


Settlement of Disputes in Shared Water Law with an Emphasis on Judicial Precedent

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The scope of international law's jurisdiction over shared rivers, freshwater resources, and other related matters has been established through treaties such as those of Barcelona, Iran and Iraq, Algeria, and Helmand, as well as regional conventions in Europe and the Amazon. These agreements have formed the basis of international water law for its subjects. Regarding the resolution of disputes in this domain, it must be noted that today, international judicial bodies, particularly the International Court of Justice (ICJ), serve as the primary authority in identifying customary international rules. The role of international judicial precedent in interpreting existing legal rules and declaring the customary status of such rules has led to the recognition of Article 38 of the ICJ Statute as a subsidiary source of international law. This means that the ICJ does not directly engage in rule-making but is responsible for identifying existing rules and clarifying ambiguities to facilitate dispute resolution between states. Although the ICJ does not consider the interests and concerns of border populations as a determining factor in defining territorial boundaries and does not directly establish borders based on this criterion, its rulings take into account the interests and concerns of border populations affected by such borders. The Court encourages states to consider this factor when demarcating their borders. In practice, states have demonstrated a degree of recognition of human factors, including environmental considerations, in defining and maintaining their borders. This legal perspective has gradually taken shape among states. Given the significance of borders and the legal framework of shared water resources, this study adopts a descriptive-analytical method to examine the resolution of disputes in shared water law, with an emphasis on judicial precedent.

Keywords: *shared waters, International Court of Justice, judicial precedent, dispute.*

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1. Introduction

The resolution of disputes is one of the most fundamental responsibilities that every society must undertake in good faith. Since the international system operates under the rule of law, the establishment of mechanisms to ensure the practical enforcement of these laws in disputes between actors on the

international stage is indispensable. During the twentieth century, states reached agreements regarding specialized procedures and mechanisms tailored to their needs. The application of these agreements is typically dependent on the political interpretations of the disputing parties in pursuit of their interests. Today, disputes between states are at the center of discussions, and mechanisms for dispute resolution have been



developed to address conflicts involving international organizations and even individuals alongside traditional legal procedures.

Paragraph 3 of Article 2 of the Charter of the United Nations establishes the fundamental principle governing disputes between states. According to this provision, member states of the United Nations must settle their international disputes by peaceful means in such a manner that international peace, security, and justice are not endangered.

International law prescribes two types of peaceful mechanisms for dispute resolution. First, diplomatic or non-legal methods, which result in optional and non-binding solutions. These include negotiation, consultation, good offices, mediation, conciliation, and inquiry. Second, legal methods, which provide binding solutions for the parties to the dispute, including international arbitration and adjudication through judicial proceedings in international courts.

Conflicts and situations contrary to peace and security have always existed in international relations between states. States have consistently sought to resolve these disputes through peaceful means or, at times, by resorting to military force (Baripour, 2022; Fazlali Sarkani, 2021).

In this context, it must be emphasized that human survival is closely linked to water. This necessity has made water security a primary concern of states since the dawn of civilization. States obtain the water they need through various means, one of which is the exploitation of shared water resources. The simultaneous utilization of a shared surface water source by multiple states creates competing interests, which can, in turn, threaten the sustainability of the shared water resource. International law has sought to moderate this competition in favor of preserving shared water resources through the establishment of customary rules and the encouragement of states to enter into bilateral and multilateral agreements. However, disputes occasionally arise in this domain, including the Trail Smelter Arbitration, the Lake Lanoux Arbitration, the International Court of Justice's ruling in the Gabčíkovo-Nagymaros case, the Pulp Mills case, and the case concerning the construction of a road along the San Juan River. These cases have addressed fundamental principles of international environmental law, such as the principle of prevention of transboundary harm, the

precautionary principle, the duty to notify, and the obligation to conduct environmental impact assessments (Rashidi, 2021). Given the significance of resolving disputes over shared water resources, this study employs a descriptive-analytical approach to examine dispute resolution in shared water law with an emphasis on judicial precedent.

2. Legal Sources in International Law for Resolving Shared Water Disputes

According to geographical sciences, the Earth is composed of landmasses surrounded by two-thirds of its surface covered by water. To maintain balance and equity in the use of these water resources, numerous international legal instruments have been developed and adopted to ensure that all nations have access to these natural resources. These instruments regulate various water bodies, including oceans, seas, rivers, international straits, continental shelves, archipelagic waters, internal waters, territorial seas, contiguous zones, and deep-sea areas.

The foundation of treaties and agreements in international law is the consensus among sovereign states. The influence of a state in any international domain is inherently tied to its domestic legitimacy and public support. "The source of authority, power, and legitimacy in public law, whether directly or indirectly, derives from the people. Therefore, every official, authority, or institution is fundamentally intended to serve the people, and securing public approval is among their principal objectives and responsibilities" (Bahiraei & Manouri, 2023).

The key international legal frameworks governing transboundary waters include:

1. The Helsinki Rules,
2. The European Water Convention,
3. The United Nations Watercourses Convention, and
4. The Berlin Rules on Water Resources.

These frameworks address the allocation and management of shared water resources.

2.1. The Helsinki Rules

The Helsinki Rules on the Uses of Waters of International Rivers, adopted by the International Law Association (ILA) in 1966, establish broad principles governing the

utilization of shared water resources for both navigational and non-navigational purposes. According to these rules, states situated along the course of a river enjoy equal rights to utilize shared water resources. However, the right of one state to use a river does not justify causing harm to other riparian states. Consequently, any unilateral action altering the course of an international river without the prior notification and consent of affected riparian states is considered a violation of international law, and the responsible state bears full liability for the consequences of such actions. These unilateral measures do not create any legal entitlements for the offending state.

The Institute of International Law (IIL) and the International Law Association (ILA) are two scientific and non-governmental organizations established in 1873, working on various aspects of international law. The resolutions and legal principles formulated by these institutions constitute subsidiary sources of international law and contribute to the identification of legal norms. Although these principles are not legally binding on their own, they have been incorporated into conventions and treaties, which, once signed and ratified by states, become legally enforceable.

The primary focus of the Institute of International Law's (IIL) resolutions is the obligation to prevent significant harm to other riparian states. The first such resolution, the Madrid Declaration, was adopted in 1911 and established a categorical prohibition against activities that could cause harm to other riparian states (Avorideh, 2016).

The Helsinki Convention (October 6, 1996) is among the legal instruments addressing water quality issues. This convention is based on key environmental principles, including the precautionary principle, the polluter pays principle, and the principle of intergenerational equity. Under Articles 2 and 3 of the convention, obligations are imposed on member states to prevent, control, and reduce transboundary water pollution, as well as to cooperate in research, development, and information exchange. Additionally, the Budapest Intergovernmental Conference (1998) and the final protocol of the Ministerial Conference in London (1999) established further regulations to prevent and mitigate waterborne diseases (Habibi et al., 2016).

Article 4 of the Helsinki Rules states that "each riparian state within its territory is entitled to a reasonable and

equitable share of the beneficial uses of the waters of an international drainage basin." This provision is complemented by Article 5(2), which outlines the factors that determine what constitutes a reasonable and equitable share. Article 5(3) further provides that "the weight accorded to each factor shall be determined in relation to its importance compared to other relevant factors." In determining a reasonable and equitable share, all relevant factors must be considered together, and conclusions should be drawn based on a comprehensive evaluation of these factors.

Thus, an analysis of Articles 4 and 5 reveals that, while the Helsinki Rules do not provide a singular definition of "reasonable and equitable share," they establish a framework for its assessment based on multiple factors. The Helsinki Rules emphasize two fundamental principles:

1. The equal rights of all riparian states to utilize international watercourses; and
2. The principle of reasonable and equitable utilization.

Another key principle in international water law is the obligation to prevent significant harm, which is indirectly referenced in Article 5(2) as one of eleven factors in assessing reasonable and equitable utilization. The 1997 United Nations Watercourses Convention, in contrast to the Helsinki Rules, dedicates a separate provision explicitly to the principle of preventing significant harm (Zamani, 2022).

2.2. *United Nations Watercourses Convention (1997)*

Following the adoption of the Helsinki Rules (1966) by the International Law Association (ILA), the United Nations assigned the International Law Commission (ILC) in 1970 the task of addressing gaps related to groundwater in the Helsinki Rules by drafting a comprehensive set of laws on shared water resources.

As a result, in 1994, the ILC submitted a draft Convention on the Non-Navigational Uses of International Watercourses, consisting of 33 articles, to the United Nations General Assembly. Ultimately, in 1997, the General Assembly adopted the United Nations Watercourses Convention, which entered into force in August 2014 as the first legally binding international instrument concerning the use and management of international watercourses.

The 1997 Convention is based on draft provisions developed over 23 years of study by the International Law Commission. In this process, the contributions of three Special Rapporteurs, namely Stephen Schwebel, Jens Evensen, and particularly Stephen C. McCaffrey, were of significant importance. In 1981, Special Rapporteur Stephen Schwebel, in his third report, presented the first complete set of draft provisions on the law governing non-navigational uses of international watercourses. However, the 1981 draft provisions did not employ the term "reasonable" to describe the utilization of an international watercourse ([Special Rapporteur, 1981](#)).

- Objectives of the 1997 United Nations Watercourses Convention

The Convention defines the rights and obligations of all states sharing international watercourses. Its main objectives include:

- Establishing a framework for rational policy-making.
- Identifying legal weaknesses in existing regulations.
- Facilitating bilateral and multilateral cooperation among states.
- Creating equitable conditions for all states sharing watercourses.
- Promoting political stability through cooperation.
- Conducting environmental and social impact assessments in the management and development of international watercourses.
- Key Provisions of the Convention
- Emphasis on the urgent need for conservation and sustainable use of transboundary watercourses and international lakes through cooperation among all member states.
- Concerns about the short-term and long-term environmental, economic, and health impacts of changes in transboundary watercourses and international lakes on the member states of the United Nations Economic Commission for Europe (UNECE).
- Strengthening national and international measures to prevent, control, and reduce the discharge of hazardous substances into aquatic ecosystems, as well as marine pollution,

particularly in coastal areas from land-based sources.

- Incorporating principles and regulations from the Stockholm Conference on the Human Environment, the Final Act of the Conference on Security and Cooperation in Europe (CSCE), discussions from the CSCE meetings in Madrid and Vienna, and regional strategies for environmental protection and sustainable resource utilization in UNECE member states up to the year 2000 and beyond.
- Acknowledging the role of the United Nations Economic Commission for Europe (UNECE) in advancing international cooperation for the prevention, control, and reduction of transboundary water pollution and ensuring the sustainable management of shared water resources.
- Encouraging cooperation among member states in the protection and utilization of shared water resources through agreements between neighboring states with common water resources, particularly in regions where such agreements have not yet been established.

2.3. Regional European Water Convention (UNECE)

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1992) was adopted under the framework of the United Nations Economic Commission for Europe (UNECE), one of the five regional commissions of the United Nations, established in 1947. The purpose of this commission is to study economic, environmental, and technological issues and provide operational solutions for European, North American, Central Asian, and Israeli governments. It is worth noting that more than 150 major rivers and 50 large lakes fall within the jurisdiction of the UNECE, flowing across the borders of two or more countries. Additionally, over 170 transboundary groundwater aquifers have been identified in this region. Twenty European countries depend on neighboring states for over 10% of their water resources, and five countries obtain 75% of their total water resources from upstream states.

Although the 1992 European Water Convention was based on the Helsinki Rules, its primary focus diverges

from the main concerns of the Helsinki Rules. Instead, it emphasizes international cooperation among riparian states, sustainable management of transboundary water resources, compliance with water quality and environmental standards, flood control, and early warning systems. The principle of reasonable and equitable utilization is mentioned only in one subsection of Article 2, indicating that for European countries, water quality, environmental concerns, and flood prevention are the dominant priorities in transboundary water management, rather than water scarcity, which is a primary concern in arid and semi-arid regions.

In 2003, the Convention was amended to allow non-UNECE countries to join. However, it did not receive widespread acceptance from other states, demonstrating its limited applicability beyond Europe (Avorideh, 2016).

2.4. *Berlin Rules on Water Resources*

The Berlin Rules, which emerged from the continued efforts of the International Law Association (ILA) to refine the Helsinki Rules, differ from the Helsinki Rules in that they extend beyond transboundary waters to cover all types of water resources, including surface and groundwater, whether transboundary or non-transboundary.

A key advancement in the Berlin Rules is the incorporation of environmental considerations into the principles of equitable and reasonable utilization and the obligation to prevent harm. However, merging both quantitative and qualitative aspects of harm into a single category creates ambiguity regarding the principle of equitable utilization and the duty to prevent harm (Mirfakhraei & Khodai, 2021).

The primary difference between the Helsinki Rules and the United Nations Watercourses Convention, on the one hand, and the Berlin Rules, on the other, lies in their legal emphasis. The Helsinki Rules and the 1997 UN Convention stress the right to reasonable and equitable use, whereas the Berlin Rules focus on the obligation to manage shared water resources in a reasonable and equitable manner. Another key distinction is that the Berlin Rules explicitly mandate the prevention of significant harm to other riparian states, whereas the Helsinki Rules only require that water use does not interfere with reasonable and equitable utilization criteria. The 1997 United Nations Convention follows a

similar approach to the Helsinki Rules, with the main difference being that it includes a separate legal provision explicitly prohibiting harm to other states. Additionally, the Berlin Rules' environmental provisions are more comprehensive than those of the other two instruments (Salman, 2007).

A review of previous research indicates that these legal instruments have not been systematically analyzed and compared regarding their provisions on water utilization. A comparative assessment of these documents reveals that they all incorporate two fundamental principles:

1. Equitable and reasonable participation.
2. The obligation to prevent significant harm.

Findings suggest that, among these legal frameworks, the 1997 United Nations Watercourses Convention is the most appropriate and fair instrument for implementation in arid and semi-arid regions such as Iran (Avorideh, 2016).

The Berlin Rules comprise 73 articles organized into 14 chapters, covering aspects of water resource management that were not adequately addressed in the Helsinki Rules and the 1997 UN Convention. These rules were discussed and adopted at the 71st Conference of the International Law Association in Berlin in August 2004. The Berlin Rules serve as a comprehensive legal framework for the national and international management of water resources and examine the relationship between the principles of equitable utilization and the prohibition of harm to the territory of other states (Salman, 2007).

3. **Examining the Relationship Between Borders in International Judicial Decisions**

Despite the differences between maritime boundary delimitation and terrestrial boundary demarcation, the relationship between the two is undeniable. Today, the motivations for establishing international boundaries on land and sea are similar (Saber Rad, 2016). States seek clearly defined ownership of their boundaries, as both maritime and terrestrial boundaries carry significant economic and strategic interests (Prescott & Triggs, 2008).

The processes for delimiting maritime and terrestrial boundaries are fundamentally analogous, invariably requiring stability and permanence, consistent with the principle that boundary agreements are exempt from

fundamental changes in circumstances (Saber Rad, 2016).

In fact, states pursue stable arrangements with their neighbors to minimize friction between governments and populations. However, terrestrial boundaries—and disputes over them—can influence the delimitation or non-delimitation of maritime boundaries and continental shelves (Jafari Valadani, 2001). Conversely, maritime delimitation processes can sometimes revive terrestrial boundary disputes. Examples illustrate both situations: Iraq and Jordan, due to limited maritime access, face considerable political dependence and high economic costs, exacerbating disputes with neighbors (Drysdale et al., 1995). Similarly, the absence of terrestrial boundary delimitation between Oman and the United Arab Emirates has resulted in an unresolved continental shelf in the Persian Gulf and Gulf of Oman (Jafari Valadani, 2001). The ongoing sovereignty dispute between Qatar and Bahrain over the Hawar Islands similarly impeded their maritime boundary agreement, though ultimately resolved by the International Court of Justice (ICJ) (Jafari Valadani, 2001).

In judicial practice, numerous cases reflect the ICJ's recognition of the relationship between terrestrial and maritime boundaries. Typically, maritime boundary delimitation between neighboring states involves identifying a fixed point at which the land boundary reaches the coast. Once sovereignty over this point is established, it serves as the baseline for maritime delimitation. In the North Sea Continental Shelf cases, the ICJ articulated the principle that "the land dominates the sea," confirming that terrestrial sovereignty legally authorizes a state's maritime jurisdiction (*ICJ Reports*, 1969, para. 96). This principle has since been consistently reaffirmed in ICJ rulings.

For instance, in the Aegean Sea Continental Shelf dispute between Greece and Turkey, the ICJ applied this principle, clarifying that a coastal state's rights over the continental shelf directly derive from its sovereignty over adjacent land territory (*ICJ Reports*, 1978, paras. 86, 90).

The Tunisia-Libya Continental Shelf case further demonstrates land's influence on maritime delimitation, where the ICJ examined the land boundary to identify a fixed starting point for maritime boundaries (*ICJ Reports*, 1982, pp. 18, 65–66).

Subsequently, in the Maritime Delimitation and Territorial Questions between Qatar and Bahrain, the ICJ reaffirmed that terrestrial sovereignty dictates maritime rights, determining relevant coasts and island sovereignty before maritime delimitation (*ICJ Reports*, 2001, paras. 180, 185). Thus, maritime boundaries depended on clarifying terrestrial sovereignty over disputed islands (*ICJ Reports*, 2001, paras. 184, 186).

In disputes encompassing both terrestrial and maritime boundaries, such as Cameroon v. Nigeria, the ICJ acknowledged that maritime delimitation was practically impossible without determining sovereignty over the Bakassi Peninsula (*ICJ Reports*, 1998, Preliminary Objections, para. 106). Ultimately, assigning the peninsula to Cameroon influenced the maritime boundary west of Bakassi (*ICJ Reports*, 2002, para. 261). In the Territorial and Maritime Dispute between Nicaragua and Honduras, the ICJ reiterated the dominance of land over maritime rights, emphasizing the need to determine island sovereignty independently prior to maritime delimitation (*ICJ Reports*, 2007, paras. 74, 126, 227).

Overall, the ICJ treats terrestrial and maritime boundaries as interconnected, indispensable elements in the delimitation process. For instance, islands—regardless of size—can be appropriated under international law, whereas low-tide elevations cannot, as defined by Article 121 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Maritime law first classifies whether a landmass qualifies as an island, after which sovereignty is determined according to rules governing territorial acquisition (Tanaka, 2013). In the Nicaragua-Honduras case, the ICJ had to assess sovereignty over islands independently, prior to delimiting a single maritime boundary in the Caribbean Sea, illustrating that sovereignty claims over islands and maritime features implicitly emerged as integral components of maritime delimitation (*ICJ Reports*, 2007, para. 114). Consequently, Nicaragua's sovereignty claim was admissible due to its inherent connection to maritime delimitation (*ICJ Reports*, 2007, para. 115).

Arbitral awards similarly acknowledge this connection. For example, the Eritrea-Yemen Arbitration recognized terrestrial and maritime boundaries as legally intertwined (RIAA, 1998, Vol. XXII, para. 112). Notably, the arbitral tribunal assigned sovereignty over disputed islands based on their position relative to the median

line, reflecting maritime delimitation's influence on territorial sovereignty (*RIAA*, 1998, para. 474).

The ICJ consistently recognizes relevant circumstances—such as coastline length disparities and special geographical features—as factors influencing maritime delimitation. In the *Libya-Malta Continental Shelf* case, the significant difference in coastline lengths justified adjusting the provisional median line in Libya's favor (*ICJ Reports*, 1985, paras. 65–73). Similarly, in the *Denmark-Norway (Jan Mayen)* dispute, the ICJ again modified the median line, given the coastline length disparity, ensuring equitable delimitation (*ICJ Reports*, 1993, paras. 65–69). The court reaffirmed this approach in the *Nicaragua-Colombia Territorial and Maritime Dispute*, citing disproportionate coastal lengths as grounds for modifying the provisional maritime boundary (*ICJ Reports*, 2012, para. 211).

Furthermore, the ICJ recognizes the principle of *uti possidetis juris*—originally applied to terrestrial boundaries—as equally applicable to maritime boundaries. In the *El Salvador-Honduras Land, Island, and Maritime Frontier Dispute*, the Chamber of the ICJ accepted *uti possidetis juris*'s applicability to maritime areas, concluding that joint succession of three countries over the Gulf of Fonseca logically followed from applying this principle (*ICJ Reports*, 1992, paras. 386, 405). This approach was reaffirmed in the *Nicaragua-Honduras Territorial and Maritime Dispute*, asserting *uti possidetis juris*'s relevance to both coastal and maritime zones (*ICJ Reports*, 2007, para. 156).

In summary, despite distinctions between terrestrial and maritime boundary delimitation, the ICJ consistently treats both as interrelated processes influenced by identical principles, notably stability, sovereignty, and international order. This interconnectedness is particularly evident when both land and maritime boundaries are addressed concurrently (Saber Rad, 2016).

4. Methods of Dispute Resolution in the International Court of Justice

The Permanent Court of International Justice (1920) laid the foundation for the judicial development of international law within the League of Nations system. In contrast, the International Court of Justice (ICJ) (1945) emerged as the leading institution in the modern era of legal theories, where various mechanisms for the legal

resolution of disputes between states serve as the central pillar of the global legal system and international relations, including trade, regional issues, environmental concerns, and more (Sadat Meydani, 2009).

First, the ICJ was established based on international legal instruments, including the United Nations Charter and its annexes, as well as international and regional conventions that states have ratified and committed to. Second, the Court is composed of independent, impartial, knowledgeable, and competent judges, who are elected in accordance with the ICJ's founding statute.

Third, ICJ proceedings are conducted under recognized procedural law, with predefined and agreed-upon regulations that are made available to the parties before any disputes arise or proceedings are initiated.

Fourth, the parties before the ICJ enjoy equal rights in judicial proceedings. The process includes written defenses from both parties and oral arguments presented by the disputing states or their legal representatives in public hearings. The following section provides an example of a case adjudicated by the ICJ:

4.1. The Dispute Between Bolivia and Chile

This dispute, known as the *Silala River* case, originated in the Atacama Desert, involving an 8-kilometer watercourse that flows from underground springs in Potosí, Bolivia, into Chile.

The core of the dispute arose in 2016, when Bolivia sought compensation from Chile, alleging illegal use of Silala's waters. Bolivia argued that Silala is not an international watercourse because its flow into Chile is artificially maintained through man-made channels. In response, Chile initiated proceedings before the International Court of Justice (ICJ) on June 6, 2016, under Article 31 of the Pact of Bogotá.

Chile's primary claims included:

- Declaring Silala an international watercourse.
- Recognizing Chile's customary right to equitable and reasonable use of the watercourse.
- Reaffirming the obligation to inform and consult on activities that could affect Silala's waters and Chile's use of them.
- Declaring Bolivia's breach of these obligations.

In response, Bolivia requested the ICJ to reject all of Chile's claims and, if the Court found a dispute existed, to rule that:

- Silala is an international watercourse, but its surface flow has been artificially increased.
- Under customary international law, both Bolivia and Chile have a right to equitable and reasonable use of Silala's waters.
- Chile's current use does not infringe upon Bolivia's equitable and reasonable right.
- Both states are obligated to take all necessary measures to prevent significant transboundary harm.
- Both states must cooperate, inform, and consult on activities that may pose a risk of significant transboundary harm, subject to environmental impact assessment (EIA) confirmation.
- Bolivia has not violated any obligations regarding Silala's waters.
- Bolivia's Key Requests to the ICJ
 1. Recognition of Bolivia's sovereignty over the artificial canals and drainage mechanisms of Silala within its territory.
 2. Acknowledgment that Bolivia has sovereignty over the artificially enhanced flow of Silala's waters and that Chile has no vested rights over this artificially increased flow.
 3. Any request or claim by Chile for access to the enhanced flow must be subject to a bilateral agreement with Bolivia.

Given the divergent claims in the dispute—Bolivia, contrary to Chile, did not initially recognize Silala as an international watercourse—their positions converged over time during the litigation. Consequently, Chile requested a declaratory judgment from the ICJ to prevent Bolivia from changing its position regarding Silala's international legal status (para. 44).

The ICJ confirmed that it had the power to issue declaratory judgments but emphasized that its role in contentious cases is to resolve actual disputes. Thus, the Court ruled that if the parties reached agreement on specific claims, there would be no need for a declaratory judgment (paras. 45–46).

After nearly six years of proceedings, the ICJ issued its final judgment on December 1, 2022, in the case "Dispute Concerning the Status and Use of the Waters of the Silala (Chile v. Bolivia)".

4.2. ICJ Judgment and Controversies

In its ruling (para. 163), the ICJ rejected only two of the parties' claims and determined that the other six claims reflected consensus between the states, thus issuing no judgment on those points. This approach led to criticism from ICJ judges, notably Judge Tomka, who stated that the decision lacked substantive rulings, leaving both parties "surprised" by the absence of a definitive resolution.

Nonetheless, a notable positive aspect of the judgment was the ICJ's reaffirmation of the customary legal status of the two fundamental principles governing non-navigational uses of international watercourses:

1. The principle of equitable and reasonable utilization.
2. The principle of prevention of significant transboundary harm.

By recognizing that each riparian state has an inherent right to a fair share of an international watercourse, the ICJ strengthened the customary nature of these principles (Rashidi, 2021).

However, the ruling failed to clarify a key legal question: if a man-made canal artificially connects a natural water source to another state, does the artificial section qualify as part of an international watercourse? The ICJ avoided this issue by simply noting that both states recognized Silala as an international watercourse, thus avoiding the need to establish a customary legal definition of the term (para. 59).

Another significant aspect of the ruling was the ICJ's linkage between procedural obligations in the 1997 UN Watercourses Convention and core principles of international water law, particularly the principle of preventing significant transboundary harm. The ICJ explicitly stated that the duty to prevent significant transboundary harm is a due diligence obligation, requiring states to:

- Notify, exchange information, and conduct environmental impact assessments (EIA) before initiating activities that may cause transboundary harm (para. 83).
- Cooperate, inform, and consult as complementary obligations facilitating the substantive duties of states in managing international watercourses (para. 101).

However, the ICJ did not recognize the duty to exchange information (Article 11 of the 1997 Convention) as customary international law (paras. 110–112). Conversely, it affirmed the customary status of notification and consultation obligations under Article 12 (paras. 113–114).

The ICJ distinguished between these obligations:

- Information exchange requires regular sharing of hydrological, environmental, and technical data on the watercourse.
- Notification and consultation apply only when an activity poses a risk of significant transboundary harm.

Referring to its 2015 ruling in the *Certain Activities Carried Out in the Border Area and Construction of a Road Along the San Juan River* case, the ICJ reaffirmed that the obligation to notify and consult arises only if a significant transboundary harm risk is identified. If such a risk exists, the state planning the activity must:

1. Conduct an environmental impact assessment (EIA).
2. Notify potentially affected states in good faith.
3. Consult on appropriate preventive measures (Rashidi, 2021).

4.3. *The Gabčíkovo-Nagymaros Case*

In this case, the construction of a dam and lock system on the Danube River, which forms the shared border between Hungary and Czechoslovakia, was the subject of an agreement signed on September 16, 1977. Under this agreement, the two countries committed to building multiple hydropower plants as part of a joint investment project to control flooding, facilitate navigation, and generate energy. Specifically, the project involved the construction of two dams—Dunakiliti and Nagymaros in Hungary and the Gabčíkovo Dam in Czechoslovakia—with shared costs and benefits (Taylor, 1999).

In 1989, due to environmental concerns, Hungary suspended the project unilaterally without informing Czechoslovakia and ultimately terminated the agreement in 1992. During negotiations, the Czechoslovak government assembled a team of experts to examine the situation and propose responses to Hungary's decision. The team presented seven proposals, and eventually, "Variant C" was adopted as the preferred solution (Doczi, 2014).

By 1992, with the implementation of Variant C, 90% of the Danube's water flow was diverted from its natural course into an artificial canal to supply the Gabčíkovo power plant (Szabo, 2009). The Danube River, however, is one of Hungary's most crucial freshwater resources, particularly for Budapest (Bostian, 1997). It should also be noted that before the project's implementation, Hungary had officially declared the termination of the 1977 Agreement on May 19, 1992.

Hungary's main argument was that the project posed unacceptable environmental risks, including reduced water flow, deterioration of water quality, and destruction of aquatic flora and fauna. In response, Czechoslovakia unilaterally diverted the Danube River within its own territory, implementing Variant C as an alternative to the original project. This diversion severely reduced downstream water flow into Hungary.

The ICJ was asked to rule on three key issues:

1. Whether Hungary had the right to abandon the project.
2. Whether Czechoslovakia had the right to implement Variant C.
3. Whether Hungary had the right to unilaterally terminate the 1977 Agreement.

According to ICJ procedures, the Court has the discretion to conduct on-site investigations at any location relevant to a case. However, prior to the Gabčíkovo-Nagymaros case, the ICJ had never exercised this power, despite having the option in three previous cases (Bostian, 1997). In this case, at the request of both parties, the ICJ issued an order on February 5, 1997, to conduct an on-site inspection. Although Hungary and Slovakia had agreed that the inspection was an integral part of the oral proceedings, the ICJ, contrary to the practice of the Permanent Court of International Justice in the *Mous River Diversion* case, chose not to publish the minutes of its site visit. The costs of the inspection were shared between the parties and the Court (Sadat Meydani, 2009).

Regarding the first claim, the ICJ ruled that Hungary, by unilaterally suspending the project, had breached the agreement and could not justify its actions on the basis of environmental concerns.

On the second issue, the Court found that Czechoslovakia had violated international law by depriving Hungary of its right to an "equitable and reasonable share" of the Danube River through the implementation of Variant C.

Finally, the ICJ declared Hungary's unilateral termination of the treaty invalid. The Court rejected Hungary's arguments that new environmental norms in international law justified non-implementation of the treaty (Azizi & Mousavi, 2016).

The ICJ's ruling emphasized that the upstream state (Czechoslovakia) had engaged in disproportionate action that violated Hungary's right to an equitable share of the Danube's resources (Rashidi, 2019). The Court took a restrictive approach to legal doctrines such as impossibility of treaty performance, fundamental change of circumstances, and material breach of treaty obligations, reaffirming the principle of *pacta sunt servanda* (the obligation to fulfill treaties) and the continuity of treaty commitments.

A broad assessment of the ICJ ruling suggests that the Court prioritized diplomatic rapprochement over strictly resolving legal disputes. Rather than issuing a decisive ruling confirming or rejecting the claims, the Court acted as a mediator, aiming to bring the parties closer together and facilitate future cooperation over the shared water resource (Rashidi, 2019).

5. Conclusion

Under the principle of absolute territorial sovereignty, the portion of an international river within a state's territory is considered internal waters, allowing the state to divert or modify the flow as necessary. However, this principle—known as the Harmon Doctrine—has been widely criticized as it creates anarchy in international relations and contradicts fairness and equity.

Conversely, under the principle of absolute territorial integrity, riparian states must allow the natural flow of a river to continue unaltered and cannot divert its waters. Given the tension between these two conflicting doctrines, it became necessary to develop legal frameworks to define the rights and obligations of upstream and downstream states.

Thus, the scope of international law's jurisdiction over shared rivers and freshwater resources has been established through treaties such as the Barcelona Convention, Iran-Iraq Treaty, Algeria Treaty, Helmand Treaty, and regional conventions in Europe and the Amazon. These agreements form the foundation of international water law.

The Institute of International Law (IIL) and the International Law Association (ILA) are two scientific

and non-governmental organizations whose resolutions and legal rules serve as subsidiary sources of international law. While these rules are not legally binding on their own, they have been incorporated into treaties and conventions, which become legally enforceable once signed and ratified by states.

International dispute resolution mechanisms are based on both political and judicial frameworks. The judicial arm consists of arbitral tribunals and the International Court of Justice (ICJ), which play a critical role in interpreting and applying international law.

The resolution of disputes is one of the fundamental responsibilities of any legal system and must be carried out in good faith. Since the international system is governed by the rule of law, the establishment of mechanisms to enforce legal obligations in disputes between international actors is indispensable.

Article 2(3) of the UN Charter sets forth the fundamental principle that states must resolve their international disputes through peaceful means, ensuring that international peace, security, and justice are not threatened.

Today, international judicial bodies, particularly the ICJ, serve as the primary authority for recognizing customary international law. The role of judicial precedent in interpreting existing legal rules and recognizing their customary status has led to Article 38 of the ICJ Statute being recognized as a subsidiary source of international law. This means that while the ICJ does not directly create legal rules, its function is to identify existing legal norms and clarify ambiguities to facilitate the resolution of disputes between states.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

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