

Forum:	Special Conference
Issue:	Setting up a legal framework regarding the management of trans-boundary water sources
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Position:	Deputy Chair

Introduction

As the theme of this year's RCIMUN reads, water is the fundamental source of life, wealth, and conflict. As a matter of fact, international turmoil is inevitable given that there is a lack of legal framework regarding the *trans-boundary water resources*, prosperous river and lake basins that comprise two or more nations, on which approximately 40% of today's populations reside. These fertile lands stand as the source of life, namely self-sustainable plains where agriculture, industry, and renewable energy prosper owing to the generous water supply; however, they generate territorial disputes and political questions on their utilization. Correspondingly, the fact that there hasn't been an accommodation on a legal framework on trans-boundary waters continues to bother countries: billions of persons' lives depend on the allocation of a comprehensive legal system, so that they can sustain their needs without having to go through detrimental conflicts. Current data indicate the significance of this problem, as "the existing 238 trans-boundary lake and river basins cover nearly one half of the Earth's land surface and account for an estimated 60% of global freshwater flow," (Thematic Paper UN Water, par. 1).

On a macro level, the lack of legal framework is utterly distressing, noting that many countries are currently experiencing water stress due to global warming; thus, setting up a legal framework is essential to mediate the water competition and to establish a co-operative interdependence. With this in mind, an international cooperation in terms of establishing such legal framework is invaluable to prevent political unrest between countries against water scarcity and to optimally manage these fruitful ecosystems.

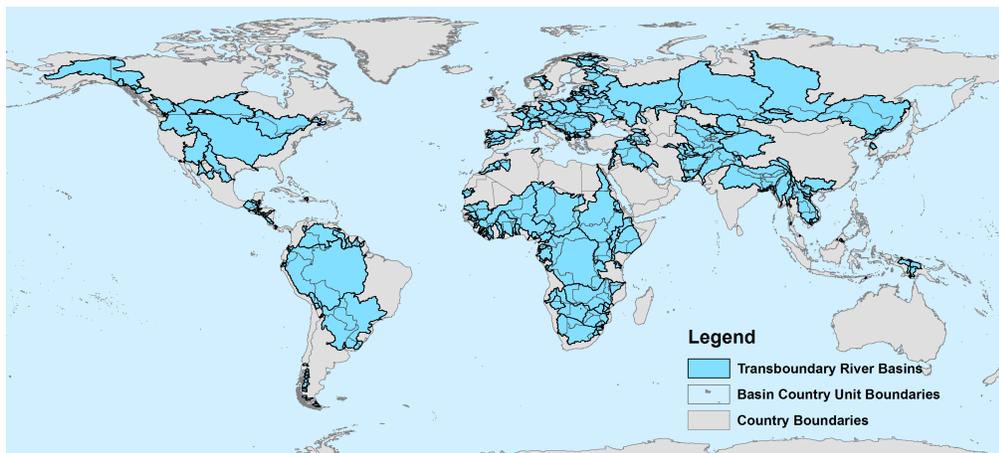
Definition of Key Terms

Trans-boundary Waters: They are rivers, lakes, their basins, and generally inland water along with aquifers that are under the power of two or more countries. Oceans, territorial seas and coastal waters are excluded in this definition. They are the biggest source of freshwater supply, and they have many ecological benefits such as hydropower, fishing, industrial development, etc.

Aquifers: "An aquifer is an underground layer of water-bearing rock. Water-bearing rocks are permeable, meaning that they have openings that liquids can pass through," (*aquifer*, National Geographic Encyclopedia). Basically, rain and melted ice fill these aquifers, forming underground water.

General Overview

The first legal co-operation was established between Sumerian cities of Lagash and Umma regarding the water distribution of the Tigris River, marking the commencement of many efforts to negotiate on trans-boundary waters. International river commissions throughout the world have ratified frameworks on trans-boundary waters, and more than 3600 treaties were signed. A notable example is Cambodia, Thailand, Laos and Vietnam's effort within the Mekong River Commission, by which these four countries were able to negotiate their technical needs throughout the Vietnam War. Another example is that "since 1955, Israel and Jordan have held regular talks on the sharing of the Jordan River, even as they were until recently in a legal state of war" (UNDESA, par. 3). All these efforts indicate that with diplomacy, a legal framework is subject to be established in accordance with involved parties' joint interests; on the other hand, all these individual agreements contain major loopholes and lack viable water monitoring systems, administrative enforcement task forces, and specific water distribution provisions that are concordant with deflections in water flow and changing needs. The map below presents the importance of establishing an international legal framework; throughout the conference, delegates must strive to write resolutions that address relevant provisions, which would help eradicate individual disputes between these many countries that aim to benefit from trans-boundary waters.



Picture 1: Countries that contain trans-boundary waters TWAP

The legal framework must aim to advise countries that share trans-boundary water resources when they want to establish a unanimous agreement, and to sign a treaty. In accordance with 1997's trans-boundary waters convention, the legal framework must be written considering two main necessities: "equitable and reasonable use" and "the obligation not to cause significant harm to neighbors," (A/51/49).

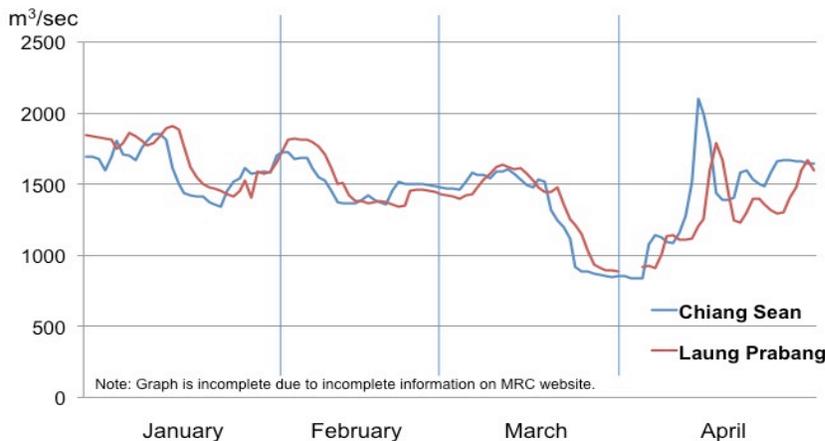
1. Equitable and reasonable use

The allocation of trans-boundary water must be done considering four main factors that affect the volumetric flow rate of inland water. First and most important segment of factors is **ecological factors**, since the water supply is dependent on the climate. If trans-boundary water resides on a geography where

monsoon type of climate is prevalent, it's evident that rainfall ratio will be large; hence, more water will be stored in river basins and aquifers. However, if trans-boundary water resides in a dry climate, such as the Nile River resides on desert climate, both surface water collection and ground water storage will be significantly small. Furthermore, one must also consider how rainfall fluctuates within a climate; seasonal changes are also a big factor that must be considered while deciding on the allocation of water. For instance, *Picture 2* below indicates how much seasons affect the water supply in the aforementioned Mekong River. Last but not least, within ecological factors, one must consider the **topography** of the area, because the steepness causes water to flow more rapidly; thus, mountainous areas mean greater influx of water. Countries must thus consider these factors while deciding on how to utilize water fairly, how to create opportunities from the ecological conditions such as building dams and generating hydroelectric energy, and preventing natural disasters, namely floods, caused by climate, season, or topography.

Mekong Flow Rate Comparison Chiang Saen Station and Luang Prabang Station January – April 2013

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Picture 2: The variations in the Mekong River's volumetric flow rate according to season

Just as importantly, delegates must consider that the *demographical and geopolitical factors*, or the populations of various countries living alongside the watercourse; in other words, if countries A, B, and C share a watercourse, the allocation of water supply must take into account which country has the highest population. Equal use doesn't mean equal supply, for denser populations require more water. Since "*most of the world's major rivers flow through several countries, people living downstream depend on the goodwill of people living on the upstream,*" (World Vision, 1). However, with a legal framework, equitable and fair use won't be left to goodwill, and will be protected by international law. Every water canal opened decreases the water supply for countries under the canal, therefore, there must be strict criteria on how to construct water canals, or else, brawls over water may prevail. Industrial activities benefiting from the trans-boundary waters must also be adhere to strict criteria that clearly delineate conditions.

2. The obligation not to cause significant harm to neighbors

The framework must also stress on how to tackle detrimental affects regarding the use of trans-boundary waters. There are three main questions delegates must keep in mind. Firstly, how will countries preserve nature and prevent *water pollution*? When trans-boundary waters are used for industrial acts or if they are a touristic attraction, it's likely that the consummation will cause water pollution. Thus, the framework must address measures for factories to filter the water and limit the recreational use of water, namely hotels and touristic facilities. Moreover, water-borne diseases such as dysentery, cholera, salmonellosis, etc. are a big threat to those benefiting from trans-boundary waters and aquifers. As a matter of fact, according to a research by World Health Organization and UNICEF, "Water sanitation related disease kills nearly 1 million people each year," (Progress on sanitation and drinking water). These malignant diseases are definitely a problem that must be considered while pondering on water pollution. Rather a simpler question, what are the boundaries to exercises such as *fishing*? And most importantly, how *will natural calamities, most importantly floods*, be prevented and what will be the aftermath relief procedure if a natural disaster occurs anyways? As trans-boundary waters are mainly rivers and lakes, it's highly probable that they may flood when there is excess rainfall or when ice melts in the winter. Possible solutions on these questions will be presented later in this research report.

To get a better grasp on the issue, one can examine the Nile Valley Water conflict. Basically, the Grand Ethiopian Renaissance Dam, a dam on the Blue Nile was filled with water last year for the first time. Ethiopia had finally fulfilled its dreams of storing Nile water to create hydropower; however, since Egypt and Sudan also have borders to Blue Nile as well, and since there was already another huge dam stocking Nile's water, Egypt's Aswan High Dam, there have been questions on how three countries will manage the water flow of Nile. On the other hand, "After the GERD's filling period, depending on the sequence of high and low flows that occur and the amount of water Ethiopia releases – it should be possible for Ethiopia to operate the GERD in such a way that Egypt suffers relatively little harm." (Whittington, par. 5). Thus, it's apparent that countries may definitely co-operate to share the water supply based on their individual needs. It's important that delegates target which trans-boundary waters their countries share with other countries, and negotiate the terms of this legal framework. For instance, the delegates of Sudan, South Sudan, Egypt, Ethiopia and Uganda must negotiate on the framework, which would be an essential agreement to adjust the water flow of Nile.

The chair report will now focus on the involvement of different parties, and their attempts to solve trans-boundary disputes. It's highly encouraged that you take a look at the conventions on the relevant UN documents part, since you may base some of your ideas on the previous provisions.

UN Involvement

UN Water: It's an inter-agency organization focused on water, trans-boundary waters, seas, and oceans. "It provides the platform to address the cross-cutting nature of water and maximize system-wide coordinated action and coherence." (UN Water, par. 1)

Food and Agricultural Organization of the United Nations (FAO): It helps countries who share trans-boundary river basins or aquifers reach a mutually beneficent accommodation by providing assistance on agriculture, fishing, and ecosystem management. Many arrangements has been established by the FAO, such as the 2007 Consultation arrangement for the Saharan Aquifer system, and FAO currently works to ensure co-operation within the Nile river basins.

United Nations Development Programme (UNDP): UNDP currently has a trans-boundary water program. They have been running programs such as "Shared Waters Partnership" and "Trans boundary River Basin Initiative"

Relevant UN Documents

Convention on the Law of the Non-navigational Uses of International Watercourses, 21 May 1997 (A/51/49): Ratified in 1997, brought into action in 2014, this document defines trans-boundary watercourses, and provides a basic framework under subheadings such as equitable use, regular exchange of data, control of pollution, etc. Parts of this convention may be utilized as a source of inspiration to form the backbone of your resolutions.

The United Nations Economical Cooperation for Europe (UNECE) Water Convention, 6 February 2013, (?): Last amended in 2003, this convention is an up-to-date document that provides guidance in setting up definitions, provisions, pondering on prevention, control, and reduction methods, as well as devising pathways for monitoring, research and exchange of information. This document is the most up to date convention on trans-boundary water cooperation; hence, delegates are highly encouraged to read this invaluable convention.

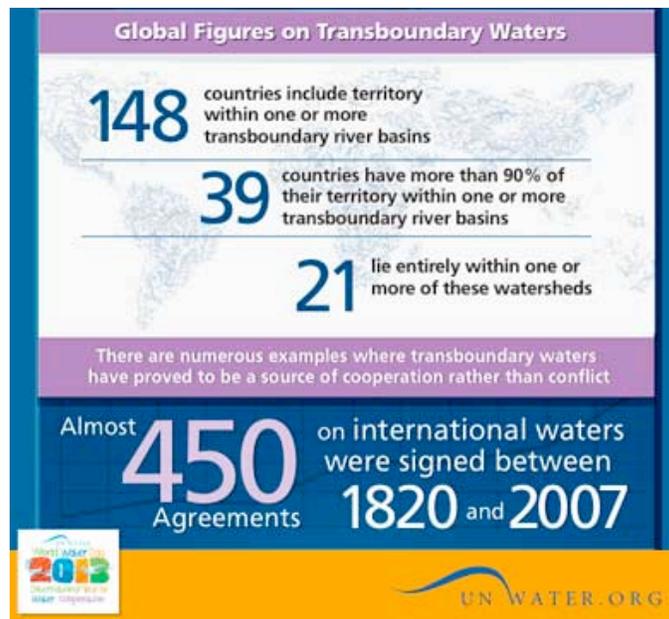
Evaluation of Previous Attempts to Resolve the Issue

Former UN Secretary General Kofi Annan had once said, "Fierce national competition over water resources has prompted fears that water issues contain the seeds of violent conflict. If all the world's peoples work together, a secure and sustainable water future can be ours." Concordant with his worries, the past decade 2005-2015 was named "International Decade for Action: Water for Life," as initiatives to establish a multilateral cooperation for shared waters got intensified. There had been a "World Water Day" on 2009, and 2011 was named "International Year of Water Cooperation." These efforts were beneficial,

because they brought the issue to the attention of international community. As shown in picture 3 below, public awareness was at its pinnacle by these efforts.

As a result of the increased attention, UN was able to organize substantial conventions, most importantly the *Convention on the Law of the Non-navigational Uses of International Watercourses*, in which resolution (A/51/49) was passed. Resolution (A/51/49) was pretty successful in abstract, because it step by step provides solutions to questions related to trans-boundary waters, to questions that are addressed in the general overview of this research report. However, it lacks technicality and detail; for instance, the resolution states what a state shall do, but it doesn't provide suggestions on how the state can do it. Thus, it's essential that delegates try to create detailed paths to solve problems, which is going to be further explained in the next chapter.

In addition, there are many conventions in which regional bodies of UN were able to ratify resolutions, such as the resolution of UNECE, The United Nations Economical Cooperation for Europe. Their presence were necessary as a guideline for many treaties being ratified in that region, but delegates must lobby to create a universal guideline that provides suggestions to common problems that are more or less the same everywhere.



Picture 3: The variations in the Mekong River's volumetric flow rate according to season

Possible Solutions

First of all, delegates are highly encouraged to organize a UN convention or a summit to raise awareness on the many problems that will be tackled in the framework.

Ecological factors: climate, seasonal rainfall, topography

Since ecological factors are dependent on region, delegates might integrate regional bodies of United Nations Economical and Social Council as the responsible authority, which are namely UN Economic Commission for Europe, UN Economic Commission for Africa, ECLAC, ESCAP, and ESCWA. They may work with climatic facilities of governments who are next to trans-boundary waters to detect the ecological behavior, the seasonal rain fall, in order to provide insight on the water supply. Also, mobile data collection facilities may be established to take measurements. With their assistance, claimant countries that are having a dispute may be unbiased informed about the water supply according to these ecological factors. On another note, these regional bodies can work with claimant governments to assist them regarding the utilization of water in terms of topography. What is suggested is multipartite meetings between countries and the respective regional body where they will be able to share information.

Demographics and Geopolitics: Quota for water supply, dams, and industry

This is a much more complex issue, because it involves private sector as well as governments. However, starting from scratch, the framework must definitely address that the industrial capacity and dam capacity the river allows must be divided among nations according to their populations. How? It would be a logical suggestion that countries share demographical information according to reason and make sure their economical departments convene. By this, they may negotiate the allocation of water while respecting each other's industrial growth and energy generation aims. A higher organ than regional bodies may be assigned to supervise the countries, since corruption and brawls are inevitable in politics; in other words, a supervisory organ may establish optimal transparency.

Water pollution and water borne diseases

Water pollution is a by-product of factories, industrial sites, and touristic resorts. Thus, the framework must mention a filtering system, by which polluted water will be cleansed. World Health Organization has feasible criteria for water sanitation, and the legal framework may mention that the filtering must adhere to such criteria. Last but not least, there must be public awareness campaigns against water borne diseases such as dysentery, cholera, salmonellosis, etc. At this point, related NGOs can offer help, as they can give seminars, organize workshops, etc. Last but not least, if countries contain trans-boundary water that is infected with such malignant disease, public health departments may initiate vaccination campaigns, and NGOs can be integrated into these campaigns. Some NGOs are "Alternative World Water Forum," and "BPD Water and Sanitation."

On the other hand, if countries do not adhere to the framework, there must be legal action against them for ignoring “the obligation not to cause significant harm to neighbors.” the “Polluter Pays Principle” is advised to be implemented.

Fishing

It's encouraged that marine conversationalists work together with fisher co-ops to ensure that they don't overhunt.

Natural Calamities and floods

The first proactive steps must be prevention, mitigation, and preparedness. With this reason, countries must mobilize their research facilities to carry out measurements throughout the year to detect any abnormal value in either the volumetric water flow or the height of the water. The framework can advise that efforts intensify according to climatic behavior; for instance, during the monsoon rains, floods are much more probable. On the other hand, for continental climates, springs are threatening, since the melting snow may contribute to the water capacity. In brief, research must continue throughout the year and intensify in specific periods.

In case of a natural calamity passing through the prevention barrier, the procedure may address how to carry out rescue missions and then commence the immediate relief, subsequently rehabilitation and reconstruction procedures. A National Disaster Response Fund is vital in scenarios like such, and it's suggested that every country leaves a portion of their budget to trans-boundary waters.

Notes from the Chair

Dear delegates, first of all, congratulations on reaching the end of this chair report. Writing a framework might appear as an abstract concept; however, frameworks are especially important, because they provide specific steps and they are utilized as a guideline by countries that are currently having disputes. In other words, they serve as a criterion for the optimal management of trans-boundary waters. Thus, it's important that they are extended on many aspects of managing trans-boundary rivers or aquifers: monitoring, development, consultations, warning and alarm systems, industrial allocation, fishing and tourism activities, mutual assistance, and exchange of information. This research report delineates possible solutions and previous UN conventions to provide a skeleton for your framework, yet may also add your insights and your own solutions. Please make sure you are aware of your country's policy and whether you share trans-boundary waters with other countries, which is highly probable.

If you have any questions on the topic or on the conference in general, or if you just want to say hello, you can email me from okuezg.18@robcok.k12.tr - I will definitely respond. After you have done your preparations, just relax and get excited for this wonderful experience; I am looking forward to meet all of you. Thanks for investing your time on this research report!

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