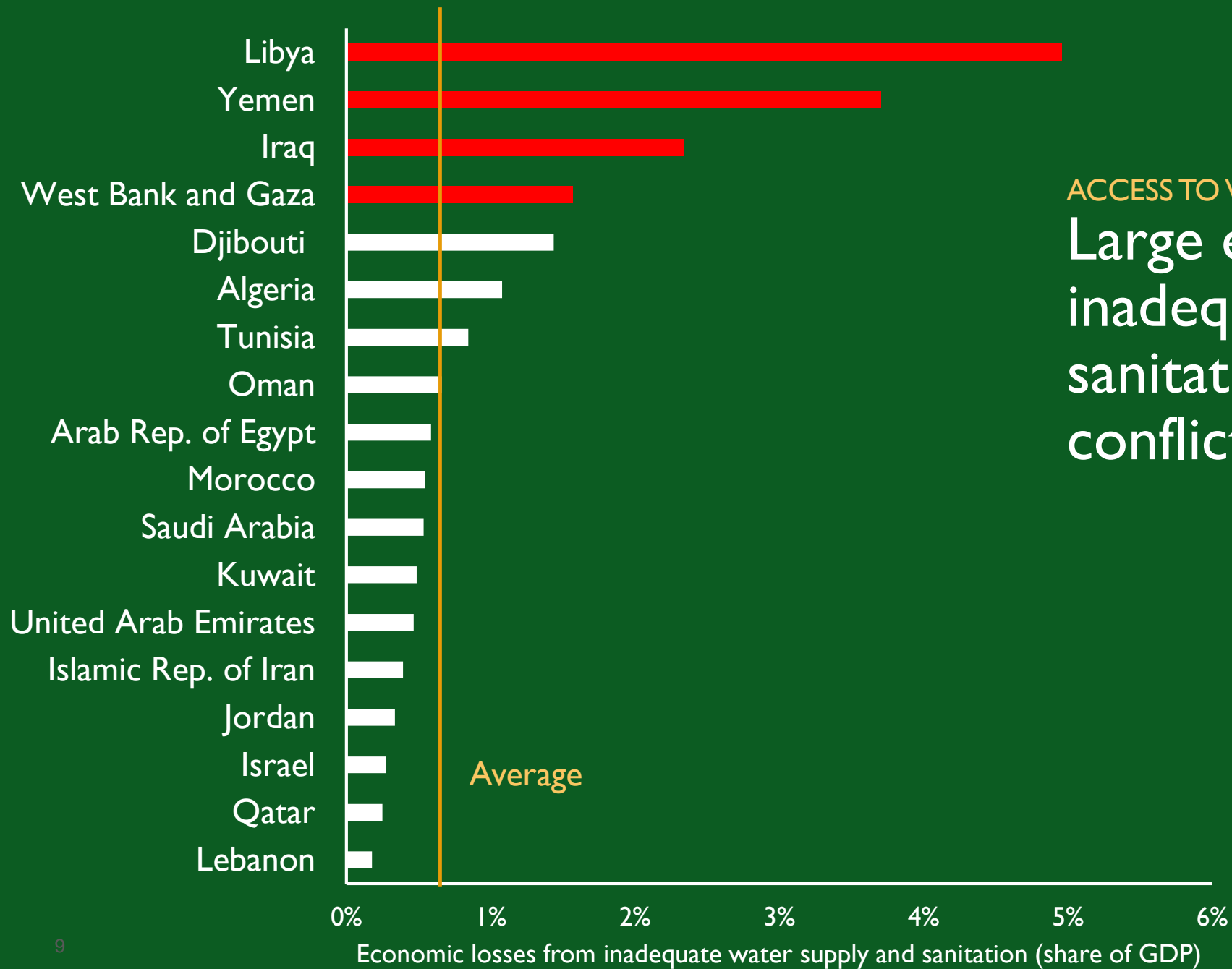
Rural ● Urban ●



ACCESS TO IMPROVED SANITATION

Rural ● Urban ●





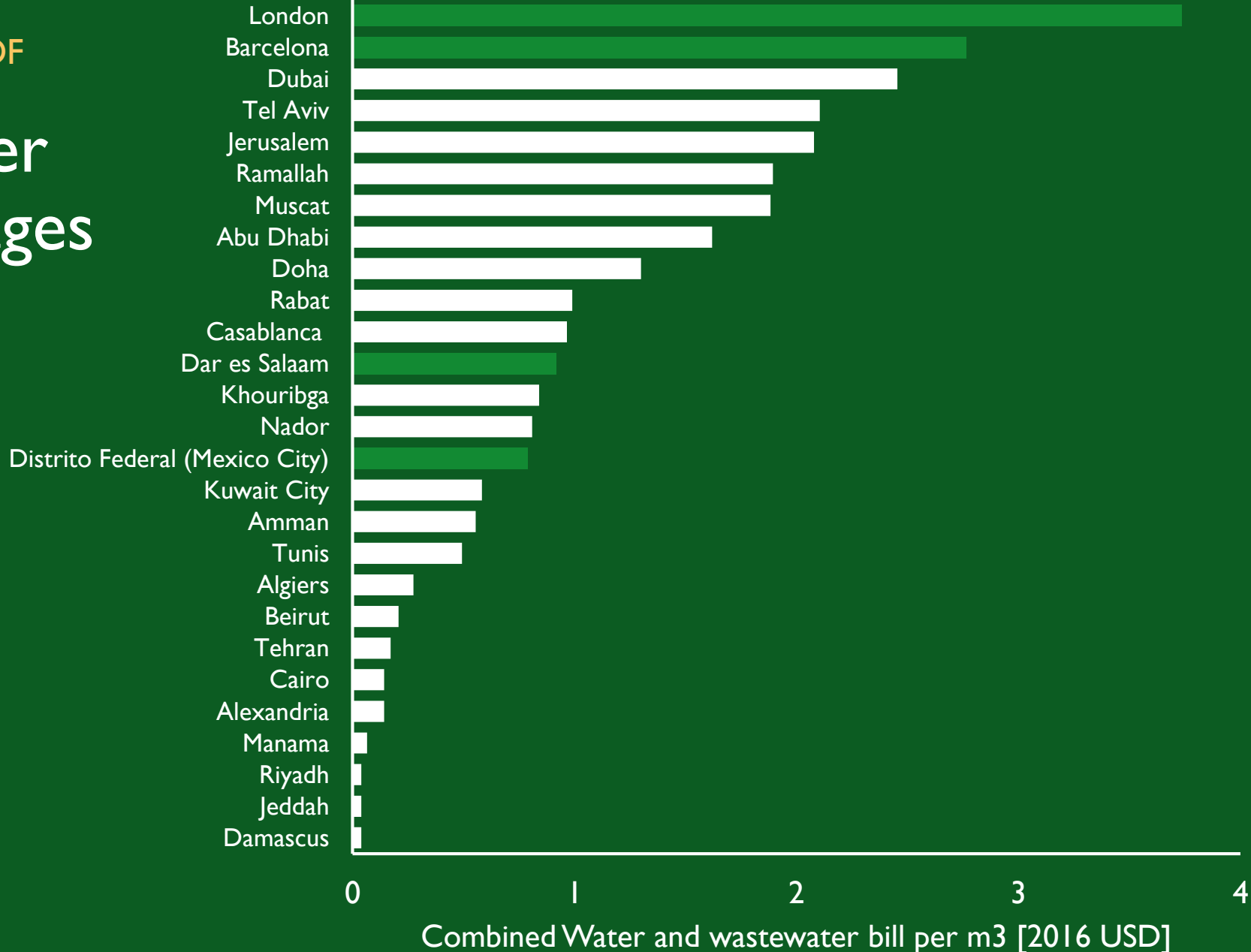
ACCESS TO WATER SERVICES IS UNEVEN

Large economic losses from inadequate water supply and sanitation – especially in conflict affected countries

COMBINED WATER AND WASTEWATER BILL

FINANCIAL SUSTAINABILITY OF WATER SERVICES

Service fees lower than global averages



Water security: an assessment

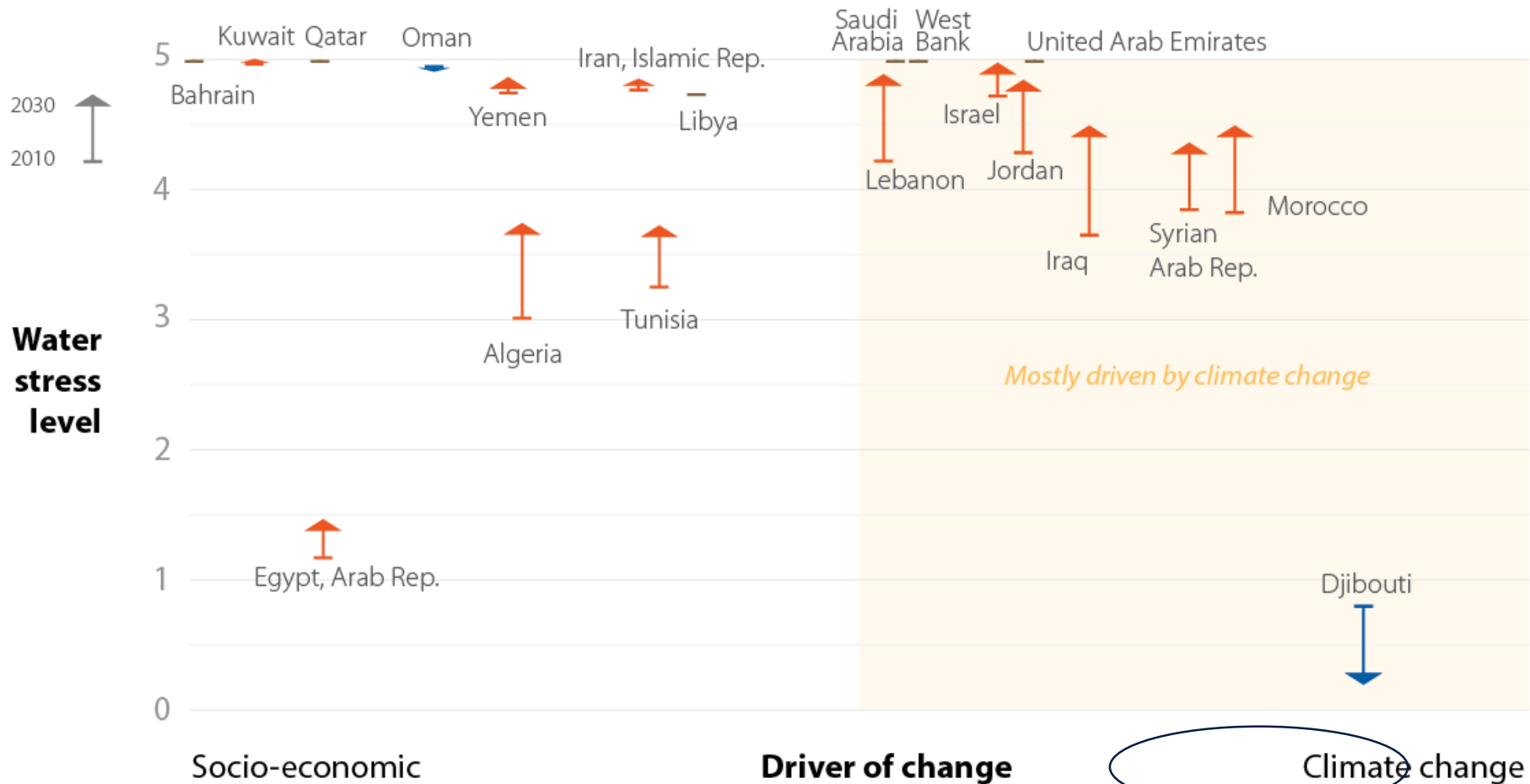
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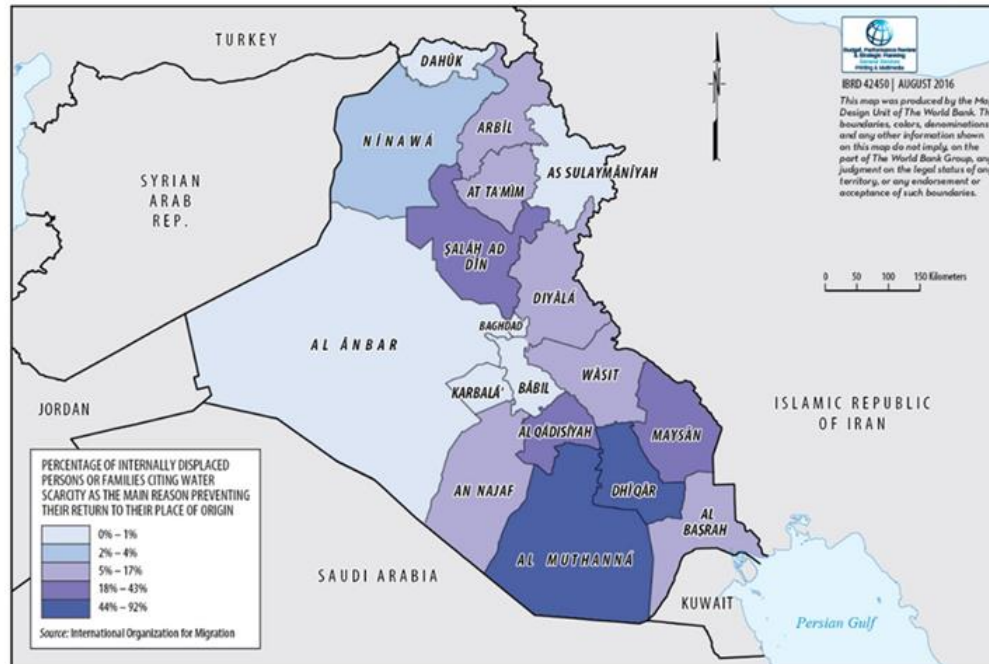
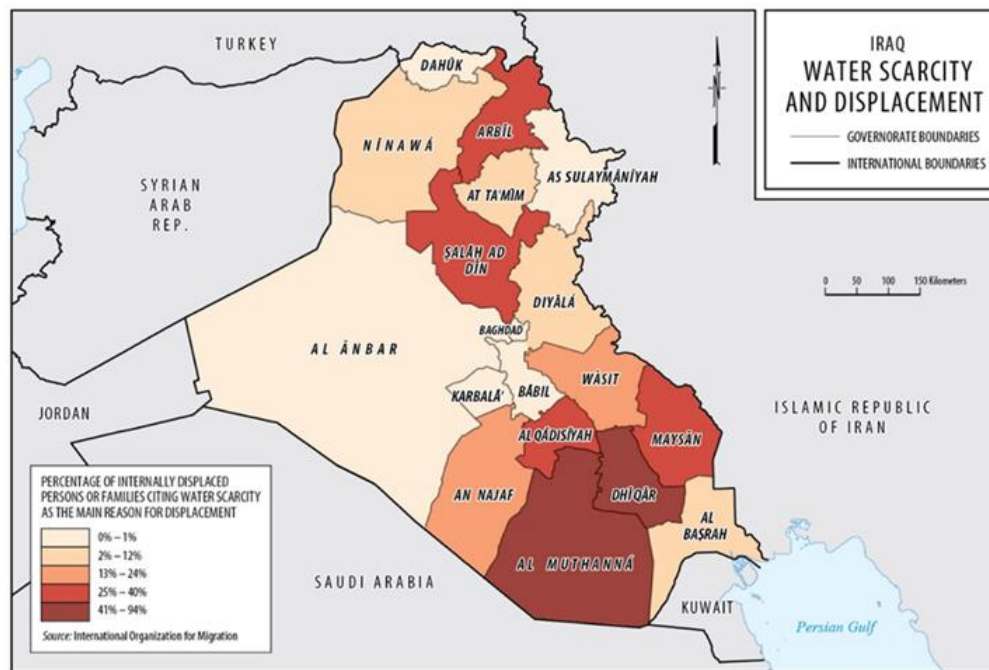
RISKS ARE GROWING

Climate change to be a primary driver of surface water stress increase to 2030 – especially in conflict and migration affected countries



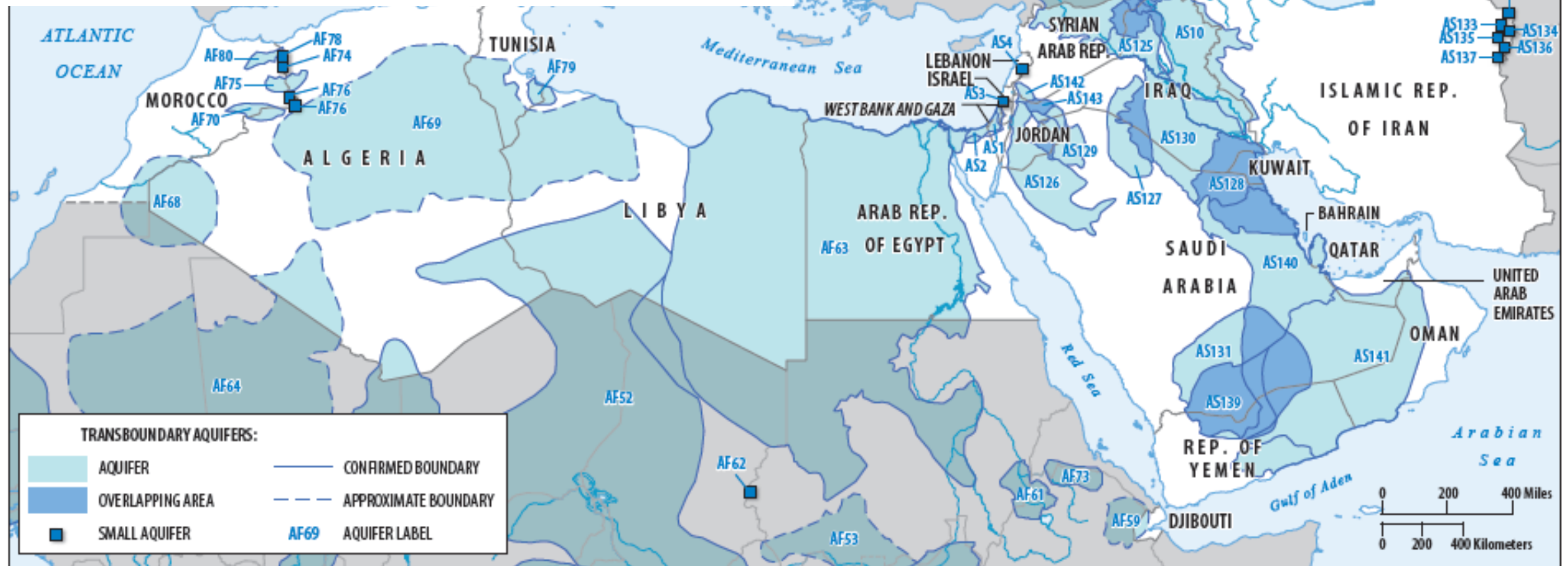
RISKS ARE GROWING

Failure to address water challenges driver of migration – for instance in Iraq



RISKS ARE GROWING

Essential to share transboundary waters cooperatively



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Source: IGRAC, *Transboundary Aquifers of the World*, 2015.

MIDDLE EAST AND NORTH AFRICA MAJOR TRANSBOUNDARY AQUIFERS

COUNTRY PROFILE

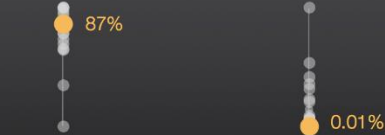
JORDAN

Impacts of water insecurity



Economic losses from inadequate water supply and sanitation (% GDP)

Economy



GDP exposure to water stress (% of GDP)



Expected annual property damage due to fluvial and coastal flooding (% of GDP)

People



Percent deaths of children under five due to diarrhoea



Population exposure to water stress



Total number of people affected by floods (1980-2016)

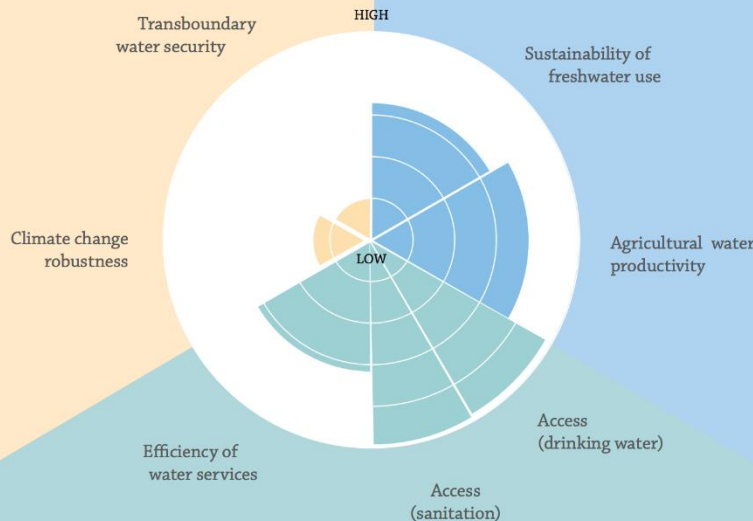
Environment



Water quality threat

RISK MANAGEMENT

Economic development and demographic growth linked to the recent influx of refugees have added further strain on the very limited water supply of the country. Given Jordan's high vulnerability to transboundary water risks and climate change, investments in adaptation and water sharing agreements are critical.



DELIVERY OF WATER SERVICES

Access statistics are high, however, reliability of services is low with most households in urban centres receiving water one day a week. Water sector reform is underway to improve service delivery and financial sustainability. Improved governance of water services will also contribute to support ongoing government efforts.

WATER RESOURCES MANAGEMENT

Jordan is the fourth most water scarce country in the world. The Government constructed the last small dams and the Disi-Amman system to mobilize additional water. Jordan is also exploring additional sources of supply such large-scale seawater desalination. Efforts should be made to optimize the use of existing resources by reducing physical and commercial losses.

MOROCCO

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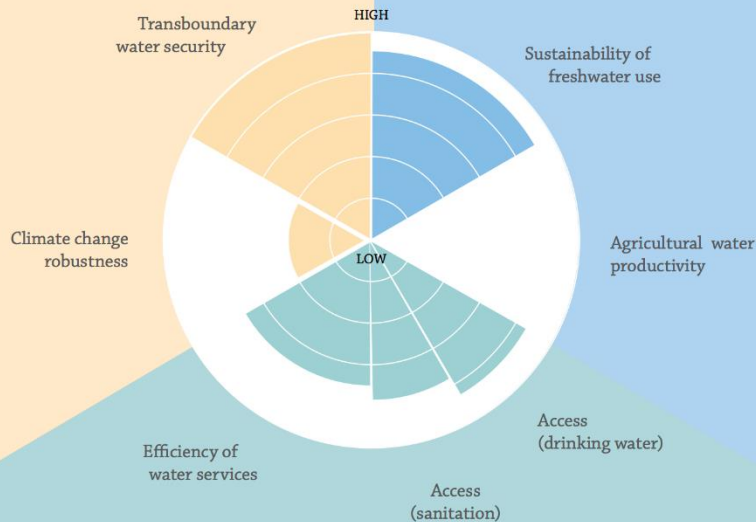
Environment



Water quality threat

RISK MANAGEMENT

The imbalance between demand and supply will be further accentuated by climate change, which is expected to result in a 10% to 35% decline in average annual precipitation by 2030. Climate change can also potentially alter the timing and amount of rainfall events and also snowpack melting in the Atlas mountains.



DELIVERY OF WATER SERVICES

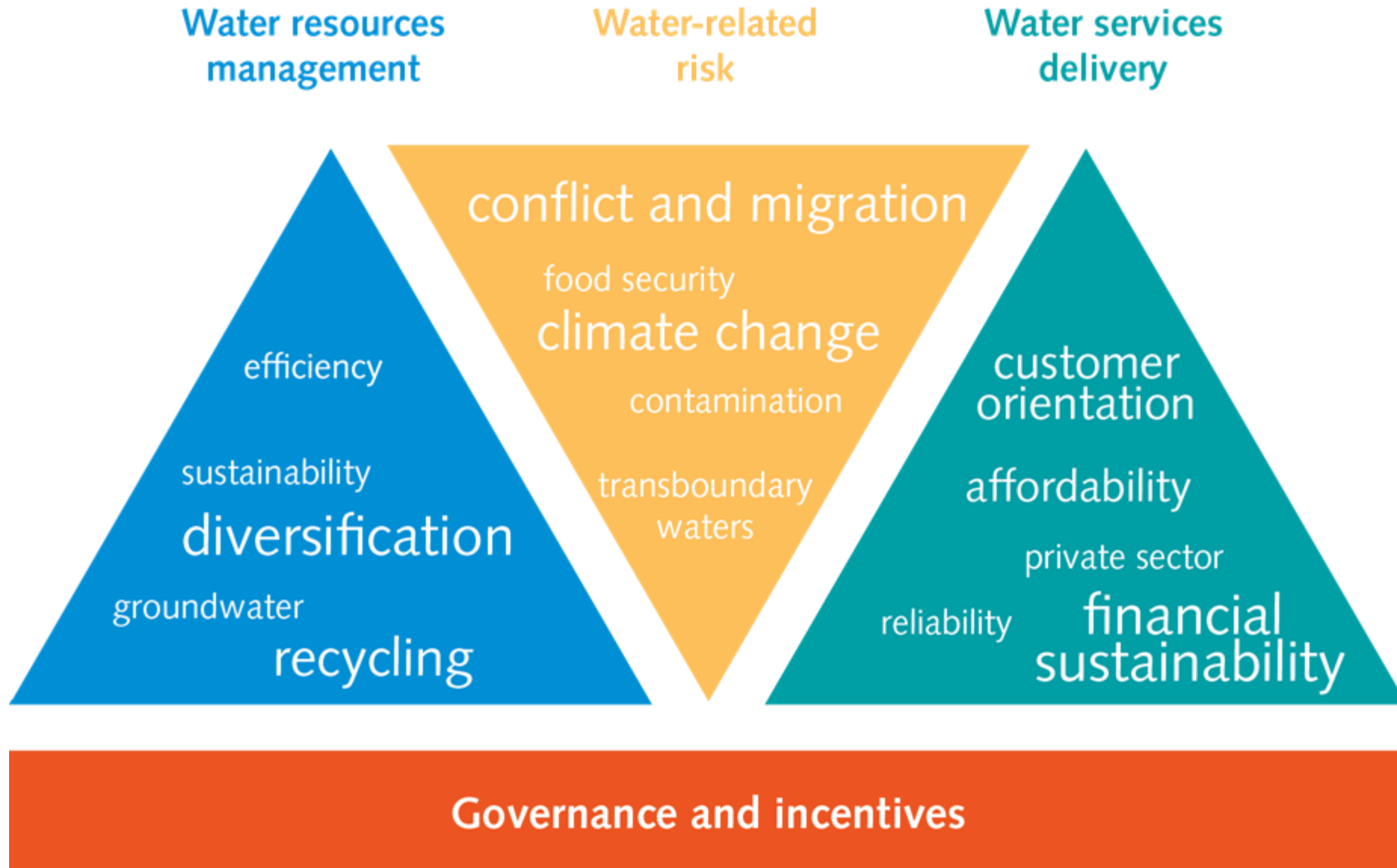
Access has been improving in Morocco; however rural access is still low compared to regional averages. Water tariffs are low compared to other MENA countries, which means that many utilities still need to achieve operating cost recovery.

WATER RESOURCES MANAGEMENT

Morocco is a semi-arid country, facing water resources challenges related to deteriorating water quality and unsustainable use. Most unsustainable use taps into groundwater resources, with key groundwater basins such as the Tensift basin now close to depletion.

To curb unsustainable water use, the government is developing policies targeted at conserving groundwater. Morocco has also one of the lowest water productivity in the region, suggesting that improvements and investments in irrigation networks and efficiency such as the National Irrigation Water Savings Program can contribute to water security.

Regional Priorities for Water Security



Take home messages

Water security is about much more than just coping with water scarcity

Water governance challenges are the common denominator of water insecurity in the region

Strategies that focus on 'supply side' solutions have made limited progress towards water security

Global experience shows that technology, policy and institutional management need to evolve together to achieve water security.



<http://www.worldbank.org/en/topic/water/publication/beyond-scarcity-water-security-in-the-middle-east-and-north-africa>

HERE