

Since 1947 there have been **300** international water agreements

Every year we withdraw **3,800** cubic km of freshwater

20% is used in industry

10% on domestic purposes

and a whopping **70%** is used in agriculture

against **37** conflicts between states over water

Water: Cooperation or Competition?

The following factors often lie at the root of water tensions:

SCARCITY
when the demand for water exceeds the supply, creating competition between the different water uses

NEGLECT OF TREATIES
when provisions set by international agreements over freshwater are questioned or intentionally overlooked by certain parties

OVER-ABSTRACTION
when the permanent or temporary removal of water from rivers, canals, lakes, reservoirs or aquifers for human uses may put the water systems at risk

DIVERSION
when water from rivers or other surface sources is diverted from its course for various purposes through the construction of dams and other infrastructure

POLLUTION
from diffuse sources (e.g. agriculture, urban areas) as well as point sources (e.g. municipal sewage and industry) or following an accident

The Aral Sea disaster

In 1960 the Aral Sea was one of the four largest lakes in the world with an area of 68,000 square km. Local fisheries represented annual catches of 40,000 tonnes and the area was surrounded with biologically rich marshes and wetlands.

■ The Aral Sea in 1960
■ The Aral Sea today



Today, salinity has dropped, and fish are again found in sufficient numbers for some fishing to be viable but vast parts of the Aral Sea have been lost forever.



The number of large dams worldwide has risen from **500** in 1950 to **45,000** in 2013

Urban-rural tensions in Zhengzhou, China

39% of Zhengzhou's population live in the city and 61% in the surrounding rural area. Groundwater represents about 70% of the water supply, 50% of which is used for agriculture, 31% for industry and 17% for domestic uses.

Groundwater remains over-exploited despite attempts to conserve water, and the city competes with rural areas for water use. Rural communities feel at a disadvantage especially because they cannot generate comparable financial returns.

Institutional frameworks are needed for ministries and agencies with differing mandates and goals to share information on the state of groundwater resources and the impacts of use.

Co-management would ensure that more surface water and treated wastewater is used for agriculture while urban users have priority over groundwater.

1.6 Billion People live in countries with absolute water scarcity

Every Second the urban population grows by **2** People



The Water Convention

Major industrial accidents may cause far-reaching transboundary effects and may lead to accidental water pollution.

The Convention obliges parties to prevent, control and reduce transboundary impact, use transboundary waters in a reasonable and equitable way and ensure their sustainable management. Initially negotiated as a regional instrument in UNECE region, the Convention was amended in 2003 to allow accession by all the United Nations Member States.

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) is intended to strengthen national measures for the protection and ecologically sound management of transboundary surface waters and groundwaters.

Tensions over the Nile River

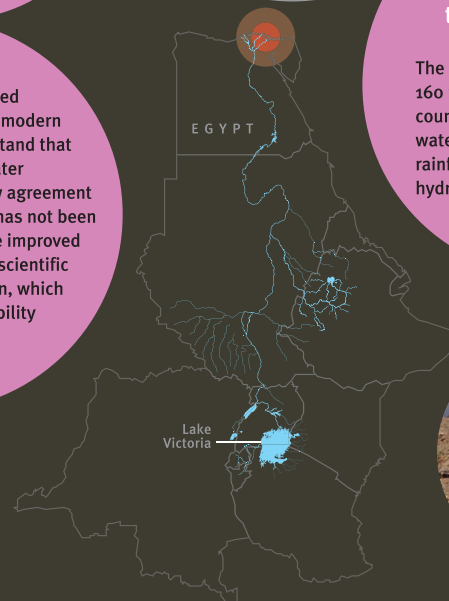
The Nile river basin is home to over 160 million people and includes ten countries that rely significantly on its waters, since most have no effective rainfall, but also for fishing and hydroelectricity generation.



However, only Egypt and Sudan are legally entitled to dam the river based on a series of treaties that have strained relations in the basin for over 50 years. Today, the shortages of water have prompted countries including Uganda, Sudan, Ethiopia and Kenya to question the treaties.

The Nile Basin Initiative launched in 1999 "seeks to develop the river in a cooperative manner, share substantial socioeconomic benefits, and promote regional peace and security". But discord over the Nile treaties has continued.

Despite tensions, no armed conflict has arisen in the modern era and countries understand that water is a means for greater cooperation. While a new agreement that satisfies all parties has not been found yet, countries have improved information sharing and scientific and technical cooperation, which is crucial to the sustainability of the river.



There are **276** international river basins and transboundary aquifer systems in the world

60% of these lack any type of cooperative management framework

2 Million Tonnes of sewage and industrial and agricultural waste is discharged into the world's waterways every year