World Meteorological Organization

SSBL MUN 25

Table of Contents

1. Welcome Letters

1.1. Letter from the Secretary General

Dear Delegates,

My name is Erol Erbil, and I am the Secretary General of SSBLMUN'25. It is my utmost pleasure to welcome you all to our conference. On behalf of the entire SSBLMUN'25 team, the whole team is honoured to host such talented and committed youthful leaders like yourselves, who are ready to leave an impact on the world by arguing for peace and diplomacy.

Over the past few months, we have worked willingly and wonderfully hard putting together a conference that you'll never forget. Model United Nations conferences are platforms for young leaders such as yourselves to come to try out ideas, to argue on the world stage and to train. I have every confidence that your energy, creativity, and commitment will make SSBLMUN'25 effective and unforgettable.

As you go through this year's sessions, I would advise you to engage each and every conversation with open-mindedness, respect and curiosity. Remember that MUN is not only a simulation of global relations but also a learning zone, a growth zone, and a platform for making lifelong friends. Do not get discouraged by little setbacks, but aim at growing as an individual and making your voice heard and appreciated through this meaningful experience that only happens once.

Our team has really gone the extra mile to make sure things have been going well. Should you have any questions or need my assistance prior to, during or after the conference, please feel free to contact me at erol55erbil@gmail.com.

Once again, welcome to SSBLMUN'25. I am truly looking forward to meeting all of you and witnessing the stimulating discussions and innovative ideas that are generated throughout the conference.

Best regards,
Erol Erbil
Secretary General

1.2. Letter from the Under Secretary General

Esteemed Delegates,

Welcome to the WMO Committee at SSBLMUN 2025. My name is Asya Naz Yıldız and it is my pleasure to serve as the Under Secretary General for this committee. I look forward to the unique perspectives each of you will bring to our discussions.

This year our committee will concentrate on the global challenges related to water resources. Rather than focusing solely on the problems themselves, we will examine how countries respond to them, how cooperation is built and how disagreements emerge. Our goal is to understand not only what is happening but also why it matters and how it shapes international decision making.

As you prepare for the sessions, I encourage you to approach each discussion with curiosity and respect. Your research, questions and observations will actively shape the quality of our debates. Your diverse viewpoints will help create a more complete understanding of the issues we will address.

I hope this committee provides you with a valuable learning experience and the opportunity to strengthen your analytical and diplomatic skills. I look forward to seeing your work and following the progress of your discussions. Wishing you a productive and engaging committee experience.

Sincerely,

Asya Naz Yıldız

Under Secretary General- WMO

asyanazyildiz55@gmail.com

2. Introduction of the Committee

2.1. History of the Committee

The origins of the World Meteorological Organization (WMO) go back further than previously thought. Originating from the International Meteorological Organization (IMO) and founded in 1873, the IMO was established to facilitate and accelerate countries' learning of weather information outside their borders. By the mid 1930s, it is known that IMO was seen and recognized as a non-governmental organization. By 1939, a draft of the World Meteorological Convention had been prepared, but it was the Berlin Draft and ratification was delayed by World War II. The committee, which was intended for international cooperation by the Rome Congress and later developed, was established in 1947 after proposals on the organization of the IMO's structure, the World Meteorological Convention was agreed upon and the WMO was established. This convention entered into force on 23 March 1950, and the following year WMO became operational as an international organization under the United Nations system.

The aim of IMO was to facilitate the study of weather conditions in different countries. Unlike IMO, WMO is recognized worldwide for its work not only on the weather conditions of countries, but also on issues such as climate change, environmental protection, the relationship between land and oceans, and water problems. WMO, which also covers some of the UN's committee issues, also continues to work with scientific fields such as hydrology and geophysics.

WMO's objectives in the world are to predict natural disasters in advance and reduce their damage, to raise awareness of the citizens of the countries on environmental and water issues, to organize the water footprints of the countries in the least and most efficient way, to ensure the harmonization of observation methods and measurement standards used in meteorology, climatology, hydrology and similar scientific fields, to combat climate change and to establish scientific cooperation for the future and present welfare of the whole world.

In the WMO Committee, delegates work on pressing global issues related to water scarcity, international water security, marine pollution and the environmental consequences of conflicts. The Committee emphasizes science-based policy, international cooperation and sustainable solutions to the long-term challenges facing freshwater and marine ecosystems. WMO stands out by promoting dialogue that bridges scientific data and diplomatic negotiations, ensuring both environmental sustainability and geopolitical stability. WMO also works in close cooperation with United Nations agencies, national governments, non-governmental organizations (NGOs) and the scientific community.

2.2. Functions of the Committee

The World Meteorological Organization (WMO) Committee functions as a specialized technical and diplomatic body within the United Nations system with the primary goal of helping global cooperation in weather science, hydrology, climate monitoring, and environmental safety related to water policies. In the context of this simulation, which spans from 2025 to 2035, the committee is tasked with confronting both the scientific and geopolitical dimensions of climate change, ensuring peace, equity, and resilience in an increasingly volatile world.

As climate related risks intensify WMO serves as a neutral, data driven platform where member states can coordinate effective responses to environmental challenges without descending into resource-based conflict. In a world where international peace is already established, this committee prioritizes diplomacy over confrontation, addressing shared vulnerabilities such as water scarcity, oceanic pollution and extreme weather through cooperation. WMO believes that environmental collaboration is not just a scientific necessity but a pathway to lasting peace.

One of the main jobs of the WMO Committee during this decade is to study and follow the impacts of global climate change and to help countries share useful information between developed and developing countries. The committee works closely with national meteorological and hydrological services to gather real time data, model future climate scenarios and offer region specific recommendations. Particular attention is paid to climate adaptation in vulnerable regions where rising sea levels, drought or glacial melt threaten stability.

In fulfilling its mission WMO Committee supports itself with major United Nations frameworks, such as the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the UN Sustainable Development Goals (SDGs). It provides technical input to other UN organs and works as a scientific backbone for negotiations related to water treaties, ocean governance and climate financing. By integrating science with international policy the committee ensures that decisions are informed, inclusive, and implementable.
The WMO Committee also undertakes the responsibility of developing guidelines and best practices for water footprint management, disaster early warning systems and data sharing protocols. As the threat of migration caused by climate problems and resource competition grows the committee supports countries in designing ethical and sustainable policies, particularly in conflict sensitive zones. Delegates are expected to consider the long term consequences of environmental neglect and propose frameworks that promote equity, sustainability and regional stability.

3. Water Boundary Delimitation

3.1 Introduction of the First Agenda Item

Water boundary delimitation refers to the process of defining international borders along rivers, lakes and maritime zones. These borders affect sovereignty, control over resources, navigation and fishing rights. With nearly half the world's population living in transboundary basins or coastal areas, water boundaries carry immense political, economic and environmental weight.

Historically many water boundaries were set by colonial powers through arbitrary lines or treaties, often ignoring the realities on the ground. Natural changes, such as river shifts or sea level rise, can trigger disputes, especially when boundaries determine access to vital resources like dams, fisheries or underwater minerals. The 1999 Kasikili/ Sedudu Island case between Botswana and Namibia illustrates this: the ICJ used the thalweg (deepest navigable channel) to resolve the river boundary dispute.

Two main principles guide delimitation. For navigable rivers, the thalweg principle is applied; for non navigable rivers, a median line is typically used. These are derived from longstanding practice and treaties such as the Treaty of Lunéville (1801). Maritime boundaries evolved later, especially under the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which introduced concepts like Exclusive Economic Zones (EEZs) and emphasized equidistance unless historic rights or special circumstances apply (UNCLOS Articles 15, 74, 83).

Despite these legal foundations, practical issues complicate delimitation. River movement raises questions of accretion (gradual shifts, which may alter boundaries) versus avulsion (sudden shifts, which typically do not). River islands, multi channel systems and small offshore features can also create ambiguity. Rising sea levels threaten existing maritime baselines while some boundaries ignore the needs and rights of local or indigenous populations, creating ethical concerns as seen in the Sir Creek dispute between India and Pakistan.

Recent conflicts reflect these challenges. On rivers boundary and water sharing issues often overlap as with the Danube (Serbia Croatia) or the Nile (Ethiopia-Egypt-Sudan). Maritime tensions in the South China Sea or between Senegal and Mauritania highlight the geopolitical stakes of seabed claims. Nonetheless diplomacy and legal mechanisms offer hope: Norway and Russia's 2010 Barents Sea agreement and the 2016 South China Sea arbitration (Philippines v. China), demonstrate peaceful efforts to resolve such disputes.

Although international law offers principles, most disputes rely on negotiation, supported by technical tools (e.g. GIS, hydrographic surveys) and occasionally adjudication. Effective delimitation requires balancing sovereignty, environmental protection, equitable access to shared resources and long term stability. Understanding both the legal doctrines and regional realities is key to navigating future conflicts and fostering cooperation**.**

3.2. Definitions

1-Thalweg (thalweg principle): A German term meaning “the channel continuously used for navigation,” used in boundary law to denote the deepest or main navigable channel of a river . Under international law borders along navigable rivers often follow the thalweg line.

2-Median line (median filum aquae): A line drawn at equal distance from the nearest points on each bank of a watercourse. The median line is commonly used to delimit non navigable rivers or adjacent coasts, giving each state an equal share of the waterway . For example it has been defined as “a line equidistant from the nearest points on the shores of the two respective sovereignties”.

3-Accretion: The gradual and imperceptible deposit of sediment on one bank of a river, causing the river’s course (and thus the boundary) to shift. Accretion is treated as permanently altering river boundaries, so that the boundary moves with the river as new land forms .

4-Avulsion: A sudden and perceptible change in a river’s course (for example, due to a flood). Under international law, an avulsive change does not move the agreed boundary; the original river channel continues to define the border. A sudden avulsion leaves the boundary at the old thalweg or channel even if the river has cut a new path .

5-Territorial Sea: Coastal waters extending up to 12 nautical miles from the baseline of a state’s coast. Within the territorial sea the coastal State exercises full sovereignty over the water column, seabed, subsoil and airspace. Article 3 of UNCLOS explicitly limits the territorial sea to a maximum breadth of 12 nm from the low water line baseline .

6-Contiguous Zone: A maritime belt extending up to 24 nautical miles from a state’s baselines, adjacent to the territorial sea. In the contiguous zone a coastal State may enforce laws relating to customs, immigration, sanitary regulations etc. but does not have full sovereignty as it does in the territorial sea .

7-Exclusive Economic Zone (EEZ): A coastal zone extending up to 200 nautical miles from the baseline. In the EEZ the coastal State has sovereign rights over natural resources (living and non living) in the water, seabed and subsoil . Unlike the territorial sea the EEZ is not an area of full sovereignty but a zone of special resource rights and management authority.

8-Continental Shelf: The extended seabed area of a state reaching to the outer edge of the continental margin or up to 200 nm from the baselines. On the continental shelf the coastal State has exclusive rights to explore and exploit resources of the seabed and subsoil (minerals, petroleum, etc.) .

9-International Watercourse: Any river, stream or lake (including connected groundwater) parts of which lie in two or more States. This means a river basin shared by more than one country. Each State sharing the watercourse is called a co riparian or watercourse State. The 1997 UN Watercourses Convention adopts this broad definition and governs the non navigational uses of such shared waters.

3.3. Key Terminology

1-Delimitation: Delimitation is the legal process of establishing a boundary (often by treaty or legal agreement) and recording it on maps.

2-Demarcation: It is the physical marking of that agreed boundary on the ground (with markers, buoys, etc.).

3-Equidistance (Median Line) Principle: A method of boundary drawing where the border is set at points equidistant from the shores of the two states. In maritime delimitation UNCLOS generally prescribes using an equidistance line in absence of other factors. In river cases a median (equidistant) line is the default for non navigable waters subject to agreement of the parties.

4-Joint Commission: Often adjacent states establish a joint boundary commission or technical working group to conduct surveys (e.g. hydrographic, cartographic) and agree on coordinates. Such commissions help implement treaty terms and manage resources. (For example joint hydrographic surveys can determine the thalweg or median lines in disputed river segments.)

5-Treaty/ Agreement: International boundaries are frequently formalized by treaties or accords. Treaties may specify the delimitation method (e.g. "boundary follows the thalweg") and procedures for future changes. Historical treaties (such as the 1801 Treaty of Lunéville) and modern agreements (including those registered with the UN) often set the legal border subject to later adjustments by mutual consent or legal decision.

6-Continental Shelf (as key term): The continental shelf regime under UNCLOS provides states with rights over seabed resources even beyond territorial seas.

7-Dispute Settlement: Delegates may refer to the International Court of Justice (ICJ), arbitration tribunals (e.g. PCA), or ad hoc tribunals as means to settle boundary disputes. Cases like Kasikili/Sedudu (Botswana/ Namibia) show the ICJ applying delimitation principles to resolve a river boundary. Peaceful settlement via negotiation, mediation or adjudication is a key concept in this field.

8-Equitable Utilization: This term from watercourse law refers to the idea that shared waters should be used in a fair and reasonable manner by all states involved.

3.4. History Of The Agenda Item

The need to establish sovereignty over rivers, lakes and maritime zones is what makes it hard to draw water boundaries. In the past local customs and practices determined where water boundaries were. With the emergence of modern states and the evolution of international law, approaches to boundary delimitation underwent significant transformation. These changes put legal pressure on defining borders. There was already an effort to set borders for rivers that could be traveled and those that couldn't by the time modern treaties came about. The 1801 Treaty of Lunéville is one example of how this was shown. Colonial powers frequently drew water boundaries arbitrarily, with little regard for geographic realities or population distribution. These imprecise borders led to protracted disputes that persisted after decolonization.

Many river boundaries in Africa, Asia and the Middle East were never fully demarcated, giving rise to disputes over scarce freshwater resources, dam construction and fertile land. In the 20th century offshore areas became important for the economy because of oil, fishing and shipping lanes. This change in focus caused maritime delimitation to not develop as quickly. In 1982 the United Nations Convention on the Law of the Sea (UNCLOS) filled this gap. It created important ideas like the Exclusive Economic Zone and set maritime boundaries based on equal distance with the exception of historical rights or special circumstances. Several coastal states had different ideas about what these rules meant, which led to claims that overlapped. The South China Sea dispute and the delimitation conflict between Senegal and Mauritania are both examples of how complicated maritime boundaries can be in terms of law and politics.

When there are boundary disputes along rivers, there are often also fights over who gets to use the river water. The Nile Basin, which is shared by Ethiopia, Egypt and Sudan, is an example of the problems that come up when building dams and the issue of downstream rights. The Kasikili/Sedudu Island dispute between Botswana and Namibia is important here because it led to the thalweg principle. The ICJ made a decision in 1999 based on the river's main navigable channel. This set a modern example for peaceful delimitation.

The effects of climate change make things even harder. Avulsion and accretion are caused by the sudden or gradual shifting of river courses. While river islands experience shape change and submersion, maritime baselines are impacted by rising sea levels. Many of the current treaties lack the adaptability required to address these shifting environmental conditions.

Despite these obstacles, some nations have signed treaties, like Norway and Russia's 2010 Barents Sea agreement. With legal frameworks like the 1997 Convention on the Law of Non Navigational Uses of International Watercourses, the UN promotes cooperation and supports treaties. However, ratification of treaties is still quite low. Clearer legal frameworks and nonviolent methods of boundary delineation are becoming increasingly important as the tensions and disputes surrounding transboundary water conflicts increase. The significance of settling current disagreements and averting new ones pertaining to water resources is demonstrated by this agenda.

3.5. Past United Nations Actions

Over the past decades the United Nations system has built a comprehensive legal framework for shared waters. The cornerstone is the 1982 United Nations Convention on the Law of the Sea (UNCLOS) which obliges states to delimit maritime borders by agreement on an equitable basis, using median lines with adjustments for special circumstances in territorial seas, exclusive economic zones and continental shelves. It also mandates peaceful settlement mechanisms such as the International Court of Justice (ICJ), the International Tribunal for the Law of the Sea (ITLOS) or arbitration if bilateral negotiations fail. In freshwater systems the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses codifies that riparian states must utilize shared rivers and lakes equitably and reasonably while avoiding significant harm to their neighbors. Entering into force in 2014, the convention further obliges states to exchange hydrological, meteorological and ecological data regularly and to consult one another before undertaking measures that might affect the flow or quality of shared waters. Complementing this, the 1992 UNECE Water Convention, later opened globally in 2013, encourages basin level agreements and facilitates cooperative mechanisms through its Implementation Committee. Together these instruments form the legal backbone for transboundary water boundary management. While the Millennium Development Goals (MDGs) initially focused on improving access to water, the post 2015 Sustainable Development Goals introduced a more nuanced understanding of water governance. SDG 6.5 explicitly calls on states to implement integrated water resources management at all levels, including through transboundary cooperation. Progress on this target is monitored by UNESCO and UNECE and coordinated through the UN Water mechanism, highlighting both the political and technical commitments needed for effective boundary delimitation.

The United Nations has also played a direct role in resolving water boundary disputes through its judicial organs. The International Court of Justice has ruled on several key cases that helped set precedent for water-based delimitation. In the 1999 Kasikili/ Sedudu Island case between Botswana and Namibia, the Court interpreted an 1890 colonial treaty using hydrological evidence and applied the thalweg principle to determine the rightful ownership of a river island. In the 1984 Gulf of Maine case between Canada and the United States, the ICJ applied principles derived from UNCLOS to establish a maritime boundary based on equitable results. Similarly in the 2009 Maritime Delimitation in the Black Sea case between Romania and Ukraine, the Court employed a three stage methodology involving equidistance, consideration of relevant circumstances and disproportionality checks to reach a fair outcome. These cases demonstrate the importance of international adjudication when bilateral efforts prove unsuccessful.. The ICJ’s role reinforces the idea that technical evidence such as hydrographic data and historic usage can and should be integrated into legal decisions. Beyond adjudication, the United Nations Secretary General has on several occasions offered good offices or appointed envoys to mediate sensitive water disputes, while agencies like UNDP have supported confidence building measures and dialogue platforms between riparian states.

Alongside its legal and diplomatic efforts the United Nations has consistently supported technical and institutional capacity building in transboundary basins. The World Meteorological Organization, as the UN's specialized agency on weather and water systems, has assisted national governments in improving water monitoring, forecasting and data sharing. Its work ensures that countries have access to reliable hydrological information, which is crucial for delimitation processes, particularly in basins with shifting river courses or variable flow regimes. The 1997 Watercourses Convention formalizes this expectation by requiring states to share data related to river flow, precipitation and water quality. Similarly UNESCO through its International Hydrological Programme and UNEP through the GEMS/ Water programme have enhanced transboundary monitoring and modeling capabilities. UNECE and UNDP have jointly helped countries draft basin agreements, establish joint river commissions and train specialists in water diplomacy. The UNECE Implementation Committee offers advisory support to countries facing challenges in applying the convention and preventing disputes. At a broader level UN Water brings together all UN agencies working on water issues, synthesizing data and offering strategic direction through publications like the SDG 6 Synthesis Report. These combined efforts support not only legal agreements but also the practical foundations of cooperative water boundary governance.

Despite these achievements, many water boundaries remain either undefined or informally managed. According to recent UN reporting, only a minority of the 153 countries that share transboundary waters have formal agreements covering the majority of their basins. In numerous regions, boundaries are still shaped by outdated colonial treaties vague bilateral understandings or remain subject to unresolved claims. Emerging challenges such as climate change, sea level rise and increasing demand for freshwater make delimitation more complex. Changing hydrology can shift river channels or alter baselines, forcing states to revisit previously settled boundaries. In this evolving context the past actions of the United Nations through treaties, case law, technical cooperation and monitoring frameworks provide a solid foundation for future solutions. However, achieving equitable and stable delimitation in the 21st century will require renewed diplomatic engagement, investment in shared data infrastructure and continued commitment to the legal norms established under international law. Delegates addressing the issue of Water Boundary Delimitation must understand this legal and institutional legacy if they are to propose effective, future oriented solutions.

3.6. Current Situation of the Agenda Item

Water boundaries -whether along coasts, rivers, lakes, or offshore zones- are increasingly subject to international disputes. Modern mapping technologies and climate change are altering coastlines, river courses and maritime features, making many historical boundaries uncertain. As a result, delimitation today requires both technical precision and diplomatic negotiation.

The South China Sea illustrates the complexity of maritime disputes. China's "nine dash line" claim overlaps the exclusive economic zones of several Southeast Asian states under UNCLOS. Although a 2016 international tribunal rejected these claims China continues to expand its presence through artificial islands and military facilities while neighboring states respond with patrols and legal challenges.

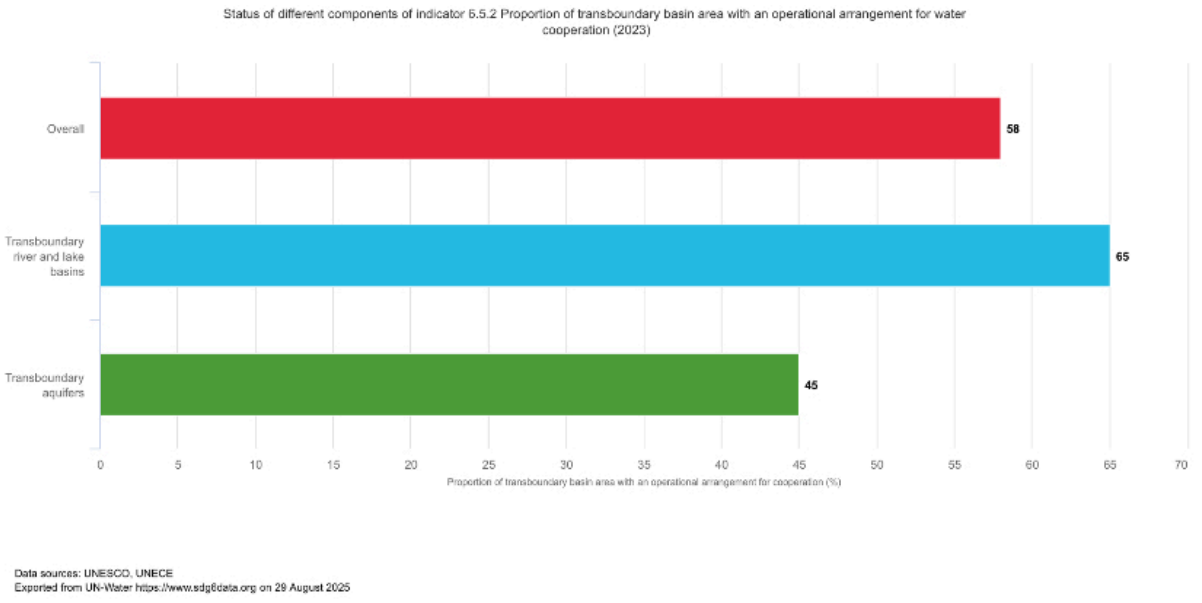
The Bay of Bengal demonstrates a more cooperative outcome. Disputes between Bangladesh, India and Myanmar were settled through arbitration resulting in clear maritime boundaries. While tensions have eased collaboration on fisheries and climate related challenges -such as rising seas and shifting deltas remains necessary.

In Africa water boundaries often intersect with resource access and national identity. The Nile River is a key example: Ethiopia's Grand Ethiopian Renaissance Dam has generated tensions with Egypt and Sudan which depend heavily on the river's flow. Elsewhere shifting lakes and rivers such as Lake Turkana between Kenya and Ethiopia, create uncertainty for border communities. Similar challenges are seen in South Asia with the strained Indus Waters Treaty and in Southeast Asia with disputes over the Mekong River's flow.

Climate change is a major driver of future boundary challenges. Rising sea levels threaten to submerge low-lying islands, potentially reducing maritime zones unless legal frameworks adapt. Floods, erosion and sediment deposition can alter river boundaries, shifting control over key waterways. Some experts propose flexible "ambulatory" baselines but such concepts are not yet widely adopted in international law.

Technological advances -satellite imagery, GPS mapping and hydrographic surveys -allow for highly accurate mapping of coastlines and seabeds, creating a shared factual basis for negotiations. However final agreements depend on political will and legal interpretation.

UNCLOS remains the primary legal framework for maritime boundaries but ambiguities persist, particularly in defining islands versus rocks and determining boundaries in close proximity coasts. Solutions may include negotiated settlements, joint development zones, or international arbitration. Delegates should consider that any lasting resolution must balance legal fairness, political realities and the environmental changes that continue to reshape geography.



3.7. Major Parties Already in Place

Arab Republic of Egypt:
Egypt is a downstream riparian that relies almost entirely on the Nile. Colonial era treaties (1929 and 1959) secured for Egypt the lion's share of the river's flow and even granted Egypt veto power over upstream dams. Egypt strongly opposed Ethiopia's Grand Ethiopian Renaissance Dam project without a binding agreement on filling and operation, arguing it threatens its water security. It participates in Nile Basin negotiations and insists on a framework that would protect its "acquired rights" under the old treaties.

Federal Democratic Republic of Ethiopia:
Ethiopia sources roughly 85% of the Nile's flow. It was not a party to the 1929 or 1959 Nile treaties and has long rejected their allocations. Ethiopia has proceeded with the Renaissance Dam on the Blue Nile, prompting Egyptian and Sudanese demands for binding rules on the dam's filling and operation. It signed the 2010 Cooperative Framework Agreement to pursue equitable Nile sharing, though downstream objections have kept a basin wide accord from coming into force. Addis Ababa emphasizes its sovereign right to develop its water resources and engages regional forums and the African Union to advance its position.

People's Republic of Bangladesh:
Bangladesh is highly dependent on waters from Indian rivers (notably the Ganges and Brahmaputra). A 1996 treaty with India divides Ganges waters at the Farakka Barrage, but no comparable agreement covers rivers like the Teesta. Bangladesh has appealed to international forums -for example requesting an ICJ advisory opinion on the Farakka dispute– to bolster its claims for fair water sharing. It works through bilateral river commissions with India and regional initiatives to advocate equitable flows. Bangladesh ratified the 1997 UN Watercourses Convention and cites its principles when pressing for fair transboundary allocations.

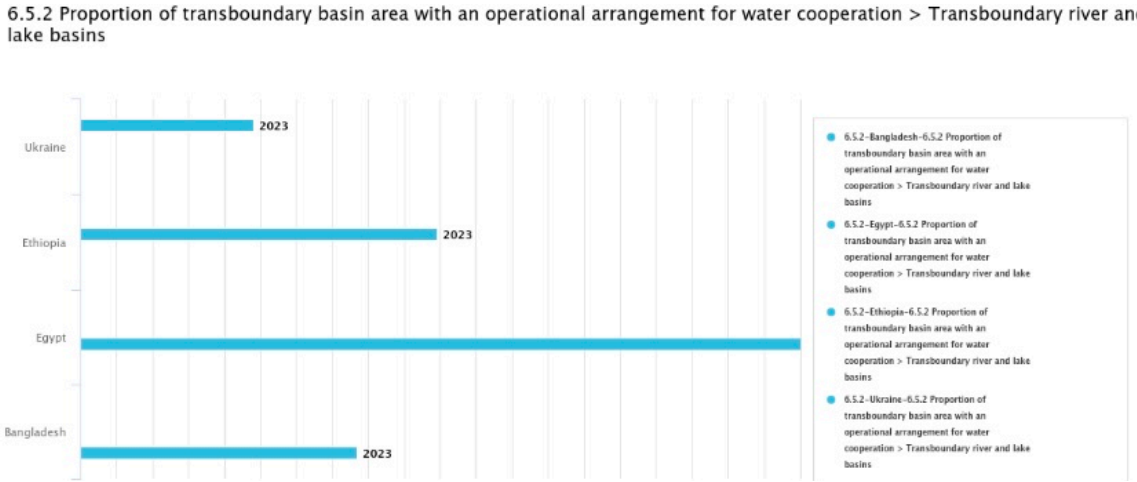
Republic of India:
India shares major transboundary rivers with Pakistan and Bangladesh. It is party to the 1960 Indus Waters Treaty which allocates the Indus River system: India uses the eastern tributaries (Ravi, Beas, Sutlej) and Pakistan the western (Indus, Jhelum, Chenab). India has built dams (for example Baglihar and Kishenganga) under this framework which Pakistan has contested at international arbitration. India also signed a 1996 treaty with Bangladesh on sharing Ganges waters at Farakka. India generally addresses boundary water issues through these treaty mechanisms and emphasizes its right to develop projects within those legal limits.

Ukraine:
Ukraine's shared rivers were largely defined by post-Soviet treaties. It signed bilateral water management agreements with all neighbors in the 1990s (for example, a 1994 treaty on the Dniester with Moldova). Ukraine participates in the Danube River Commission and has similar commissions on other transboundary basins. In 2003 Ukraine and Russia agreed a maritime boundary in the Sea of Azov. Ukraine has not ratified the 1997 Watercourses Convention but implements EU water directives; its river boundaries are generally settled. After 2014, Ukraine also faced water supply issues related to Crimea, though those are a political dispute rather than a boundary treaty issue.

3.8. Global Data

Transboundary waters form a vast network that directly affects global stability and cooperation. Today there are around 286 international river basins spanning 151 countries and covering approximately 42% of the world's land area. These basins serve nearly 2.8 to 3 billion people representing about 40% of the global population. In addition to rivers there are 592 recognized transboundary aquifers making shared groundwater another critical source of freshwater. Together these shared rivers and aquifers account for more than half of the world's freshwater runoff highlighting the strategic importance of water boundaries for both sovereignty and human survival.

Despite their scale, cooperative mechanisms remain limited. The global average coverage of transboundary basin areas by formal joint arrangements is only about 59%. Out of 153 riparian countries only 43 have legal or institutional frameworks that cover at least 90% of their shared waters. This means more than half of the world's international river basins and nearly all shared aquifers lack comprehensive agreements. Such a gap leaves vast populations vulnerable to disputes, resource competition and ecological risks.



The impact of this is clear in major regions. The Ganges–Brahmaputra–Meghna basin across India Bangladesh Nepal and Bhutan sustains more than 630 million people yet still suffers from fragmented agreements. The Indus basin shared by Pakistan, India, Afghanistan and China supports over 320 million people and remains a flashpoint for both cooperation and conflict. The Nile basin in Egypt Ethiopia and Sudan illustrates how access to dams and water flows can escalate into geopolitical tension. In Europe the Danube connects more than ten countries and demonstrates the complexity of balancing navigation energy and environmental protection. In Asia maritime disputes such as those in the South China Sea emphasize how boundary delimitation directly links to security and economic power.

These figures show that water boundary delimitation is not only a matter of legal principles but also of survival development and peace. As sea levels rise and populations grow the absence of binding frameworks increases the risk of conflict. On the other hand successful treaties and river commissions show that cooperation is possible when states commit to shared management. For the period 2025–2035 the challenge remains ensuring that the billions who depend on transboundary waters are not left vulnerable to political or environmental instability.

3.9. Possible Considerations for the Future

Looking ahead, water boundary delimitation will continue to face major challenges shaped by global developments. One of the most pressing issues is climate change. Rising sea levels and coastal erosion may alter coastlines, submerge islands and shift baselines, making current maritime borders unstable or even obsolete. This creates uncertainty for states whose territories and resources are directly affected, raising the need for new agreements and updated legal frameworks that can adapt to changing realities.

Another key factor is technology. Advances such as satellite imagery and GIS mapping already allow for more accurate and transparent delimitation. However not all states have equal access to these tools. Wealthier nations may gain an advantage in negotiations while developing countries risk being left behind. This inequality highlights the importance of capacity building, data sharing initiatives and international cooperation to ensure fairness in future boundary agreements.

Increasing global demand for marine resources will intensify the importance of fair sharing. Fisheries, freshwater reserves and deep sea minerals are becoming scarcer and disputes over them could easily escalate if boundaries remain unclear. Yet this situation also presents opportunities: joint development zones, cooperative management systems and stronger regional agreements could help turn potential conflict into collaboration.

The future of water boundary delimitation will depend on whether states choose confrontation or cooperation. Delegates should consider how to balance national interests with global sustainability and how to design flexible but reliable mechanisms that protect both legal stability and environmental security. In this sense the question is not only where the boundaries are drawn but how they will adapt to the challenges of a rapidly changing world.

4. The Ethics and Adequacy of Current International Water Treaties & Managing Countries' Water Footprints

4.1. Introduction of the Second Agenda Item

The management of national water footprints raises questions about international governance. Should global trade rules take water use into account? Some propose "water footprint labeling" for products or even a water "embedded content" tax. Others suggest that water scarcity footprints could become part of bilateral development aid or investment conditions (e.g., requiring agricultural projects to increase efficiency). Currently, water footprint criteria are used in Sustainable Development Goal 6 ("Clean Water and Sanitation for All") and the UN's Water-Energy-Food nexus discussions, but they have not yet been formalized in any agreement. The moral argument is clear: water is a limited resource and often flows across borders through nature, so countries share a common responsibility to consume water wisely. As delegates consider "managing water footprints," they will need to explore policy tools (from national regulations to international incentives) that align consumption with equity and sustainability. This will be the subject of subsequent sections, which will evaluate specific strategies and case studies aimed at reducing global water stress while meeting human and ecological needs.

International water agreements (whether bilateral river agreements or multilateral treaties) contain commitments regarding the cooperative sharing and management of freshwater resources. Over the past half-century, the development of the international water law framework has resulted in the adoption of documents such as the 1997 UN Convention on the Non-Navigational Uses of International Watercourses. These agreements establish principles such as fair and reasonable use and the obligation not to cause significant harm to other states. They also acknowledge mutual concerns such as promoting sustainable development, protecting water quality, and establishing joint management institutions. From an ethical perspective, these norms aim to strike a balance between sovereignty and equality. They reflect the values that water (as a basic human need and ecological necessity) should not be monopolized by the powerful. The agreements sanctify common ownership: for example, both the Helsinki Rules (1966) and the UN Watercourses Convention emphasize "equitable use." Therefore, modern water diplomacy encompasses not only technical issues but also moral imperatives such as ensuring drinking water, food security, and ecosystem health for all riparian communities.

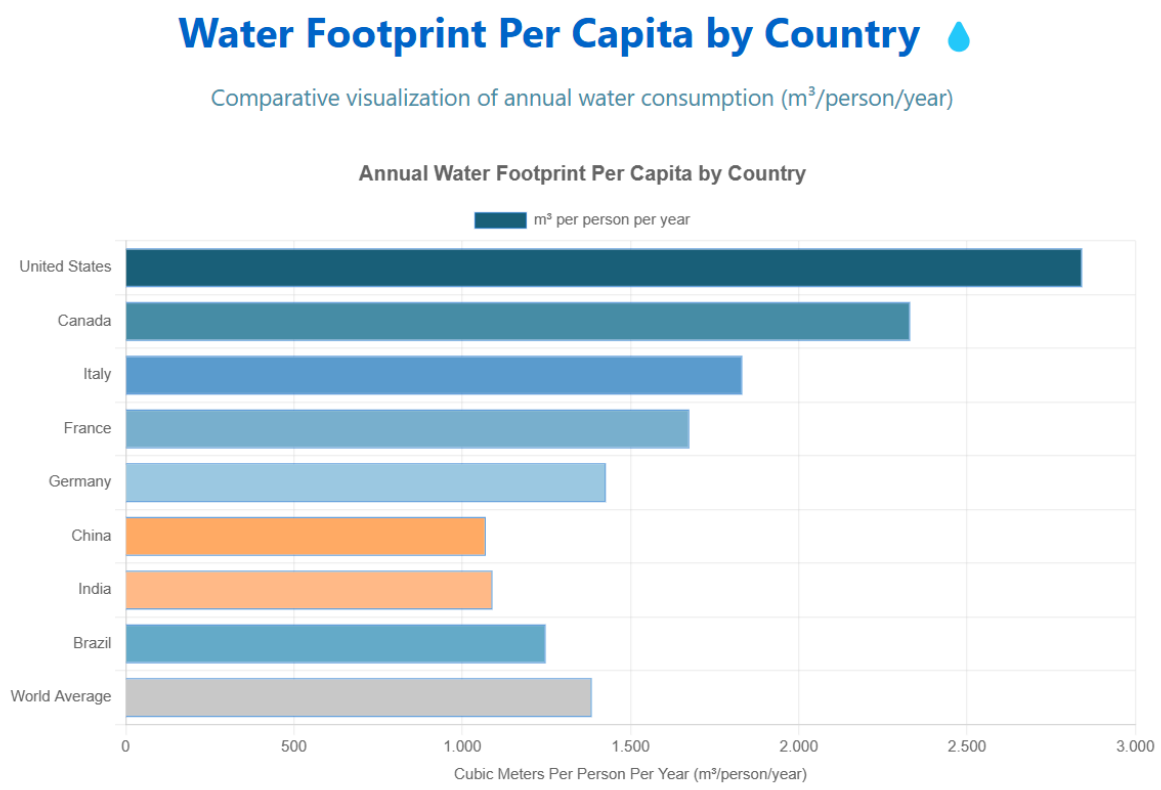
However, there are still serious ethical issues within this framework. Tensions between upstream and downstream regions can turn water into a weapon; for example, situations such as regulations that cannot be implemented despite agreements, or unilateral dam projects, can pave the way for crises. The main global framework (the UN Watercourses Convention - UNWC) has a very limited scope. As of mid-2025, only 36 countries have ratified this convention, and many countries with abundant water resources or located upstream have not joined the convention. A recent review noted that while the UNWC's "do no significant harm" principle could theoretically protect downstream countries from upstream dams, its provisions on conflict resolution are weak in practice. The convention does not automatically impose penalties for violations, and critical

issues such as environmental flow requirements remain unclear. In short, the UNWC remains a “weak foundation”: due to its lack of widespread acceptance and enforcement power, it cannot guarantee equitable use.

While there are some success stories (such as the Indus Waters Treaty and the Senegal River), many transboundary basins either have no agreements at all or have agreements that are outdated. These gaps highlight that ethical water management cannot be achieved through written agreements alone. For example, decades of negotiations on the Nile River have failed to produce results. The Mekong River Commission remains ineffective due to China's refusal to participate. Shared aquifers in the Middle East remain largely unregulated. These examples demonstrate the need to integrate environmental justice, intergenerational rights, and human rights law into this framework. Current international water agreements incorporate important ethical principles such as cooperation and non-harming; however, the fragmented nature of these agreements and their inconsistent implementation have led to many water disputes bypassing the law.

A country's water footprint is the total volume of freshwater consumed to produce the goods and services used by its population. This includes both domestic water use (water drawn and used locally) and “virtual water” contained in imported products (especially food and fiber). Water footprint analysis emerged in the early 2000s as a way to measure a country's demand for freshwater resources worldwide. Globally, the average person's water footprint is approximately 1,385 m^3 per year. However, these values vary greatly between countries: for example, the average American's water footprint is 2,842 m^3/year, while in China and India, this figure is around 1,070–1,090 m^3/year.

This concept highlights important global interdependencies and ethical questions. Many water-rich countries are net exporters of agricultural water (through crops), while water-scarce countries may import virtual water to meet their food needs. Arid countries in North Africa and the Middle East are heavily dependent on imported grains; in contrast, countries like Brazil and the US “export” water. This situation raises a debate about water justice: Are countries responsible only for the water they consume domestically, or also for their impact on global water resources? The importation of water-intensive products from water-scarce regions by wealthy countries poses a problem in terms of global justice.



4.2. Definitions

1. Governance: This is the name given to the entire process by which states or international organisations create laws, make decisions and monitor the implementation of these decisions in order to maintain social order. Governance is not only a legal structure; it also encompasses the principles of transparency, accountability and participation.

2. Trade rules: These are international agreements that regulate the flow of goods and services between different states and aim to ensure equality and fairness. These rules establish standards for both export and import processes and provide a basis for resolving potential disputes.

3. Labelling: Providing transparent information to consumers by writing a product's price, contents, production method and similar characteristics on the packaging. Labelling is of great importance in terms of protecting consumer rights, product safety and encouraging informed consumption.

4. Bilateral aid: This is the form of economic, military, technical or humanitarian support provided directly by one country to another. Bilateral aid is often provided with the aim of developing friendly relations between countries or contributing to the development of countries in need.

5. Investment conditions: This is the set of legal, economic and political conditions necessary for foreign or domestic investors to transfer capital to a country. These conditions cover a wide range

of areas, from tax regulations to the security environment, from the guarantee of the legal system to the quality of the workforce.

6. Efficiency: Maximising the benefit from existing resources, i.e. the ability to obtain the highest benefit in the production and use processes of a product or service. Efficiency is a critical concept for both economic development and the proper use of resources.

7. Health protection and sanitation systems: All technological and administrative arrangements developed to protect human and animal health, providing access to clean water and ensuring the treatment of wastewater. These systems play a fundamental role in preventing epidemics and improving quality of life.

8. Agreement: Official documents signed between two or more countries that are legally binding and aim to regulate relations between the parties. Agreements are among the most important tools for international peace and cooperation.

9. Shared responsibility: This means that more than one state, institution or individual shares the obligations that fall upon them. This concept is particularly prominent in areas such as global environmental issues, water resource conservation and international peace.

10. Sustainable consumption: Refers to the use of resources in a way that not only meets today's needs but also preserves the right to life for future generations. This approach encourages the prevention of overconsumption and the development of more conscious living habits.

11. Policy instruments: These are all the mechanisms used by states or international organisations to produce solutions to social, economic and environmental problems. These instruments include laws, regulations, financial arrangements, incentives and dissuasive sanctions.

12. Regulations: These are the set of rules enacted by the state or authorised institutions to maintain social order, ensure justice and protect the public interest. Regulations safeguard individuals' rights and freedoms while also ensuring social stability.

13. Incentives: Systems whereby states or organisations reward individuals or companies for increased production, investment or innovation in a particular area. Incentives may sometimes take the form of tax breaks, and sometimes financial support.

14. Straits: Narrow water passages between two land masses that connect sea or ocean waters. Straits are both geopolitically strategic and vitally important for the security of trade routes.

15. Sovereignty: The right of a state to make independent decisions within its own borders, govern its own people, and be closed to external intervention. Sovereignty is one of the most fundamental legal and political foundations of states.

16. City-state: Political entities that emerged in ancient times and generally consisted of a single city and its surroundings. City-states acted independently in terms of both administration and economic structure and were an important step in the development of states throughout history.

4.3. Key Terminology

1. Sustainable Development Goals (SDGs): The goals set by the United Nations to make the world a better place by 2030.

2. UN Water-Energy-Food Nexus: The system established by the United Nations to provide water, energy, and food to the world, including country connections.

3. Water footprint: The total amount of water used in the production of goods and services for human consumption.

4. Transboundary: Crossing and exceeding nationally defined boundaries.

5. Embedded water content: The amount of water used in the production of a product and within that product.

6. Navigation: The right of a ship to pass through a section of the sea or ocean belonging to another country without causing damage.

7. Scarcity: The situation where a needed product is not available in sufficient quantities or at all.

8. Hydroelectric power: A form of energy production that uses the speed of flowing water, generally located in areas with fast currents, to generate energy with maximum efficiency.

4.4. History Of The Agenda Item

The origins of water agreements date back 4,500 years. The first water agreement discovered and accepted to date was made in 2500 BC by two different Sumerian city-states, Lagash and Umman, due to conflicts over the Tigris River. Since then, there have been approximately 3,600 agreements. While most of these agreements were related to the protection of borders and fishing rights, those made after the 20th century were related to hydroelectric power and water projects. However, the agreements made until the 1800s did not attract much attention.

Some of the decisions made at the Congress of Vienna in 1815 were an important step in the history of water agreements. At that time, Belgium, which was part of the Netherlands, was granted access to Dutch water resources, and decisions were made regarding the use of international rivers such as the Rhine, Meuse, Scheldt, and Danube, which laid the groundwork for agreements such as the Paris and Mannheim Agreements signed in 1856. Additionally, it had a significant impact on reviving the economy and Belgium's independence.

The 1856 Treaty of Paris established certain definitions, rules, and laws regarding rivers, straits, landlocked seas, bays, inlets, canals, and lakes, and clarified the rules by referring to specific regions such as the Black Sea, the Panama and Suez Canals, and the Dardanelles. This treaty played a significant role in ensuring the equitable use of water resources and the determination of water boundaries among these countries. Additionally, important rules have been established regarding sovereignty, freedom, and jurisdiction over the open seas. This treaty, which addresses

issues such as the conceptualization of piracy and its objectives, emphasizes that fishing is free for all nations in the open seas. It is among the most important water treaties due to its emphasis on the equality of water use and its broadly defined concepts.

In 1865, following the Crimean War, the Danube River Commission was established with the vision of ensuring free and reliable navigation, drafting a model for international cooperation, and developing technical infrastructure. In line with these objectives, the commission discussed deepening riverbeds, regulating ports and canals, reviewing rules related to commercial freedom and customs, and establishing a fixed management and control system along the Danube River to ensure order. As a result of this commission, customs and management were reviewed, trade developed, awareness of international cooperation progressed, and certain standards were established.

After the American War of Independence, the border lakes and rivers between the US and Canada, as well as water rights, became a constant source of dispute. For this reason, the Boundary Waters Treaty was signed in 1909 with the aim of resolving this dispute. It was accepted as the first comprehensive framework regulating the border waters of the two countries. Subsequently, the International Joint Commission (IJC) was established, and some previously contentious river issues were resolved. This treaty has remained unchanged for over 110 years and continues to uphold peace between the two nations.

In 1925, the Lake of the Woods Convention was held between Canada and the United States to discuss the regulation of water levels and flood risks in Lake of the Woods, from which the convention took its name. This regulation ensured the coordination of dam operations in the region and protected agricultural areas affected by flooding. The significance of this agreement was that it was the first time a detailed water management protocol had been established specifically for a lake.

In 1944, an agreement was signed between Mexico and the United States, which led to the establishment of a permanent commission. This commission, called the International Boundary and Water Commission (IBWC), has provided a solution to water boundary issues. Clear rules regarding water use were added, and a joint approach to water quality issues ensured its protection.

The Niagara River Diversion Treaty, signed in 1950 between the United States and Canada, balanced energy sharing between the two countries by setting quotas for hydroelectric power generation and water diversion on the Niagara River. The treaty also regulated water flow within certain limits in order to preserve the tourist value of Niagara Falls.

By 1960, the Indus Water Treaty between India and Pakistan had become one of the most successful international water agreements, determining the sharing of water on the Indus River. India controls the eastern branch rivers (Beas, Ravi, Sutlej), while Pakistan has the right to use the western branch rivers (Indus, Jhelum, Chenab). This system, which was monitored using different systems, continued even when wars broke out between the two countries, setting a strong example of water diplomacy.

The Ganges Water Sharing Treaty signed between India and Bangladesh in 1996 is the first comprehensive example of resolving disputes through lengthy negotiations by regulating water sharing for a period of 30 years. Fair distribution of water levels has been ensured, guaranteeing access to water for downstream regions. The rights of downstream states have been recognized under international law, strengthening the culture of peaceful resolution.

Adopted by the United Nations in 1997 but only entering into force in 2014, the UN Watercourses Convention is the first universal legal text regulating the sustainable use, “non-detriment” and equitable sharing and use of international freshwater resources.

The concept of “water footprint,” which was introduced by Dutch expert Arjen Hoekstra and received great interest, was actually established in the years prior to 2002. In 1950, the Food and Agriculture Organization of the United Nations (FAO) collected data on the amount of water used and consumed in agriculture by country to determine the amount of water consumed. This was the first major data collection process on water usage by countries. By the 1970s, the United Nations Environment Programme (UNEP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) prepared intergovernmental reports to promote more efficient use of water resources, bringing the concept of water management into the global agenda for the first time. In the 1990s, the concept of “virtual water” emerged at meetings such as the 1992 Rio Summit. This concept describes how a country indirectly consumes water from other countries through the products it imports. In 2002, the concept of “water footprint” was introduced by Dutch expert Arjen Hoekstra. Countries began to calculate not only the water they used directly but also the water they consumed indirectly through imports. In 2008, standards were established to measure the water footprint, and countries began regularly publishing their water footprints using this framework. By the 2010s, the EU, OECD, and some Asian countries began to evaluate and pay attention to water footprints in their trade and production planning. Water conservation targets also began to appear in official documents. As a result, the term “water footprint” began to appear in countries' official documents, policies, and targets.

4.5. Past United Nations Actions

Water has always been a priority for humans. Due to the importance and priority given to water, many countries have prepared national and international agreements and rules, emphasizing fair sharing. The United Nations has also recognized the importance of this issue and has emphasized water through many regulations. Notably, the Helsinki Rules were first drafted by the International Law Association (ILA) in 1966. Initially, the UN was not a party to these rules, but the principles outlined in them regarding the fair distribution of water later became the foundation for UN treaties. By 1975, the first scientific studies on water were conducted through UNESCO's International Hydrological Program, and an intergovernmental program was implemented. In 1992, the principle of managing water resources for sustainable development, as seen at the Rio Summit, first took on a global dimension through such events and discussions. Subsequently, the concept of Integrated Water Resources Management (IWRM) entered international policy. This led to a global awareness and oversight of water management. 1997 was an important year for the United Nations. Issues such as the fair use of transboundary waters, non-harming, and

information sharing were agreed upon in the UN International Watercourses Convention. Although it was discussed and drafted in 1997, it only officially came into effect in 2014. In 2000, a list of goals was established under the name of the Millennium Development Goals, which aimed to increase access to water and sanitation by 2015. Although these goals were very important from an ethical standpoint, they focused more on quantitative targets. In 2003, the UN-WATER organization was established to organize all UN bodies related to water and to maintain these activities in an official manner. This more formal organization, which regulates paperwork, brought all UN activities related to water under one umbrella. The Berlin Rules are an updated version of the previously written Helsinki Rules. It was published in 2004, and these rules cover not only states but also individuals' water rights and environmental sustainability issues. With the UN General Assembly's Resolution on the Right to Water and Sanitation, access to clean water was declared a fundamental human right for the first time in 2010. 122 countries voted in favor, giving this ethical responsibility a legal basis. In 2015, under the name of the 2030 Sustainable Development Goals, certain targets were set to be achieved by 2030. The theme of these targets was the same for all of them:

-Water efficiency (reduction of water footprint)
-Transboundary cooperation
-Protection of water ecosystems
-Access to water

All these United Nations activities have brought our world to its current level of water awareness. Although no new laws, institutions, or organizations have been established recently, every year on March 22, World Water Day, we are reminded of the importance of water in our busy world through various initiatives.

4.6. Current Situation of the Agenda Item

Among the notable water agreements made in recent years, we can first mention the UN Water and Climate Report published in 2022. Due to changing and evolving global conditions, water security and climate change have been identified as one of the highest-risk areas. This situation revealed that a large portion of existing water agreements lack provisions for adaptation to water security and climate change. The report highlighted disputes arising from transboundary basins or crises such as drought.

In 2023, the UN Water Conference was held for the first time in 46 years. This conference was the first global water summit held in 46 years. Economic and financial ethics and issues were discussed at the conference.
Due to developing factors in Africa and Asia, technical working groups focused on climate adaptation were established in 2021 and beyond. These groups were specifically established for the Nile Basin and the Mekong River. These initiatives have a binding nature, facilitating the exchange of technical knowledge on water allocation, ecosystem protection, and flood management.

One of the notable reports published on water footprints was the Water Witness Report, published in 2024, which provided information on unsustainable resource use. According to the data provided in this report, food and raw material exports from regions suffering from water scarcity were found to increase the risk to global water security.

Between 2021 and 2025, however, crises were more prevalent on a regional scale. Crises such as the overuse of renewable water capacities in the Middle East and North Africa, the negative impact of mining activities on water quality and quantity in South America, and excessive agricultural irrigation of groundwater reserves in India remind countries to take more serious measures regarding the concept of Water Footprint.

4.7. Major Parties Already in Place

Countries have been signing numerous agreements under the name of water issues since before states were even established. Each of the 25 countries in our committee has a very important role to play, and each country causes different impressions and orientations in the world due to its own strategic position.

Arab Republic of Egypt
Egypt's economy is almost entirely dependent on the Nile River. For this reason, it strongly rejects any agreement that obstructs the Nile River, particularly causing changes to past water agreements. A country so dependent on the river makes its voice heard globally and reminds us that it deserves attention. Ethiopia's GERD (Grand Ethiopian Renaissance Dam) dam is a constant source of conflict because it risks restricting the waters of the Nile River. Furthermore, Egypt considers current international water law to be “inadequate,” placing it at the center of the dispute.

Federal Democratic Republic of Ethiopia
The GERD (Grand Ethiopian Renaissance Dam) project is a massive hydroelectric dam project that Ethiopia began constructing on the Blue Nile in 2011. With this project, Ethiopia is generating electricity while also ensuring its economic development. However, since most of Egypt's economic and agricultural activities depend on the Nile River, it believes that this situation negatively affects Egypt. Sudan, on the other hand, considers the energy generated by the dam to be important for its own development, but it experiences significant problems due to sudden water and electricity outages. This situation provides an important reason for discussing the ethics of the GERD project and its reorganization. On the other hand, Ethiopia supports this project in terms of more efficient use of the Nile River waters.

In addition to being sufficiently aware of its water footprint, Ethiopia continues to implement the project, considering that the Nile River waters are not being used efficiently enough.

Republic of Iraq
Due to water shortages in this region, it is dependent on the Euphrates and Tigris rivers. For this reason, it is dependent on the Republic of Turkey and the Syrian Arab Republic. It is clear that the existing agreements are insufficient and inadequate in terms of water rights. Therefore, the ethical aspect of water agreements should be discussed, and water agreements, especially those for times of crisis, should be reviewed to protect countries caught between larger countries.

Republic of Sudan
The Republic of Sudan, which is under pressure from Ethiopia and Egypt regarding the issue of water sharing on the Nile River, plays a neutral and fair role by maintaining balance, even though it cannot obtain as much water as it needs. Even though the country cannot obtain the water it is entitled to, it is expected to maintain its neutrality and lead all countries that cannot enforce their rights, especially regarding the Nile River.

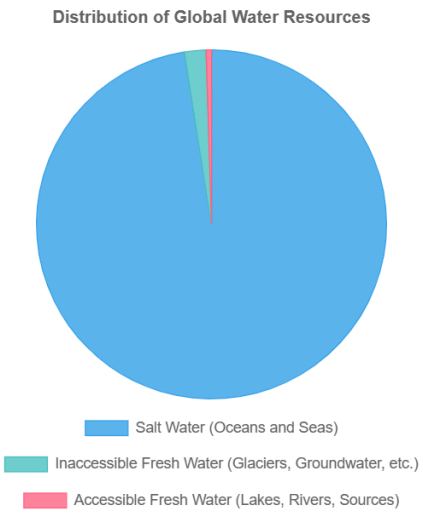
Republic of Türkiye
As the source country of the Euphrates and Tigris Rivers, Turkey is in a state of constant tension with Syria and Iraq. Both rivers are important water sources in the Middle East. Control of these resources has become a significant issue between Syria and Turkey. On the other hand, Turkiye's GAP (Southeastern Anatolia Project), which has been constructing water and dam systems since the 1970s, has caused a significant decrease in water levels, particularly in Syria and Iraq. In this sense, the issue of fair water sharing has come to the fore and has caused problems in terms of politics and security.

Syrian Arab Republic
It argues that Turkey cannot obtain the water it is entitled to from the Euphrates and Tigris rivers due to Turkey's water projects and that Turkey is occupying its own waters. For this reason, they are in constant disagreement with Turkey. Turkey's projects, such as dams and water systems, prevent sufficient yield from these rivers and cause shortages. In this sense, it supports the water sharing issue being discussed and reviewed once again.

4.8. Global Data

Water is an essential requirement for human life. However, the human body cannot directly consume untreated dirty or salty sea and ocean water. Although three-quarters of our planet is covered in water, only about 2.5% of it is fresh water, and only 0.5% of this fresh water is accessible. Due to this scarcity, according to UN and UNESCO reports, more than 2 billion people do not have access to reliable drinking water, and the demand for this water is expected to increase by 30-40% by 2050.

These projections are causing countries to become more sensitive and even conscious about some of the water agreements they currently have. There are currently more than 310 international river basins in the world, and about 60% of them cross the borders of more than one country. This causes problems in terms of fair water sharing. In addition, approximately 3,600 water



agreements have been signed since 1948. The majority of these agreements concern borders, fishing activities, and water usage rights, with only a small portion addressing sustainability.

On the other hand, according to water footprint data, the annual water footprint per capita varies greatly between countries: the US averages 2,800 m^3, China 1,070 m^3, and India 980 m^3. These large differences again raise important questions about fair water sharing.

4.9. Possible Considerations for the Future

Water agreements must adapt to changing conditions in the future because they take shape at the moment they are signed. Changing climate, population, and economic activities can be modified to ensure future adaptation. However, agreements can be made flexible to avoid having to rewrite them again in response to these changing circumstances. For example, unpredictable events such as climate change can be addressed within a broad framework. For predictable factors such as population, additions can be made based on estimates.

In the management of transboundary water resources, how to make intergovernmental cooperation more effective is also an important issue. Strengthening or standardizing dispute resolution mechanisms could contribute to preventing future tensions. At the same time, sharing innovations in water recycling, desalination technologies, and agricultural irrigation efficiency among countries could shed light on future solutions. Proposals such as making agreements more flexible to adapt to the unpredictable effects of climate change and establishing international adaptation funds for countries experiencing water shortages are also worth discussing.

The establishment of global standards for measuring and reporting countries' water footprints, as well as the inclusion of this data in international trade agreements, may be on the agenda.

5. Questions to Further Asking

1-How can existing maritime boundary frameworks (e.g. UNCLOS and related treaties) be reinterpreted or amended to address climate driven changes (such as sea level rise altering coastal baselines), ensuring that defined boundaries remain clear, stable and equitable for all states?

2-What cooperative mechanisms and modern technological tools can states employ to ensure transparent, equitable delimitation and management of shared water boundaries, thereby reducing geopolitical tensions and adapting to climate induced variability?

3-In designing or updating water boundary agreements how should principles of equity (reflecting differential climate vulnerability, resource needs and development levels) be incorporated and what roles can international dispute resolution bodies or new multilateral institutions play in guiding fair and cooperative adjustments to contested boundaries?

4-How can the export of water-intensive products from regions suffering from water scarcity be assessed in terms of global justice?

5-Is it possible for water justice (for every country and every person) and the water rights of future generations to be more strongly established in international water law?

6-To what extent can existing international water agreements be considered adequate in the face of changing climate conditions and increasing water demand?

6. References and Bibliography

https://avim.org.tr/public/images/uploads/files/duygu%20bayram.pdf
https://climate-diplomacy.org
https://drupal-main-staging.unece.org/environment/zimbabwe-national-workshop-water-convention-2024
https://www.durham.ac.uk/media/durham-university/research-/research-centres/ibru-centre-for-borders-research/maps-and-databases/publications-database/boundary-amp-security-bulletins/bsb8-4_misra.pdf#:~:text=India%20asserts%20that%20the%20boundary,therefore%2C%20the%20entire%20Creek%20is
https://features.csis.org/the-future-of-the-Euphrates-River/#:~:text=Agreements%20between%20Syria%20and%20Turkey,water%20per%20second%20from%20Turkey
https://www.gftm.gov.tl/boundaries/the-law-of-the-sea/
Global Runoff Data Centre (GRDC). (n.d.). WMO basins and sub basins. Federal Institute of Hydrology. Retrieved from https://grdc.bafg.de
https://www.government.se/government-agencies/finnish--swedish-transboundary-river-commission/
https://lawreview.vermontlaw.edu/wp-content/uploads/2012/02/shah.pdf#:~:text=Thalweg%20made%20its%20first%20appearance,88
https://www.mpil.de/de/pub/publikationen/archiv/world-court-digest.cfm?fuseaction_wcd=aktdat&aktdat=dec0313.cfm#:~:text=In%20order%20to%20do%20so%2C,regarded%20as%20its%20main%20channel
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5337700
journals.sagepub.com/doi/full/10.1177/18785395241296049
https://www.sdg6data.org/index.php/en/indicator/6.5.2
https://static1.squarespace.com/static/65773bc77ea2f0787a1d4cad/t/66bdf8df58285f1f5d02f73c/1723726050466/Towards+Fair+Water+Footprints+-+a+briefing+note+on+the+updated+global+WF+analysis+for+2000-2020.pdf
https://wmo.int/about-wmo/our-mandate
www.unwater.org/news/convention-wetlands-cop15
United Nations. (1982). United Nations Convention on the Law of the Sea.
https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf
United Nations Economic Commission for Europe. (1992). Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Convention).
https://unece.org/environment-policy/water
UNESCO & UN-Water. (2023). Progress on transboundary water cooperation: Global status of SDG indicator 6.5.2. Paris: UNESCO. https://www.unwater.org/publications
https://www.thinkglobalhealth.org/article/ganges-water-sharing-treaty-needs-climate-makeover
https://www.waterdiplomat.org/story/2025/02/analysing-progress-transboundary-cooperation
https://www.worldcourts.com/icj/eng/decisions/1999.12.13_kasikili.htm#:~:text=41,regarded%20as%20its%20main%20channel
World Meteorological Organization. (2008). Guide to hydrological practices: Hydrology from measurement to hydrological information (6th ed., Vol. I). WMO-No. 168. Geneva: WMO.
World Meteorological Organization & Australian Bureau of Meteorology. (n.d.). Hydrological data exchange: Good practice guidelines for water data management policy. Geneva: WMO.
https://wmo.int
World Meteorological Organization. (n.d.). WMO Hydrological Observing System (WHOS).
https://wmo.int/activities/wmo-hydrological-observing-system-whos
https://wmo.int/about-wmo/history-of-imo-and-wmo

https://www.wri.org/applications/aqueduct/water-risk-atlas/#/?advanced=false&basemap=hydro&indicator=w_awr_def_tot_cat&lat=-39.1868468720195&lng=-7424.179673194886&mapMode=view&month=1&opacity=0.5&ponderation=DEF&predefined=false&projection=absolute&scenario=optimistic&scope=baseline&threshold&timeScale=annual&year=baseline&zoom=2
https://library.wmo.int/viewer/69033/download?file=WMO-1362-2023_en.pdf&type=pdf&navigator=1
https://www.canada.ca/en/environment-climate-change/services/water-overview/governance-legislation/federal-policy.html
https://www.jica.go.jp/Resource/english/our_work/thematic_issues/water/c8h0vm0000ammj2q-att/activity_01.pdf
https://byjus.com/free-ias-prep/world-meteorological-organisation-wmo
https://www.greenclimate.fund/ae/wmo