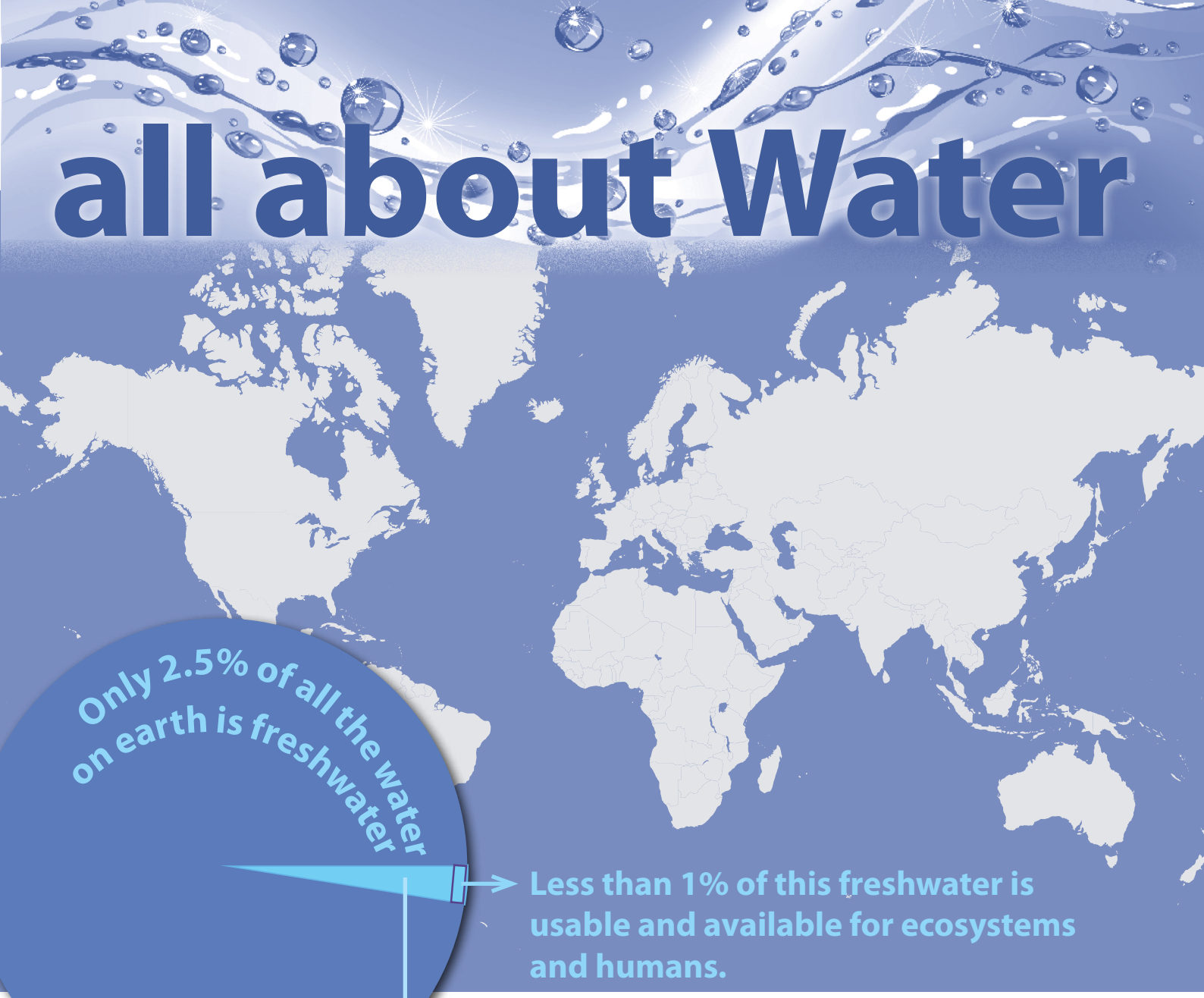
all about Water



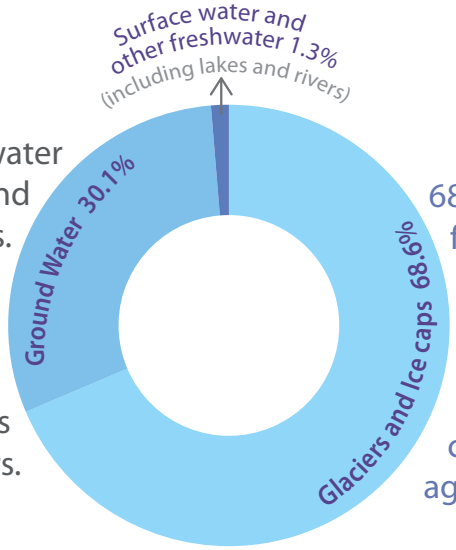
Only 2.5% of all the water on earth is freshwater

Less than 1% of this freshwater is usable and available for ecosystems and humans.

Of this fraction, one third is groundwater — hidden in the Earth's crust and often hard to access.

This vital resource is poorly understood and poorly managed.

And as little as 0.3% of freshwater is easily accessible in lakes and rivers.



68.6% of the world's freshwater is in the form of ice and permanent snow in mountains. Frozen water is unavailable for consumption or use in agriculture.

accessability

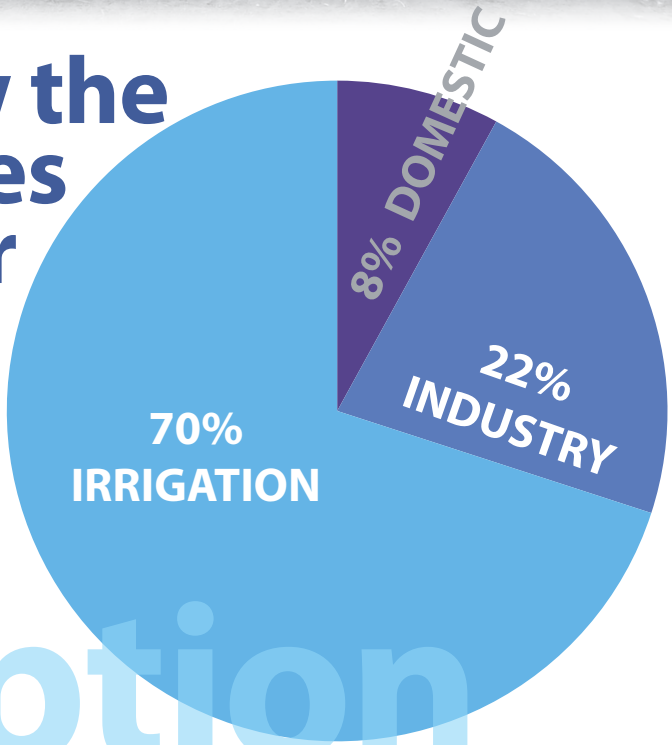
12 of the 15 most water scarce countries are located in the Middle East and North Africa.

By 2025, 1.8 billion people will be living with absolute water scarcity.

Today, 1 Billion people have no access to safe drinking water, and only about 15% of the world's population enjoys relative abundance.

Over 1.4 billion people live in river basins where they consume water faster than it can be replaced, depleting ground water.

How the world uses Freshwater



consumption

urbanisation

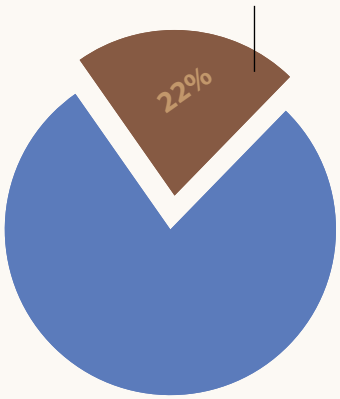
In 1900
less than 15% of the world's population lived in cities.

In 2011
this figure has reached 50%.

For the Millennium Development Goal related to drinking water to be met by 2015, 961 million urban dwellers must gain access to an improved water supply.

industry

Industries use up 22% of world's freshwater

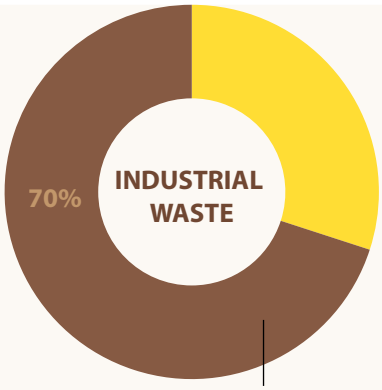


High-Income Countries

59% of total water use is for industry.

Low-Income Countries

Only 8% of total water use is for industry.



In developing countries, 70% of industrial waste is released untreated into waters, polluting the usable water supply.

agriculture

Water Needed to Produce Food

Food Item	Unit	Global Average (in litres)
Chocolate	1 kg	24, 000
Beef	1 kg	15, 500
Cheese	1 kg	5, 000
Pork	1 kg	4, 800
Olives	1 kg	4, 400
Chicken	1 kg	3, 900
Rice	1 kg	3, 400
Groundnuts (in shell)	1 kg	3, 100
Dates	1 kg	3, 000
Mango	1 kg	1, 600
Sugar (from sugar cane)	1 kg	1, 500
Bread (from wheat)	1 kg	1, 300
Banana	1 kg	860
Milk	1 glass (250 ml)	250

- **In rain-fed agriculture, up to 85% of rainwater is lost before it reaches crops.**

- **By the year 2050, 50% more water will be needed in agriculture to feed the growing world population.**

marine pollution

Coastal zones support 60% of the world's population, providing food, income and living space.

Every day, 2 million tons of human waste enter water courses.

Oceans and seas receive the brunt of human waste — a serious threat to marine creatures and habitats.

working on solutions

A key requirement for assuring adequate water supplies and their sustainable management is to improve the assessment of water resources.

The IAEA deploys its expertise in nuclear techniques in more than 90 Member States to help locate, manage, and conserve freshwater, as well as to protect the oceans.

The IAEA databases broaden our understanding of water systems, oceans and climates.

The IAEA's water experts help developing countries through technical cooperation, by providing advice, materials, equipment, and training, as well as offering fellowships and research projects.

Sources: UNEP, World Water Assessment Programme (WWAP), Global Environment Outlook: Environment for Development (GEO-4), Human Development Report 2006, World Business Council For Sustainable Development (WBCSD), Food and Agriculture Organization of the United Nations (FAO) and UN-Water, Young People's Trust for the Environment, *The Water Footprint of Food (2008)*, Professor Arjen Y. Hoekstra, University of Twente, the Netherlands, *Water For Food*, The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas), Sweden.

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