

Since 1947 there have been 300



international water agreements against 37 conflicts between states over water

Every year we withdraw 3,800 cubic km of freshwater



In response to the indigenous people's mobilization and protests, a convention was signed between the ministry and the Mazahua movement, but only for rather short-term measures.

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To avoid or resolve water-related conflicts in indigenous communities, indigenous people should be involved in the management of water resources on their territories and their water rights, as well as their social and cultural values should be recognized.

### The Waters of the Mazahua

One-third of the water cons in Mexico City metropolitan comes from Mazahua indige people territories thanks to 300 km-long system of dam canals, tunnels, treatment plants and pumps.



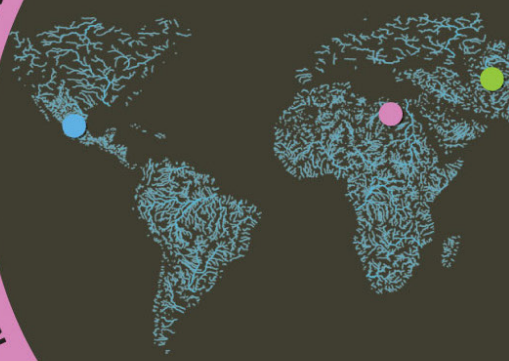
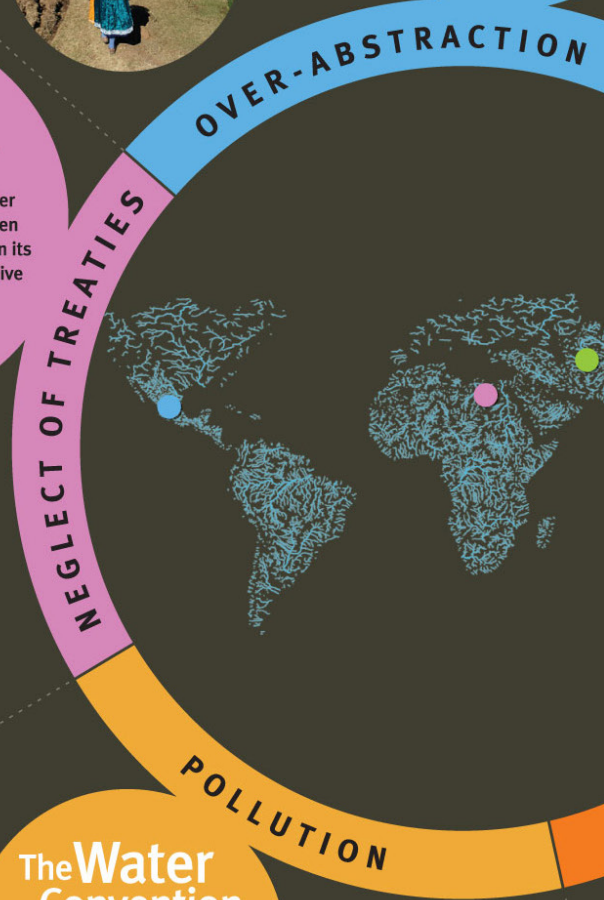
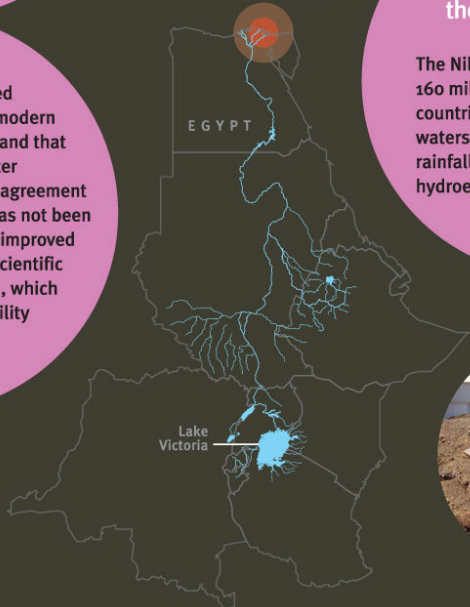
The Nile Basin Initiative launched in 1999 "seeks to develop the river in a cooperative manner, share substantial socioeconomic benefits, and promote regional peace and security". But discord over the Nile treaties has continued.

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.

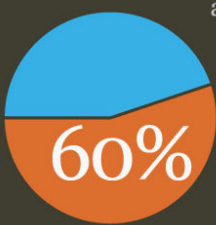
### Tensions over the Nile River

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.

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



### The Water Convention

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

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.

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.



2 Million Tonnes

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



# 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

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By 2007, it had declined to 10% of its original size after the rivers that fed it were diverted by Soviet irrigation projects. Impacts include the pollution of surrounding land, lack of fresh water for the population, health problems, destruction of crops due to soil salinity, and the collapse of the fishing industry.

In 1992, the five countries of the basin - Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan and Kyrgyzstan - formed the Interstate Commission for Water Coordination of Central Asia. In 1994, they pledged 1% of their budgets to recover the sea. In 2005, Kazakhstan completed a dam project to replenish the North Aral Sea. In 2008, the water level had risen by 24 m from its lowest level in 2007.

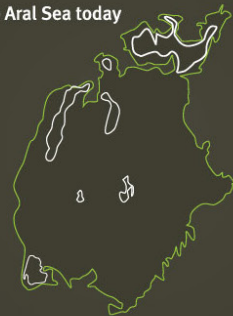


## The Aral Sea disaster

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

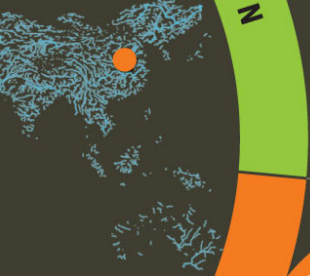
■ The Aral Sea today



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.

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DIVERSION



## 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.

SCARCITY

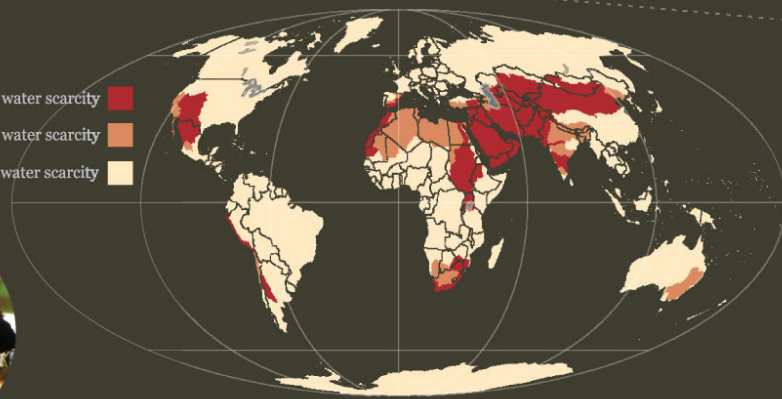
Groundwater remains over-exploited despite attempts to conserve water, and the city competes with rural areas for water use. Rural communities feel at a disadvantage especially because they cannot generate comparable financial returns.



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.

High water scarcity  
Moderate water scarcity  
Low water scarcity



By 2030

47%

of the world population will be living in areas of high water stress

Every Second the urban population grows by 2 People

1.6 Billion People

live in countries with absolute water scarcity

