

Chapter 2

National and International Legal Aspects of River Water Sharing: The South Asian Experience

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Conflicts over shared rivers between various stakeholders usually arise because of the depletion of water flows due to diverse factors and circumstances broadly classified as (a) geographic, hydrographic, hydrological, climatic, ecological and other factors of natural character; (b) the socio-economic needs of the population; (c) the quantum of population dependent upon the river; (d) the effects of the use or uses of the river by one stakeholder on another; (e) existing and potential uses of the river; (f) conservation, protection, development and economy of use of the river waters and the costs of measures taken to that effect; and (g) availability of alternatives, of comparable value, to a planned or existing use of the river.¹ The emerging international law on river water sharing requires all stakeholders, particularly States, to utilize the rivers in an equitable and reasonable manner. The rivers should be used and developed with a view to attain optimal and sustainable utilization taking into account the concerns of all stakeholders.²

The per capita use of fresh water resources is increasing at a phenomenal pace within the global context on account of the rise in global population, migration to

¹For the categorization of these factors and circumstances, see Article 6 of the *United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses*, United Nations General Assembly, A/RES/51/229, July 8, 1997.

²*Ibid.* See Article 5, which imposes on the States (as stakeholders) not only to develop and protect the rivers, but also requires them to cooperate with other States in the protection and development of the rivers.

cities, and other related factors.³ In certain developing countries, the extensive use of river water for agricultural and industrial production has resulted in the depletion of the flow of water during lean seasons. The flow of pollutants to rivers and other similar factors have given rise to conflicts among stakeholders who might be located within different jurisdictions.

Disputes over the sharing of river water have also arisen within the domestic context of States. The different federal units of a State through which a river flows, for example, may have differences and strong contentions with regard to the sharing of the river water. The various norms and principles developed several decades ago by the various contending federal states within the United States, for example, with regard to sharing of river water resources are notable and have contributed to the evolution of international law on this issue as well.⁴ These contentions within the United States with regard to the sharing of river waters among its federal units went on for a long time and internally the US Supreme Court had to deal with these issues from time to time. Similar examples exist in different parts of the world.

In this context, the river water sharing issues within South Asia are no different. The three main rivers, Ganges, Brahmaputra, and the Indus largely form the core of the river water sharing challenge in South Asia.⁵ Bangladesh, India, Nepal, and

³It is estimated that of all the water on earth, only 2.5% is fresh water and 1% is easily available for human use. Despite the complexity of the problems, the last 50 years have seen only 37 acute disputes involving violence, compared to 150 treaties that have been signed. The focus of negotiation and treaty-making in the last century has shifted away from navigation towards the use, development, protection and conservation of water resources. For details on Transboundary Water Issues in the context of International Decade for Action "Water for Life" 2005–2015 and other relevant articles and literature, see www.un.org/waterforlifedecade/transboundary_waters.shtml. Accessed on 20 December 2015. Also see Food and Agriculture Organization of the United Nations, "Land and Water." Available at <http://www.fao.org/land-water/en/>. Accessed on 20 December 2015.

⁴Some of the major cases decided by the US Supreme Court are *Kansas v. Colorado* (1907)—this was about diversions from Arkansas River in Colorado that deprived Kansas of water; *Wyoming v. Colorado* (1922) wherein Wyoming brought proceedings against Colorado for diverting water from the Laramie River; *Connecticut v. Massachusetts* (1931) this was about the diversion of the waters of the Connecticut River, as well as the Ware and Swift Rivers, by Massachusetts; *New Jersey v. New York* (1931) about New York diverting waters of the Delaware River and its tributaries; *Nebraska v. Wyoming* (1945) about the equitable apportionment of the North Platte River. For an account of brief discussion on these cases see Stephen C. McCaffrey, *The Law of International Watercourses*, (Oxford University Press: New York, 2001) pp. 221–228. A brief summary of some of these cases has been incorporated in the next section on the Indian Context.

⁵The Ganges rises in the Himalayas and flows through India and Bangladesh. In Bangladesh it joins the Brahmaputra and is called as Padma. Later, it empties into Bay of Bengal forming a huge delta area. The Ganges and Brahmaputra-Meghna (GBM) drainage basin has a combined area of about 1,600,000 km². This combined basin area spreads across Bangladesh, Bhutan, India, Nepal and China. The Indus rises in Tibet and flows through India and Pakistan. It has a length of about 3,200 km. See Stephen C. McCaffrey, *The Law of International Watercourses*, (Oxford University Press: New York, 2001) p. 248; also see B.S. Chimni, "A Tale of Two Treaties: The Ganga and Mahakali Agreements and the Watercourse Convention" in Surya P. Subedi, (Ed.) *International Watercourses Law for the 21st Century: The case of the River Ganges Basin* (Ashgate Publishing Limited: Oxon, 2005) p. 64.

Pakistan on account of their geographical proximity and the historical attachment of their populations to the existing river systems pose complex water sharing issues within South Asia. Besides these three river systems, there are other smaller rivers that also form part of the entire river water sharing issue within South Asia.

In terms of South Asian transboundary rivers, India is in a peculiar position. For example, it has upper riparian status vis-à-vis Pakistan in sharing the Indus and its tributaries and vis-à-vis Bangladesh in sharing the waters of Ganges, Brahmaputra, and several other smaller rivulets including Teesta. On the other hand, it has lower riparian status vis-à-vis Nepal and China. With this dual status as a lower and upper riparian country, India is in a delicate position in terms of developing balanced and viable legal and technical arguments to justify its need for augmenting water usage.

The partition of the South Asian sub-continent has essentially given rise to all these contentious transboundary river water sharing issues.⁶ Otherwise, for a very long time, a large population has generally accessed and been dependent upon these rivers for their needs.⁷ This long-term dependency on these rivers by the people in these countries has not only had socio-economic implications, but also given rise to cultural, civilisational and spiritual affinities.⁸ In this sense, for the people of the sub-continent, these rivers are part of their life and existence.

Notably, these three major transboundary rivers have a gigantic basin area that includes several of its tributaries as well. After a protracted and difficult negotiation of nearly ten years, both India and Pakistan succeeded in concluding the Indus Water Treaty of 1960, which now governs the water sharing arrangement between India and Pakistan for an indefinite period.⁹ In contrast, the sharing arrangements and agreements for the waters of the Ganges between India and Nepal generally had a short-term approach till the conclusion of Mahakali Treaty in 1996. This Treaty ended the short-term approach and sought to govern the integrated development of the Mahakali River for a period of seventy-five years with a ten-year review

⁶For an historical account of these issues, specifically with regard to the Indus see N.D Gulati, *Indus Water Treaty: An Exercise in International Mediation* (Allied Publishers: Bombay, 1973); and A.A. Michel, *The Indus Rivers: A Study of the Effects of Partition* (Yale University Press: New Haven, 1967).

⁷The population dependent on the entire Ganges basin is approximately 300 million (of which 10 million are in Nepal and 40 million in Bangladesh and the rest in India). Similarly, the Indus has a drainage basin of approximately 1,165,000 km². The network canals connect a large area of the basin in Punjab area (both within India and Pakistan); see McCaffrey, n. 2, p. 248.

⁸It has been pointed out "The law of international watercourses has developed in tandem with the evolution of human social organization and the intensification of use by human societies of freshwater...It is well known that rivers nourished the great ancient civilizations and drove their economies...But even before the rise of these civilizations evidence of early canals and dikes suggests that small communities had found it necessary to cooperate in order to control and utilize effectively of major rivers". See McCaffrey, n. 1. p. 58.

⁹For the text of the treaty see <http://wrmin.nic.in/writereaddata/Inter-StateWaterDisputes/Volume-I1920752696.pdf> and also <http://www.worldbank.org/en/region/sar/brief/fact-sheet-the-indus-waters-treaty-1960-and-the-world-bank>. Accessed on 5 January 2013.

clause.¹⁰ Similarly, both India and Bangladesh discarded their short-term approach with the signing of the Farakka Treaty in 1996, which has a validity of thirty years.¹¹ The sharing of the waters of the Teesta River with Bangladesh is also on the anvil. Due to various internal domestic political compulsions of India the signing of this treaty has been deferred.¹²

In the next section, this paper, considering the above complexities in the sharing of river water, proposes to examine the domestic constitutional and normative schemes that exist within the various South Asian States for the resolution of river water sharing issues. The section thereafter will review various international legal norms as embodied in bilateral and multilateral agreements and arrangements that seek to regulate river water sharing mechanisms. The primary emphasis, however, will be on South Asia and the countries within South Asia.

2.1 River Water Sharing in South Asia: Domestic Legal and Policy Framework

States usually provide for domestic legal or policy framework to share freshwater resources that exists or available within their territory. There are several layers of legal and regulatory framework that are in place to protect these natural resources. As we could see in the ensuing discussion some States attempt to do this in more general terms and others with specific provisions to deal with any river

¹⁰For the text of the treaty see <http://internationalwaterlaw.org/documents/>. Accessed on 5 January 2013.

¹¹For the text of the treaty see http://africanwater.org/farakka_water_treaty.htm. Accessed on 5 January 2013.

¹²In March 2010, at their 37th Ministerial level Joint River Commission meeting, India and Bangladesh finalised the decision to sign the Teesta River Agreement. Drafts were exchanged between the two countries and the agreement was supposed to be signed in September 2011 during the visit of the Indian Prime Minister Manmohan Singh. That did not happen due to domestic political reasons within India. The Teesta River enters Bangladesh near Nilphamari district and flows 45 km through the agri-dominated districts of Rangpur, Lalmonirhat, and Gaibandha before meeting the Brahmaputra River in Kurigram. The Teesta River barrage at Gozaldoba in India regulates the amount of water flow downstream to Bangladesh. In order to increase the irrigation potential of the northwest region, Bangladesh constructed the Dalia barrage on the Teesta River in Lalmonirhat district to provide irrigation water from the river. The Teesta river flows from Sikkim, and cascades through North Bengal, before entering Bangladesh. The West Bengal Government had agreed on sharing of up to 25,000 cusecs of water, but the final version of the agreement aimed at sharing 33,000–50,000 cusecs, which would hurt the interests of West Bengal. The other argument is that the Teesta's lean season water flow has not been jointly studied and surveyed by Indian and Bangladeshi experts. Some argue that the surface and ground potential of water resources in the Brahmaputra Basin, consisting of sub-basins of the Sankosh, the Raidak, the Torsa, the Jaldhaka, and the Teesta rivers are apparently sufficient to meet the requirements of West Bengal and Bangladesh.

water-related conflicts.¹³ The water-related rights within the domestic context of any State need to be categorized into two different frameworks. The first categorization is in terms of specific water rights as regulated by the State which could include such rights as access to clean drinking water, water usage and rights that restrict or vest those rights in certain sections or groups of people, environmental issues, and other related rights. These rights are enshrined in specific domestic legislations such as India's Water Act, Irrigation Act, and related enactments (essentially all acts that relate to water use management). The second categorization comprises rights and policies regarding the actual sharing of rivers and other freshwater resources such as lakes and ponds within the domestic context. This is an issue that could arise within and between federated units or provinces of a State. The river-sharing legal frameworks within these federal units, as mentioned above in the context of United States for example, contributed to the development of international legal norms as well. These issues are examined in the latter part of the paper.

2.2 Protecting Water Resources: The South Asian Constitutional Context

The Constitutions of the South Asian countries do not directly refer to the protection and preservation of water resources although some of them seek to deal separately with the resolution of river water disputes within their boundaries.¹⁴ The Indian Constitution, for instance, initially had no provision relating to the protection and preservation of environment and forests. In 1976, it inserted an amendment to include Article 48-A, which provided that "The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the

¹³Generally on the domestic legal frameworks within the South Asian context see R. Ramaswamy Iyer (Ed.), *Water and Laws in India*, (New Delhi: Sage Publications, 2009); Tushar Shah, *Taming the Anarchy: Groundwater Governance in South Asia*, (New Delhi: Routledge, 2009); Kishor Uprety and Salman M. A. Salman, "Legal Aspects of Sharing and Management of Transboundary Waters in South Asia: Preventing Conflicts and Promoting Cooperation", (2011), *Hydrological Sciences Journal*, Vol. 56 (4) pp. 641–661; Gopal Siwakoti, "Transboundary River Basins in South Asia: Options for Conflict Resolution". Available at <https://www.internationalrivers.org/sites/default/files/attached-files/transboundaryriverbasins.pdf>. Accessed on December 20, 2015; Shanta Mohan, Sailen Routray, and N. Shashikumar (Eds.), *River Water Sharing: Transboundary Conflict and Cooperation in India*, (New Delhi: Routledge, 2010).

¹⁴Both India and Pakistan provide separate provisions for conflict resolution for such disputes by excluding any jurisdiction for the Courts. Article 262 of the Indian Constitution seeks to provide for a separate law to adjudicate "any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-State or river valley." Pakistan provides in Article 155 of its Constitution that any complaint with respect to the use and distribution or control of water by the Federal Government or the Provincial Government should be handled by a Council in which Prime Minister and Chief Ministers of all the Provinces are members. It also excludes jurisdiction of any Court in these matters.

country.”¹⁵ Similarly, Bangladesh inserted an amendment to its Constitution in 2011 to include Article 18A which states that, “The State shall endeavour to protect and improve the environment and to preserve and safeguard the natural resources, biodiversity, wetlands, forests and wildlife for the present and future citizens.” There are similarities in these obligations created within the Indian and Bangladeshi Constitutions both in terms of the placement of these provisions and their wider interpretations to include water bodies and rivers.

The Sri Lankan Constitution makes a reference in its Article 27(14) to “protect and preserve and improve the environment for the benefit of the country”. However, Sri Lanka has nearly fifty legislations that deal with water resources and related issues and also about forty agencies dealing with these issues.¹⁶ The new Nepalese Constitution in Article 51(g) outlines its policy on various aspects of preservation and management of environment and natural resources.¹⁷ Nepal, while pursuing policy of “conserving the natural resources and imbibing the norms of inter-generation judicious use of it for the national interest” seeks to achieve a fair distribution of benefits by giving local people priority and preferential rights. Specifically, Nepal provides in Article 51(g)(2) that “The State shall pursue a policy of prioritizing national investment in water resources based on people’s participation and making a multi-utility development of water resources.” Bhutan, in its Constitution, has several provisions on preservation of environment, its culture and traditions, and related issues. Article 5 specifically deals with the ‘environment’ and regards every Bhutanese as a trustee of the Kingdom’s natural resources and environment for the benefit of present and future generations. There is also reference to the State’s ability to extend special protection to any part of Bhutan by declaring it a “nature reserve”, “critical watershed, or such other categories meriting protection”.¹⁸

A brief survey of all the South Asian Constitutions shows that there are general references to the protection and management of environment and related aspects. The legal and policy framework relating to the regulation of water related issues,

¹⁵Article 48-A is in Part IV (Directive Principles of State Policy) of the Constitution of India, which is unlike Part III (Fundamental Rights) is non-justiciable. Article 37 of the Indian Constitution provides that the provisions contained in Part IV are not to be enforceable by any court, “but principles therein laid down are nevertheless fundamental in the governance of the country and it shall be the duty of the State to apply these principles in making laws”.

¹⁶These agencies include both governmental and community-based agencies. Governmental agencies usually undertake regulatory functions, the community-based agencies seek to supplement and implement these regulatory and policy framework at the grassroots. For detailed account on this see V. K. Nanayakkara, “Sri Lanka’s Water Policy: Themes and Uses”. Available at <http://publications.iwmi.org/pdf/H042809.pdf>. Accessed on December 20, 2015.

¹⁷Article 51 of the Nepalese Constitution is titled as “State Policies” and deals with various national policy aspects relating to important areas, which *inter alia*, also include in clause (g) policies regarding the conservation, management, and use of natural resources.

¹⁸Article 5(5) of the Bhutanese Constitution provides “Parliament may, by law, declare any part of the country to be a National Park, Wild Life Reserve, Nature Reserve, Protected Forest, Biosphere Reserve, Critical Watershed and such other categories meriting protection.”

including the sharing of river waters flow from these broad constitutional provisions.¹⁹ As elaborated in the following discussion, both India and Pakistan seek to exclude any intra-State conflict or dispute from the purview of formal adjudicatory bodies like courts, including their Supreme Courts. Any such conflict, as elaborated in their respective Constitutions will have to be resolved through the establishment of Tribunals or Commissions which will be comprised of water engineers and legal experts.

In this regard, therefore, both these countries follow the United States model in resolving intra-State water conflicts through the formation of expert bodies that would take into account concerns of all stakeholders and provide a solution based on the practical assessment of the ground reality. In adjudicatory process this kind of flexibility is not available to the stakeholders resulting in the non-acceptability of the final verdict as it becomes difficult for them to convince their affected population. It should also be noted that intra-State conflicts, like the transboundary conflicts, also involve dealing with complex socio-economic and political dimensions. It might become difficult for the stakeholders such as provincial units or federal units to convince members of their populace who are adversely affected by these decisions. Negotiated and mediated decisions, in such a scenario, seem to be the best alternative and some of the South Asian countries have adopted this method while dealing with their intra and inter-state conflicts.

2.3 Legal and Policy Framework

2.3.1 *National Policies*

Bangladesh, India, Nepal, and Pakistan²⁰ with greater stakes in river water sharing, both intra and inter-State, have a declared national water policies. This policy framework of these countries emanate, besides their constitutional requirements, from their relevant national legislations such as Water Acts and other related

¹⁹Afghanistan seems to be the only exception, as it does not have any specific or remotely connected provision on water or environment related issues.

²⁰For the text of the National Water Policy of Bangladesh, 1999, which remains part of the Water Act see [http://mowr.portal.gov.bd/sites/default/files/files/mowr.portal.gov.bd/files/32e67290_f24e_4407_9381_166357695653/National%20Water%20Policy%20\(English\).pdf](http://mowr.portal.gov.bd/sites/default/files/files/mowr.portal.gov.bd/files/32e67290_f24e_4407_9381_166357695653/National%20Water%20Policy%20(English).pdf). Accessed on December 20, 2015. For the draft National Water Policy of Pakistan, 2004, see <https://www.waterinfo.net.pk/sites/default/files/knowledge/National%20Water%20Policy%20%28Draft%29.PDF>; also see for a detailed account on Pakistan Water Policy, Politics and Management, Medha Bisht, *Water Sector in Pakistan: Policy, Politics, Management* IDSA Monograph Series, No. 18, April 2013. Available at <http://www.idsa.in/system/files/Monograph18.pdf>. Accessed on 20 December 2015. For the text of the National Water Policy of India, 2012 outlining the various aspects of the water use and management, see <http://wrmin.nic.in/writereaddata/NationalWaterPolicy/NWP2012Eng6495132651.pdf>. Accessed on December 20, 2015. For the text of the National Water Plan of Nepal, 2002, see http://www.moen.gov.np/pdf_files/national_water_plan.pdf. Accessed on December 20, 2015.

enactments. All these national policies generally deal with aspects relating to water use and management, conservation, water pricing, water user associations, enhancement of water availability, flood and drought, institutional arrangements with particular emphasis on creating legal framework and suitable water laws to deal with intra and inter-state (transboundary) water problems, issues relating to and creation of database and information systems, research and training, implementation, and other related issues.

The need for a national water policy has been aptly summed up in the following observation by the Prime Minister of Bangladesh as it brings "...order and discipline in the exploration, management and use of water resources...to manage the water resources of the country in a comprehensive, integrated and equitable manner...policy...successfully integrated internationally accepted water management principles, norms and standards, with the demanding of social and economic needs of a developing country."²¹ Flowing from this national policy, the Bangladesh Water Act was enacted in 2013 to "make provisions for integrated development, management, abstraction, distribution, use, protection and conservation of water resources."

One of the important aspects of the national water policies of all South Asia countries is the creation of what has been termed as a "National Council" or such similar bodies to oversee the entire legal and policy framework. This institutional arrangement is regarded as the highest decision-making body on all policy matters relating to the sharing of water resources and also as instrumental in resolving internal conflicts among federal units. Some of the common objectives could be summed up as (a) making policies and directions for the integrated development and use of national water resources; (b) taking stock of national water resources and planning; (c) developing and approving national resource plans; (d) taking stock of the availability of water resources; and (e) addressing flood and drought management issues.²²

Other unique feature of these policies is that they note the particular challenges associated with the States' lower riparian status. In the case of Bangladesh and Pakistan both are lower riparian States and therefore, as stated in the policy, water availability is severely restricted by their location. In its national policy, Bangladesh, for example, notes that, "due to its location as the lower-most riparian, Bangladesh has no control over the rivers entering through its borders." Floods and water scarcity, which occur frequently, within Bangladesh in the context of three major basins, namely Ganges, Brahmaputra and Meghna, need careful

²¹Foreword written by the Prime Minister of Bangladesh to the National Water Policy of Bangladesh adopted in 1999 and these words remain valid even to this day. See National Water Policy of Bangladesh, 1999. Available at [http://mowr.portal.gov.bd/sites/default/files/files/mowr.portal.gov.bd/files/32e67290_f24e_4407_9381_166357695653/National%20Water%20Policy%20\(English\).pdf](http://mowr.portal.gov.bd/sites/default/files/files/mowr.portal.gov.bd/files/32e67290_f24e_4407_9381_166357695653/National%20Water%20Policy%20(English).pdf). Accessed on December 20, 2015.

²²Ibid.

consideration. Therefore, the policy of Bangladesh is to work closely with the co-riparian States to conclude viable treaties and sharing arrangements.²³

2.3.2 Institutional Arrangements

The other notable aspect of the national water policies in the South Asian context is that the institutional arrangements contemplated in these policy frameworks are chaired at the highest level. The advisory councils and panels constituted pursuant to these national policies are generally chaired by the Prime Minister of the respective countries. That itself shows the importance of the water policy framework and its implementation process to these countries. The National Water Resources Council created under the Water Act, 2013 of Bangladesh is chaired by the Prime Minister and all the other major Ministries are part of this Council, besides several other experts and representatives of non-governmental bodies.²⁴

A similar institutional framework has been adopted by Pakistan, India, and Nepal in their respective national water policies. Pakistan, for example, has a constitutional body called the “Council of Common Interests” (CCI). The CCI is chaired by the Prime Minister and includes the Chief Ministers of all the Provinces as members.²⁵ This Council takes up the issue of river water sharing and related disputes that may arise between the provinces. This Council, upon receiving any such complaint relating to water sharing, could either decide the matter on its own or request the President of Pakistan to appoint a Commission consisting of such persons having special knowledge and experience in irrigation, engineering, administration, finance, or law.²⁶ If the matter is before the Council, even the jurisdiction of any Court is excluded.

²³Ibid. The National Water Policy of Bangladesh, therefore, contends, “It may take considerable effort and time for Bangladesh to work out joint plans for different river basins with other co-riparian countries. As a long-term measure, therefore, it is the policy of the government to undertake essential steps for realising basin-wide planning for development of the resources of the rivers entering its borders.”

²⁴According to Section 4 of the Bangladesh Water Act, 2013, the Council, besides the Prime Minister, includes the Ministers of Finance, Agriculture, Planning, Local Government, Rural Development and Cooperatives, Law and Justice, Land Water Resources, Foreign Affairs, Fisheries, Shipping, and Environment and Forests. The range of membership in the Water Resources Council shows the importance attached by the concerned countries of South Asia to the Water Resource-related issues.

²⁵Article 153 of the Constitution of Pakistan.

²⁶Article 155 of the Constitution of Pakistan outlines the provisions to deal with the complaints relating to water supplies. It, *interalia*, provides, “(1) If the interests of a Province, the Federal Capital, or the Federally Administered Tribal Areas, or any of the inhabitants thereof, in water from any natural source of supply (or *reservoir*—inserted in 2010) have been or are likely to be affected prejudicially by (a) any executive act or legislation taken or passed or proposed to be taken or passed or; (b) the failure of any authority to exercise any of its powers with respect to the use and distribution or control of water from that source; the Federal Government or the Provincial

The sharing of waters of the Indus and other smaller rivers is a contentious issue within Pakistan. It should be noted that Pakistan has one of the largest irrigation canal systems. Immediately after the partition of India, there were several contentious and conflicting issues between both the countries. The Indus Treaty of 1960 could be negotiated only upon the intervention of the World Bank and the Treaty itself has the stamp of the Bank in its working and in particular with regard to its dispute settlement clauses. According to one view the problem of water sharing is a reflection of the deterioration of interprovincial relations within Pakistan.²⁷

Despite the creation of the Indus River System Authority (IRSA) and a Water Accord in 1991 the issue of river water sharing has been a contentious issue among Sindh, Punjab, and Khyber Pakhtunkhwa (KPK). In 2002, a Parliamentary Committee was established to resolve these interprovincial differences regarding water sharing and to develop consensus. Despite all these efforts within Pakistan, the differences regarding water sharing persist.

Sindh believes that the waters of the Indus historically and exclusively belong to it. There is also the feeling that Punjab by constructing new projects to connect the tributaries of the Indus is a dominating actor in the entire interprovincial conundrum. Sindh argues that Punjab is transferring Indus waters through two link canals, namely, Chashma Jhelum and Taunsa-Panjnad. Both the Tarbela and Mangala dams which have been built to provide water replacement of three of its eastern rivers, Ravi, Sutlej, and Beas have also become controversial as they are being opposed by Sindh, which is asking for its fair share of water. There are several serious contentions. Sindh claims that Punjab and KPK take away water through

(Footnote 26 continued)

Government concerned may make a complaint in writing to the Council. (2) Upon receiving such complaints, the Council shall, after having considered the matter, either give its decision or request the President to appoint a Commission consisting of such persons having special knowledge and experience in irrigation, engineering, administration, finance, or law as he may think fit, hereinafter referred to as the Commission. (3) Until [the Majlis-e-Shoora (Parliament)] makes provision by law in this behalf, the provisions of Pakistan Commissions of Inquiry Act, 1956, as in force immediately before the commencing day shall apply to the Council or the Commission as if the Council or the Commission were a Commission appointed under that Act to which all the provisions of section 5 thereof applied and upon which the powers contemplated by section 10A thereof had been conferred. (4) After considering the report and supplementary report, if any, of the Commission, the Council shall record its decision on all matters referred to the Commission. (5) Notwithstanding any law to the contrary but subject to the provisions of clause (5) of Article 154, it shall be the duty of the Federal Government and the Provincial Government concerned in the matter in issue to give effect to the decision of the Council faithfully according to terms and tenor. (6) No proceeding shall lie before any Court at the instance of any party to a matter which is or has been in issue before the Council or of any person whatsoever, in respect of a matter which is actually or has been or might or ought to have been a proper subject of complaint to the Council under this Article.

²⁷For an account on interprovincial disputes that exist within Pakistan, see Ahmed Hayat Khan, "Water Sharing Dispute in Pakistan: Standpoint of Provinces", *Berkeley Journal of Social Sciences*, vol. 4, Spring 2014; and Medha Bisht, *Supra* note 21.

barrages falling under its territorial jurisdiction. Punjab, on the other hand, points out that there is huge water loss between the Sukkur and Kotri barrages. The Kalabagh dam, a mega structure supported by Punjab, is being opposed by all the other provinces. Sindh, KPK, and Baluchistan Provincial Assemblies have passed resolutions opposing the building of this dam. Pakistan, through its Article 155 of its Constitution, is attempting to resolve these river sharing conflicts by initiating negotiations.

2.3.3 Exclusion of Formal Domestic Adjudication

India has a provision in its Constitution, which seeks to exclude the jurisdiction of its highest court of the land in resolving its internal water sharing disputes. There are several keenly contested and on-going disputes among various States of the Indian Union.²⁸ Article 262 empowers Parliament to enact a law that could help in the adjudication of any dispute or complaint with respect to the use, distribution, or control of the waters of or in any inter-State river or river valley. Further, it seeks to exclude the jurisdiction of the Supreme Court or any other court in respect of such

²⁸These pending disputes are—(a) the sharing of the waters of Ravi and Beas between Punjab, Haryana and Rajasthan. Earlier in 1981 an agreement regarding sharing of the waters had been concluded between the Chief Ministers of these States. However, in 2004 Punjab enacted the Punjab Termination of Agreements Act, 2004 terminating all earlier agreements including the 1981 agreement fully discharging Government of Punjab of any obligation arising from the agreements. A Presidential Reference regarding this Act has been pending under Article 143 of the Constitution; (b) the sharing of the waters of Vansadhara river between Orissa and Andhra Pradesh. Orissa made a complaint in February 2006 to the Central Government against Andhra Pradesh for constructing a flood flow canal and thereby affecting the use, distribution and control of waters of the river. The basic contention of the State of Orissa in the complaint is that the flood flow canal would result in drying up of the existing river bed and consequent shifting of the river affecting ground water table; (c) the sharing of the waters of Mandovi River for which a complaint was made by Goa in July 2002 against Maharashtra and Karnataka. Goa is demanding assessment of available utilisable water resources in the basin at various points and allocation of this water to the three basin States keeping in view priority of the use of water within basin as also to decide the machinery to implement the decision of the tribunal; (d) the sharing of the waters of Krishna River between Karnataka, Maharashtra, and Andhra Pradesh. The Krishna Water Dispute Tribunal has already submitted its report and it has been notified by the Government of India in 2010. See <http://wrmin.nic.in/writereaddata/Inter-StateWaterDisputes/KWDTReport9718468760.pdf>. Accessed on December 20, 2015. The Implementation Board has been functioning; (e) the sharing of the waters of Cauvery between Karnataka and Tamil Nadu. The Cauvery Water Disputes Tribunal was constituted in June 1990 itself and it had submitted its final report in 2007. At present, monitoring of the implementation of the orders of Cauvery Tribunals is in question under the Cauvery River Authority and Cauvery Monitoring Authority. For details about the recent status of these cases see <http://wrmin.nic.in/forms/list.aspx?lid=384&Id=4>. Accessed on December 20, 2015.

dispute or complaint.²⁹ Pursuant to this provision, the Indian Parliament enacted the Inter-State River Water Disputes Act, 1956. This law provides for the creation of tribunals to settle inter-State river water disputes upon a complaint by a State that has been adversely affected. Before taking recourse to dispute settlement mechanisms under this enactment States must first hold negotiations to resolve the dispute. Only after the failure of such negotiations can a dispute be entertained under the 1956 Act. The Central Government has an obligation to create a tribunal within a specific timeframe to resolve the matter. These tribunals are constituted with expert members who will have to decide the sharing formula based on the technical arguments put forward by the States.³⁰

India now has more than five decades of experience in dealing with its internal inter-State disputes relating to water sharing. In the South Asian context, India is the only country that has attempted to solve some of these difficult disputes between its States. These disputes were formally submitted for resolution, as per its Constitutional mandate under Article 262, to Tribunals. This process preceded a long period of failed negotiations and in some cases contentions between the populations of the States were too emotional, resulting in huge law and order problems as well. Some of these Tribunals had to look for an applicable law and principles to arrive at rational distribution criteria. What are these principles and criteria? In the following discussion we will examine some of these aspects of international legal principles as used by the domestic tribunals of India to resolve river water disputes.

The Narmada and Godavari tribunals were the earliest ones to be constituted and the main issue they sought to resolve concerned the equitable apportionment of available water in the rivers among contending States.³¹

²⁹Article 262 provides “(1) Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-state river or river valley. (2) Notwithstanding anything in this Constitution, Parliament may by law provide that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint as is referred to in clause (1).

³⁰The functioning of the Tribunals constituted under the Inter-State River Water Dispute Act, 1956 is a complex affair. Some of these Tribunals have been in existence for more than a decade or two. On the working of these tribunals and a personal account of working with them See Fali S. Nariman, “Inter-State Water Dispute: A Nightmare” in Ramaswamy R. Iyer (Ed.), *Water and the Laws in India* (Sage Publications: New Delhi, 2009) p. 32. Also see Radha D’Souza, “Nation vs. Peoples: Inter-State Water Dispute in India’s Supreme Court” in the above book edited by Ramaswamy R. Iyer on p. 58.

³¹The Narmada Water Disputes Tribunal (October 1969) dealt with the sharing of Narmada Waters and Narmada River Valley Development (between Gujarat, Madhya Pradesh, Maharashtra and Rajasthan. The award was given on 7 December 1979. <http://wrmin.nic.in/forms/list.aspx?lid=384&Id=4>, Accessed on December 20, 2015; The Godavari Water Disputes Tribunal, constituted in April 1969, gave its award in July 1980. <https://wrd.maharashtra.gov.in/portal-cms/cmspreview?v=1.1&l=en&p=default/mwrd/homepage/new/godavari.html>, Accessed on 20 December 2015; The Cauvery Water Disputes Tribunal finalised its award in 2007 and it is yet to be notified, <http://wrmin.nic.in/forms/list.aspx?lid=378&Id=4>, Accessed on December 20, 2015; The Krishna Water Disputes Tribunal award has been notified in 2010, <http://wrmin.nic.in/writereaddata/Inter-StateWaterDisputes/KWDTReport9718468760.pdf>, Accessed on December 20, 2015.

The Report of the Krishna Water Disputes Tribunal refers to the 1997 UN Convention. It also notes that this Convention has been made one of annexures in the affidavits filed by both Karnataka and Andhra Pradesh.³² Articles 5 and 6 of the 1997 UN Convention have also been quoted in the text of the report. Besides this, several references have been made to the various cases decided by the US Supreme Court.³³

2.4 Concepts of ‘Cooperation’ and ‘Good Faith’

The Krishna Waters Disputes Tribunal while examining the factors relevant to settlement of disputes, *inter alia*, refers to what could be termed as a psychological element of “the feeling of cooperation and good faith amongst the concerned riparian States”.³⁴ Apart from that, the Tribunal had further pointed out that “one of the clauses of the preamble of the Convention is about “affirming the importance of international cooperation and good neighbourliness in this field.”³⁵ It is important to note that the Tribunal specifically referred to Articles 5 and 6 of the 1997 UN Convention, which dealt with equitable and reasonable utilization and participation.³⁶ The Tribunal, while concluding this argument essentially uses language that has reference to international legal principles such as “good faith”, “mutual regard”, and “mutual understanding”. This could be regarded as an attempt by the Tribunal to juxtapose or bring in the principles of international law on river water sharing into an essentially domestic legal issue.³⁷

2.4.1 *Historical Context of Prescriptive Rights*

The Cauvery Water Dispute Tribunal had to deal with several complex issues while apportioning waters between Karnataka, Tamil Nadu, Kerala, and Pondicherry. The

³²See the Report of the Krishna Water Disputes Tribunal, p. 160.

³³*Ibid.*, pp. 167, 177, and 191.

³⁴*Ibid.*, p. 160.

³⁵*Ibid.*

³⁶*Ibid.*, p. 167. The Tribunal takes note of the reference made by the State of Maharashtra to Article 5 and 6 of the United Nations Convention on Non-Navigational Uses of International Watercourses, 1997.

³⁷*Ibid.*

dispute had a history of over a century.³⁸ The validity and legality of various arrangements and agreements concluded between then existing political regimes in the colonial context were also in question. There were issues relating to “prescriptive rights”.³⁹ However, the Tribunal in its report begins with a general outline of what it intended to do while deciding on the issue of apportionment. The Tribunal noted that the “principles of apportionment of waters of inter-State or international rivers like principles of natural justice, have been evolved and developed by different courts from time to time in the course of more than a century while adjudicating the disputes between different States or Nations”.⁴⁰

The Cauvery Tribunal furthermore elaborates on the genesis of the water sharing issue and also the evolution of inter-state water disputes. It is worthwhile to quote some of these aspects as it seems to view the issue from a larger South Asian context:

It is well known that most of the ancient cities and civilizations grew up on the banks of such rivers because of the fertile land and easy communication. But during the middle of 19th century because of the industrial revolution and allied development which brought prosperity to man-kind also gave birth to conflict and dispute in respect of sharing of waters

³⁸Ibid. The Tribunal referring to the historical aspects, points out: “From records it shall appear that dispute about sharing of the water of river Cauvery is more than one and a half century old, details whereof have already been mentioned in earlier volumes. Before the Cauvery Fact Finding Committee, in the year 1972, claims had been made by different riparian States for 1,260.34 TMC (Ref: TNDC Vol. XV, page 110), whereas the aforesaid Committee as well as this Tribunal on consideration of different material adduced before this Tribunal have estimated the average yield at 50% dependability to be at 740 TMC”.

³⁹Ibid. On the issue of “prescriptive rights”, the Tribunal noted the arguments of Tamil Nadu that being the lower riparian State it “...has a right of prior appropriation of the waters of the river Cauvery even in a proceeding relating to the apportionment of the waters of the said river.” Tamil Nadu also referred to the Indus Commission of the year 1942 in which the Commission had pointed out that “priority of appropriation gives superiority of right; in general interest of the entire community inhabiting dry and arid territories; priority may usually have to be given to an earlier irrigation project over a later one.” Tamil Nadu, quoting 1942 Indus Commission Report, noted that “the common law rule of riparian rights is completely destructive of equitable apportionment, for, under that rule, the upper owner can hardly take any share-far less his fair share-of the water of the river for purposes of irrigation. Therefore, that rule cannot be applied to an inter-State dispute even where it is recognized by both the States in their own internal disputes. The doctrine of appropriation, on the other hand, is consistent with equitable apportionment, provided that the prior appropriator is not allowed to exceed reasonable requirements. This condition is in fact part of the doctrine as enunciated by the Court in *Wyoming v. Colorado* [1922] (259 U.S. 419, 459) and again in *Arizona v. California* [1936] (298 U.S. 558, 566). Moreover, this doctrine is dictated by considerations of public interest; in arid territories where irrigation is a prime need, there would be no incentive for any individual or State to spend money upon an irrigation project, unless there was some assurance that it would not be ruined by subsequent diversion higher up the river. Where, therefore, both the States in an inter-State dispute recognize the doctrine of appropriation within their own borders, the most equitable course to apply that same doctrine to the determination of the dispute.

⁴⁰*The Report Cauvery Water Dispute Tribunal with the Decision In the Matter of Water Disputes regarding the Inter-State River Cauvery and River Valley thereof.* See <http://wrmin.nic.in/forms/list.aspx?lid=378&Id=4>, Accessed on December 20, 2015.

of such inter-State and international rivers. If the history of such disputes in different parts of the world is examined, it will appear that sometimes the upper riparian States have been claiming an absolute right on the flow of water which used to pass through their territories. In other cases lower riparian States laid claim on the principle of right of easement saying that they have been enjoying the flow of that river for centuries and their economy is heavily dependent on such flows. As such there is no question of interrupting the flow of such river by the upper riparian State. This obviously led to disputes and disharmony in respect of sharing of waters by different States and nations and courts were faced with the situation how to strike a balance keeping the interests of all the riparian States. In some cases the matter was not so difficult while arriving at a reasonable and rational basis for sharing the water of an inter-State river because of the volume of the water available in the basin. The only question which was examined and answered was as to which State should get what proportion of water out of the total yield of the river. But the situation becomes grave and acute when the demands of the different States are much higher than the total available water in the basin in question.⁴¹

2.4.2 Rule of Priority of Appropriation

The "rule of priority of appropriation" was one of the major issues in the Cauvery Waters Dispute. The Tribunal noted the origin of this concept in the western States of the US and it was done through a statutory provision including incorporation of such rights into the respective Constitution of the States.⁴² Referring to a study on the subject,⁴³ the Tribunal further noted that the appropriation system was an expedient means to encourage the development of the arid West, where much of the land is distant from streams and water was limited. The Tribunal also noted that the eight most arid States (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming) constitutionally or statutorily repudiated riparian rights very early and adopted prior appropriation as the sole method of acquiring rights to the use of water for all beneficial purposes.⁴⁴ The Tribunal, referring to various decisions of the US Supreme Court on this issue, concluded:

The right of prior appropriation as existed in some of the Western States of USA cannot be equated with the past utilization of waters of the basin including existing utilization by one State or other in the inter-State basin. Past utilization or existing utilization has been recognized as a relevant factor in a proceeding for apportionment of waters of an inter-State or international river. It has its origin in point of a time, as to which of the State started the utilization first. The past utilization, which is also some time described as prior utilization, is a part of evolution and development of river basin linked with the history of the basin. As such the courts from time to time have taken that fact as a relevant factor while apportioning

⁴¹Ibid.

⁴²Ibid. The Tribunal in its report noted that this was done in the US to help arid States to get enough water.

⁴³Ibid. David H. Getches, *Water Law in a Nutshell* (3rd ed.), (University of Colorado School of Law: Boulder, Colorado, 1997).

⁴⁴Ibid.

the water of an inter-State basin. But at the same time they have pointed out that some circumstances prevailing in the other riparian States may outweigh the prevailing practice and in that event such practice or use can be restricted or modified in a reasonable manner.⁴⁵

2.4.3 Rule of Equitable Apportionment

Besides these issues, the Cauvery Tribunal Report dealt elaborately with the doctrine of “equitable apportionment” referring to various factors that should be taken into account. Some of these factors find elaboration both in Helsinki Rules and the 1997 UN Convention. The Tribunal, *inter alia*, noted the following:

The doctrine of “Equitable Apportionment” cannot therefore be put in the narrow straight jacket of a fixed formula. In determining the just and reasonable share of the interested States, regard must be paid in the first instance to whatever agreements, judicial decisions, awards and customs are binding upon the parties. As to any supplies not controlled by these factors, the allocation may be made according to the relative economic and social needs of the interested States. The other matters to be considered include the volume of the stream, the water uses already being made by the States concerned, the respective areas of land yet to be watered, the physical and climatic characteristics of the States, the relative productivity of land in the States, the Statewise drainage, the population dependent on the water supply and the degree of their dependence, alternative means of satisfying the needs, the amount of water which each State contributes to the Inter-State stream, extent of evaporation in each State, and the avoidance of unnecessary waste in the utilization of the water by the concerned States.⁴⁶

⁴⁵Ibid. The Tribunal also referred to the views expressed in the Krishna Water Disputes Tribunal in Chapter XII (p. 98)—Existing use of a State is important evidence of its needs. Demands for potential uses are capable of indefinite expansion. Equitable apportionment can take into account only such requirements for prospective uses as are reasonable having regard to the available supply and the needs of the other States.

⁴⁶Ibid. The Tribunal also refers to the views expressed by other tribunals such as Godavari Tribunal and Ravi Beas Waters Tribunal about the equitable apportionment of waters. From the Report of the Godavari Water Disputes Tribunal, in respect of the law of equitable apportionment, it has been observed at page 19 of Chapter IV: “In the absence of legislation, agreement, award or decree, the Tribunal has to decide the dispute in such a way as will recognize the equal rights of the contending States and at the same time establish justice between them. Equal right does not mean an equal division of the water. It means an equitable apportionment of the benefits of the river, each unit getting a fair share.” In the Report of The Ravi Beas Waters Tribunal, in respect of claims of riparian States of an inter-State river it has been observed at page 94: “There is another reason which also militates against the view of the State owning proprietary rights in river waters. Even in ancient times flowing water was assimilated to the air and the sea. As a commodity it was common to all. A river was *res publica iure gentium*, open to navigation and fishing to all citizens. It was only feudal Lords who perhaps claimed absolute property rights over that part of the stream which crossed their territories. There is nothing in law for any one including the State to claim absolute proprietary rights in river waters. Running water has, therefore, rightly been called “a negative community” as it belongs to no one and is not susceptible to absolute ownership rights. The only right which a State can legitimately claim in river waters flowing within its territory is the right to make use thereof provided such use does not affect adversely the right which another State has to make use of the said waters.”

The Tribunal further refers to and interprets the working and justifications for the three different views in respect of the claims by different riparian States regarding the sharing of the water of an inter-State river or a river passing from one nation to another. These are:

the Harmon doctrine – according to this doctrine, the Tribunal notes, every State is sovereign and has the right to do whatever it likes with the waters within its territorial jurisdiction irrespective of the injury that it might cause to the neighbouring State by such appropriation and diversion;

that a lower riparian State is entitled to water in its natural flow without any diminution or interference or alteration in its character. During the last century, as the Tribunal puts it, both views had been propounded – the first one by the upper riparian States and the second by the lower riparian States. If it is examined by an example, a State which is at the head of the river from which the river initially passes then such a State can utilize and divert the water from the said river making the lower riparian State starve, leading to the break-down of the economy of such lower riparian State. Similarly, if the second view is pushed to its logical end, then the upper riparian State, although it may be in dire need of the water of such inter-State river for agriculture and other uses, shall be a mute spectator of the water of such inter-State river flowing from its territory to the lower riparian State;

the third view is based on the principle of “equitable apportionment”, that is to say that every riparian State is entitled to a fair share of the water of an inter-State river according to its need. Such a river has been provided by nature for common benefit of the community as a whole through whose territories it flows, even though those territories may be divided by political frontiers.⁴⁷

⁴⁷The Tribunal refers to and discusses various decisions of the US Supreme Court spread over a century. In fact, it enters into a jurisprudential analysis of the US Supreme Court decisions. Some of these need mention in order to understand the working of the Tribunal basing its interpretative matrix on international and domestic decisions, especially within the US. These cases are: *Kansas vs. Colorado* (1906) and *Colorado vs. Kansas* (1943) where the US Supreme Court stated “The lower State is not entitled to have the stream flow as it would in nature regardless of need or use. If, then, the upper State is devoting the water to a beneficial use, the question to be decided, in the light of existing conditions in both States, is whether, and to what extent, her action injures the lower State and her citizens by depriving them of a like, or an equally valuable, beneficial use.” In *New Jersey vs. State of New York* (283U.S.336) decided in 1931, the Court noted, “A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it. New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interest of lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the river might come down to it undiminished. Both States have real and substantial interests in the River that must be reconciled as best they may be. The different traditions and practices in different parts of the country may lead to varying results but the effort always is to secure an equitable apportionment without quibbling over formulas...” In *State of Connecticut vs. Commonwealth of Massachusetts* {282 U.S.660} (1931) it was said: “For the decision of suits between States, federal, States and international law is considered and applied by this court as the exigencies of the particular case may require. The determination of the relative rights of contending States in respect of the use of streams flowing through them does not depend upon the same considerations and is not governed by the same rules of law that are applied in such States for the solution of similar questions of private right. The same question was considered in *State of Colorado vs. State of New Mexico*, by the US Supreme Court (1982). Justice Marshal who delivered the opinion on behalf of the Court said: “In addition, we

The above brief discussion of the analysis made by the various Indian Tribunals relating to various inter-State water sharing issues shows that even within the domestic context the applicable legal principles emanate from international law. Even within the context of international law, efforts are underway to codify norms relating to river water sharing. The 1997 UN Convention could be regarded as an attempt to codify the existing State practice at the inter-governmental level. It took more than two decades for the International Law Commission (ILC) to finalize these draft articles. This shows the difficulty in harmonizing and codifying the existing law on the subject. In the next part we will briefly examine evolution and application of international legal principles relating to river water sharing.

2.5 Evolution of River Water Sharing Norms Under International Law

The emerging international legal regime purports to lean on a more viable functional and equitable approach to river water sharing by referring to various ‘uses’.⁴⁸ In other words, the sharing of the waters of a river would be directly linked to the kind of ‘use’ to which the river is being put by different stakeholders. Rivers have been historically used for navigational purposes and this use continues even

(Footnote 47 continued)

have held that in an equitable apportionment of inter-state waters it is proper to weigh the harms and benefits to competing States. In *Kansas v Colorado*, where we first announced the doctrine of equitable apportionment, we found that users in Kansas were injured by Colorado’s upstream diversions from the Arkansas River. Yet we declined to grant any relief to Kansas on the ground that the great benefit to Colorado outweighed the detriment to Kansas. Similarly, in *Nebraska v. Wyoming*, we held that water rights in Wyoming and Nebraska, which under State law were senior, had to yield to the “countervailing equities” of an established economy in Colorado even though it was based on junior appropriations. We noted that the rule of priority should not be strictly applied where it “would work more hardship” on the junior user “than it would bestow benefits” on the senior user. The same principle is in balancing the benefits of a diversion for proposed uses against the possible harms to existing uses”.

⁴⁸United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, 1997 (“UN Convention” hereinafter) specifically refers to the term “equitable and reasonable utilization” in the context of use. Article 5 of this Convention, *inter alia*, provides that “...In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits there from, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse”. Article V of The Helsinki Rules on the Uses of the Waters of International Rivers (“Helsinki Rules” hereinafter) adopted by the International Law Association in 1966 refers *inter alia* to the term “reasonable and equitable share” and past utilization (including in particular existing utilization), comparative costs of alternative means of satisfying the economic and social needs and avoidance of unnecessary waste. See *Report of the Fifty-Second Conference*, International Law Association, Helsinki, 1966, p. 484.

today.⁴⁹ Rivers are also used for non-navigational uses such as irrigation, drinking, hydro-power generation, and towards other human requirements. While navigational use in the normal course does not diminish the quantity of water in a river, non-navigational uses would certainly diminish the quantity of water akin to natural factors such as evaporation and seepage. Navigational uses are generally regulated under territorial legal requirements and accordingly do not necessarily give rise to any major transboundary issues. The non-navigational uses of the international waters, on the other hand, are the most contentious ones as they affect the flow of the water from one State to another.⁵⁰

It should, however, be noted that there is no inherent hierarchy in categorizing these ‘uses’. For example, according to Article VI of the Helsinki Rules, “A use or category of uses is not entitled to any inherent preference over any other use or category of uses”.⁵¹ Article 10(1) of the 1997 UN Convention also provides that “In the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses”.⁵²

⁴⁹The UN Convention is specific to ‘non-navigational’ uses of the rivers. Chapter 4 of the Helsinki Rules addresses the ‘navigational’ uses of the rivers and lakes which extend to two or more States. It further provides for the “free navigation on the entire course of a river or lake” which, however, is subject to the exclusive jurisdiction of the riparian State.

⁵⁰The Helsinki Rules were adopted by the International Law Association (ILA) in 1966. It, in fact, was an attempt to codify and existing international legal rules on the sharing of international rivers among States. Considering the status of ILA (as a body of lawyers and legal experts drawn from various parts of the globe and regarded essentially as a non-governmental body), the Helsinki Rules were regarded as having a less binding effect on States and had persuasive value under international law. The UN Convention, on the other hand, had been negotiated and finalized by the States *per se*. It was adopted in 1997 after a prolonged codification process undertaken by the International Law Commission (ILC) since 1974. The ILC took up this issue for consideration in 1974 pursuant to resolution 2669 (XXV) adopted by the UN General Assembly on 8 December 1970 on “Progressive Development and Codification of the Rules of International Law Relating to International Watercourses”. The UN General Assembly had adopted resolution 1401 (XXIV) on 21 November 1959 pointing out that it was “desirable to initiate preliminary studies on the legal problems relating to the utilization and use of international rivers with a view to determining whether the subject is appropriate for codification”. This codification process initiated by the UN finally resulted in the adoption of UN Convention on 21 May 1997. The UN Convention has come into force as on 17 August 2014. No South Asian country is a party to this Convention. See https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-12&chapter=27&clang=_en. Accessed on 23 December 2015.

⁵¹*The International Law Association, Report of the Fifty-Second Session Conference*, n. 12, pp. 484–532. Also see a discussion on this issue in Surya P. Subedi, “Regulation of Shared Water Resources in International Law: The Challenges of Balancing Competing Demands” in Surya P. Subedi (Ed.) *International Watercourses Law for the 21st Century*, n. 2, pp. 7–18. Subedi points out “However, there are a number of areas around the world where the existing bilateral or multilateral agreements have not been able to provide satisfactory solutions to the problems faced by the watercourse States of the region”.

⁵²Article 10 of the UN Convention on the Law of the Non-Navigational Uses of International Watercourses, 1997 seeks to define the “Relationship between different kinds of uses” and it further provides in clause (2) that “In the event of a conflict between uses of an international watercourses, it shall be resolved with reference to articles 5 to 7, with special regard being given

Considering the complexities involved in defining the term ‘use’, States usually prefer to resolve such issues bilaterally. Accordingly, States have been concluding bilateral or regional river water sharing arrangements defining the sharing formula usually based on the extent of the ‘use’ of the river water basin.⁵³ It should be noted that nearly half of the global population lives in river basins cutting across, in several cases, national boundaries.⁵⁴ It should be further noted that States, while disregarding the “river-basin approach,”⁵⁵ have attempted to look at the issue of sharing of waters of the international rivers from the perspective of “absolute territorial sovereignty” principle.⁵⁶ It is sometimes argued that a State located on the upstream termed as “upper riparian” would, on account of its geographical location, have priority right of access to river waters when compared to a State located downstream termed as “lower riparian.” This was the legal position taken by the United States in 1895 and came to be known as the Harmon Doctrine.

2.5.1 *The Harmon Doctrine*

The Harmon doctrine supported the legal position of an upper riparian State to have access and use the waters of international rivers in absolute terms. This doctrine was propounded by the Attorney General Judson Harmon of the United States in 1895 in a legal opinion given to the US State Department. The case concerned a dispute between the US and Mexico with regard to sharing the waters of the Rio Grande River for irrigational purposes. Basing his legal opinion on earlier US Supreme Court decisions, Attorney General Harmon stated that the US had sovereign rights over the resources located within its boundaries. As the water of the Rio Grande

(Footnote 52 continued)

to the requirements of vital human needs”. For the text of the 1997 UN Convention see <https://treaties.un.org/doc/Publication/MTDSG/Volume%20II/Chapter%20XXVII/XXVII-12.en.pdf>, Accessed on 23 December 2015.

⁵³Article 3 of the UN Convention refers to the Water Course Agreements and explicitly recognizes the rights of the States to conclude such agreements. However, it requires States to “consider harmonizing such agreements with the basic principles of the present Convention”.

⁵⁴Stephen C. McCaffrey, *The Law of International Watercourses: Non-Navigational Uses* (Oxford University Press: New York: 2001) p. 8.

⁵⁵*Ibid*, The river basin approach seeks to strike a balance between the existing natural functions of the river system and societal expectations for livelihood, industry, recreation, nature management and agriculture. For a brief account on this aspect generally see <http://documents.Worldbank.org/curated/en/965371468340137430/pdf/411500Intro0to1mgmt0NOTE1101PUBLIC1.pdf>, Accessed on 23 December 2015.

⁵⁶*Ibid*, p. 112. McCaffrey lists four principal theories relating to the non-navigational uses of the international watercourses: absolute territorial sovereignty, absolute territorial integrity, limited territorial sovereignty, and community of interests. Absolute territorial sovereignty principle emanated from the Harmon Doctrine wherein a State had the complete freedom to decide the use of the portion of its international river.

flowed within US, he argued, the US had absolute rights to use it the way it wanted.⁵⁷

The Harmon doctrine, as noted by several international legal scholars, did not survive, although some States, especially upper riparians, continue to argue and exercise their rights even today in line with Harmon Doctrine.⁵⁸ The US, in fact, repudiated the Harmon Doctrine when it dismissed Canada's reliance on Article II of the 1909 treaty with regard to sharing of waters of the Columbia River. The US argued that the Harmon Doctrine was not part of international law. Both Mexico and US eventually entered into a dialogue process to work out the sharing of the waters of the Rio Grande River and concluded a joint mechanism called the 1906 Convention concerning the Equitable Distribution of the Waters of the Rio Grande for Irrigation Purposes. The idea of concluding a Joint Commission (comprising experts from both States) emerged from this 1906 agreement between US and Mexico.

2.5.2 *Joint Mechanisms and Joint Commissions*

The domestic practice of United States since the latter part of the nineteenth century has provided rich jurisprudence towards the evolution of laws relating to river water

⁵⁷The Harmon Doctrine, *inter alia*, provides that "a State has complete freedom of action with regard to the portion of an international watercourse that is situated within its territory, irrespective of any harmful consequences that may ensue for other riparian States." The length of the Rio Grande River is about 3,000 km and half of this length forms the boundary between the United States and Mexico. It is also important to note that preceding this 1895 legal opinion by the U. S. Attorney General, Harmon both the contending States entered into a prolonged negotiations about the flow of water for nearly five years. Even the US Congress had agreed in 1890 through a resolution that upstream diversions from Rio Grande were depriving those on the Mexican side of water. Both the houses of Congress had requested the US President to enter into negotiations with Mexico with a view to resolving the Rio Grande water problems. Mexico had also referred to "the principles of international law" and argued they "would form a sufficient basis for the rights of the Mexican inhabitants on the bank of the Rio Grande". Mexico, further referred to, Article VII of the 1848 Treaty of Guadalupe Hidalgo according to which both the countries had an obligation not to construct any work without the consent of the other that may impede or interrupt, in whole or in part, the flow of the water in the river. Harmon's legal opinion sought to nullify these arguments by stating that treaty provisions do not directly address private citizens and that it only applies to governments. These issues also brought into focus the domestic implementation of international law and treaties within the U.S. Later, the U.S. Government in a case before the Supreme Court (*United States v. Rio Grande Dam & Irrigation Co.*) concerning these issues on the Rio Grande River did not concur with the legal opinion given by the Attorney General Harmon. For a detailed account on this issue see McCaffrey, *supra* n. 55, pp. 76–111.

⁵⁸*Ibid.* According to McCaffrey "A historical survey of the views of commentators shows that while there was some support for the theory of absolute territorial sovereignty in the nineteenth century and even in earlier in decades of twentieth century, it declined sharply as the significance of non-navigational uses increased".

sharing.⁵⁹ As mentioned above, the idea of a Joint Commission emerged from the 1906 US-Mexico Agreement. The joint mechanisms and commissions provide flexibility to States to negotiate and allow for constant monitoring of the situation. In sharing the waters of the Colorado River with Mexico, the idea of a Joint Commission was formalized in 1944 in a Treaty between the US and Mexico relating to the Utilization of the Waters of the Colorado and Tijuana Rivers, and of the Rio Grande (Rio Bravo) from Fort Quitman, Texas to the Gulf of Mexico. The Colorado River has been described as the most legislated, most debated, and most litigated river in the entire world.⁶⁰ The Columbia River flowing as a boundary river between the United States and Canada was the subject of a treaty, namely the 1909 Treaty Relating to Boundary Waters and Questions Arising between the US and Canada. The Treaty established the International Joint Commission of the United States and Canada through which several disputes related to water sharing have been resolved. But for nearly four decades both the US and Canada had bitter diplomatic conflicts with regard to sharing of the waters of the Columbia River. This dispute between Canada and the US was finally resolved with the conclusion of the 1961 Treaty relating to Cooperative Development of the Water Resources of the Columbia River Basin.⁶¹

⁵⁹The Indian team that was negotiating the Indus Treaty with Pakistan in the decade of 1950s visited various parts of the United States several times to understand the legal and technical aspects of the river sharing arrangements. See Gulati, n. 7, p. 9. The US practice was studied and closely examined before incorporating water sharing arrangements that now exist in Article 262 in the Indian Constitution. However, this procedure under the Indian Constitution has been critiqued, specifically in excluding the jurisdiction of the Supreme Court. Fali Nariman points out that “In USA, such disputes remain with the country’s Supreme Court, a procedure having been devised for appointing a Special Master to record evidence and give his findings on various uses of fact and law, and make his report to the Court; each of the contesting States then filing objections or responses to the findings in the report, and the Supreme Court of the United States ultimately pronouncing its final verdict”. He further notes that “I believe it was an error for us to have departed from the American pattern (the US has a written Constitution like ours) to resolve inter-State river water disputes. When conceived way in the year 1956, it could perhaps have been justified as an innovative experiment-but the experiment has been a failure” (Fali Nariman, n. 31, p. 38–39). Article 33 of the UN Convention also reflects this idea. It, *inter alia*, provides for the settlement of disputes by States through peaceful means. If they fail, “they may jointly seek the good offices of, or request mediation or conciliation by, a third party, or make use, as appropriate, of any joint watercourse institutions that may have been established by them or agree to submit the dispute to arbitration or to the International Court of Justice”. Article 33 also provides for Fact-finding Commissions comprising members from both parties. Article 8 of The Indus Water Treaty, 1960, for example, provides for the Permanent Indus Commission that seeks to resolve all bilateral issues through ongoing negotiation.

⁶⁰See Mark Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (Penguin 1993).

⁶¹This Treaty provides for comprehensive cooperation between the US and Canada in planning and sharing the river. Canada agreed to construct several large storage dams to benefit the US to enhance its power generation capabilities and as protection against floods. The US, on its part, agreed to provide Canada with one-half the additional power and to compensate Canada for flood-control benefits. According to McCaffrey “...while Canada had initially taken a Harmon-Doctrine-type position, based upon Article II of the 1909 treaty, in the end the two states

The US experience in river water sharing has shown that the appropriate way to resolve the river conflicts would be to put in place a joint mechanism comprising all the parties to the dispute. This kind of mechanism could monitor the situation from time to time and suggest necessary adjustments. International law, as it evolved during this period, preferred negotiated settlement of all river sharing conflicts. This US practice with regard to non-navigational uses of international rivers has influenced the content and formation of various bilateral and regional treaties.⁶²

The 1960 Indus Water Treaty between India and Pakistan, which was finalized after almost decade-long negotiations, borrowed many legal formulations from the US's internal state practices.⁶³ For example, the Indus Treaty provides for the Indus Commission comprising two Commissioners who would meet periodically and report back to their Governments.⁶⁴ They are supposed to discuss and implement the day-to-day requirements relating to such things as exchange of information, periodic data on release of water, and other procedural requirements under the Treaty. For all other substantive issues Indus Commissioners have to consult their Governments. The 1996 Treaty on Sharing of the Ganga/Ganges Waters at Farakka between India and Bangladesh also provides for a Joint Committee consisting of an equal number of members nominated by the two Governments.⁶⁵ The 1996 Mahakali Treaty between India and Nepal also provides for the Mahakali River

(Footnote 61 continued)

arrived at an equitable apportionment of the benefits of the Columbia River" (McCaffrey, n. 55, p. 296).

⁶²Besides bringing in various legal and technical principles from the US Supreme Court decisions, the idea of creation of Tennessee Valley Authority (TVA) in 1933 by the US Congress was adopted by India as well. The US Congress created TVA as a federal authority in the times of Great Depression to address wide range of environmental, economic and technological issues, including the delivery of low cost electricity and the management of the natural resources. TVA covers an area of about 80000 sq. miles and its benefits spreading over several of the states of the US; see generally on the creation and current functioning of TVA see <http://www.tva.gov/>. The World Bank which facilitated the negotiation of the Indus Water Treaty had proposed a similar such body on the lines of TVA between India and Pakistan. Later, India took up this TVA idea and created Damodar Valley Corporation (DVC) by an act of Central Legislature, namely Damodar Valley Corporation, 1948 (Act No. XV of 1948). It should be noted that the creation of DVC was preceded by a study prepared by W. L. Voorduin, a senior engineer of TVA in 1944. This study entitled "Preliminary Memorandum on the United Development of the Damodar River" provided the base for the creation of DVC consisting of eastern and northern Indian states; see <http://www.dvcindia.org>.

⁶³Gulati, n. 3, p. 15.

⁶⁴Article VIII of The Indus Water Treaty according to which Permanent Indus Commissioners for all matters arising out of the Treaty would serve as the regular channels of communication between the two Governments (unless Governments decide take up any particular question directly with each other).

⁶⁵Articles 4–7 provide for the creation and working of a Joint Committee. This Committee will be responsible for implementing the arrangements contained in the Farakka Treaty and examining any difficulty arising out of the implementation of the above arrangements and of the operations of Farakka Barrage.

Commission comprising an equal number of representatives from both States.⁶⁶ As stated earlier, the Indian Constitution does not allow river water sharing issues to be adjudicated directly in the courts. It requires the Government to constitute a tribunal for this purpose. One could safely assert that even this provision of the Indian Constitution with regard to river water sharing was influenced by the existing State practices, specifically of the US.

2.5.3 Efforts Towards Codification

The process of codification of the state practices relating to water sharing evolved over a very long period of time.⁶⁷ Till the adoption of the 1997 United Nations Convention on the Non-Navigational Uses of the International Watercourses, there were no inter-governmental efforts to bring into existence a multilateral treaty on the subject of river water sharing. There were, however, two major non-governmental efforts to codify or restate the existing law on international rivers. This codification by a non-governmental body would only reflect the existing nature of law without any binding commitments on the part of States. It has also been argued that the resolutions or declarations passed by these bodies did not entirely reflect existing state practices.⁶⁸

2.5.4 The Institute of International Law (L'Institut de Droit International)

Various resolutions and declarations passed by the Institute of International Law (*L'Institut de Droit International*) on Law of International Rivers since 1911 have

⁶⁶Article 9 of the Treaty provides for the creation of a Mahakali River Commission, which will be “guided by the principles of equality, mutual benefit and no harm to either party”.

⁶⁷The Institut de Droit International began its formal work on water sharing with its Madrid Resolution of 1911. Similarly, the Helsinki Rules were adopted in 1966. The debate within the United Nations General Assembly to codify the existing State Practice began in 1970. Later, the International Law Commission took up the work in 1974 and submitted its final draft to the General Assembly in 1994. The same was adopted by the General Assembly after prolonged discussion within the Sixth Committee during May 1997.

⁶⁸The General Assembly of the United Nations debated this issue in its 25th Session in December 1970. Turkey and other countries, while noting the work done by the International Law Association and others, argued for taking up the codification of existing State practice on sharing of international watercourses. Accordingly, the UN General Assembly noted this issue in its resolution. Res. 2669 (XXV), *Progressive Development and Codification of the Rules of International Law relating to International Watercourses*, 8 December 1970. Available at <https://documents-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/349/34/IMG/NR034934.pdf?OpenElement>. Accessed on December 20, 2015.

an immense persuasive value under international law.⁶⁹ The *Institut de Droit International*, established in 1873, has been regarded as one of the most influential international institutions. Its members are eminent international lawyers who meet once or twice a year in different parts of the world and codify their views through resolutions and declarations. First such effort relating to river water sharing was made in 1911 by *Droit International* through its Madrid Resolution on International Regulations regarding the Use of International Watercourses. According to one scholar, the Madrid Resolution was remarkable not least for the principles it recognized in the early years of the twentieth century, when the law of the non-navigational uses of international watercourses was still in its formative stages.⁷⁰ This resolution, for the first time, noted that the international law had dealt with navigation but not “the use of water for the purposes of industry, agriculture etc.” It provided for the first time that neither State on a contiguous watercourse may, without the other’s consent, allow changes to be made to the watercourse that are detrimental to the opposite bank. It also provided that neither State may utilize the water in such a way as to interfere seriously with other State’s utilization thereof.

It should be noted that this restatement of the law by *Droit International* provided one of the basic concepts of international law i.e., the obligation not to cause transboundary harm. This principle has been applied in two other well known cases, namely *The Trail Smelter Arbitration*⁷¹ between US and Canada (1939) and *The Lake Lanoux Arbitration*⁷² (1957) between France and Spain.

The 1961 Salzburg Resolution by *Droit International* for the first time introduced the concept of river basin as a criterion for river water sharing. This

⁶⁹For the work of The *Institut de Droit International* and the three resolutions passed by it on international rivers, see www.idi-iiil.org/. Accessed on December 20, 2015.

⁷⁰McCaffrey, *supra* n. 55, pp. 318–320; Further, the work of the *Droit International* is summed up McCaffrey as “...a trend towards applying legal rules to the entire hydrographic basin rather than merely to the surface water channel; one in favour of increased use of procedural rules, possibly culminating in the establishment of joint management mechanisms; and a trend towards the idea that it is in the interest of all riparians that shared water resources be utilized in an equitable and reasonable manner”.

⁷¹This Arbitration was concluded in 1939. This arbitration was about the transboundary pollution —with regard to a smelter that was located within Canada in a place called Trailer; but this smelter caused damage to crops within the territory of the United States. The Arbitration, *inter alia*, held that “...no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein” (McCaffrey, n. 55, p. 206).

⁷²*Ibid.* This arbitration was decided in 1957 between France and Spain. This was about a proposed hydro-electric power project by France and the same was opposed by Spain as it involved diversion of Lake Lanoux waters. The Arbitral Tribunal, as McCaffrey points out, *inter alia* referred to several principles of general international law such as (a) prohibiting the upper riparian State from altering the waters of a river in circumstances calculated to do serious injury to the lower riparian State; (b) upper riparian State in good faith to take into account the concerns of lower riparian; (c) obligation to take adverse interests into account in the course of negotiations and the obligation to give a reasonable place to such interests in the solution adopted.

resolution referred to “the utilization of waters which form part of a watercourse or hydrographic basin which extends over the territory of two or more States.” It also provided for the first time what has been termed as the concept of “equitable utilization” when it stated that any dispute as to the extent of the respective States’ rights “shall be settled on the basis of equity, taking into consideration the respective needs of the States, as well as any other circumstances relevant to any particular case”. The Salzburg Resolution also provided for the first time for advance notice of new uses and negotiations in the event of objections to such uses.

2.5.5 *Helsinki Rules*

The Helsinki Rules on the Uses of the Waters of International Rivers was adopted in 1966 by the International Law Association (ILA).⁷³ Like *Droit International*, ILA is also a non-governmental body comprising lawyers from different parts of the world. It should be noted that the 1966 Helsinki Rules expanded the legal framework relating to river basin or drainage basin and also put in place guiding principles on equitable utilization. The Helsinki Rules defined an “international drainage basin” as a “geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus”.⁷⁴ This definition, as noted by McCaffrey, is noteworthy not only for its broad approach, which is consistent with hydrological reality, but also for its specific mention of “underground waters”.⁷⁵ He further and correctly points out that this increasingly important source of freshwater i.e., underground waters had largely escaped international legal regulation up to this point. This could be regarded as an important contribution by the Helsinki Rules.

However, the broad definition of “drainage” basin adopted by the ILA has been criticized as it placed heavy burden on upstream States.⁷⁶ States, specifically upper riparians, have not generally accepted the basin approach to river water sharing. The discussions within the Sixth Committee of the UN General Assembly have noted that the basin concept would put too much emphasis on the land areas within the watershed and that the physical land area of a basin might be governed by the

⁷³International Law Association (ILA) also took more than a decade to codify these Rules. ILA had constituted in 1954 a Committee on the Uses of Waters of International Rivers to elaborate general rules applicable to international rivers drawing on the bilateral and regional practice and experience of States.

⁷⁴Article II of The Helsinki Rules on the Uses of the Waters of International Rivers, International Law Association, *Report of the Fifty-Second Conference*, Helsinki, 1966, p. 484.

⁷⁵McCaffrey, *supra* n. 55, p. 320.

⁷⁶Malgosia Fitzmaurice and Gerhard Loibl, “Current State of Development in the Law of International Watercourses” in Surya P. Subedi (Ed.), *supra* n. 6, p. 35.

rules of international water resources law.⁷⁷ It should be noted that the Helsinki approach has been followed in several river water sharing treaties such as, for example, the 1972 Senegal River Basin Treaty, the 1987 Zambezi River Treaty, the 1978 Treaty on Amazonian Co-operation, the 1994 Convention on Co-operation for the Protection and Sustainable Use of the Danube River, and the 1995 Agreement on the Co-operation for the Sustainable Development of the Mekong River Basin.

One of the most important aspects of The Helsinki Rules relates to its emphasis on the equitable utilization of the waters that are available within the international drainage basin. The Helsinki Rules also provided for each Basin State, within its territory, to have a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.⁷⁸ Further, it also provided for the non-exhaustive list of factors to be taken into account in determining what amounts to a “reasonable and equitable share” in a specific case.⁷⁹ The factors to be considered are: (a) geography of the basin; (b) hydrology of the basin; (c) climate; (d) past utilization of the waters; (e) economic and social needs of each basin State; (f) population dependent upon the waters of the basin; (g) the comparative costs of alternative means of satisfying the economic and social needs of the each basin State; (h) availability of other resources; (i) avoidance of unnecessary waste in the utilization of the waters of the basin; (j) practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses; and (k) avoidance of substantial injury to a co-basin State. The causing of harm to another State is not prohibited, but is dealt with as a factor to be taken into account in determining whether a use is equitable. The Helsinki Rules also articulated guidelines for addressing issues related to pollution and compensation⁸⁰ and outlined procedures for dispute settlement.⁸¹

India had some reservations about the Rules although these have not been articulated in official terms. Reference has been made to Nagendra Singh’s lengthy paper rejecting the notion of equitable utilization as mentioned in the Helsinki Rules on the grounds that “the ideas regarding the concept of equitable sharing are not clear” and that “States must be free to develop their uses in accordance with their needs”.⁸² To sum up, as noted by one scholar, “Helsinki Rules obviously constitute a monumental work. They have had a major impact upon the

⁷⁷Ibid; also see *Yearbook of the International Law Commission* II (1983), Part One pp. 167–168.

⁷⁸Article IV of the Helsinki Rules.

⁷⁹Article V of the Helsinki Rules provide for all the relevant factors that could be helpful in determining the reasonable and equitable share.

⁸⁰Chapter 3—Articles IX to XI.

⁸¹Chapter 6—Articles XXVI to XXXVII.

⁸²Quoted by B. S. Chimni, “A Tale of Two Treaties: The Ganga and Mahakali Agreements”, in Surya P. Subedi (Ed.), n. 2, p. 93: It has been further pointed out that despite these kinds of ideas, the Helsinki Rules had been applied by tribunals in India in adjudicating interstate water disputes.

development of the law of international watercourses, and reflect many principles and trends that later found expression in the UN Convention”.⁸³

2.5.6 *The 1997 United Nations Convention*

Several States, specifically upper riparian States, were opposed to the broad approach taken by the Helsinki Rules in defining an “international drainage basin”. They argued that this definition failed to reflect the actual hydrographic reality of the time. Although the Helsinki Rules codified a large and heterogeneous body of international legal principles relating to international rivers, these were not binding on States. As noted above, the ILA under whose auspice these rules were adopted was a non-governmental body. Therefore, a proposal was made by Turkey and others within the Sixth Committee of the UN General Assembly to study this topic of “law of international rivers” for codification. In 1972, the UN International Law Commission formally adopted this topic for study. It took another 25 years for the UN to finalize and adopt a Convention on Non-Navigational Uses of International Watercourses.

This Convention was put to a vote in the UN General Assembly on 21 May 1997. While 103 States voted for it, 3 States opposed it. 27 States, including India and Pakistan, abstained. Bangladesh and Nepal voted for it.⁸⁴ Although it entered into force on 17 August 2014, none of the South Asian countries have joined the Convention as of date. China was among those three countries along with Turkey and Burundi to oppose this Convention. India abstained saying that the Convention failed to take into account sufficiently the existing regimes on water sharing (Article 3). It was also opposed to fact-finding missions proposed in Article 33 of the Convention. It consistently opposed giving access to nationals of other co-riparian States to pursue private law remedies within India.⁸⁵ China voted

⁸³McCaffrey, n. 5, p. 321; It has been noted by McCaffrey that the Judge E.J. Manner from Finland who had chaired the ILA Committee that prepared the Helsinki Rules and also as a official Finnish delegate to the UN General Assembly had proposed at the UN that the International Law Commission take up the study of the law of the non-navigational uses of international watercourses and that it consider using the Helsinki Rules as a model for its work. However, as McCaffrey points out that political considerations prevented this and this proposal was not included. Some States within the UN General Assembly were opposed to using the Helsinki Rules as a basic model for initiating the codification process.

⁸⁴*Convention on the Law of the Non-navigational Uses of International Watercourses*, A/RES/51/229, United Nations General Assembly, 8 July 1997.

⁸⁵Firstly, India argued that Article 3 (concerning rights and obligations under the existing bilateral watercourse agreements) failed to adequately reflect the principle of freedom, autonomy and the right of States to conclude international agreements on the international watercourses without being fettered by the present Framework Convention. Secondly, Article 5 (about equitable and reasonable utilization and participation) had not been drafted in clear and unambiguous terms stating the right of the State to utilize an international watercourse for non-navigational purposes in

against as it felt that the Convention was imbalanced as it primarily favoured lower riparian states. It should be noted that the negative votes of China and Turkey were probably attributable to their positions as upstream States in an ongoing controversy such as China's plans to construct additional dams on its rivers, specifically upper Mekong. Similar sentiments were expressed by Turkey with specific reference to groundwater sharing.

Some of the salient features of the 1997 UN Convention could be highlighted, *albeit* briefly. These are:

It moved away from the "international drainage basin" concept to a "watercourse system". It defines "watercourse" as "a system of surface waters and ground waters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus".⁸⁶

It recognized the validity, rights, and obligations undertaken by States in other watercourse agreements. However, it required that States, where necessary, consider harmonizing existing bilateral agreements with the basic principles of the UN Convention.⁸⁷

The obligation not to cause significant harm is an important principle under the Convention.⁸⁸ It also places an obligation on the Watercourse State to take all appropriate measures (with due regard to the provisions of reasonable and equitable utilization) in consultation with an affected State to eliminate or mitigate such harm and where appropriate to discuss the question of compensation.⁸⁹ There is also a general obligation to cooperate on the basis of sovereign equality, territorial integrity, mutual benefit, and good faith. There is also a provision to consider the establishment of joint mechanisms or commissions.

The regular exchange of data and information on the condition of the watercourse, in particular that of a hydrological, meteorological, hydrogeological, and ecological nature and related to the water quality as well as related forecasts is also part of the Convention.⁹⁰ This should be done on a regular basis by the Watercourse State. If data/information is not readily available, the concerned Watercourse State should employ its best efforts to comply

(Footnote 85 continued)

an equitable and reasonable manner. Article 33 dealing with settlement of disputes contained in it an element of compulsion in so far as it envisaged the creation of a fact-finding commission. India further noted that any procedure for peaceful settlement of disputes should leave the parties to the dispute to choose freely and by mutual consent a procedure acceptable to them. It was opposed to the imposition of any mandatory third party dispute settlement procedure on a State without its consent. India felt that Article 5 in the present form is vague and difficult to implement. Thirdly, India had objections to Article 32 as it presupposed political and economic integration among States of the region. According to India as all watercourse regions are not so integrated, this provision will be difficult to implement in certain regions. Hence, it argued for its deletion (Indian statement while abstaining from voting at the UN General Assembly on 21 May 1997—on file with the author).

⁸⁶Article 2 of the 1997 UN Convention on Non-Navigational Uses of International Watercourses defines various terms in the Convention.

⁸⁷Article 3, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

⁸⁸Article 7, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

⁸⁹Article 8, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

⁹⁰Article 9, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

with the request. It may also ask for payment of reasonable costs of collecting and processing such data and information.⁹¹

The possible effect of any planned measure on the watercourse also should be taken into account through the exchange of information and consultation with each other. If found necessary affected Watercourse States should engage in negotiations about the possible effects of planned measures on the condition of the international watercourse.⁹² Further, notification concerning planned measures with possible adverse effects accompanied by available technical data and information, including the results of any environmental impact assessment should also be taken into account by the watercourse States. These measures, as per the Convention, will assist in evaluating the possible effects of the planned measures.⁹³ If the Watercourse States fail to notify each other about planned measures, and if one of them has reasonable grounds to believe that such measures are being carried out and that they are having an adverse effect, both the States have an obligation to enter into immediate consultations and negotiations exchanging all the available documentation.⁹⁴

The protection and preservation of ecosystems of international watercourse forms an important element of the Convention.⁹⁵ The “pollution of an international watercourse” has been regarded as having taken place when there is “a detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct”.⁹⁶ Watercourse States can also take measures necessary to prevent the introduction of species, alien or new, into an international watercourse, which may have effects detrimental to the ecosystem of the watercourse resulting in significant harm to other Watercourse States. The protection and preservation of the marine environment, in particular estuaries, are also provided for in the Convention. Such protection of marine environments should generally be done taking into account the already existing international rules and standards, such as the United Nations Law of the Sea Convention and other related maritime conventions relating the preservation and management of environment.⁹⁷

The UN Convention does not oblige a Watercourse State to provide data or information vital to its national defence or security.⁹⁸ However, a State is free to provide as much information as it can under the circumstances. The Convention also envisages allowing a

⁹¹Ibid.

⁹²Article 11, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

⁹³Strict time frames have been proposed for the reply to notifications. Article 13 provides for a six-month limit to the notified State to study and evaluate the possible effects of the planned measures. The notifying State also has an obligation to not to implement or permit the implementation of the planned measures without the consent of the notified States (Article 14).

⁹⁴Article 18, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

⁹⁵Article 20, 1997 UN Convention on Non-Navigational Uses of International Watercourses.

⁹⁶Article 21, 1997 UN Convention on Non-Navigational Uses of International Watercourses; Watercourse States can individually, where necessary, and jointly take action to reduce harm to their environment, including harm to human health or safety. Watercourse States, if need be, can harmonize their policies in this regard.

⁹⁷United Nations Law of the Sea Convention, 1982, for example, has provisions relating to environment and pollution. Articles 192–237 under Part XII (Protection and Preservation of Marine Environment).

⁹⁸Article 31, 1997 UN Convention on Non-Navigational Uses of International Watercourses. It is not clear as to who will decide this criterion of “national security”. One argument could be—it will have to be decided by the Watercourse State itself, taking into account its own circumstances. This could be a very broad argument and States could bring any of the water-related issues under the

Watercourse State that has been seriously affected or that has suffered significant trans-boundary harm due to another Watercourse State to take recourse to the legal system or obtain access to judicial or procedures of that State to claim compensation or other relief.⁹⁹ Even for the settlement of disputes, all options such as negotiations, good offices, arbitration and other third party settlement mechanisms are available. If the dispute is not solved even after all these means and mechanisms, the Convention provides for the creation of an “impartial fact-finding” Commission.¹⁰⁰

The verdict in the case concerning the *Gabcikovo-Nagymaros* decided at the World Court just before the adoption of the 1997 UN Convention is also crucial as it reiterated some of the normative aspects of the 1997 UN Convention.¹⁰¹ The case concerned a large project on the Danube River pursuant to a Treaty between Hungary and Czechoslovakia (now Slovakia). As per the 1977 Treaty, the project consisted of a series of dams and barrages on a stretch of approximately 200 kilometres of the Danube between Slovakia and Hungary. Both Hungary and Slovakia brought this case to the World Court in July 1993. The Court delivered its judgment in September 1997. It has been pointed out that the Court’s invocation of the Convention constituted a strong endorsement of the Convention as an authoritative instrument in the field and seems likely to lead States to refer to it in support of their position concerning internationally shared water resources.

2.6 Conclusion

The sharing of water resources is one of the most contentious issues among stakeholders. The present study is an attempt to examine these aspects in two contexts. The first context relates to the domestic legal systems and explores how these systems have grappled with this issue of amicably arriving at sharing river water resources. The ways in which the constitutional regimes of the South Asian countries deal with river water sharing challenges remain the primary focus of the first part of this study. This analysis underlines many similarities among these

(Footnote 98 continued)

broad rubric of vital national security. There appears to be no third party determination of this issue.

⁹⁹Article 32, 1997 UN Convention on Non-Navigational Uses of International Watercourses. India had reservations on this provision. The phrase ‘other relief’ could include injunctions or other similar legal means or measure to obtain a relief within the jurisdiction of another country.

¹⁰⁰Article 33, 1997 UN Convention on Non-Navigational Uses of International Watercourses. Those Watercourse States which are Parties to the dispute have an obligation to provide access to the Fact-Finding Commission to the respective territories and to inspect any facilities, plant, equipment, construction or natural feature relevant for the purpose of its enquiry. India had reservations on this provision as well. It should be noted that there is a separate Appendix to the Convention dealing with Arbitration procedures.

¹⁰¹For the full details and text of the case see <http://www.icj-cij.org/files/case-related/92/092-19970925-JUD-01-00-EN.pdf>, Accessed on December 23, 2015.

countries in terms of their legal and policy approaches towards sharing water resources. These countries share a historical and cultural heritage, which is in some ways reflected in their factual realities, as well as their legal and policy structures as well.

All the South Asian countries have incorporated a reference to the need for the protection and preservation of environment and natural resources in their respective Constitutions. This broader Constitutional reference would include the rivers and watercourses as well within its interpretative orbit. The majority of the States around the globe, including all the South Asian States, seek to avoid any formal and binding adjudicatory process to settle the river water sharing differences so as to balance differing uses and interests. India and Pakistan clearly seek to exclude in their respective Constitutions itself the jurisdiction of their highest Courts in intervening in the substantive aspects of the water sharing issues. On the contrary, upon failing to resolve the water sharing issues through negotiations, states and the federal units (or the provinces) have taken recourse to the highest courts to trigger the dispute resolution mechanisms.

The second part of the study relates to the study and evolution of international legal principles. The international law on river water sharing has a history of over hundred years. Initially, the US practice and the decisions of its Supreme Court contributed to the development of several legal principles and criteria relating to equitable apportionment of river water. Besides the court decisions within the US, several river water sharing arrangements and joint mechanisms that had been developed among various States of the US have also contributed to the development of both law and policy towards this area. The earliest codification efforts in identifying and conceptualizing the existing state practices and other related practices among States was initiated by the *Institut de Droit International*. The work of the *Institut* had been regarded as forward-looking and provided a solid basis for future work. The work of the International Law Association (ILA) in a report submitted to its 52nd Session at Helsinki outlined the basic legal principles relating to the river water sharing. The Helsinki Rules essentially took a “basin approach” towards resolving the river water sharing arrangements.

The work of the *Institut* and the Helsinki Principles, though widely acknowledged and used by various stakeholders, has been regarded as the work of the non-governmental bodies failing in the process to sufficiently reflect existing State practices. Some of the upper riparian States were opposed to the “basin approach” adopted by the Helsinki Rules. States, therefore, requested the ILC to examine this issue in 1970. It took more than two decades for the ILC to finalize the draft framework treaty on the subject of law of non-navigational uses of international watercourses. In 1994, the ILC submitted its draft, which was adopted by the UN General Assembly in May 1997. Now, the 1997 UN Convention remains the authoritative source of law for the non-navigational aspects of river water sharing. Though this Treaty has come into force, none of the South Asian countries have joined this treaty thus far. Despite this, States usually accept that many of the provisions of the 1997 UN Convention have almost attained the status of customary norms of international law, such as the equitable apportionment of water and the

general obligation to cooperate and notify co-riparian States in case certain planned measures are likely to cause significant harm.

Linking both the domestic and global strands of the study, the South Asian countries need to cooperate with each other to enhance the utilization of their water resources while applying emerging global norms. Existing bilateral treaty structures with regard to water sharing among the South Asian countries are certainly contributing towards the application of some of these basic principles and norms despite intermittently difficult political relationships. However, those efforts towards cooperation and sustenance of “good faith” obligations among the countries of South Asia should continue with the future endeavours.

South Asian Rivers

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