



Forum: General Assembly 4th Committee

Issue: Addressing water-related conflicts and the social unrest concerning the depletion of transboundary water.

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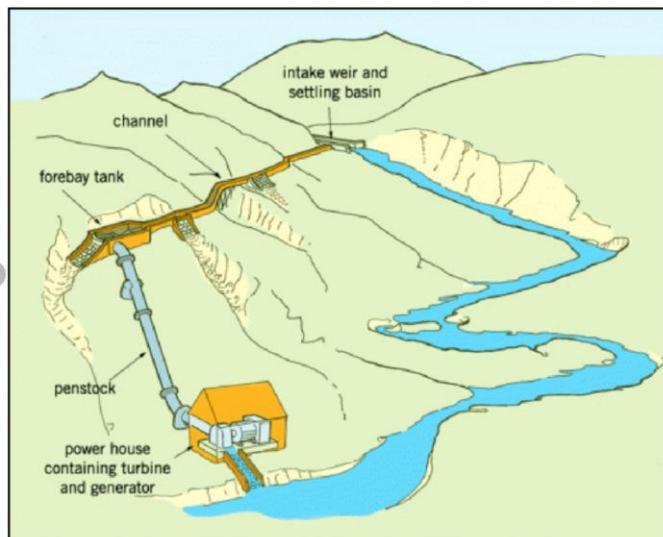
Introduction

The use of water, and how parties involved should manage transboundary water have been long-standing issues around the world. How and to what extent should the countries cooperate over the management of transboundary water resources are also complex problems. In regions where there is a high potential for conflicts, the disputes revolved around the use of shared water bodies become increasingly pronounced. As the bodies of transboundary water are shared by two or more nations, the unilateral move of the upstream country/countries, such as building a dam, can seriously impact on the water flow of downstream country/countries. ("Transboundary Waters.") Besides, as depletion of water becomes more and more common, certain environmental, political, and human development aspects around it start to emerge. Effective management of transboundary water can benefit all countries involved, from aspects such as international trade, climate change management, regional integration, and many more. ("Transboundary Waters.")

Definition of Key Terms

Run-Of-The-River Hydroelectricity

This is a type of hydroelectric generation plant which stores no or very limited amounts of water throughout the process. A small dam is often built to ensure a substantial amount of water is redirected to the penstock and brought to an electricity generating house. After the process is completed, the water will then naturally flow to the downstream of the river. ("Run-of-the-River Hydroelectricity.")



Ottow, Bouke Pieter. "An MHP Following the Run-of-River Scheme." *Research Gate*, May 2015, www.researchgate.net/figure/An-MHP-following-the-run-of-river-scheme-Water-flows-from-the-river-via-theintake-weir_fig1_277275863. Accessed 11 Jan. 2019

UNECE

United Nations Economic Commission for Europe

Transboundary water

Any water bodies shared by two or more nations, include aquifers, lakes and river basins.
("The Problems of Water Stress.")

General Overview

According to UN Water, there are 37 acute conflicts over water usage between nations since 1948, and approximately 295 international water agreements were negotiated and signed between countries. One of the significant treaties was the UNECE Water Convention, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes. The treaty first designed for pan-European nations but later was upgraded to be an international treaty in 2003. It is worth mentioning that countries specifically discussed in case studies below, such as Pakistan and India have not yet ratified the treaty of UNECE.

The main issues discussed under the topic of transboundary water usage are hydropower, water utilization, flood control, industrial allocation, navigation, and pollution. Of these, the

first four are mostly negotiated between nations, and most treaties are established based on those issues. The two case studies below specifically focus on hydropower and water utilization, and what the common problems are surrounding the two.

Case Study 1: water disputes between Pakistan and India: the Indus Rivers and Indus Water Treaty (Hydropower)



"On the Role of Water in the India-Pakistan Conflict." *Astute News*, 11 Oct. 2016, astutenews.com/2016/10/11/on-the-role-of-water-in-the-india-pakistan-conflict/. Accessed 11. Jan 2020.

Indus River, originated from the Southwestern part of Tibet region of China, runs through Ladakh, Gilgit-Baltistan, and Hindukush of India. It then flows towards the south into Pakistan and merges into the Arabian Sea. With a total length of 3200 kilometres, the Indus river has the largest total annual flow of all rivers in the world and is the national river of Pakistan. (Alford) In 1960, Pakistan and India signed the Indus Water Treaty brokered by the World Bank regarding the use of water resources from the Indus Rivers. It targeted the use and control over the branches of the Indus River. According to the treaty, India has control over the Beas, Ravi, and Sutlej river. On the other hand, Pakistan has control over the Jhelum and Chenab rivers. The treaty was also designed to resolve the disagreements over the shared water. An important fact is, that Pakistan receives more water that is flowed from India than vice versa. The treaty vaguely states that India should only use the western rivers for limited irrigation purposes, and thus they were forbidden to use the water sources from Indus Rivers for non-consumptive purposes. The treaty also sets a threshold of 16% of the annual flow for the water usage of the India side. It is worth mentioning that the two countries were not engaged in any water wars yet after the ratification of the Indus Water Treaty, but there were many



disagreements over the terms of the treaty. Besides skirmishes between two nations due to other reasons, the tension regarding water utilization, especially hydropower projects on Indus Rivers, remained high. (Lodrick) The specific issues will be discussed in the section: Major Parties Involved.

Case Study 2: European Union and the overuse of transboundary water (water utilisation)

Most of the countries in Europe are economically developed countries with strong industrial, agricultural, and service sectors. Many of the countries share water bodies, for instance, Spain and Portugal. Due to the prosperous economic progress, there are commonly unsustainable uses of water widely across Europe. According to the European Environmental Agency, the European Union is withdrawing water resources from natural resources, such as rivers, “at a rate much faster than it can be replenished by nature.” As a result, there was an overexploitation of water resources in many countries. It is worth noticing that more than 60% of the European population depends on the underground water supply. Once the water source is polluted, it is only able to be recovered at an extremely high expense. In many countries in Europe, the use of water by industrial, agricultural sectors, and ordinary households are subsidized by the governments, which further promotes the inefficient use of water. Moreover, water is also inefficiently used due to unnoticed leakages of water pipelines underground. Repairing pipelines is very costly and time-consuming, thus the suppliers are reluctant to spend money to repair them. The water pipelines remain damaged and precious water ends up flowing away. New efforts on leakage repair and management are underway. (“The Problems of Water Stress.”)

Major Parties Involved

[India and Pakistan]

In recent years, by taking advantage of their advantageous geographical location, India has built several dams and hydroelectric projects on Indus Rivers. For instance, the run-of-the-river hydroelectric scheme of the Kishanganga Hydroelectric Plant project in 2007. Four years after the announcement, the Pakistani government appealed to The Hague’s Permanent Court of Arbitration in October 2011. (Iqbal) The Pakistani government complained about the potentially serious effects the hydroelectric project of India would have on the flow of the River to Pakistan. Assessments of potential risks show that a 21% reduction in the annual water flow of the Neelum river was estimated. (Tanaka)



There were several negotiations between the two nations over water disputes taken place in the past regarding other dam projects, but none were very successful. For instance, in the Wullar Barrage negotiation, India offered design modifications over the Wullar Barrage, but the Pakistani government insisted that India should stop with the project as it violates the Indus Water Treaty. The negotiation ended unhappily. Overall, the Pakistani government has major disagreement regarding the use of water by India because they insisted that the projects were under the category of 'non-consumptive use', which are prohibited by the treaty.

[UNECE]

In 2014 UNECE published a document on model provisions on transboundary groundwaters. It sets guidelines to countries on the management and protection of both transboundary surface waters and groundwater. The UNECE offers 9 provisions through the publication. It puts emphasis on the utilisation of transboundary ground waters and stresses that all nations that share a transboundary water body should be responsible to take appropriate measures to protect the water bodies, thus use the water sources in a reasonable and sustainable manner and consider the potential consequences carefully before using it. Besides, UNECE calls nations to consider the maximum long-term effects of water usage. It also urges nations to cooperate through means of multilateral talks, collaborated monitoring and risk assessments with multilaterally agreed standards. The document also calls for the establishment of protection zones, frameworks on pollutants detection and limitation as well as frequent checks of water quality. Last but not least, UNECE also encourages nations to exchange data and information on water conditions and formulate joint plans for transboundary water management. (UNECE)

Timeline of Key Events

Feb 1954	World Bank intervened the water dispute between India and Pakistan
1960	The Indus Water Treaty
2015	The Member states of the United Nations adopted the Sustainable Development Goals
March 2016	The Convention on the Protection and Use of Transboundary



Watercourses and International Lakes of UNECE turned into a universal instrument

01 Oct 2018	8th sessions of the Meeting of the Parties to the Water Convention
Feb 2019	Indian government announced water project which can stop its share of water of the Indus River from flowing to Pakistan

Previous attempts to solve the issue

There were many negotiations and assessments regarding the use of water from transboundary water bodies, for uses such as dam building and hydroelectric energy station installations. However most proved to be unsuccessful. Mainly it was due to the disadvantageous geographical location of the downstream country, thus they tend to take actions to protect themselves over the potential consequences of the decisions of the upstream countries. According to UN-Water, a total of approximately 295 international water agreements were agreed on and signed between countries that have territory within the transboundary lakes or river basins until 2015. Although many countries have made an effort to resolve disputes or disagreements surrounding the use of water sources from transboundary water bodies, there is still an increasing need for more innovative and effective solutions. This need was mainly due to new challenges including but not limited to climate change, population growth and urbanisation. ("GOOD PRACTICES in Transboundary Water Cooperation.")

The water disputes in the mid-late 20th century in the Middle East were more complex. The reason for that is the fact that the Middle East is a very water-scarce region. The three main basins in MENA are the Jordan River Basin, The Nile River Basin and the Tigris-Euphrates River Basin. The tension around water management has resolved over time due to the effort of the nations. Israel and the Palestinian Authority (PA) have established a joint committee on water usage coordination, and countries that share the Nile River have established a Nile Basin Initiative. (Bromberg) Besides, the very effective Blue Peace method of MENA has turned many issues of disputes into instruments for cooperation, thus uniquely turned tension into opportunities for development and partnerships. According to the report The Hydro-Insecure: Crisis of Survival in the Middle East published in 2015, despite the efforts made, there were still issues to resolve. The report suggests the governments work further with local institutions, reform agriculture, and irrigation systems for more effective use of water sources,



thus further strengthen regional cooperation. ("The Hydro-Insecure Crisis of Survival in the Middle East.")

Possible solutions

Specifically looking at the water issue between India and Pakistan, there are many disagreements over the interpretation and implantation of the terms of the Indus Water Treaty. It is partially because the treaty is outdated, and some wording is very ambiguous. Therefore, there is a necessity to revise the Indus Water Treaty to make it more applicable to current situations. Negotiations and talks are keys to resolving water disputes. However, as shown in many case studies, solely negotiating about it is not enough. Sometimes, a third-party is required to be present during talks to mediate the situation. Besides, when projects regarding the use of the disputed water resource are initiated, substantial assessments should be put into place. Therefore, possible solutions can also include the establishment of a cooperation organization where third parties are involved as monitors or mediators. For instance, the World Bank and UN water. On other occasions, when there is a dispute between two of the many nations who share a transboundary water body, a basin level organization is needed for a more effective result.

Nations should bear in mind the model provision on transboundary groundwaters and use guidance provided to draft regulations which can eliminate overexploitation of transboundary water sources. As previously emphasized in the research report, the decisions made by upstream countries could have an extremely negative long-term impact on downstream countries. Furthermore, as SDG 17 states, countries should cooperate for a better future. It is especially applicable to the issue of transboundary water management, especially regarding the quality and potential side-effect of water utilization on biodiversity. Therefore, nations who share the water of transboundary water bodies should be actively engaged in collaborations and monitor any changes to the water bodies. Except for collaborations, certain changes should also be made domestically if necessary. For instance, governments could consider organizing awareness campaigns and educate the public on the efficient use of water to reduce the total water demand within the country. Subsequently resulting in reductions of transboundary groundwater demand. Except for multilateral discussions and agreements, mutual trust is also a key to cooperation. Without trust, no cooperation can be effectively put into place. Although many countries started to share data and information, it should be further promoted. More countries should be sharing data and information, for effective management



of water quality and potential risks due to human activities. It would help with the establishment of a basis for better cooperation.

Useful documents

Convention on the Protection and Use of Transboundary Watercourses and International Lakes:

https://www.unece.org/fileadmin/DAM/env/water/publications/WAT_Text/ECE_MP.WAT_4_1.pdf

Model Provisions on Transboundary Groundwaters:

http://www.zaragoza.es/contenidos/medioambiente/onu/1314eng_Model_Provisions_on_Transboundary_Groundwaters.pdf

Official website of UN water: <https://www.unwater.org>

The Hydro-Insecure: Crisis of Survival in the Middle East:

<https://www.files.ethz.ch/isn/187057/19317hydro-insecure.pdf>

The Indus Water Treaty of 1960:

<https://siteresources.worldbank.org/INTSOUTHASIA/Resources/2234971105737253588/IndusWatersTreaty1960.pdf>

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