

**RAWLS' THEORY OF JUSTICE: TRANSBOUNDARY WATER DISPUTES**

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## **ABSTRACT**

What moral obligations do riparian states have to other states that share the same water source? For my research topic, I chose to explore the relationship between transboundary water disputes and Rawls' difference principle. I was curious to see if there was a strong presence of Rawls' difference principle in international disputes, and I found that his ideas are embraced in the United Nations but limited in case studies. My methodology in examining different potential variables in transboundary water cooperation and disputes are four different case studies of current transboundary water disputes. From my research, I found that because transboundary water disputes usually are caused by different ideas and paradigms of distributive justice, Rawls' Theory of Justice can be used as a moral compass for resolving international disputes, because the veil of ignorance will influence people to make choices based upon moral considerations instead of choices based on their self-interest.

## **Introduction**

For my research, I wanted to examine Rawls' idea of distributive justice in regards to transboundary water disputes, specifically, the balance of state sovereignty and human rights. My initial question is whether there is there a moral obligation between states to protect each other's water. From this question, I investigated different authors and case studies in geography academia that lacked moral paradigms. From my research, I discovered that because transboundary water disputes usually are caused by different ideas and paradigms of distributive justice, Rawls' Theory of Justice can be used as a moral compass for resolving international disputes, since the veil of ignorance will influence people to make choices based upon moral considerations instead of choices based on their self-interest.

## **Water Rights**

There is very little debate surrounding the importance of water; it is an essential part of human life, making up 60% of the human body weight. However, there is strong debate about people's rights to water. Good water management is an essential key to development that needs to be practiced by more, but more importantly, bad water management needs to be avoided to prevent catastrophic disasters from occurring.

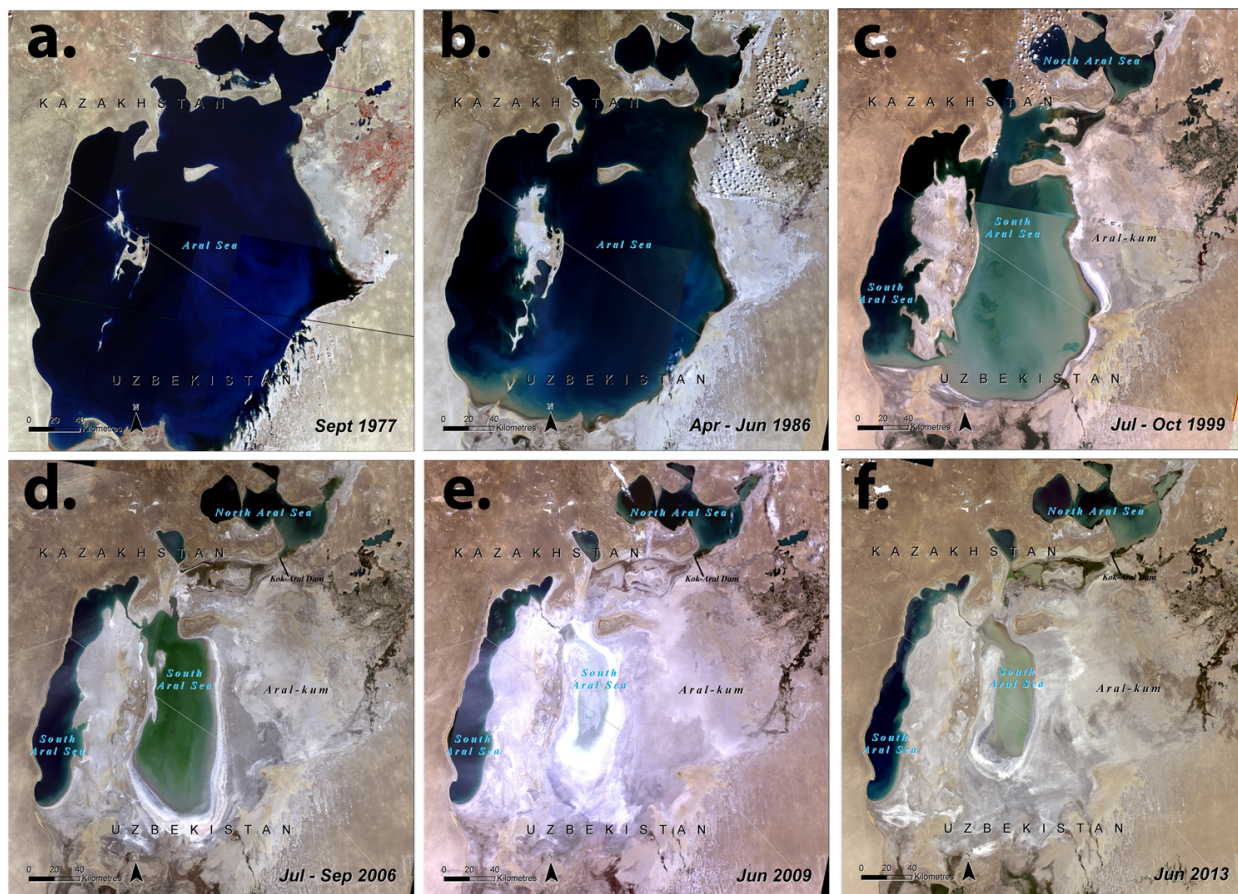
The management of transboundary waters is impactful on a global scale, but not all transboundary water disputes are considered equal. According to the United Nations, 145 countries share water basins, which includes an estimated 90% of the world's population. Although most states have been able to solve transboundary water disputes peacefully, there are 37 recorded transboundary water disputes within the past 50 years (United Nations Development Programme). There are two main types of arguments that states use in transboundary water disputes: state sovereignty and human rights. States generally use sovereignty as an argument

when a greater share of the water will further economic goals, and human rights are mostly used when limited access to clean water is affecting quality of life (Damania). Both arguments are valid, and the competing moral values and experiences have the potential to create deep tensions over transboundary waters.

The political atmosphere for transboundary water disputes is becoming more intense. The United Nations estimates that population growth will double the demand for water every 21 years in developing countries that experience high birthrates (United Nations Development Programme). Climate change has increased volatility of water supply throughout the world and has severely limited water supply to the most sensitive areas. Recent estimates suggest that climate change will account for about 20 percent of the increase in global water scarcity (United Nations Development Programme). The specific regions that are more vulnerable to water disputes, the Middle East and Asia, share two common features: their water is severely limited and vulnerable to climate change. While Asia has 36% of the global runoff freshwater supply, it also has 60% of the world's population. In contrast, South America has 26% of the global runoff freshwater supply, and 6% of the world population (United Nations Environment Programme). Although all regions have a finite supply of water, various regions deal with different types of disputes in accordance geographic regions.

One example of water management and cooperation being a critical aspect of development is the Aral Sea. The Aral Sea was once one of the four largest lakes in the world and a vital source of life for Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, Kyrgyzstan, Afghanistan, and Iran. Two of the main rivers that connected to the Aral Sea, the Syr Darya and Amu Darya rivers, were vital to the Aral Sea's health. When the Soviet Union made a central decision in 1960 to divert the Syr Darya and Amu Darya in order to irrigate Russian crops, the

Soviet Union predicted that the decision would have catastrophic effects for the riparian states (Pala). In the past fifty years, it is estimated that the Aral Sea lost 50% of its surface area and 66% of its volume. The Aral Sea's salinity rose from 10 grams per liter to 100 grams per liter. The Aral Sea's biodiversity and resources for human life have greatly diminished. Of the 178 species of animal life found in the inland sea in 1973, only 38 of the species had survived in the early 2000s (Pala). In the late 1980s, the Aral Sea had no more fish to sustain human life, leaving the surrounding areas in poverty. The Soviet Union had calculatedly ruined a major source of natural resources and life for 13.8 million people and is an example of how water management and cooperation is crucial.



*Landsat Satellite Imagery Mosaic showing visible change of the Aral Sea. Source: USGS/NASA; visualization by UNP/GRID Sioux Falls*

In the case of the Aral Sea, water mismanagement by one state negatively affected other states for decade. Conflict in transboundary water management can yield disastrous effects, but cooperation in transboundary water management can produce large improvements in human rights. It can potentially create more water security for the least fortunate and improve basic human rights in all corners of the world. Water rights are as a critical part of cooperation between states as trade, because both states are interdependent on each other.

### **John Rawls' Theory of Justice**

John Rawls' Theory of Justice is centered around social cooperation. Rawls argues that social cooperation is necessary for the worst off in society to obtain decent lives, and he sees society's distribution of benefits as unjust. In the first part of his book, Rawls' negative thesis argues that privileged people are not entitled to the benefits of social cooperation. In the second part of his book, Rawls' positive distributive thesis argues that people should not be allowed to unequally distribute social goods unless it is advantageous for everyone in society (Rawls). Rawls' Theory of Justice creates strong paradigms of equality and reciprocity that are essential to improve the standard of living among the least fortunate.

In Rawls' social contract account of justice, he clearly states that there are certain human rights (Rawls) that should be extended to all people, but members of society are limited in their abilities to be impartial. Members of society have skewed judgement due to their experiences, language, social upbringings, and ulterior motives. To overcome this obstacle, Rawls creates the Veil of Ignorance.

Each person possesses and inviolability founded on justice that even the welfare of society as a whole cannot override. For this reason, justice denies that the loss of freedom for some is made right by a greater good shared by others. It does not allow that the sacrifices imposed on a few are outweighed by the larger sum of advantages enjoyed by many. Therefore in a just

society the liberties of equal citizenship are taken as settled; the rights secured by justice are not subject to political bargaining or to the calculus of social interests. The only thing that permits us to acquiesce in an erroneous theory is the lack of a better one; analogously, an injustice is tolerable only when it is necessary to avoid an even greater injustice. Being first virtues of human activities, truth and justice are uncompromising. (Rawls)

Rawls suggests that to achieve justice as fairness, one must put be in an original position behind the Veil of Ignorance. Behind the veil, a person has no knowledge of his standing in society nor his natural abilities. Consequently, he or she will make decisions that will benefit even the least fortunate of society (Rawls).

Behind the Veil of Ignorance, Rawls suggests that there are two central ideas that will guide the fair and impartial point of view, named the Two Principles of Justice as Fairness. The first principle, the liberty principle, affirms that all citizens have equal basic rights and liberties, including “liberty of conscience and freedom of association, freedom of speech and liberty of the person, the rights to vote, to hold public office, to be treated in accordance with the rule of law, etc (Wenar).” These basic rights and liberties are to be distributed equally, because unequal rights would hurt the least advantaged members of society. The second principle, the equality principle, requires social and economic differences to met two different conditions. The first condition, known as the fair equality and opportunity condition, requires that all persons have the effective right to any office or position. The second condition, often referred to as the difference principle, argues that unequally distributed benefits of social goods should not harm the least advantaged persons of society. Although the equality principle is important to Rawls, the liberty principle is the most critical principle to achieve, because it guarantees the most basic rights to people. In the case that the equality principle is fulfilled, and the liberty principle is not, Rawls would consider none of the principles to achieved (Rawls).

## **Literature Review**

Research on transboundary water disputes is limited. There are two main organizations that the United Nations uses to measure and track water disputes and resolutions, the International Water Management Institute and the Pacific Institute. Although the different organizations do not contradict each other, they highlight different key areas of transboundary water disputes. The Pacific Institute focuses on the types of actors participating in water disputes, and the International Water Management Institute argues that water conflicts arise out of other political issues. Both organizations have a common theme that water has the potential to fuel wider conflicts but also to act as a bridge for cooperation, and they cover all types of transboundary water disputes. While discussing the literature of both organizations, I will also be talking about different variables that the authors used that influenced my choice of case studies. I tried to find cases that fit most different types of transboundary water conflicts for variation.

The Pacific Institute focuses on the types of actors in water disputes. As most other areas of political conflicts, there seems to be a decline of state to state water conflicts and a growing risk of subnational conflicts among water disputes. The most common types of subnational water disputes are terrorist threats, ethnic conflicts, and competing economic interests. In contrast, state to state transboundary water disputes usually are a type of tool to influence politics, military control, and development among states. The lack of international resolutions for subnational water conflicts heighten tension among the different political and economic actors in disputes.

To help characterize and describe the types of water conflicts, I have adopted the current 6 categories used by the Pacific Institute to characterize water conflicts. The first category is control of water resources, which can be used both by state and non-state actors. Control of water resources is defined as when the water supply or access to water is at the root of tensions. The



second category is military tool, which can only be used by state actors. Military tool is defined as when a source or water or water resources is used by a state as a weapon during military action. Military tool is closely related to military target, which can only be used by state actors as well, but military target is defined as where water resource systems are the objects of military actions. Terrorism is the fifth category; terrorism is used by non-state actors and is become more prevalent among water disputes. Terrorism is defined as when “water resources or water systems are targets or tools of violence or coercion by non-state actors. (the Pacific Institute)” The last category is development disputes, which can be used both by state and non-state actors. Development disputes are where water resources or water systems cause disputes because of the water’s economic potential. Any particular dispute can fit multiple descriptions, but most are categorized as development disputes (the Pacific Institute).

**Table 1: The Pacific Institute’s Basis of Conflict Categories**

<b>Category</b>	<b>Description</b>
<b>Control of Water Resources</b>	Control of Water Resources is defined as when the finite supply of water is the root of tension for transboundary water disputes. It can be used both by state and non-state actors.
<b>Military Tool</b>	Military Tool is defined as when a state or non-state uses water resources are used as a military weapon.
<b>Political Tool</b>	Political Tool is defined as when a state uses water resources to further a political goal.
<b>Terrorism</b>	Terrorism is defined as when non-state actors use water resources are used as targets or resources for violence or coercion.
<b>Military Target</b>	Military Target is defined as when a state or non-state actor targets a water resource with military action.
<b>Development Dispute</b>	Development Dispute is defined as when a state or non-state’s root of tension for a transboundary water disputes is concerning socioeconomic development.

***Note:** A conflict can be defined by multiple categories. Although some categories that include non-state actors may not an international dispute.*

The International Water Management Institute (IWMI) has found that water conflicts among nations are significantly less likely than cooperation. Their data includes documents that are over 4000 years old. The IWMI offers qualitative evidence that could suggest that cooperation is not correlated with political or economic relations. Their evidence suggests that states' perceptions and beliefs about land attachment, human rights, and sovereignty all play a significant role in determining cooperation or conflict. One of IWMI's categorical variables, the basis of water conflict effect, has three different categories. The first is the impact of water quality. Water quality can be negatively affected by pollution or withdrawing too much water from a basin. This is the most common type of water dispute in all areas of the world but is unlikely to result in conflict. The second type of water effect is the timing of water flows. The most common violations usually involve agriculture, and different actors can flood or dry the amount of water others receive. The third category is a competition for a finite supply of water. Competition is mostly common where water is a scarce resource. This type of conflict is prevalent in the Middle East and Asia. Conflicts generally only fit under one category, but they can fit up to all three categories.

**Table 2: Future's Effect of Water Use**

<b>Category</b>	<b>Description</b>
<b>Competition for a finite supply of water</b>	Two or more groups are competing for a finite supply of water.
<b>Impacts of Water Quality</b>	One or more groups are depleting the quality of water. The most common type of impact of water quality is pollution.
<b>Timing of Water Flows</b>	One or more groups change the timing of the water flow for other groups. The most common types of timing water flow issues involve dams and/or flooding.

From prior research on transboundary water disputes, I have found that the variable that best predicts cooperation or conflict for water disputes is the states' difference of the definitions of human rights and sovereignty. As the difference in definitions increases among states in transboundary disputes, there is an associated decrease in ability to cooperate in water management, given that all other possible variables are held constant. If Rawls' theory of justice is used as a moral compass for transboundary water disputes, a lot of the disputes would not be so complex.

### **Methodology**

For my research, I want to leave the subject with as much openness as possible to best understand the scope of transboundary water disputes. better understand the themes, topics, and trends within transboundary water disputes. I want my research to better capture the themes, topics, and trends within transboundary water disputes. To achieve this, it would be better to explore the topic of transboundary water disputes in relation to Rawls' justice theory rather than to limit my research to a specific hypothesis. My reasoning leads me to believe that a qualitative method is the most appropriate approach for my research on transboundary water disputes and Rawls' theory of justice.

### **Current Major Transboundary Disputes**

For my research paper, I am looking to see what are the main arguments for riparian states in transboundary water disputes. My main independent variable is whether riparian states in transboundary water disputes use Rawlsian human rights language in their arguments, and my main dependent variable is whether their arguments are sound with Rawls' Difference Principle. I have two control variables, basis of conflict and water effects. I use these two control variables to show diversify the cases that I chose. My theory is that states who argue for human rights will

not always fit with Rawls' Difference Principle, because states who argue for human rights use human rights as a justification instead of moral. Below I briefly discuss the UN's international law concerning transboundary disputes and four transboundary water disputes that are currently being negotiated. As I discuss them, I will be applying Rawls' veil of ignorance as a criterion on how to find cooperation among the different states. While this is only a thought experiment, it shows the political implications of promoting this type of justice as a social norm.

## **United Nations**

The United Nations' international law concerning transboundary water disputes harmonizes with Rawls' veil of ignorance. Historically, transboundary water disputes have always been an issue, but it was viewed as a regional dispute instead of an international dispute. In the 1990s, international transboundary disputes became an important UN issue after the Kyoto Protocol because of the increased social norms for international environmental protection, including water protection. The 1997 United Nations Convention on Non-Navigational Uses of International Watercourses focuses specifically on shared water resources. The Convention was ratified by 55 countries, including Germany, Qatar, the United Kingdom, and Vietnam, but the United States, Brazil, Russia, India, and China still have not ratified the Convention.

The 1997 UN Convention on Non-Navigational Uses of International Watercourse establishes two key principles for shared watercourse: "equitable and reasonable use" and "the obligation not to cause significant harm" to riparian states (United Nations Development Programme). The Convention satisfies Rawls' liberty principle, because it establishes fundamental rights to water. As well, it could be also used for the second condition of the equality principle, because a state cannot put another state at a disadvantage in order to pursue their own water interests. The United Nations Sustainable Development Goals also outlines basic

human rights to water. The goal is to “ensure availability and sustainable management of water and sanitation to all” (United Nations Development Programme). Although the goal is not extremely specific, this is the type of language that supports Rawls’ Theory of Justice principles. The Developmental Goals can be used to promote the liberty principle, because it is meant to establish basic human rights to all people. There are some cases where states do not embrace all of these principles, but the United Nations is started on the right path.

### **Cooperation for the Rhine**

The Rhine River is an example of modern, liberal states efforts to cooperate in water management. Flowing throughout Western Europe, the Rhine River includes Austria, Belgium, France, Germany, Italy, Liechtenstein, Luxembourg, Netherlands, Switzerland. For all involving states, the most common type of dispute is the impact of water quality. Both state and non-state actors have contaminated the river, making it a developmental dispute among different nations. Although the states are liberal and tend to cooperate on many different types of disputes, the Rhine River’s contamination is an ongoing battle for Western Europe (United Nations Environment Programme).

Since the early 1800s, talks of cooperation for Rhine River’s health has been prevalent among Western European states. Historically, the Rhine was used for transporting goods, and consequentially, major industrial centers were formed along the Rhine. As an effort to protect Salmon from the industrial centers’ pollution in the mid 1850s, the 1855 Salmon Commission was formed. Small progress was made, but efforts were disrupted by World War I and II. Eventually, the collaborative efforts relaunched in 1987, and the Rhine Action planned was officially signed by all riparian states. Since 1987, cooperative efforts to reduce the amount of

pollution in the Rhine River have not shown significant results. Although factories have stopped pumping waste into the Rhine, varying sources say that the pollution of plastic is contaminating the water (Mani). Arguably, the Rhine River is one of the most contaminated water basin in the world today. Despite long efforts and cooperative states working together, the Rhine River has yet to be a successful story of water management (United Nations Development Programme).

From a Rawlsian point of view, the Rhine's Pollution Issue satisfies Rawls' liberty principle, because these states are not being deprived of all potential sources of water. Each state has chosen to prioritize their economic development over the purity of the Rhine River, and one country is not put at an extreme disadvantage because of it. The first condition of the second principle, fair and equal opportunity condition, is met, because all states a standard equal say in pollution of the Rhine. However, the difference condition is not met, because the Rhine River's pollution disproportionally affect specific individuals. For individuals that do not live as close to other water source options, it would be cheaper to have clean water from the Rhine. Therefore, pollution of the Rhine puts them at a disadvantage that they initially would not have to face. Although small, Rawls would argue that individuals are entitled to compensation for the pollution's costs.

### **Ukraine and the North Crimea Canal**

After the 2014 annexation of Crimea to Russia, Crimea accused Ukraine of limiting their water supply in the North Crimea Canal. The North Crimea Canal delivers water from a river in southern Ukraine and makes up 88% of Crimea's water supply (Koshelev). The Ukrainian government denied all accusations given by Crimea's authorities, and Crimea responded by building a dam near the canal to try and store water. The type of water effects used are finite supply of water and water supply flow, and the types of conflict are development dispute and

political tool. As tensions build between Crimea and Ukraine, the water dispute is likely to intensify. The water dispute is most likely a tool the Ukraine plans to use for bargaining with Crimea on other issues.

Since 2014, Crimea has faced several serious eco-disasters. The local water is unsafe to drink due to the high levels of salinity. Crimea's limited freshwater supply has ruined their farmers' agricultural crops of rice and vegetables, and the salinization of their land is reaching such high levels that the Russian government is looking different options to relocate all people currently in Crimea (Koshelev). Crimea's ecosystem is headed in a dark direction, and it is expected to become worse.

From a Rawlsian Justice point of view, Ukraine has violated the liberty principle in different ways. Firstly, Ukraine is taking away the home to all of Crimea, which has serious psychological implications and violations of human rights. Secondly, Ukraine is using a fundamental basic human need as a political tool to control Crimea and their civilians. Although it is not directly related to the liberty principle, Rawls considers attacks on civilians extreme and unjust. In this circumstance, I think that Rawls would consider war justifiable, because Crimea's home and fundamental resources are being threatened by Ukraine.

### **Water rights in the Occupied Palestinian Territories**

Water rights is one of the major disputes that Israel and Palestine have not been able to cooperate about. Israel and Palestine share the Jordan River and Mountain Aquifer, but Israel has historically limited Palestine's access to water (Corradin). Both countries have engaged in water talks for years, but very little has been changed. Although there is plenty of water, Palestine and Israel's water dispute is categorized as competition for a finite supply of water, because Palestine is fighting for a larger quantity of water. Israel says their reasoning for limiting accessibility to

water in Palestine is because of Palestine's inability to adequately develop the necessary infrastructure, but most argue that the limited access to water is used as a political tool that fuels tension between the nation and state (United Nations Development Programme).

Israel's control of water supply has severely harmed human rights in Palestine. Israel controls 87% of the water supply, whereas Palestine only controls 13% of the water supply. On Israel and Palestine's water management committee, Palestine is underrepresented, because Israel has total veto power. Palestinian towns have reported that Israel annually cuts their supply of water off for multiple days at a time, and Palestinians often do not have access to water. On average, Israelis consume approximately 2200 cubic meters of water, whereas Palestinians consume an average of 320 cubic meters of water annually (United Nations Development Programme). Palestinians do not have the necessary water for their agriculture industry or day-to-day life, and this affects their abilities to develop as a nation (Corradin). Ultimately, Palestine's access to water is dependent upon their political relations with Israel.

From Rawls' *Theory of Justice*, Israel is undoubtedly violating both of Rawls' principles of justice. Israel is denying innocent Palestinian civilians of a basic fundamental human right that is essential to sustain life. From the original position behind the veil of ignorance, one would argue that the liberty principle should first protect Palestinians' and Israelis' necessity of water to sustain human life. The criteria of ensuring water for all should be the highest priority for all, because everyone should look out for the least fortunate of society. After the criteria of the liberty principle has been achieved, the second principle, can be sought after. The first part of the second principle, the fair opportunity and equality condition, would favor that Palestine have as great of a say of the Jordan River and Mountain Aquifer as Israel. International law would support that two states should have equal say in their shared water, and this would make it



possible for Palestine to have the same opportunities for development as Israel. After this condition has been met, the second condition should be examined. The difference condition calls that people can use the resources autonomously as long as they do not take away the most basic necessity of water for others. This is to say that after Israel gives Palestine the necessary water to sustain life and equal opportunity to control the water supply, then Israel can use the remainder water for their own utility. Consequently, this would limit Israel's ability to use water as a political tool, but it would prioritize the most basic human rights above political agendas.

### **The Grand Ethiopian Renaissance Dam**

For the past eight years, Ethiopia, Egypt, and Sudan have worked together to create cooperative water management for the Grand Ethiopian Renaissance Dam, a major investment to Ethiopia and Sudan, but no agreement is concrete due to the competing interests among the states. Egypt argues that the dam will limit Egypt's water supply, which has both political and historical significance to Egyptians, and Sudan and Ethiopia argue that they need the dam for critical development (Carlson). This dispute can be categorized as a development dispute, because the states are competing for access to more water and development. The water effect is categorized both as timing of water flows and competition for a finite supply of water, because states are both worried about the limited quantity of water and the timing of the water. Although all countries are understandably looking out for their own best interests, their differing definitions of necessity limit their abilities to cooperate.

The dispute has recently become a more pressing issue for Egypt, and the three countries have yet to reach a consensus about the dispute. The \$4.8 billion-dollar hydropower project began in 2010, but due to Egypt's preoccupation with the Arab Springs, the Egyptian Government was unable to fully focus on Ethiopia's new dam. Egypt has reason to worry about

Ethiopia's developmental project; currently, Egypt has barely enough water to support their population, but the UN predicts that Egypt will start suffering water shortages by the year 2025. Although Ethiopia's project is a critical investment that could help better the lives of Ethiopians and Sudanese, the cost could be tremendous for Egypt. The three states' differences in morals leave the states with the options of linkage or military action (BBC News).

In the original position behind the veil of ignorance, the liberty principle is the principal criterion for whether the Grand Ethiopian Renaissance Dam should be finished, because Egypt is claiming that limiting their water source could harm human life. Ethiopia and Sudan should have the right to development, but only after all riparian states' needs for water are fulfilled. The United Nations and Egypt both say that the decrease in water will leave Egypt unable to sustain their growing population. Ethiopia and Sudan do have the right to water to sustain their populations, but the development and excess of the resource would be a violation of difference condition. If Ethiopia and Sudan are to develop at the cost of Egypt's water that is necessary to sustain their population, then the dam is not just. Ethiopia and Sudan should cooperate with Egypt and look to other alternatives before Ethiopia finishes the dam.

## **Conclusion**

Ultimately, I found that most of the research about transboundary water disputes lack a connection with political philosophy. From the literature review, I was able to better organize and guide my qualitative case studies with operationalization tools used by different scholars. While examining my selected case studies, I recognized a lot of previous trends found by prior scholars that seemed to be true for the specific case studies that I chose. As well, I found that the lack of philosophy or norms in transboundary water disputes literature created a pretty big space for me to explore how norms, different ideas, and paradigms of distributive justice could

influence and aid solutions or possible ideas to resolve transboundary water disputes. A lot of the scholars I read highlighted different points about the debate within transboundary water disputes revolving around state sovereignty and human rights, and the case studies I chose show that states use moral justifications to preserve their self-interest. Conclusively, Rawls' veil of ignorance and principles can be used to prevent moral justifications from ruining the well-being of our society. As the United Nations continues to adopt more international law that encourages Rawls' principles, society will better protect the worst off and better achieve Rawls' *Theory of Justice*.

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