

## TRANSBOUNDARY WATER CONFLICTS: A CRITICAL ANALYSIS

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### ABSTRACT

*International water disputes are among the most sensitive and worrisome conflicts in international law that have very feasible and potential impacts on international peace and security. The scope of this research paper will be to critically discuss the existing laws relating to the sharing of transboundary water resources and also discuss some of the cases to realize the dynamics. Therefore, this work aims to offer policy implications for conflict resolution and successful water management about the compared legal frameworks and the functions of ICAs.*

### INTRODUCTION

Water can also be in the form of rivers, lakes, or groundwater basins which are shared by different countries hence there is likely to be some form of conflict between countries on the shared formula and use of the water resources. It can result in high economic, social, and or else environmental costs. This paper aims to discuss such conflicts at the legal level and trace the development of transboundary water law. It also views current existing legal systems, and the use of international courts to solve such disputes.

**Keywords:** Transboundary Waters, Helsinki Rules, UNWC.

### RESEARCH QUESTIONS

1. What are the main legal instruments related to the management of TBSs?
2. What are the emerging patterns of handling transboundary water conflicts issued by international courts and tribunals?
3. Based on research studies what are the typical difficulties and issues which arise about the management of international water resources?
4. What measures must be taken to upgrade international law as regards the conflicts over

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shared water resources?

## RESEARCH METHODOLOGY

This research employs a comparative legal analysis whereby both qualitative methods in the analysis of legal documents, case laws, and secondary data materials will be used. It comprises the review of prior research works consisting of Transboundary Water Law and a few Case Studies, a legal examination of instruments including treaties and conventions along with the cases collected from different International Courts and tribunals, and an in-depth examination and demonstration of a few specific Case studies regarding Transboundary Water Conflict.

## Literature Review

### **The Evolution of International Water Law: Entitled From the Helsinki Rules to the UN Watercourses Convention by J. A Allan (2007)<sup>1</sup>**

In this paper, the genealogy of international water law is outlined as starting from the bilateral agreements moving to the Helsinki Rules, and then to the UN Watercourses Convention. In Alan's view, these changes are due to the evolving nature of the legal instruments and awareness that there is a need to effectively manage shared water systems. Some of the principles that are laid down in these frameworks have been expounded in this paper and these include Equitable utilization and the principle of prior notification. Allan's work is necessary to consider while analyzing the legal norms of modern society that develop the framework for evaluating the outcomes of modern contracts.

### **Transboundary Water Conflicts: The Comparative Case Study: the Mekong, Nile and Indus River Basins" by R. Wolf (2009)<sup>2</sup>**

The following paper provides a comparative look into transboundary water disputes with a focus on the Mekong, Nile, and Indus basins. Wolf looks at ways in which different laws and past experiences affect the governance of water resources. The arguments of the paper are based on the importance of regional agreements and the problems of riparian states in

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<sup>1</sup> J.A. Allan, *The Evolution of International Water Law: From the Helsinki Rules to the UN Watercourses Convention* (2007) 22 *International Journal of Water Resources Development*

<sup>2</sup> R. Wolf, *Transboundary Water Conflicts: A Comparative Analysis of the Mekong, Nile, and Indus River Basins* (2009) 34 *Water International*

the question of national interest conflicting with joint management. I found Wolf's work useful for getting insights about the situations of utilization of IWL, in which they are in a concrete geopolitical environment, and about the difficulties of solving the water issues.

### **The Role of International Courts in Resolving Transboundary Water Disputes: Law of the Sea from the ICJ and PCA by L. Boisson de Chazournes in 2011<sup>3</sup>**

Boisson de Chazournes looks at the third-party intervention referring to another organization such as the International Court of Justice and the Permanent Court of Arbitration in the transboundary water conflict solution. The paper identifies some crucial hydroelectric schemes including but not limited to the Gabcikovo-Nagymaros Project and Indus Waters Kishanganga Arbitration, which explains the types of contributions the court has offered to the development of the IWL.

### **Climate Change and Transboundary Water Resources: Challenges and Opportunities Legal Challenges and Opportunities, by C. Brunner (2015)<sup>4</sup>**

Looking strictly at the subject of the paper by Brunner – climate change and transboundary water resources, and the legal issues related to that. This paper identifies various factors such as new precipitation regimes, water development, and climate change in the management of joint water resources. According to Brunner, there is a requirement for the creation of new legal conditions that address such changes and improve stability. In this regard, the paper emphasizes the need for the climate change factor's integration into international contracts and offers recommendations for enhancing legal tools for the new climate change challenges.

## **HISTORICAL CONTEXT OF TRANSBOUNDARY WATER LAW**

The progressive development of transboundary water law can thus be seen as a progressive realization by the human race for one to work collectively towards the sharing of water resources. In the past, there were more specifically bilateral measures, which started as early as the 'treaties on the use of international watercourses', which focused only on navigation

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<sup>3</sup> L. Boisson de Chazournes, *The Role of International Courts in Resolving Transboundary Water Disputes: Lessons from the ICJ and PCA* (2011) 18 *International Environmental Agreements: Politics, Law and Economics*

<sup>4</sup> C. Brunner, *Climate Change and Transboundary Water Resources: Legal Challenges and Opportunities* (2015) 30 *Global Environmental Change*

and demarcation. Though these treaties were confined to very specific problems, the basis of international legal systems was created.

The first major landmark in the development of transboundary water law could be considered the Helsinki Rules on the Uses of the Waters of International Rivers<sup>5</sup> approved by the International Law Association (ILA) in 1966. The Helsinki Rules were revolutionary in that they defined rational and reasonable use principles as well as the non-erosion prohibition, that is the idea stated that there should not be undue harm to other riparian states. These principles revolutionized international law at the time of their signing and have the subsequent international treaties.

A second advancement came with the signing of the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (UN Watercourses Convention)<sup>6</sup> in 1997 by the UN General Assembly. This convention is constructed based on the Helsinki Rules and contains a greater number of articles on watercourses, the protection of ecosystems, and the settlement of disputes. As for the UN Watercourses Convention, the general acceptance of the instrument and the divide and conquer strategy are noteworthy; Last but not least, the UN Watercourses Convention regulates rights and obligations for the riparian states regarding the non-international watercourses' uses.

More progress in the legislation of transboundary water resources is captured in the Berlin Rules on Water Resources, approved by the ILA in 2004. The Berlin Rules seemed to develop the Helsinki Rules further and introduced modern issues like sustainable development environmental protection, and water rights. These rules indicate better language of water in terms of the system set as well as the indication of ecological and social relations concepts.

Based on the assessment of these milestone developments, it is possible to identify that the global evolution of the transboundary water law has gradually shifted from the bilateral setting to the multilateral level. Such a development captures increasing global recognition of the need for cooperation and the existence of legal means that will have regard to the various claims of the riparian States, and at the same time, promote efficiency and fairness in the utilization of water resources. Altogether, the Helsinki Rules, UN Watercourses

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<sup>5</sup> UNECE, *The Helsinki Rules on the Uses of the Waters of International Rivers* (1966) 1 *International Legal Materials*

<sup>6</sup> UN, *Convention on the Law of the Non-Navigational Uses of International Watercourses* (1997) 36 *ILM*

Convention, and Berlin Rules demonstrate further evolution in response to new global challenges toward a more integrated and cooperative governance of shared freshwater resources, which proves the constant evolution of international water law.

## **LEGAL FRAMEWORKS GOVERNING TRANSBOUNDARY WATER RESOURCES**

The management of transboundary water resources is based on several basic legal principles and regional conventions that demonstrate the relationship between riparian states and the principles of efficient and reasonable use of water resources management.

### **The 1997 UN Watercourses Convention**

The United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses of 1997 is considered to be an important pillar of international water law. The Convention incorporates several principles intended to promote cooperation and manage possible controversies concerning the watercourses. Key principles include:

#### **Equitable and Reasonable Utilization**

This principle requires watercourse states to use the International Watercourses in a rational way beneficial to every party by putting into consideration some factors that include the social and economic needs of the states, the number of persons relying on that watercourse, and impacts resulting from that use to other watercourse state.

#### **No Significant Harm**

Any activity of a state carried out in the watercourse must not result in any appreciable harm to other states of the watercourse. This principle requires that states shall use all the measures within their reach to eliminate, minimize, and regulate pollution and any other degradation of the environment.

#### **Cooperation and Information Exchange**

The Convention also focuses on the need for the exchange of data and information on the status of implementation and observation of provisions by the watercourse states. This encompasses notification and consultation with other states on contemplated actions that are likely to cause damage to other states.

The strength of the UN Watercourses Convention therefore stems from its recognition and the general outlook taken in addressing issues about international watercourses. Nonetheless, the goal has been faced with limitations especially in its implementation because of the lack of political will by some states and in addition to this, due to the differing legal understandings by states of some of its provisions.

### **The 2008 Draft Articles on the Law of Transboundary Aquifers**

Given a rising awareness of the significance of groundwater sources, the 2008 Draft Articles on the Law of Transboundary Aquifers deal with the legal concern of the sharing of transboundary aquifers. Key aspects of the Draft Articles include:

**Sovereignty and Cooperation:** Recognizing states' authority within their territories as well as the principle of the sovereignty of aquifer systems, the Draft Articles put a strong emphasis on the actual cooperation of states that are in a position to exploit the transboundary resources that are the focus of the analyzed texts. The goal of this cooperative framework is to optimize resource use and minimize conflict over natural resources.

**Protection and Preservation:** Aquifers and other related ecosystems are regarded as protected areas that need to be preserved across the states. This relates to the protection of water quality through avoiding contamination, for instance by pollution, and ensuring the health of recharge zones.

**Equitable and Reasonable Utilization:** Like the UN Watercourses Convention, the Draft Articles require states to use transboundary aquifers equitably and reasonably to such use, intensity, and purpose of use depending on the recharge rate, existing uses, and the likely impact on the other.

Thus, the Draft Articles are a positive advancement in the regulation of transboundary groundwaters, although they are still purely recommendatory and not legally binding, thus circumscribing their ability to effect change in the state's practices.

### **Regional Agreements**

International agreements are the key governing tool for individual water bodies, reflected in the geographical, political, and socio-economic conditions of the regions in which the water bodies are located. Notable examples include:

The Mekong Agreement: Formed in 1995, the Mekong Agreement includes the countries of the Mekong River Basin with the objective of sustainable utilization and development of the river's resources. The Mekong River Commission helps countries involved as members to consult, share information as well as solve disputes arising over the utilization of the river. However, challenges continue, and they are due to such factors as the differences in national interest and upstream-downstream relations.<sup>7</sup>

### **The Nile Basin Initiative (NBI)**

The NBI was formally formed in 1999 and includes all the Riparian States of the Nile River the organization was formed with the general objective of cooperative management and sustainable development of the Nile River Basin. However, the following challenges hinder the attainment of the set objectives by the NBI; Historical conflict in the region Geopolitical interests Variations in water use among the Countries.

### **The Indus Waters Treaty**

The Indus Waters Treaty was signed in 1960 between India and Pakistan that manage the sharing of water of the Indus River and its importance. Essential parts of the treaty are controlled by the Permanent Indus Commission and although tensions constancy and emergent minor disputes are occasionally imposed for others the treaty was perceived fair successful or at least substantially effective in preventing big-scaled conflicts. They remain with the understandable system of allotment as well as with the means that are currently available for the settlement of the existing controversies.

### **ANALYTICAL OVERVIEW**

International water law, including the UN Watercourses Convention and other regional treaties such as the Mekong Agreement, try to bring harmonical solutions to the interests of riparian states as far as the principles of adequate and reasonable use of shared waters, causing no significant harm to other entities, and cooperation are concerned. Still, the use is crippled by politics, economy, and climate change despite aiding in fighting diseases and improving health systems. It stresses that the management of these resources depends on dialogue, flexible management, and the improvement of cooperation. However, the

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<sup>7</sup> M. K. Mehta, *Regional Agreements for Transboundary Water Management: The Mekong, Nile, and Indus Basins* (2004) 29 *Water Resources Research*

endeavor to improve these frameworks remains sound because the effectiveness of each is contingent upon the states' enforcement. The next steps should cover the enhancement of compliance measures, involving and involving all groups of consumers, as well as the inclusion of scientific innovations in the framework of sustainable and lasting water management.

International courts and tribunals are judiciary bodies that are created to make and implement decisions while resolving disputes.

Inter-state water conflicts have been handled by International Courts and tribunals primarily the International Court of Justice (ICJ), and the Permanent Court of Arbitration (PCA). By their decisions, they established some of the concepts of international water law concerning transboundary water resources management.

### **Main Precedents and Consequences for IL Water Law**

World Court more formally known as International Court of Justice.

#### **1. The Corfu Channel case of 1949 was a case that involved the United Kingdom against Albania**

The Corfu Channel Case was a case concerning the use of the Corfu Channel – as an international strait, through the territory of Albania by the warships of the UK. At ICJ however, the stress was laid on the principle of sovereignty of the state and innocent passage, which in most circumstances implies that vessels are free to cross through the territorial sea without jeopardizing the peace, good order, or security of the state in the territory. Although the case did not rise to considering the transboundary water resources, it created precedents for the state obligations and risks in Internet waterways which is positive when it comes to the management of the shared water resources.

#### **2. Lake Lanoux case amidst France and Spain in the year 1957**

In this situation, the Lake Lanoux Arbitration was constructed to accommodate the controversy between France and Spain concerning the diversion of water from Lake Lanoux that affected the downstream water supply in Spain. The tribunal favored the French party, thus focusing on the principles of rational and equal distribution of water with neighboring states. This decision further stressed the importance of notification and consultation between



the states when the activities / developmental plans are being prepared which may in one way or affect the shared water resources. This case emphasized the cooperative management and consent in the management of transboundary water resources.

### **3. Hungary v. Slovakia (Gabcikovo-Nagymaros Project, 1997)**

The Gabcikovo-Nagymaros Project case related to an investment in a joint hydroelectric plant of Hungary and Slovakia, on the Danube River. While Hungary ceased its activities confirming environmental issues, Slovak has been actively building the project. The major aspects of international law in the ICJ are based on the treaty provisions, environmental factors, and the concept of sustainable development. On the same decision, it proclaimed that developmental objectives should be harmonized to conserve the environment, further establishing that states have the responsibility to consult and cooperate on matters relating to international water course development. It stressed the importance of compliance with the terms of the treaty and at the same time analyzed the changes in the environmental standards.

### **4. Pulp Mills on the River Uruguay, Argentina v. Uruguay 2010**

The Pulp Mills case involved an application by Argentina seeking inhibition of the construction of pulp mills on the River Uruguay by Uruguay because of threats of polluting the river. The ICJ stated that Uruguay was responsible for INFORMATION & NOT Consulting ARGENTINA properly, but that there was no SUFFICIENT EVIDENCE & the project could not be stopped on this ground. This decision took cognizance of the need to undertake proper environmental audits and respect the accomplishment of international environmental legal provisions. It affirmed the Pigeonhole that all states that are blessed with transboundary water resources must cooperate since any action that may be taken has impacts on the natural resources found within those waters.

## **International Court of Arbitration**

### **1. Indus Waters Kishanganga Arbitration Case (Pakistan v/s India, 2013)**

This particular Indus Waters Kishanganga Arbitration involved the protest of Pakistan to India regarding the construction of the Kishanganga hydroelectric plant on the stream that is part of the Indus River. Some of the issues CO noted from the briefing were that Pakistan claimed the project periodically affected the water flow and the Indus Waters Treaty was

breached. The PCA tribunal then awarded this case on the grounds of the 'equitable and reasonable utilization' theophylline the argument that India could proceed with the project but needed to also supply Pakistan with a certain quantity of water This decision was based on the responsibilities of the treaty and duties which were the key issues of the future related controversies of the water distribution.

## 2. The SCS arbitration China vs Philippines (2016)

Although most of the cases involved the question of sovereignty, the South China Sea Arbitration had broader bearings to issues of maritime jurisdiction and exploitation of natural resources of the South China Sea. The PCA decided in the favor of Philippines and nullified China's historic rights claim over most of the SCS. The tribunal shed light on what the states can own over maritime features and the water that encircles them which helped in the direction of water strife in the region. This ruling has consequences on how states manage and deal with conflicts within maritime resources and details the significance of following international legal standards in managing shared waters.

### CHALLENGES AND CONTROVERSIES

The following are some of the main factors that make the management of transboundary water resources tricky, and or a subject of rivalry:

**Sovereignty Issues-** This has always been a dilemma of national interest against international commitment. That is, States have been greatly focused on their national sovereignty and demand for water internally rather than on providing for the construction of an effective international framework for water management and sharing. The last principle of equitable and reasonable utilization is an effort to solve this problem because states are to consider the interests of all the riparian states. Nevertheless, unity is hard to achieve, especially when national development measures are contrary to international commitments.

**Climate Change-** Water scarcity and variability are major factors that result from climate change hence the possibility of conflict in water resources. Results of climate variability superimposed by altered precipitation, glacial regime, and drastic weather conditions make it difficult to forecast and therefore manage the water availability in transboundary water systems. There is therefore the need for international laws to integrate climate change resilience and adaptive management to reduce conflict.

## **Enforcement**

It is very difficult to enforce international agreements concerning the management of shared water resources. However, it should be noted that international legal instruments usually do not provide for effective means of enforcement. Compliance is unpredictable relying on the good intentions of the states which are unstable in their decisions due to political and economic motives. Strengthening the administrative support institutional on international water agreements as well as establishing monitoring and reporting systems and penalties for non-compliance.

## **POLICY RECOMMENDATIONS**

### **Strengthen and Harmonize Legal Frameworks**

To solve transboundary water issues, it is essential to develop and coordinate the existing or new legal norms. The following strategy can also be employed: ratification of states in the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses; Except regional conventions in different basins, agreements by the characteristics of each basin, and assistance states in coordinating legal systems to manage shared resources reasonably.

### **Enhance the Role and Accessibility of International Courts**

The advancement and the availability of the international courts including the ICJ and PCA needs to be promoted. These include enhancing their ability to tackle more cases, raising the visibility of the processes they undertake in the states, and easing the formalities involved since this makes it easy for all states to approach these forums.

### **Address Sovereignty, Climate Change, and Enforcement Challenges**

These are the sovereignty questions, effects of climate change, and enforcement of management measures. Integrating climate resilience into the agreements, and setting up credible measures for compliance, monitoring bodies, and sanctions, forms the critical area that will facilitate compliance with international rules that advocate the principle of limited territorial sovereignty.

### **Innovate and Reform International Legal Mechanisms**

There is a need to create and enhance the systems of legal settlements for better use and protection of shared water resources. Thus, increasing the treaty's ambiguity, encouraging cooperation among the riparian states in sharing data and making it public, and engaging a wide range of actors in the treaty-making and treaty-execution processes can help encompass all concerns and maintain the relevancy and efficacy of agreements made.

### **Document, Evaluate, and Develop Case Studies**

Last but not least, historically evolved case studies have to be documented and published, existing agreements have to be thoroughly assessed, and comprehensive case studies have to be developed; it is this knowledge, based on historical data, that allows further conflict-solving activities. To enhance practical policy solutions, it is possible to involve specialists in creating sound policy proposals and to launch pilot undertakings to try out efficient approaches to coping with shared water resources management.

### **CONCLUSION**

This paper identifies the current and future dangers and risks of international water resources management issues and conflicts. In light of this, it is necessary to underscore the necessity of having sound legal rules and regulations like the UN Watercourses Convention and the helpful essence of world juridical bodies like the ICJ and PCA. Several cases in this area of the law point to the Doctrine of Equitable Utilization, the Doctrine of Prior Consultation, and the Doctrine of Environmental Protection. However, the problems related to sovereignty, climatic conditions, and enforcement are still significant. Focusing on regulatory compliance, engagement of diverse stakeholders, and scientific knowledge incorporation plays a significant role in enhancing transboundary water management. Further work should involve strengthening cooperation between countries, creation of more elaborate international conventions, and strengthening of judicial competencies of several international courts to call for rational and reasonable use of international water bodies. It is necessary to study the topic of transboundary waters and discuss the issue to understand new challenges in the management of shared water resources and develop constructive cooperation on the topic.