
INTERNATIONAL WATER LAW: TOWARDS A SUSTAINABLE WORLD

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INTRODUCTION

Water is vital to socio-economic growth, energy, food production, healthy ecosystems and human survival. Being at the core for achieving sustainable development goals, Water is indeed at the forefront of adaptation to climatic change, functioning as a vital link between the environment and the society. As the world's population increases, there's also a growing need to balance conflicting economic pressures on water resources so that society has enough to fit their requirements. Forty-one per cent of the world's population (i.e., 1.7 billion) lives near the river basins, which are under severe water stress.³ Around 2.3 billion of the global population is facing a severe water shortage.⁴ It is projected that by the year 2050 around 5 billion of the global population will face extreme water shortage.⁵ These projections show that the paucity of freshwater resources could have a severe effect on half of the world's population which can result in a major hindrance to their social and economic development. The severity of the global freshwater crisis is evident from the above data.

The 2030 Framework for Sustainable Development, espoused by UN Member States in the year 2015, offers a global vision for peace and prosperity for the people and the planet, both in the future and at present. At the core of the agenda are the 17 Sustainable Development Goals, which are an immediate call for change for both developing and developed countries in the context of a worldwide partnership. They acknowledge that reducing poverty and other hardships should go side -by- side with policies and practices to improve education and health, minimize inequality and accelerate economic development while combating global warming and climate change and working to protect our forests and oceans.

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³Facts and Figures, *available at- <https://www.worldbank.org/en/news/press-release/2016/01/21/united-nations-world-bank-group-launch-high-level-panel-on-water>*

⁴*Ibid*

⁵UN warns around 5 billion people could face water shortages by 2050, *available at- <https://www.wateraid.org/uk/media/un-warns-around-5-billion-people-could-face-water-shortages-by-2050-wateraid-response>* (last visited on- Apr 09, 2020).

Goal No. 6 and Goal No. 14 are the two goals out of 17 sustainable development goals which were set in the year 2015 and are to be achieved by 2030. Both of the mentioned goals talk about water. Goal No. 6 talks about clean water and Sanitation whereas Goal No. 14 talks about life below water.⁶ Goal No. 6 has 11 indicators and 8 targets which will be used to track progress in attaining the goals. Most of them are to be achieved by 2030 and one is targeted to be achieved by 2020. The official motto of SDG 6 is *"Ensure availability and sustainable management of water and sanitation for all."*⁷ SDG 6 is closely related to other SDG's for example with the improvement in sanitation; the cities will be made more sustainable which is mentioned in SDG 11. Improvement of sanitation can result in economic growth which is discussed in SDG 8. Also, access to clean water and sanitation will help in the attainment of SDG 3 and 14 which talks about the improvement of health and healthy aquatic life below water.

Goal 14 of Sustainable Development Goals makes countries around the world to come together on what is real global duty and responsibility – the conservation of our oceans and the lives below it. By 2020, nations commit to focus on the sustainable management of aquatic ecosystems and substantially reduce aquatic pollution of all kinds in the next five years. This will need regulation of harvesting and fishing, improve our study and knowledge on concerns vital to the sustainability of aquatic life and international scientific collaboration.

Following are the objective of this paper,

First, to summarise the international water law's principles on the management of transboundary water resources. Furthermore, to examine the degree to which these laws have been incorporated into recent international treaties and conventions. Also to see how far International water law is addressing targets mentioned in Goal 6 and Goal 14.

Any course of action to the global freshwater crisis should take into consideration that there are 144 world's nations sharing 263 transboundary river basins and lakes, which covers around 45.3 % of the world's land area, as well as an unidentified number of international

⁶Goal 14: “Ensure availability and sustainable management of water and sanitation for all”, available at- <https://unstats.un.org/sdgs/report/2017/goal-06/>(last visited on- Apr 11, 2020)

⁷Goal 6: Conserve and sustainably use the oceans, seas and marine resources for sustainable development available at- <https://unstats.un.org/sdgs/report/2017/goal-14/>(last visited on- Apr 11, 2020)

aquifers.⁸ Chapter 18 of the Agenda 21 penned after the UNCED earth summit 1992 specifies that cooperative effort between States on the transboundary supply of water "may be advantageous"⁹. This approach questions the hydro-political reality: cooperation between States over transboundary supplies of water is not an option — it is indispensable if the global policy objective of sustainable development has to be attained. Failure to resolve conflicting interests over transboundary water resources amongst states can result in serious environmental, social and economic problems and can increase the potential for global instability. Various sources of global policy define and embrace the idea of sustainable development. The message shared by each of these instruments is that the concept of sustainable development is linked integrally to pursue a strategy for managing the integrated water resources. Managing integrated water resource needs water resources to be handled as a vulnerable and finite resource, a natural resource and an economic good.

There are 3 levels where these types of Integration take place: management of interrelated freshwater bodies should be done as a unit (the appropriate one being the catchment area); multi-sectorial integrations should be there (economic, technological, social, health consideration of humans and environmental); and due consideration must be given for using water resources to multi interests. Also, a sustainable development plan must ensure ample access to clean water and proper sanitation for all, along with the conservation of aquatic ecosystems. Nevertheless, efforts to achieve these policy goals frequently result in a conflict of usage. For certain instances, there is a shortage of water in quantity or quality to satisfy all competing needs.

MULTIPLE UTILIZATION

There are multiple uses of water and International Water Law aims to resolve such conflict when rises among states sharing may water. In the 19th century, free movement or free navigation on international watercourse became a very important principle. At the time of colonization, this principle played a very important role while acquiring new territories. Another use is fishing. Rivers are habitats that are important for many species. By the end of

⁸Transboundary waters, available at- https://www.un.org/waterforlifedecade/transboundary_waters.shtml (last visited on- Apr 08, 2020)

⁹Timothy Doyle, “Sustainable Development and Agenda 21”, 19 Third world quarterly 785 (1998).

the 19th century, States are seen to incorporate provisions to better protect the resource into their treaties. The 20th century has witnessed increased in population and due to the industrial revolution, the need to regulate and resolve conflicts and protection of the environment became a need of the hour.

One of the challenges of international water regulation is to ensure that water resources are shared in a way that turn beneficial to all States bordering an international watercourse. States bordering an international river or those that use it do not always have the same ambitions, the same objectives, in terms of use. Also, Article 10 of the 1997 New York Convention states if all uses cannot be met and that basic human needs have priority. And therefore, in all circumstances, domestic needs have to be assured; sanitation needs have to be assured before water can be used for other uses¹⁰.

A distinction is made between horizontal conflicts of use and vertical conflicts of use. We can identify three horizontal conflicts of use. First, there is a conflict between uses. For example, hydroelectricity, fishing, navigation, and agriculture, etc.¹¹ One of the biggest examples of this type of horizontal conflict is seen in Lake Lanoux case, a case that dates from the late 1950s between France and Spain.¹² There can also be a conflict between States such as States alongside an international river or member States of the same river basin organization that may not agree on how the international watercourse should be used. A very good example of this is the Senegal River, shared between Mali, Senegal, Mauritania and Guinea Conakry.¹³ But another type of horizontal conflict that exists between actors is the conflict that occurs between users. The conflict took place in the early 1990s between Senegal and Mauritania, over the Senegal River¹⁴, a conflict caused by the use of rivalry between livestock breeders and agricultural farmers along the river. One of the objectives of international water law is to prevent and resolve these conflicts between users by better enabling users to participate in water management.

¹⁰Stephen C. McCaffrey, MpaziSinjela, "The 1997 United Nations Convention on International Watercourses" 101*The American Journal of International Law* 97 (1998).

¹¹Rakesh Tiwary, "Conflicts over International Waters" 41 *Economic & Political Weekly* 1691(2006)

¹²*Lake Lanoux Arbitration, (France v. Spain) (Judgement) [1957]* 12 R.I.A.A. 281

¹³The Senegal River Case, available at- <http://hdr.undp.org/en/content/senegal-river-case>

In Vertical conflict, one must first identify the conflicts between the current use and the future use of an international watercourse. There is no hierarchy of uses. There is no hierarchy between present uses, and between present and future uses. However, in practice, States sometimes claim a hierarchy and this can lead to conflict. Let's take the example of the Nile, there are two downstream States, Sudan and Egypt, and they believe that their present uses take precedence over future uses. This generates a lot of tension in the management of the Nile.

The diagonal conflict of use is the third category. Here, the conflict is not over the actual use of the water resource itself. A recent example of this is when Costa Rica wanted to build a road along the San Juan River which was opposed by Nicaragua who considered that the construction of this road would impact the river and its uses. As the river was not directly concerned, the conflict here did not relate to use, as such.¹⁵ It is not only the resource of water that can lead to conflict, but also the environment that makes up this resource: soils, forests, land, and air. And this type of conflict can be related to the environment of the shared water resource. So when we think of conflicts over how water resources are used today, we must also have a systemic vision, an exosystemic vision.

THE ORIGIN OF CODIFICATION OF THE LAW

The first initiative was taken in the year 1961 by a professional group called The Institute of International law. It included the principle of reasonable and equitable use.¹⁶ The other principle included was the prevention of one riparian State causing damage to another riparian State. This major initiative was followed by another initiative in 1966 by the International Law Association.¹⁷ Therefore, the two resolutions have provided an excellent basis for the International Law Commission to continue the work.

¹⁵Jacob Katz Cogan, Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua); Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica), 110 *The American Journal of International Law* 320 (2016)

¹⁶R. P. Dhokalia, The Teaching Of International Law and International Institutions in The Indian Universities, 13 *Journal of the Indian Law Institute* 333(1971)

¹⁷ Charles B. Bourne, “The International Law Association's Contribution to International Water Resources Law”, 36 *Natural Resources Journal* 155(1996)

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes of 1992 :

In 1996, The Helsinki Convention of 1992 came into force. It aims to ensure the quality and quantity and protection of transboundary water resources as well as their sustainable management. What is important to emphasize is that it is not just a legal text, but it also a living tool, a framework tool that has an institutional framework where all Parties meet with several subsidiary bodies and many activities developed in the institutional framework of the Convention.

The Convention on the Law of the Non-Navigational Uses of International Watercourses of 1997 :

The New York Convention on the Law of Non-navigational Uses of International Watercourses is important because it was the first step towards the codification of principles of international water law's principles. It took almost 17 years to achieve the 35 ratifications needed for coming into force. Since August 2014, this Convention has been in force and, this gives a certain impetus to the idea of customary principles of international water law's field.¹⁸

PRINCIPLES OF INTERNATIONAL WATER LAW

Let's see the two main international water law's principles.

1. The principle of the equitable and reasonable use of the waters of an international watercourse, and
2. The obligation to not cause significant harm to the territory or environment of an international watercourse.¹⁹

Reasonable and equitable use is affirmed by Article 5 of the 1997 UN Convention. This principle is based on a doctrinal theory, including the theory of limited territorial

¹⁸UN Watercourses – “ Convention on the Law of the Non-navigational Uses of International Watercourses” (New York, 1997), available at-<https://www.unece.org/env/nyc.html>

¹⁹International Law and Transboundary water resources, available at-https://www.unece.org/fileadmin/DAM/env/water/cadialogue/docs/Dushanbe_March2011/Tanzi_IntlWatLaw_Eng.pdf (last visited- April 08, 2020)

sovereignty.²⁰ There are two approaches followed for absolute territorial sovereignty by states. One of these is as mentioned by the US Attorney General, Judson Harmon, in 1895 during a conflict between the Mexico and United States over the Rio Grande i.e., absolute sovereignty over a territory.²¹ Another theory is absolute territorial integrity. It is stated by States to prevent any territorial development that could affect the flow of water. This theory blocks any territorial development such as the construction of a dam by an upstream State. But this theory was never accepted as an international practice.²²

Article 6 of the 1997 United Nation Convention provides a list of factors that must be considered such as geographic, climatic, hydrological, and needs, both economic and social, of the riparian populations. Each situation is unique due to these factors and accordingly taken into consideration. Article 10 states that if there is conflict over the use of international watercourses, then no prioritization of use is there.²³

The second key international water law's principle is the obligation not to cause any significant harm. This obligation is affirmed in Article 7 of the 1997 UN Convention. This principle is heavily based on judicial decisions. In 1941, the arbitral tribunal between Canada and the US, over the case of Trail Smelter affirmed the obligation of each nation to not cause significant harm to a neighboring state²⁴, also was affirmed in the case of Corfu Channel in 1949 between the UK and Albania²⁵ and the 1995 Advisory Opinion of Legality of the Threat or Use of Nuclear Weapons.²⁶

²⁰Stephen C. McCaffrey, MpaziSinjela, "The 1997 United Nations Convention on International Watercourses" 99*The American Journal of International Law* 97 (1998)

²¹ *United States v. Rio Grande Dam & Irrigation Co.*, 174 U.S. 690 (1899)

²²Donald W. Peters, "The Rio Grande Boundary Dispute in American Diplomacy" 54 *The Southwestern Historical Quarterly* 413 (1951)

²³*Supra* note 1 at 1

²⁴*Trail Semester Case, (United States VS Canada)*1941, U.N. Rep. Int'L Arb. AWARDS 1905 (1949)

²⁵*Corfu Channel Case, United Kingdom v Albania (Judgement)*[1949] ICJ Rep 4

²⁶International Court of Justice, "Reports of Judgments, Advisory Opinions and Orders" 46 (1996)

COOPERATION AND THE NOTION OF THE COMMUNITY OF INTERESTS AND RIGHTS

Major principles can only exist when riparian states cooperate with each other. Every riparian state has a right to use this resource, but it must be within the frame of this community of interest. The interests of other countries should be taken into the consideration. The community of interest concept was subsequently used by the ICJ in the case of Gabčíkovo-Nagymaros dam.²⁷

Article 8 of the 1997 UN Convention affirms that States sharing their borders with an international watercourse must cooperate to ensure equitable and reasonable use but also to ensure the river is protected. It also refers to the international law's fundamental principles of such as territorial integrity, principles of good faith and also the mutual benefit. Article 24 of the Convention on the management of the watercourse encourages joint commissions or mechanisms to be established.²⁸

In 1972, three small West Africa States set up a river basin commission which is still today, the most advanced example of cooperation over an international river. The three states are Senegal, Mali and Mauritania, they decided to conclude the Statute of the Senegal River containing rules on how to share and manage the Senegal River's water. They also established an organization called the Organization for the Development of the Senegal River (OMVS) in 1972. The OMVS operates on the basis of this prior approval rule. In 1978, the member States of OMVS adopted a Convention on the Legal Status of Common Works. This model of sharing, of common property, indivisible, in addition to this model of prior approval, has prevented important conflicts arising between the member States of the OMVS.²⁹

²⁷*Gabčíkovo-Nagymaros Project, Hungary v Slovakia (Judgment)*[1997] ICJ Rep 7

²⁸ Convention on the protection and use of transboundary watercourses and international lakes , available at- <https://www.unece.org/fileadmin/DAM/env/water/pdf/watercon.pdf>

²⁹UndalaAlam, “Cooperating internationally over water: explaining l'espace OMVS” 50The Journal of Modern African Studies 192 (2012)

MULTILATERAL ENVIRONMENTAL AGREEMENTS (MEAs)

Protection of the environment becomes increasingly important in the management and conservation of global watercourses. The principles of customary international law play an increasingly crucial role. The 1971 Ramsar Convention on Wetlands of International Importance was not originally conceived as a convention that deals with water but over time, it became clear that wetlands play an extremely crucial role in water management. Wetlands also play an important role in flood control as they retain water and then naturally release any overflow water.

The Convention on Biological Diversity refers to the protection of species and ecosystems. These ecosystems include habitats which are important for aquatic species. These habitats are often vulnerable and badly protected, and as a result, the aquatic species throughout the world are also vulnerable.³⁰ And so, the states that were Parties to this Convention have attempted to develop links between biodiversity and the management of international watercourses. The Conventions linked to environmental protection should receive more attention. There are two features that play an important role. One feature is the institutional mechanisms, which enable States Parties through subsidiary bodies to meet and decide how to best manage a habitat, an ecosystem, a space and, as such, a connection with international watercourses. And another feature is the fact that these international watercourses have specific compliance procedures known as non-compliance procedures. There are even complaints procedures in place for non-State actors.

Too often, water issues are separated from environmental protection issues but ultimately we need to remember that water comes from nature, it is a phenomenon of nature and it must be protected as an element of nature.

³⁰Chidi Oguamanam (ed.), "Reviewed Work: Legal Aspects of Implementing the Cartagena Protocol on Biosafety" 10 *McGill International Journal of Sustainable Development Law and Policy* 138(2014)

HOW LAWS DEAL WITH POLLUTION OF WATER RESOURCES

Pollution is at top in the list of issues which concerned international regulations on the use of transboundary freshwater for non-navigational purposes. According to Article 21(1) of the 1997 UN Convention, "pollution" is defined as any change which is detrimental to the composition or the water quality of an international watercourse as an indirect or direct result of human activities.³¹ Pollution in international water law is considered to be of human origin and not the result of nature. For example, toxic fumes from a volcanic eruption are not regarded as pollution within international law.

International freshwater law has placed principle of prevention as a cornerstone in the fight against pollution. It requires that the State behaves with due diligence, in other words, the State in whose territory the activities takes place has a duty to do its best to prevent these activities from causing significant damage.³² It is not required to guarantee that there will be no damage from pollution but rather it will do its best to take measures to reduce, prevent and control pollution. The ICJ, in its judgment on the Pulp Mills in the case of River Uruguay, stressed that this vigilance and prevention are especially important in the conservation of the ecological balance.³³

The second category of rules which contributes to pollution prevention concerns the procedural obligations of cooperation. Whilst these obligations are not specific to pollution, they help to prevent pollution damage. In particular, they require the State to respect certain preventive procedures when undertaking any risky activities.³⁴ In “responsibility of economic operators” rule, the duty of prevention moves from States to non-State actors. Companies are responsible for much of the pollution of aquatic systems. The polluter-pays principle is among these rules. This principle encourages companies to invest in preventive measures with full knowledge that they will have to pay a significant price if they pollute. In the domain of pollution control, international water law obligates a State to prevent it. On the one

³¹Stephen C. McCaffrey, MpaziSinjela, "The 1997 United Nations Convention on International Watercourses" 119 *The American Journal of International Law* 97 (1998).

³²Food and Agriculture Organization Of The United Nations, "Prevention and Control of Water Pollution", FAO, *Preparing national regulations for water resources management* 91 (FAO, 2003)

³³ *Pulp Mills on the River Uruguay (Argentina v Uruguay) (Provisional Measures)* [2006] ICJ Rep 113

³⁴*Supra* note 21 at 8

hand, the obligation of due diligence requires the State to do its best to prevent pollution. On the other hand, both the State and economic operators have to behave in a certain way in order to prevent pollution.

WATER NOT SO IMPORTANT IN PARIS DECLARATION?

Article 4 of the UN Framework Convention on Climate Change demands that all countries cooperate on the development of water resource adaptation plans; the difficulty to implement these adaptation plans is evident particularly on transboundary water resources. While reading the Paris Declaration³⁵ adopted at COP21 in December 2015, one will find that water is not explicitly mentioned. Does this mean that water was not considered in the climate negotiations? No. In fact, the statement refers to the Sustainable Development Goals (SDGs) where Objective 6 is dedicated to water. Reading the preamble of the Paris Declaration, human rights are mentioned. And water is an essential part of human rights. Through these implicit mentions, water is therefore included in the text of the Paris Declaration.

CHALLENGE-

There is a difficulty of including water into climate negotiations, particularly in the Paris Declaration, and the need for financial resources, that are not easily accessible in the context of the adaptation to climate change. In 2005, an adaptation fund was created; however, the fund has weak governance. Developing countries can ask and submit projects directly but there has been a whole series of difficulties due to the fact that the fund is financed by an international tax taken from the credits of the Clean Development Mechanism.³⁶ The first agreement was only reached in 2011 (with Senegal). There is another fund, the Green Climate Fund and that is an important resource for adaptation measures. In fact, this fund allocates its resources equally to mitigation, to the reduction of CO2 emissions, and to adaptation measures.³⁷

³⁵Paris Declaration- “Water and Sustainable Development International conference” *available at-* <http://www.waternunc.com/gb/decfingb.htm>

³⁶ Making the Adaptation Fund Work for the Most Vulnerable Assessing Progress in The Adaptation Fund , *available at-* <https://af-network.org/sites/af-network.org/files/publication/7219.pdf>

³⁷International Institute for Environment and Development, "Eight things to know about Green Climate Fund" 4 (2016)

On the sidelines of the climate negotiations in Paris, the Paris Pact on adaptation was adopted which dealt with transboundary water resources. The pact was promoted by the International Network on Basin Organizations, INBO, and there were around 200 signatories made up of governments, international organizations and NGOs.³⁸

THE RIGHT TO WATER AND PRINCIPLE OF PUBLIC PARTICIPATION

The rights of individuals and communities and their consideration within the management and protection of transboundary water resources are linked to an "evolutive" interpretation and application of international water law. The right to water was acknowledged and defined in General Comment No. 15 adopted by the Committee on Economic, Social and Cultural Rights in 2002. Which elements constitute the right to water? First, there is availability. This means that water must be sufficiently and constantly available to individuals and local communities. Next, we have water quality. The quality must be safe, must not affect the health of the population. And a third element is accessibility. Accessibility is linked to the fact that a well should not be too far from workplaces, schools or homes. In the context of accessibility, there is also economic accessibility, linked to the price of water. The State is therefore asked to protect its poorest people and to guarantee access, to exercise the right to water. The third element of accessibility is about access to information.³⁹

It is clear that the recognition of the right to water is within the resolutions of the General Assembly and the Human Rights Council in 2010.⁴⁰ The State must guarantee access based on the principle of equity and universality for the entire population and must protect the most vulnerable sectors of the population. There is also an element of justiciability to the right to water. Indeed, the right to water has been affirmed by regional human rights courts. The Inter-American Court of Human Rights linked the protection of the right to water with the rights of indigenous communities. There are national cases in South Africa but also in Botswana where access by indigenous peoples, the Bushmen population, was recognised by

³⁸ Paris Pact on Water and Adaptation to Climate Change in the Basins of Rivers, Lakes, and Aquifers, available at <https://sustainabledevelopment.un.org/partnership/?p=9546>

³⁹ Office of The High Commissioner for Human Rights, "General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)" 1 (2003)

⁴⁰ Annual reports to the Human Rights Council, *available at* <https://www.ohchr.org/EN/HRBodies/SP/Pages/AnnualreportsHRC.aspx>

the Court and access to their ancestral lands and their right to water resources were protected. So there is a clear link between the right to water and public participation.

Another dimension of the principle of public participation is the importance of the opinions of the local population on projects which may affect water resources, namely the obligation to organise an environmental impact assessment study and to mention the population in this study. The opinion of the population must be taken into consideration. And this can also prevent the risk of conflicts

THE SETTLEMENT OF WATER DISPUTES

Within the international system, countries don't have the right to threaten or use force in international relationship. The corollary of this is the obligation to resolve their disputes peacefully and the field of international watercourses is no exception. They must seek out peaceful means to settle the dispute. The peaceful means reference is mentioned in Article 33 of the UN Charter.⁴¹ Looking at how Article 33 is structured, we see that there is a distinction between diplomatic methods and non-diplomatic methods (judicial methods).⁴²

Cooperation and Conflict over International Waters: Failure of Treaties and Conventions :

One must admit that the law governing transboundary freshwater doesn't promote sustainable development and international law principles such as equitable, reasonable utilisation, etc. are used while solving disputes. Hague declaration failed to recognise the role of international water law in UNSDGs. Methods such as negotiation, mediation, good office, investigation, etc. are preferred over judicial methods and court proceedings.

The 2010 Court ruling in the case of the Pulp Mills demonstrated the importance of institutional cooperation in the field of resolution and prevention of water-related disputes. However, the 2010 ruling also strengthened international environmental law and its

⁴¹Article 33 – Obligations of parties to a dispute, *available at-
<https://www.un.org/securitycouncil/content/pacific-settlement-disputes-chapter-vi-un-charter#rel1>*

⁴²Cambridge University Press, “United Nations: Charter of the United Nations” 39 *The American Journal of International Law* 198(1945)

importance in the context of worldwide watercourses. The Court took advantage of these disputes to recall the obligation to conduct an environmental impact assessment.⁴³

Arbitration between India and Pakistan, on the famous Kishenganga Dam, posed several legal problems relating to the protection of the ecosystems of an international river. Tribunals play role for the settlement of water-related disputes and the development of international water law.⁴⁴ However, in practice, there are other mechanisms which are not necessarily judicial, permanent or arbitral. For example, a neutral expert, a technical expert, may be involved. There is not only the legal dimension but also the scientific dimension. And the most illustrative example of this is the dispute between Pakistan and India, relating to the Baglihar Dam. Of course, legal advisers also helped to resolve these disputes but it is interesting to see that in the end, when resolving water disputes, we have a panoply, a variety of methods to which States can resort to effectively resolve disputes before they lead to conflict.

A WAY FORWARD

International water law now takes into account both groundwater and surface water and there is the holistic approach of transboundary water resources management which is very different from the initial sectoral approach. The coexistence of State sovereignties, which prevailed in the traditional way that these resources were used, has gradually replaced the idea of common management, as enshrined in the various universal instruments. But the absence of efficient and effective transboundary water resources management pose a threat to attaining an integrated and sustainable development of riparian states as well as of shared water resources. Institutions and mechanism to resolving water resource-related conflicts are either inadequate or absent. The need for managing integrated transboundary water resources is extremely urgent in 263 global river basins that are shared by two or more than two countries, e.g. Volta, Volga, La Plata, Senegal, Okavango, Niger, Jordan, Brahmaputra river basins and in which most of the world's territories and the population is located. For effective management of the watershed, integrated planning is hindered by the problems of coordination between riparian states with diverse and sometimes contradictory requirements.

⁴³*Pulp Mills on the River Uruguay (Argentina v Uruguay)(Provisional Measures)*[2006] ICJ Rep 113

⁴⁴*Indus Waters Kishenganga Arbitration (Pakistan v India) (Final Award)*ICGJ 478 (PCA 2013)

Several trends & important factors are defining our future at an increasing rate-raising a multitude of problems that the global community is striving to tackle effectively. The water problem is at the heart of this challenge, as a sustainable supply of sufficient freshwater is the basic pillar of society. Although water management is largely a local problem, 40% of the global population relies on transboundary freshwater supplies. It is this degree that is greatly affected by composite geopolitical power games, leaving global water protection much more multi-layered and multi-faceted. The rising gap between both the demand for good quality of freshwater and its decreasing supply, the unequal distribution of water resources and the unilateral construction of water projects are now becoming frequent destructive forces in the relations between neighboring countries. While the need to strengthen water regulation at all levels has been widely recognized, the implementation and adoption of appropriate legal frameworks remain a major challenge. Provided the world's dimensions of water shortage and its interlinking with other issues, it is clear that any resolution to the crisis must be looked beyond the national scale.

NEED OF GLOBAL LEGISLATION

Lakes and rivers don't respect administrative or political boundaries – in reality, they are usually the ground of dispute. National legislation is outdated, non-existent, and doesn't address shared water(s). Mechanisms are needed to reduce water from being diverted, polluted, or being held by one nation to the disadvantage of other nations. Harmonization even between basins or within the country with the same riparians; Countries strive to instrument numerous agreements in a harmonized and coordinated way. There is need for framework or procedures for resolving disputes or considering claims over transboundary water resources (3 quarters of the world's nations encounter potential disputes with neighboring states over shared lakes, river, aquifers or wetlands)

WHY?

Water is “Local”, indeed, but common frameworks and guidance are needed at the global and regional level: we all are in a hydrological cycle. Global legislation is needed to facilitate negotiations or procedures; agendas available and foster a shared understanding and a

common language. No technical task could be performed sustainably on ecosystems and the environment without good management of water resources and enforcement of legal frameworks. Contribution to and guidance for Sustainable development goals mainly the implementation of the goal no. 6.6 and 6.5 are needed. Global legislation can hold up the adaptation of climate change. It can stimulate coordination and cooperation among nations and indulgent of stakeholders at large. It can fix loopholes in present water accords e.g. conflict resolution and notification (examples, GERD dam, Mekong, etc.) or lay some strong foundation for one. It can complement other conventions and treaties which is a general obligation to maintain and protect the ecosystems of worldwide watercourses. Global legislation helps in the completion of a set of rules and regulations at different levels on enhancement and protection of quality and quantity of water and the infrastructure for worldwide watercourses. Information and knowledge exchange can be an essential outcome of enabling global legislation. Accountability & transparency: clear rights and responsibilities and helps in the incorporation of other stakeholders. An efficacious system of consultation, notification, and exchange of data basis for nations to communicate and reconcile any interests over systematize uses of international water resources in a mutual way and conflict resolution procedures and tools

Efficient basin-wide regulatory mechanisms are needed to develop, adopt and enforce the rules for the management of water supplies, sustainably, and answering conflict of use amongst states. However, the potential threat of giving up national sovereignty is raising the political cost of effective governance, very often resulting in dispersed international strategies that are hardly enforced at a national scale.