



Fresh Water Resources and Related Services

Introduction:

Fresh water resources are integral to sustaining healthy ecosystems, ensuring basic quality of life, maintaining food and energy security, and promoting thriving economies. Water is essential to industrial development as an input to many manufacturing processes, for irrigation and food processing, and often as an ingredient in products. However, a host of problems – increasing water demand; pollution from industrial wastewater, agricultural runoff, and natural resource extraction; inadequate sanitation services; strained physical water supplies; and inequitable distribution of existing water supplies – have led to growing water stress in many regions across the globe. Today, roughly 20% of the world’s population lives in areas of physical water scarcity, while nearly another 25% live in areas where governments lack the technical capacity, funding, and/or infrastructure to meet basic human and environmental water needs (IWMI 2007). Climate change threatens to exacerbate water stress by altering the hydrologic cycle, in many cases leading to more intense flooding and drought. A 2009 GlobeScan and Circle of Blue survey of 32,000 people from 15 countries found that people around the world identify water issues as the most serious sustainability challenges facing the planet.

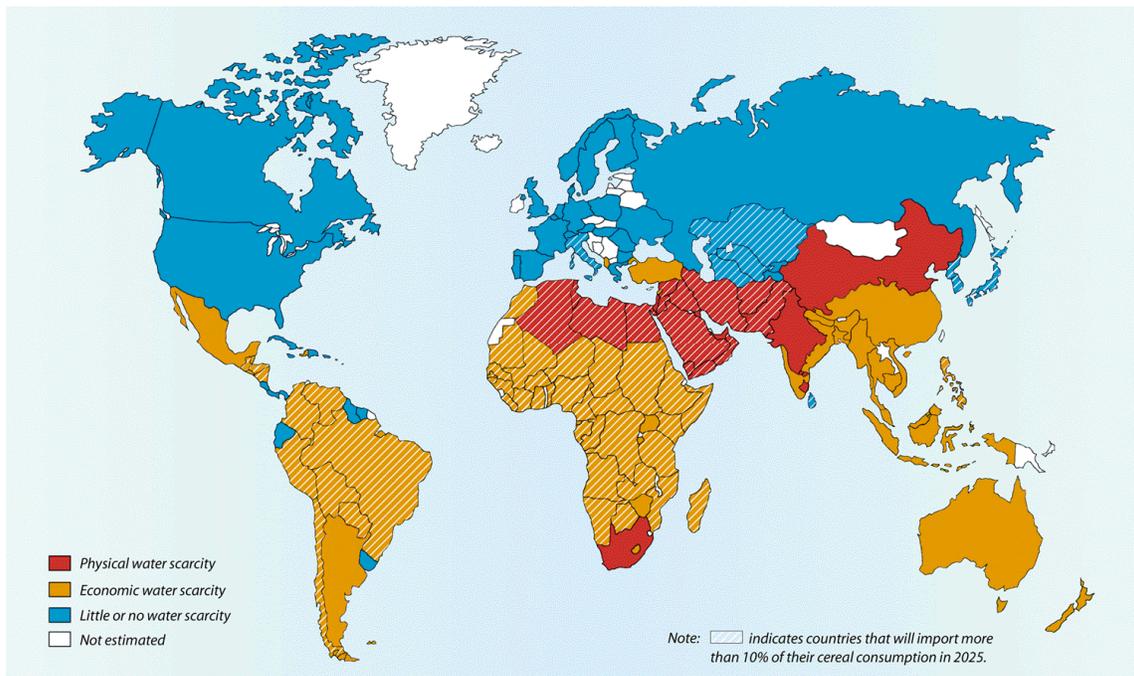


Figure 1: Water scarcity projections for 2025

Source: IWMI 2000

Inadequate water management and water pollution have severely limited access to safe drinking water and have caused public health concerns, damaged the environment, and stalled economic development in many regions. Nearly 900 million people are estimated to lack access to safe drinking water, while over 2.5 billion people—most of which are located in Asia and Sub-Saharan Africa—do not use improved sanitation services. These problems lead to millions of deaths every year and are often a barrier to education, particularly among women. These challenges are felt particularly deeply in LDCs where governments and local communities often lack adequate funding, infrastructure, and capacity to cope with them. Though developing countries as a group are on track to meet the Millennium Development Goal (MDG) for safe drinking water, LDCs as a group are currently off track to meet both their MDG related to safe drinking water and their MDG related to sanitation (UNCTAD 2010).

In many cases, private businesses stand to benefit greatly from more consistent and reliable access to water services and better public management of fresh water resources. To help contribute to this goal, they can invest in water use efficiency and wastewater treatment within their own fencelines and support public agencies in their pursuit of more sustainable water management practices. Since water stress, pollution, and unsustainable water management negatively affect businesses, communities, and public agencies alike, there is a compelling case for all of these sectors to act collectively in response to global water challenges.

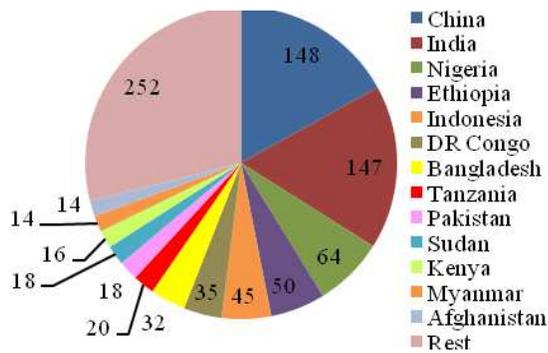


Figure 2: People without access to improved drinking water in 2008 (millions)

Source: WHO / UNICEF JMP 2011

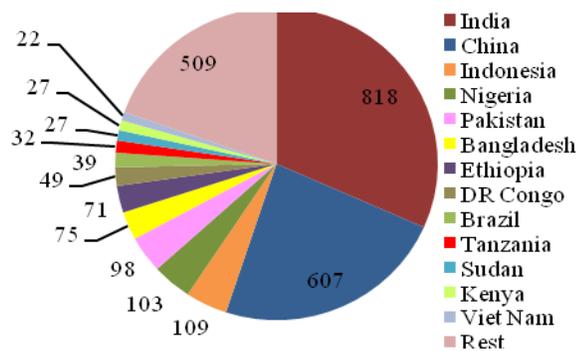


Figure 3: People without access to improved sanitation in 2008 (millions)

Two industries in particular - agriculture and natural resource extraction – are critical to the economy, yet also contribute and stand to be greatly affected by water stress and pollution. Agriculture accounts for roughly 70% of water use worldwide, while agricultural runoff is one of the key causes of water pollution. At the same time, water stress threatens to reduce yield and degrade farmlands. Many mining practices (e.g., tar sands mining, mountaintop removal mining, hydraulic fracturing, etc) lead to a range of environmental and social impacts due to water pollution. Mining companies will have to develop more sustainable and responsible methods if they hope to maintain their social and legal licenses to operate amidst worsening water conditions and growing pressure from consumers and affected communities.

Key challenges:

- Ensuring all humans have access to a basic supply of affordable, safe drinking water and sanitation services;
- Protecting environmental flows and water quality in order to promote healthy ecosystems and sustain biodiversity;
- Developing and investing in public water management capacity and water-related infrastructure;
- Ensuring long term renewability of water supplies;
- Continuing to meet the water requirements of growing populations amid in cases static water supplies;
- Maintaining agriculture production amidst constrained water supplies.
- Extracting sufficient natural resources while protecting local water resources and indigenous rights.
- Protecting water quality by increasing monitoring and regulation of pollution from industry, agriculture, and communities.
- Considering the impacts of climate change on the hydrologic cycle and water management.

Solutions:

- Utilize and support the development of water accounting methods that enable a more sophisticated understanding of agricultural and industrial water use, wastewater discharge, and related risks and impacts
- Invest in technologies that encourage water use efficiency among agricultural, industrial, and residential water users
- Implement water use efficiency and wastewater treatment in industrial facilities, especially those in water-stressed regions
- Facilitate suppliers' implementation of water use efficiency and water pollution prevention measures
- Create products that require less water use and are less polluting once they reach consumers
- Participate in initiatives that identify and encourage more sustainable corporate water practices (e.g., CEO Water Mandate)
- Engage with communities, water managers, academics, NGOs, farmers, and other stakeholders in collaboration with the public sector to better understand and address watershed conditions that create shared risk
- Collaborate with and support governments in water and sanitation policy development and implementation:
 - Advocate for efficient, equitable, and ecologically sustainable national and sub-national water policies
 - Build capacity of public agencies to implement water policy and deliver water and sanitation services
 - Encourage full cost pricing to recover water management costs, while ensuring access for the poor
 - Share information and data with public agencies, NGOs, and communities
- In cases where private enterprises are responsible for the delivery of water and sanitation services:
 - Uphold and actively pursue fulfillment of the human right to water and sanitation
 - Allow communities to articulate their interests and negotiate how services are provided
 - Publicly disclose any contracts entered into with public agencies

References

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