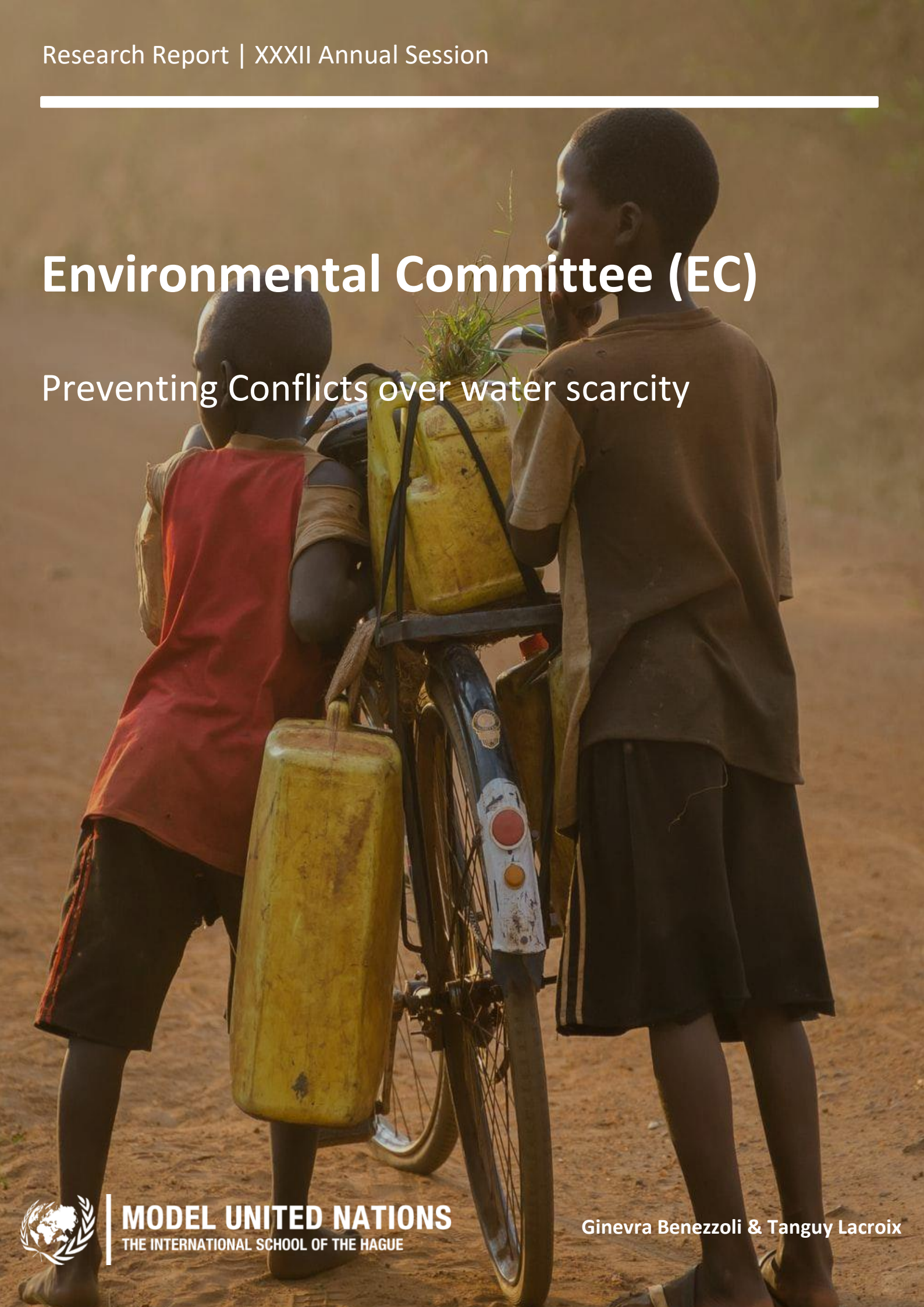


Environmental Committee (EC)

Preventing Conflicts over water scarcity

MODEL UNITED NATIONS
THE INTERNATIONAL SCHOOL OF THE HAGUE

Ginevra Benezzoli & Tanguy Lacroix

Forum	Environmental Committee
Issue:	Preventing conflicts over water scarcity
Student Officer:	Ginevra Benezzoli and Tanguy Lacroix
Position:	Deputy-president and President

Introduction

Global wars in the Middle East and on the U.S.-Mexico border, as well as local conflicts over rivers and streams in small towns, are all examples of conflicts involving water rights and water quality. People struggle over water in the same way as they do over other valuable resources like gold, diamonds, and oil. Due to its importance to life, water is more valuable than many of these other resources.

There are many different types of **water conflicts** throughout history, but conventional wars are rarely fought over only one body of water. Instead, historically, water has been a point of disagreement and a contributing factor in wars that have other real causes. Multiple factors, including territorial disputes, competition for resources, and strategic advantage, can lead to water conflicts.

Nowadays, subnational rather than global levels face tensions and disputes over water more frequently. In sub-Saharan Africa, violence between farmers and **pastoralists** is increasing. In wars that begin for other causes, such as those in Yemen, Syria, and Iraq, attacks on civilian water supplies have grown. Conflicts and political tensions that aren't directly related to water might also be attributed to lack of water. By reducing population health, impeding economic growth, and escalating major conflicts, gradual declines in the quality and quantity of fresh water over time can contribute to the instability of an area.

Definition of Key Terms

Water Conflict

Water conflict is a term describing a conflict between countries, states, or groups over the rights to access water resources.

Water scarcity

Lack of sufficient water resources to fulfill regional water use demands is known as water scarcity. Every continent already experiences it, as do some 2.8 billion people worldwide, for at least one month out of every year. More than 1.2 billion people live in countries without access to safe water.

Water supply

Water supply relates to the provision of water by government agencies, private businesses, nonprofit organizations, local initiatives, or by people, often through a network of pumps and pipes. Watering is addressed individually.

Pastoralist

A sheep or cattle farmer.

Aquifers

A body of rock and/or sediment known as an aquifer is used to store groundwater. The term "groundwater" refers to rainwater that has gone into the soil below the surface and accumulated in cavities underground.

General Overview

Water as a shared resource

Water is a basic necessity to most known life forms, the cycle of water is a known phenomenon and it makes water a resource which is renewable in the sense that we are able to reuse and share water amongst ourselves. Tensions and water scarcity do not seem to correlate at first glance. This is because one often forgets that rivers, lakes and other bodies of water run across borders: one's use of water upstream will impact the other's condition downstream, countries sharing a body of water are called co-riparian states.

Conflicts: a cause and an effect of water scarcity

Conflicts are both a cause and an effect of water scarcity; governments may provoke one another by cutting off and even contaminating water supplies as a response to political tensions, or, one may deem another's use of water unequitable and this may result in tensions. Other factors such as global warming and population growth have been increasing the demand for the already-scant water supplies resulting in added causes for conflicts, in fact, water usage doubled over the course of the previous century. This increasing need for water makes it an ever growing asset and even a sort

of leverage between nations; water can be used as a weapon and has been used as such repeatedly throughout history.

Types of conflicts

Water scarcity can be associated with a variety of conflicts, ranging from disagreements to increasing tensions and even to war. Water scarcity has been proven to have a direct connection to violence by scientists. As a result, water scarcity can result both in local and international conflicts. Local conflicts tend to escalate much more rapidly than international ones as diplomatic relations do not come into play. Water scarcity is so common that over a quarter of the global population faces it on a severe level. It is worth noting that as of today, there are no physical conflicts purely caused by water scarcity but experts speculate some cases of tensions as a result of this issue may result in war such as that of the later-mentioned **Great Ethiopian Renaissance Dam**.

National conflicts

Local governments can sometimes make decisions which lead to the deterioration of quality of local water supplies. For example, poor waste-management systems often rely on dumping sewage into river streams. Such practices represent large health hazards for the population downstream. This was the case in the city of **Basra in Iraq** and incited protests eventually causing police brutality piling on to the afflicted from the previous water contamination.

Additionally, the agricultural sector being heavily dependent on water, when events such as droughts occur and governments cannot provide water, jobs are lost and migration may occur. As seen in the **capital of Syria, Damascus** where farmers fought over water and eventually migrated to cities in the process of urban-to-rural migration in the search for more economic opportunities.

International conflicts

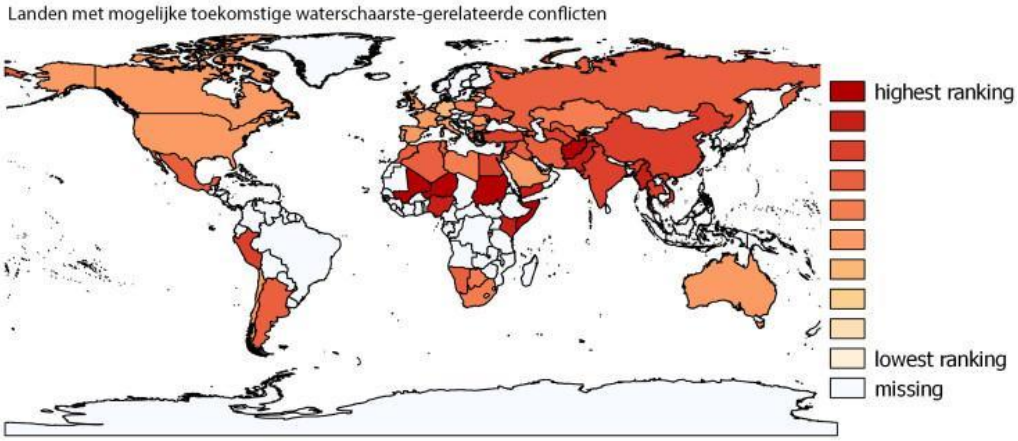
Tensions have risen among a multitude of countries as a result of water scarcity. This is caused by governments impacting the water supply of other countries. One of the most notable examples of tensions as a result of water scarcity is between **Egypt**, **Sudan** and **Ethiopia** as a result of the **Great Ethiopian Renaissance Dam (GERD)**. In this case, due to Ethiopia using **the Nile's** water to fill its newly-built dam to generate energy for its nation (in itself an environmentally sustainable cause), the level of water downstream halved causing health issues as well as a decrease in other hydropower plant's efficiency, particularly in

Sudan and **Egypt**. The issue of this conflict lies in the unclear allocation of water among the countries and the disagreement over the use of **the Nile**. This conflict is often referred to as one of the tensions most likely to result in conflict.

However there are many more examples of similar international tensions such as:

- The Aral Sea conflicts between **Kazakhstan**, **Uzbekistan**, **Turkmenistan**, **Tajikistan** and **Kyrgyzstan** due to the pollution of the bassin causing diplomatic tensions between leaders as well as violence, flooding and health hazards among the population. This conflict has been occurring since 1991 after the collapse of the Soviet Union and is still occurring.
- The Jordan River conflicts between **Lebanon**, **Syria**, **Iraq**, **Palestine** and **Jordan**. Already-present tensions between the states rendered cooperation between them over water management difficult. The different nations began construction on different projects leading to foreign involvement in the form of mediators being sent in.
- The Mekong River Dispute between **China** and the rest of **Southeast Asia.**

  Tensions between **Pakistan** and **India** over water usage.



Map of Water amounts on Earth from highest quantity to lowest quantity

Impacts of conflicts over water scarcity

Water scarcity in itself is already known to have negative impacts on populations, the dimension of conflict being added even furthers this aspect.

Health impacts

A common misconception regarding water scarcity is that the population dies of thirst. Whereas, much more deaths are actually caused by the contamination of water leading to health hazards such as rashes, diarrhea, other diseases and at times, even death. Due to water scarcity being a more common issue in LEDCs, access to hospitals and other health centers may be limited resulting in increased severity and lethality. Furthermore, local disputes over water may result in violence causing casualties.

Impacts on socio-economic factors

Water is key to the primary sector of economies: extraction; particularly in agriculture but also in fishing. As access to clean water decreases, the price of water will increase leading to more production costs for farmers and lowered profitability. This has often resulted in migration, both internal and external as seen in **Central Asia**. This migration was in large part of men (90% of the migrants were males), resulting in an increased number of women in the workforce of such nations; a positive impact of this was increased revenues per household.

Major Parties Involved

UNESCO-IHP

The UN UNESCO-IHP Groundwater Portal aims to help improve understanding of water resources and foster effective water management. In the broad field of water engineering, water management, environment, sanitation, and governance, IHE Delft conducts three different types of activities that support and strengthen one another. Its primary functions include capacity building, research, and teaching, as well as other things. providing research, teaching, and training and providing services for capacity building, especially for poor nations.

Potential Conflict to Cooperation Potential (PCCP)

PCCP trains water professionals in the Middle East and organizes educational efforts elsewhere. It targets groups including diplomats, lawmakers, civil society, and students of water studies; by expanding knowledge of water disputes, it hopes to encourage cooperation between nations in dealing with conflicts.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

A map of trans-boundary **aquifers** has been released by UNESCO. Academic research on water conflicts has not yet produced a reliable procedure for resolving both local and international issues. However, UNESCO has positive future possibilities as water conflicts become more well-known and as increasing severity humbles stubborn interests.

World Trade Organization (WTO)

When water conflicts are of a commercial kind, the WTO can manage them. Although it is in by no manner the authority on disputes involving water resources, the WTO has several groups that work to monitor and make decisions on pertinent matters, such as its Fisheries Center.

Clean Water Action

For 40 years, Clean Water Action has supported laws like the Safe Drinking Water Act and the Clean Water Act that safeguard water resources in the US. To stop freshwater resources from being contaminated, they continue to try to eliminate legal gaps.

Timeline of Key Events

Date	Description of event
2500 BC	First recorded conflict over water scarcity: Lagash-Umma border dispute.
1991	Start of Aral Sea conflict.
1948	Start of Jordan River conflicts
2011	Construction of GEDR on Nile
2022	Russian attack on Ukrainian dam blocking water supply to Crimea.

UN involvement, Relevant Resolutions, Treaties and Events

- Declaration on human right to water and sanitation, 28/07/2010 (Res 64/292)
- 'Water for Life' International Decade for Action 2005-2015
- UN World Water Development Report 2020, 21/03/2020
- UN World Water Development Report 2022, 21/03/2022
- Report of the Special Rapporteur on the human right to safe drinking water and sanitation, (July 2013)

- UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC), 2010

Previous Attempts to solve the Issue

The **Global Water Convention on Transboundary Rivers and Lakes** is a UN-proposed convention. It is not seen as very successful despite its promising prospects. Firstly, it was only signed by 43 nations. In addition, out of 153 countries, 58% is the "Proportion of transboundary basin area with an operational arrangement for water cooperation" (Target 6.5). When comparing this figure to that of 2017 when the convention was ratified, the figure from 2017 being actually 59% shows the ineffectiveness of the convention in providing incentives or means to meet its goals.

Possible Solutions

There are plenty of available solutions to limit or even possibly eradicate conflicts over water scarcity. Most of these solutions regard making more efficient use of water so as to become less vulnerable to water scarcity. For example:

- **Encouraging or providing means for government spending into desalination and waste treatment infrastructure** have been proven to be one of the most effective ways to lower conflicts due to water scarcity**.** Through such investments, water supplies will increase and interdependence between nations for water will decrease as individual nations will be able to provide themselves with their own water rather than depend on the goodwill of co-riparian states. Such plants can provide employment in their construction and operation leading to economic growth. Lastly, so as to not shift water pollution to air pollution, energy sources for such plants should be considered so as to preferably be renewable. A good example of such a solution is found in Saudi Arabia who obtains 50% of its water from said plants.

- **Improving pre-existing infrastructure** such as canals and large-scale pipes to be more efficient. By fixing or reinforcing infrastructure, leaks will be lowered and loss of water will be minimized. Such measures will lead to improved efficiency, lowered loss, increased available

water supply, and ultimately less interdependence between states in terms of sources for water.

Other solutions include international agreements, however, such agreements will require third-party intervention as there are close-to no incentive for upstream states to agree to such legislation (for example, intervention regarding the Jordan River conflict was executed by the US in the form of a mediator). The international agreements would reduce vulnerability to other nation's water usage policies and could be as follows:

- **Drafting 'drought mitigation protocols.'** Such protocols would lower the vulnerability of co-riparian states to upstream countries' decisions during periods of low water supply. All in all, it would limit the abuse of power that is allowed to be conducted in droughts and lower violent conflicts through explicit legislation and clear expectations to be upheld.

- **Ratifying water-sharing agreements**. Similarly to the previous solution, such agreements would set clear guidelines to the use of water amongst multiple states as an attempt to reduce international conflict between co-riparian states. Such legislation needs to be equitable and may require a third party to ensure that one party does not take advantage of another in the long run. For reference, such treaties have been attempted to be made such as the **Indus Treaty**.

Lastly, measures could be taken to ensure that these solutions are actually enforced through, for example, policies which **tackle corruption** and/or policies which **encourage reports to be made on a regular basis** to ensure agreed upon targets are met.

Bibliography

"Conflicts over water", *National Geographic Society,* Last updated 20/05/2022, *https://education.nationalgeographic.org/resource/conflicts-over-water*

"8 Organizations Making a Difference in Global Water Issues", *Seametrics,* https://www.seametrics.com/blog/water-organization-issues/

"Aquifiers", *National Geographic Society,* https://education.nationalgeographic.org/resource/aquifers

"Water Conflict", *Wikipedia,* Last updated 5/06/2022, https://en.wikipedia.org/wiki/Water_conflict

"International decade for action", *UNEDSA,* https://www.un.org/waterforlifedecade/human_right_to_water.shtml

"How water shortages are brewing wars", *BBC,* https://www.bbc.com/future/article/20210816-how-water-shortages-are-brewing-wars

"Water Rights and Water Fights: Preventing and Resolving Conflicts Before They Boil Over", *National Library of Medicine,* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3076402/

"The controversy over the grand Ethiopian Renaissance Dam", *Brookings,* https://www.brookings.edu/blog/africa-in-focus/2020/08/05/the-controversy-over-the-grand-ethiopian-renaissance-dam/

"Confict over water in the Aral Sea", *Climate diplomacy,* https://climate-diplomacy.org/case-studies/conflict-over-water-aral-sea#:~:text=Environmental%20degradation%20of%20the%20Aral,non%2Dviolent%20and%20mostly%20diplomatic

*"*Jordan and Israel: Tensions and Water Cooperation in the Middle-East", *Climate diplomacy,* https://climate-diplomacy.org/case-studies/jordan-and-israel-tensions-and-water-cooperation-middle-east

"The impact of Migration on Water Scarcity in Central Asia", The diplomat, https://thediplomat.com/2018/06/the-impact-of-migration-on-water-scarcity-in-central-asia/

"Water Conflict Chronology", *World Water,* https://www.worldwater.org/conflict/map/

Appendix or Appendices

I. How to solve water-related conflicts

https://www.wri.org/insights/how-solve-water-related-conflicts

II. Ending conflicts over water

https://pacinst.org/publication/ending-conflicts-over-water/

III. Preventing Conflicts over water

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3076402/#:~:text=One%20set%20of%20approaches%20consists,sewage%20contamination%20of%20water%2C%20improving