

# COMPARATIVE STUDY OF THE GANGES WATER TREATY, THE MOHAKALI TREATY AND THE MEKONG AGREEMENT ON ENSURING INTERNATIONAL PRINCIPLES GOVERNING TRANS-BOUNDARY WATER MANAGEMENT

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## ABSTRACT

The overarching goal of this study is to analyse the principles of trans-boundary water resource management in two key bilateral treaties i.e. the Ganges Water Treaty 1996 and the Mahakali Treaty 1996. Special attention has been drawn on the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, 1995. The study reveals that both treaties incorporate several internationally recognized trans-boundary water resource management principles, e.g. the principle of equitable and reasonable utilization, an obligation not to cause significant harm, principles of cooperation, information exchange, notification, consultation and the peaceful settlement of disputes. The presence of these internationally accepted principles in these two treaties offer plenty of common ground, which could serve as guidelines to promote sustainable water resources management throughout the region. However, lack of clarity on some significant principles and weak monitoring and dispute resolution process hinder the proper implementation of these treaties. This article holds Mekong Agreement as a standard trans-boundary river treaty and compares its provisions with two other treaties.

**Key Words:** Trans-boundary Water Resources Management, Water Treaty, Mekong Agreement, Water Treaty Implementation, Sustainable Development.

## 1. INTRODUCTION

Bangladesh is a lower-riparian country along with vast Bay of Bengal basin in the south. It is a world highest densely populated country and in point of population the land is tremendously limited. The country has great demand of water for land cultivation, fisheries, industrial process, human activities and ecological balance etc. As a lower riparian country, Bangladesh is mostly dependent on India for its water and it can rarely influence the water resource management policies. Therefore, the country faces drought, water scarcity, floods, fish productivity etc. every year which have great impact on socio-economic livelihood of Bangladesh. To ensure the level of regular water flow and ecological balances especially between riparian countries, a number of international water conventions have been adopted and at the same time, many States enter into trans-boundary water agreements with other riparian States. The Treaty between the Government of the People's Republic of Bangladesh and the Government of the Republic of India on Sharing of the

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Ganga/Ganges Waters at Farakka, 1996 (hereinafter mentioned as the Ganges Treaty) and the Treaty between His Majesty's Government of Nepal and the Government of India Concerning the Integrated Development of the Mahakali River including Sarada Barrage, Tanakpur Barrage and Pancheshwar Project, 1996 (hereinafter mentioned as the Mahakali Treaty) were signed for equitable sharing of share surface waters regarding two trans-boundary rivers of this region. However, these treaties among upper most riparian, higher riparian and lower riparian neither create any meaningful cooperation nor a holistic approach to water management nor dispute resolution mechanism. To uphold the community interest and to settle unresolved issues, these treaties espouses principle of international water law. It should include/refer 'no harm principle' and protection of watercourses and focuses on 'water needs' rather than 'water rights'. Therefore, these treaties must revise with those principles for proper water management among upper-most, higher and lower riparian country.

While proposing necessary amendments, this article gives attention to the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, 1995 (hereinafter mentioned as the Mekong Agreement) concluded among Cambodia, Laos, Thailand and Vietnam. The article revisits internationally recognized principles on sharing the waters of trans-boundary rivers; critically follows the Mekong Agreement and proposes for inclusion of few provisions in Ganges Treaty and Mahakali treaty in the light of Mekong Agreement.

## 2. OBJECTIVE OF THE STUDY

General objective of this article is to assess the level of compliance of international principles for water management of trans-boundary rivers under three prominent water sharing treaties of Asian region. However, there are a number of specific objectives which this study intends to fulfill. These are:

- i. To analyse the general principles of law for governing trans-boundary water resources;
- ii. To overview the principles and mechanisms under the Ganges Water Treaty;
- iii. To scrutinize the legal principles of the Mahakali treaty for water management between India and Nepal;
- iv. To examine the provisions of the Mekong Agreement in the light of international rules
- v. To make a comparative analysis of these three treaties and find out some recommendations for transboundary water management.

### 3. METHODOLOGY OF THE STUDY

The research is qualitative in nature. Relevant international conventions especially adopted by United Nations, other international rules on water governance, regional agreements on transboundary river water sharing, journal articles, reports of international organisations, books etc. are the main source of information in this study. A careful and coherent analysis has been conducted on these sources of information to find out the exact information to fulfill the general and specific objectives of this research paper.

### 4. GENERAL PRINCIPLES OF LAW GOVERNING TRANS-BOUNDARY WATER AGREEMENTS

This part of the article deals with general principles of law governing trans-boundary water resources and the basic rules ascribed in various international conventions. These are:

- i. Theory of "Limited Territorial Sovereignty and Limited Territorial Integrity";
- ii. Principle of Equitable and Reasonable Utilization,
- iii. Obligation not to Cause Significant Harm,
- iv. Principles of Cooperation, Information Exchange, Notification and Consultation, and
- v. Peaceful Settlement of Disputes.

These principles principally emanate from Helsinki Rules 1966 on the Uses of the Waters of International Rivers, (hereinafter Helsinki Rules), the Berlin Rules on the Water Governance including the Definition of Ground Water 2004 (hereinafter Berlin Rules), the Water Treaty of 1944 between Mexico and the United States, The Mekong Agreement 1995 and the 1997 UN Convention on Non-Navigational Uses of International Watercourses (hereinafter UN Watercourses Convention), the Framework Agreement on the Sava River Basin 2002.

#### **i) The Theory of Limited Territorial Sovereignty**

This theory is grounded on the assertion that every State is free to use shared rivers flowing through its territory as long as such utilization does not prejudice the rights and interests of the co-riparians. The co-riparians share reciprocal rights and duties in the utilization of the waters of their international watercourse and each is entitled to an equitable share of its benefits.<sup>1</sup> The advantage of this principle recognizes the rights of both upstream and downstream countries because it guarantees the right of reasonable use by the upstream country in the framework of equitable use by all interested parties. Principles of equitable and reasonable utilization and an obligation not to cause significant harm are the parts of the theory

of limited territorial sovereignty. This theory has been adopted in the majority of the treaties in recent years, e.g Mekong Agreement (Articles 4–7); Article 2 of the SADC Protocol on Shared Watercourse Systems, 1995 and Framework Agreement on the Sava River Basin, 2002 (Articles 7 and 9).

## **ii) Principle of Equitable and Reasonable Utilization**

This application-based principle is a sub-set of the theory of limited territorial sovereignty. It entitles each basin State to a reasonable and equitable share of water resources for beneficial uses within its own territory. Equitable and reasonable utilization rests on a foundation of shared sovereignty and equality of rights, but it does not necessarily mean an equal share of waters. In determining an equitable and reasonable share, relevant factors such as the geography of the basin, the hydrology of the basin, the population dependent on water, economic and social needs, the existing utilization of waters, potential needs in the future, climatic and ecological factors of a natural character and availability of other resources, etc. should all be taken into account (Article V of the Helsinki Rules, 1966 and Article 6 of the UN Watercourses Convention, 1997). It entails a balance of interests that accommodates the needs and uses of each riparian State. This is an established principle of international water law and has substantial support in state practice, judicial decisions and international codifications.<sup>2</sup>

## **iii) An Obligation Not to Cause Significant Harm**

This principle is also a part of the theory of limited territorial sovereignty.<sup>3</sup> According to this principle, no States in an international drainage basin are allowed to use the watercourses in their territory in such a way that would cause significant harm to other basin States or to their environment, including harm to human health or safety, to the use of the waters for beneficial purposes or to the living organisms of the watercourse systems.<sup>4</sup> This principle is widely recognized by international water and environmental law, often expressed as *sic utere tuo ut alienum non laedas*. However, the question remains about the definition or extent of the word ‘significant’ and how to define ‘harm’ as a ‘significant harm’. This principle is incorporated in all modern international environmental and water treaties, conventions, agreements and declarations. It is now considered as part of the customary international law.<sup>5</sup>

## **iv) Principles of Notification, Consultation and Negotiation**

Every riparian State in an international watercourse is entitled to have prior notice, consultation and negotiation in cases where the proposed use by another riparian of a shared watercourse may cause serious harm to its rights or interest. These principles are generally accepted by international legal documents. However, naturally, most upstream countries often oppose this principle. It is interesting to note that during the negotiation process of the 1997 UN Watercourses Convention

these principles, which are included in Articles 11 to 18, were opposed by only three upstream riparian countries: Ethiopia (Nile Basin), Rwanda (Nile Basin) and Turkey (Tigris-Euphrates Basin).<sup>6</sup> Article 3 of the ILA's Complementary rules applicable to international resources (adopted at the 62nd conference held in Seoul in 1986) states that: when a basin State proposes to undertake, or to permit the undertaking of, a project that may substantially affect the interests of any co-basin State, it shall give such State or States notice of the project. The notice shall include information, data and specifications adequate for assessment of the effects of the project.<sup>7</sup>

#### **v) Principles of Cooperation and Information Exchange**

It is the responsibility of each riparian State of an international watercourse to cooperate and exchange data and information regarding the state of the watercourse as well as current and future planned uses along the watercourse.<sup>8</sup> These principles are recommended by the 1966 Helsinki Rules<sup>9</sup> while Articles 8 and 9 of the UN Watercourses Convention make it an obligation. The USA-Mexico Water Treaty of 1944, the Columbia Treaty between USA and Canada of 1964, the Indus Waters Treaty of 1960,<sup>10</sup> the 1995 SADC protocol on shared watercourse systems,<sup>11</sup> the Mekong Agreement, 1995<sup>12</sup> as well as the 2002 framework agreement of the Sava River basin,<sup>13</sup> all incorporate these principles.

#### **vi) Peaceful Settlement of Disputes**

This principle advocates that all States in an international watercourse should seek a settlement of the disputes by peaceful means in case States concerned cannot reach agreement by negotiation. This principle has been endorsed by most modern international agreements and treaties.<sup>14</sup> It has also been incorporated in major treaties e.g. the Indus Waters Treaty (Article IX, Annexure F and Annexure G), the SADC Protocol on Shared Watercourse Systems (Article 7), the Mekong Agreement (Articles 34 and 35), and the Framework Agreement of the Sava River Basin (Articles 22–24).

### **5. COMPARATIVE ANALYSIS OF THE GANGES WATER TREATY, MOHAKALI TREATY AND MEKONG AGREEMENT**

This part examines to what extent the above mentioned international principles and mechanisms have been reflected in the Ganges Water Treaty and the Mohakali Treaty. In particular, it has analyzed how far these two treaties comply with the Mekong Agreement. This part finds out that which one has better mechanisms and principles and has legal binding to maintain the effective water resource management and whether it can be possible to use the same mechanisms in two other treaties and States can evaluate the existing mechanisms of both agreements to resolve their trans-boundary water disputes.

### **5.1 The Principles and Mechanisms under the Ganges Treaty**

By this treaty the parties, Bangladesh and India, make an arrangement to use, share and utilize the waters of international rivers incorporating some substantive principles and institutional mechanisms in lesser extent.

The Preamble of the Treaty records that both countries wish to share the waters of the international rivers and of making the optimum utilisation of the water resources of their region in the fields of flood management, irrigation, river basin development and hydropower generation for the mutual benefit of the people of the two countries.

Article III of the Treaty states that waters released to Bangladesh at Farakka would not be reduced below Farakka up to the point where the Ganges enter Bangladesh, "except for reasonable uses of waters, not exceeding 200 cusecs, by India between Farakka and the point on the Ganga/Ganges where both its banks are in Bangladesh."

Article VIII approves the principle of cooperation and information exchange. It acknowledges the need to cooperate with each other in finding a solution to the long-term problem of augmenting the flows of Ganges during the dry season. Articles IX and X of the Treaty adopted the principles of equitable utilization and an obligation not to cause harm. Article IX states that guided by the principles of equity, fairness and no harm to either party, both the Governments agree to conclude water sharing, Treaties/Agreements with regard to other common rivers.

Article IX is one of the strongest legal instruments included in the 1996 Ganges Treaty. The provision of this Article ensures the commitment of future cooperation for the other 53 common rivers between Bangladesh and India. It ultimately discourages unilateral development on the other common river and agreed to conclude water sharing Treaties/Agreements on the basis of the principles of equity, fairness and no harm to either Party. Thus in turn, Article IX acknowledges the necessity of coordinated management of the watercourses and the theory of limited territorial sovereignty.

Besides, Article X mentions: The sharing arrangements under this Treaty shall be reviewed by the two Governments at five years interval or earlier, as required by either party and needed adjustments, based on principles of equity, fairness and no harm to either party made thereto, if necessary. Thus, both Articles are very noteworthy, as they endorsed the principles of equitable and reasonable utilization and no harm or theory of limited territorial sovereignty.

Articles IV to VII of the Treaty establish the Joint Committee and its jurisdiction for monitoring the Treaty and exchanging data and information. The Joint Committee, Consisting of an equal number of representatives nominated by the Parties, is entrusted to observe and record at Farakka the daily flows below Farakka Barrage as well as at Hardinge Bridge (Article IV). Article VI requires the Joint Committee to submit all data collected by it and an annual report to both governments. According to Article VII, the Joint Committee is responsible for implementing the arrangement of the Treaty and examining any difficulty arising out of the implementation of the arrangements and of the operation of the Farakka Barrage.

## 5.2 The Principles and Mechanisms of the Mahakali Treaty

The Mahakali Treaty affords a framework for sharing the Mahakali river waters between State parties concerning integrated development and for all hydro-electric projects. It thus triumphs the old political uncertainties between the Nepal and India to promote and strengthen their relations of friendship and close neighbourliness in the development of water resources and provides more confidence to multinational corporations or foreign companies to invest in hydropower for the country.

The first two articles of the Treaty, dealing with Sarada and Tanakpur, only codify in one text the improved version of the existing regime. Nepal will supply a specific quantum of water from the Sarada barrage both in dry and wet season<sup>15</sup> For the purpose of maintaining and preserving the river ecosystem, India has to maintain a flow of not less than 10 cu m/s (350 cusecs) downstream of the Sarada barrage in the Mahakali river.<sup>16</sup> Article 3 reiterates an equal entitlement in the utilization of the water of the river without prejudicing to their respective existing consumptive use of the waters of the river. Principles established by the Treaty are extremely valuable: utilizing the water of the Mahakali River so that each country enjoys equal entitlement to the water;<sup>17</sup> designing the Project so that the total net benefit to each country is maximized;<sup>18</sup> basing the price of the energy produced on a cost avoided principle;<sup>19</sup> requiring each country to invest in the Project in proportion to the benefits they each receive;<sup>20</sup> and accounting for incremental and additional irrigation benefits and flood control benefits.<sup>21</sup>

The provisions of Articles 7 and 8 also acknowledge an obligation not to cause harm. Article 7 reads:

*In order to maintain the flow and level of the waters of the Mahakali River, each Party undertakes not to use or obstruct or divert the waters of the Mahakali River adversely affecting its natural flow and level except by an agreement between the parties. This means each Party has an obligation to maintain the natural flow of the river.*



Article 8 recognizes the right of both Parties to independently plan, survey, develop and operate any work on the tributaries of the Mahakali River as long as such use does not affect the rights of both Parties stipulated in Article 7.

In institutional mechanism, the Treaty approves the principles of equitable and reasonable utilization, the equitable distribution of benefits, and an obligation not to cause significant harm. In defining the jurisdiction of the Mahakali River Commission, Article 9(1) states: "the Commission shall be guided by the principles of equality, mutual benefit and no harm to either Party". Thus, together Articles 7 and 8, and 9(1) accept the theory of limited territorial sovereignty, where each Party has the right to use the water as long as it does not preclude the rights and interests of the co-riparian.<sup>22</sup>

Incorporating clear mechanisms for dispute resolution is a precondition for effective long-term basin management.<sup>23</sup> Article 11 of the Treaty provides a detailed dispute resolution and arbitration mechanism if the disputes are not resolved by the Mahakali Commission. According to Article 11(2), an arbitration tribunal composed of three arbitrators conducts all arbitration. Two of the arbitrators will be selected from both countries and the third arbitrator is to be appointed jointly who shall preside over such tribunal. In the event that the Parties are unable to agree upon the third arbitrator within 90 days after receipt of a proposal, either Party may request that the Secretary-General of the Permanent Court of Arbitration at The Hague appoint an arbitrator who shall not be a national of either country. The inclusion of the Permanent Court of Arbitration in this Article strengthens the dispute resolution mechanism of this Treaty. Article 11(3) makes the decision of the arbitration tribunal as final, definitive and binding to both Parties. Moreover, the Parties may agree on alternative procedures of settling differences arising under the Treaty through an exchange of notes.

In many river basins, a lack of detailed conflict resolution mechanisms makes the treaty ineffective. Article 11 of the Mahakali Treaty offers a good example for dispute settlement in international rivers. It provides relatively elaborate and advanced dispute resolution mechanisms.<sup>24</sup>

### **5.3 The Principles and Mechanisms of the Mekong Agreement**

The 1995 Mekong Agreement provides a cooperation framework for member countries to work together to achieve sustainable development in the basin. A supporting tool has been developed under the Water Utilization program which consists of a Decision Support Framework (DSF), sets of rules for maintenance of flows in the Mekong mainstream and studies on trans-boundaries issues. The aims of the treaty are to cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong



River Basin including, but not limited to irrigation, hydro-power, navigation, flood control, fisheries, timber floating, recreation and tourism, in a manner to optimize the multiple-use and mutual benefits of all riparians and to minimize the harmful effects that might result from natural occurrences and man-made activities.<sup>25</sup>

These objectives are coupled with the promotion, support, cooperation and coordination in the development of the full potential of sustainable benefits to all riparian States and the prevention of wasteful use of Mekong River Basin waters. Emphasis is given on joint and/or basin-wide development projects and basin programs through the formulation of a basin development plan, that would be used to identify, categorize and prioritize the projects and programs to seek assistance for and to implement at the basin level.<sup>26</sup>

The Parties also agree to protect the environment, natural resources, aquatic life and conditions, and ecological balance of the Mekong River Basin from pollution or other harmful effects resulting from any development plans and uses of water and related resources in the Basin.<sup>27</sup>

Treaty adopted the principles of equitable utilization and an obligation not to cause harm. Article 5 declares that State Parties will utilize the waters of the Mekong River system in a reasonable and equitable manner in their respective territories, pursuant to all relevant factors and circumstances.<sup>28</sup> There is an effective way to implement these principles. Joint Committee can prepare Rules for water utilization and inter basin Diversion.<sup>29</sup> To cooperate in the maintenance of the flows on the mainstream from diversions, storage releases, or other actions of a permanent nature, the Joint Committee shall adopt guidelines for the locations and levels of the flows, and monitor and take action necessary for their maintenance.<sup>30</sup> Thus, both Articles are very significant.

The Agreement is directed by the “Principle of Obligation Not to Cause Harm” to other parties. It reads:

*To make every effort to avoid, minimize and mitigate harmful effects that might occur to the environment, especially the water quantity and quality, the aquatic (eco-system) conditions, and ecological balance of the river system, from the development and use of the Mekong River Basin water resources or discharge of wastes and return flows.*

*Where one or more States is notified with proper and valid evidence that it is causing substantial damage to one or more riparians from the use of and/or discharge to water of the Mekong River, that State or States shall cease immediately the alleged cause of harm until such cause of harm is determined in accordance with Article 8.*<sup>31</sup>

The Mekong River Agreement is unique as it imposes obligation to States for causing harm to other riparian countries from use and discharge of water of the river. Article 8 provides that –

*Where harmful effects cause substantial damage to one or more riparians from the use of and/or discharge to waters of the Mekong River by any riparian State, the party(ies) concerned shall determine all relative factors, the cause, extent of damage and responsibility for damages caused by that State in conformity with the principles of international law relating to state responsibility, and to address and resolve all issues, differences and disputes in an amicable and timely manner by peaceful means[.....].*

To resolve disputes among the Parties, the Agreement moves through two thong approach i.e. resolution by River Commission and by Government.

Whenever any difference or dispute may arise between two or more parties to this Agreement regarding any matters covered by this Agreement and/or actions taken by the implementing organization through its various bodies, the Commission shall first make every effort to resolve the issue.<sup>32</sup>

In the event the Commission is unable to resolve the difference or dispute within a timely manner, the issue shall be referred to the Governments for resolution by negotiation and the Governments may communicate their decision to the Council for further proceedings as may be necessary to carry out such decision.

Should the Governments find it necessary or beneficial to facilitate the resolution of the matter, they may request the assistance of mediation through an entity or party mutually agreed upon, and thereafter to proceed according to the principles of international law.<sup>33</sup>

## 6. COMPARATIVE ANALYSIS OF THESE THREE TREATIES

From above mentioned insight discussion, it has been explored that both the Ganges treaty and Mahakali treaty uphold major international principles of trans-boundary water sharing. Whereas the Mekong Agreement is more pragmatic to obligate a State to comply with international principles. These three treaties strongly advocate the principle of equitable and reasonable sharing of water.

Mahakali treaty follows the principle of obligation not to cause harm. This means each Party has an obligation to maintain the natural flow of the river. How

ever, this obligation does not preclude the use of the waters by the local communities living on both sides of the Mahakali River, not exceeding 5% of the average annual flow at Pancheshwar.<sup>34</sup> Moreover, the terms 'no harm' and 'adverse effect' are not defined in the Treaty and thus leaves room for controversy.

Like the Mahakali Treaty, the Ganges Treaty mentions the term of 'no harm.' India and Bangladesh governments agree to conclude the treaty guided by the principles of equity, fairness and no harm to either party but what damage will be called as 'harm' and what parameters will be used to identify the harm are not discussed. It therefore, leaves rooms for disputes.

The Mekong Agreement not only incorporates this general principle<sup>35</sup> but makes strong provision for the prevention and cessation of harmful effects. It calls upon the States to make every effort to avoid, minimize and mitigate harmful effects that might occur to the environment from the development and use of the Mekong River Basin water resources or discharge of wastes and return flows." Article 7 of the Agreement enjoins the parties to practise due diligence and not to cause harmful effects. The Agreement imposes "State Responsibility for Damages" and when harmful effects cause substantial damage, it obligates the States to negotiate and resolve all issues in accordance with international law.<sup>36</sup>

In Mahakali Treaty, inclusion of the Permanent Court of Arbitration in this Article strengthens the dispute resolution mechanism. Article 11(3) makes the decision of the arbitration tribunal as final, definitive and binding to both Parties. However, it is observed that the Mahakali Treaty is silent regarding the venue of arbitration, the administrative support of the arbitration tribunal, and the remuneration and expenses of its arbitrators.<sup>37</sup> According to the Article 11(4), these issues shall be agreed upon by an exchange of notes between the Parties. Moreover, the Parties may agree on alternative procedures of settling differences arising under the Treaty through an exchange of notes. Having said so, it is quiet understandable that Mahakali Treaty offers a good example for dispute settlement in international rivers. It provides relatively elaborate and advanced dispute resolution mechanisms.

On the flipside, the Ganges Treaty does not include clear dispute resolution and arbitration mechanisms. The preamble of the Treaty mentions that both Parties wish to find a fair and just solution without affecting the rights and entitlements of either country. Article VII states that if the Joint Committee fails to resolve conflicts arising out of the implementation of the Treaty, it should be referred to the Indo-Bangladesh Joint River Commission. If the difference or dispute still remains unresolved, it should be referred to the two governments, which would meet urgently at the appropriate level to resolve it by mutual discussion. What level of

government it refers to and what the timeframe is for the settlement of disputes are not specified in the Treaty. In addition, the Treaty does not bind any Party to resolve the dispute if a disagreements persist.<sup>38</sup> Hence, the Treaty establishes political means, not arbitration, to resolve any dispute arising from the implementation of the Treaty.

The dispute resolution mechanism has been extensively criticised because it does not provide an arbitration mechanism for settlement of the dispute, while two water sharing treaty i.e. "The Mahakali Treaty" and the Mekong Agreement" embraced the arbitration mechanism. Undoubtedly, the absence of arbitration mechanisms makes the Ganges Treaty a less effective legal instrument.<sup>39</sup>

In case of cooperation, the Mekong Agreement goes well beyond two other treaties and crosses the minimum requirements of customary international water law in terms of both the scope of cooperation and its organizational modalities. Cooperation under the Mekong Agreement is not just one of fulfillment of an international obligation, it is a statement of mutual willingness to cooperate in order to optimize the potentials of the geo-climatic conditions with the technologies and economic possibilities.<sup>40</sup> Article 1 expresses the intention of the four States to cooperate and article 2 authorizes the Mekong River Commission (MRC) to formulate a "Basin Development Plan" which will help coordinate water resource related activities. Their cooperation shall be based upon full recognition of the sovereign equality and territorial integrity of the riparian States in the use and protection of the Basin's water resources. Considering the cooperation mechanism, Mekong Agreement has provided more detailed and specified provisions on States' cooperation than the Ganges and Mahakali treaties.

To ensure the equitable and reasonable sharing of water, each Treaty has formed administrative wings in the name of River Commission/Committee. Comparing the powers and functions of these River Commissions, Ganges treaty is found to be too short to ensure an effective Commission. Mahakali treaty provides a better description of river commission but credit should go to the Mekong Agreement for its detailed and specific function of river commission. The Mekong River Commission enjoys the status of an independent international body. The organizational structure has been modified to allow the MRC to address both technical and policy issues. The MRC consists of three permanent bodies: Council, Joint Committee, and Secretariat. The Council is composed of one member from each State at the Ministerial and Cabinet level and is empowered to make policy decisions on behalf of his/her government. The Joint Committee (JC), which is composed of one member from each state at no less than the Head of Department level and acts as the technical decision-making and management body for the MRC, insures implemen

tation of the policies and decisions. The Secretariat renders technical and administrative services to the Council and Joint Committee.

Furthermore, Mekong Agreement ensure the formation of National Committee that that formulates national policies vis-a-vis the MRC, and provides coordination between national line agencies and MRC Projects.

Finally, the Mekong Agreement allows for the inclusion of the upper two riparians, China and Myanmar, into the MRC provided they accept the rights and obligations of the Agreement. Neither the Mahakali treaty nor the Ganges treaty allows inclusion of other countries in the basin of the Mahakali river and the Ganges river respectively.

## 7. CONCLUSION

Coming to the conclusion of this study, it can be said that the Mekong Agreement is more rational to ensure international water law principles. The Ganges treaty is not compressive at all and creates vagueness in many places. There is growing concern that water flow in the region will be insufficient to meet future demands and there are also proposals from upper riparian countries such as China to divert water for its own use which can further worsen the existing dispute. This highlights the need to hold multilateral negotiations or discussion on water sharing. Therefore, Bangladesh should focus on plugging the loopholes of the 1996 Ganges Treaty and ensure her demand like 'Minimum guarantee clause' and 'Arbitration mechanism' by invoking Article X 'review procedure' in consonance with international legal principles to meet its future demands.

Despite some shortcomings, the Mahakali Treaty has made attempts to reconcile the conflicting interests between the two countries as much as possible. The Mahakali Treaty has made significant progress in broadening the scope of water resource development as well as defining the rights and obligations of the two countries. It envisions extensive bilateral cooperation. Regular reviews may take place. The Joint Commission may also provide a continuing point of contact and appropriate exchange of information that may help the two governments along in their decision-making.

The Mekong Agreement heralded the beginning of a new era of cooperation in the Mekong River basin. Clearly, the interests of the respective States played an important role in adjusting and clarifying the principles embodied in customary international water law, but the general principles of international river laws are never challenged. If one examines the evolution of agreements and implementing organizations in other international treaty especially the Ganges and Mahakali

treaty, it is patently obvious that few riparian have been able to substantively and maturely address their common interests and differences as it is covered by the Mekong Agreement.

## REFERENCES

1. Articles 2-8 of The Helsinki Rules, 1966.
2. Birnie, P. & Boyle, A. (2002) *International Law and the Environment* (New York: Oxford University Press) p. 302
3. Eckstein, G. (2002) Development of international water law and the UN Watercourse Convention, in: A. Turton & R. Henwood (Eds) *Hydropolitics in the Developing World: A Southern African Perspective*, (South Africa: African Water Issues Research Unit), p. 82
4. Watercourse Convention art.7
5. Eckstein, G. (2002) Development of international water law and the UN Watercourse Convention, in: A. Turton & R. Henwood (Eds) *Hydropolitics in the Developing World: A Southern African Perspective*, (South Africa: African Water Issues Research Unit), pp. 82-83
6. Birnie, P. & Boyle, A. (2002) *International Law and the Environment* (New York: Oxford University Press), p. 319.
7. Manner, E. H. & Metsä-lampi, V.-M. (1988) *The Work of the International Law Association on the Law of International Water Resources* (Finland: Finnish Branch of International Law Association).
8. Birnie, P. & Boyle, A. (2002) *International Law and the Environment* (New York: Oxford University Press), p. 322
9. Articles XXIX, XXXI) Helsinki Rules
10. Articles VI-VIII) of Indus Waters Treaty
11. Paragraphs 4 and 5 of Article 2, Article 5
12. Articles 24 and 30
13. Articles 3 and 4, Sava River
14. The 1966 Helsinki Rules (Article XXVII) and 1997 UN Watercourses Convention (Paragraph 1, Article 33).
15. 28.35 cu m/s (1000 cusecs) in the wet season and 4.25 cu m/s (150 cusecs) in the dry season
16. Article 1 of Mahakali Treaty
17. Article 3 of Mahakali Treaty
18. Article 3.1 of Mahakali Treaty
19. Paragraph 3(a) of Mahakali Treaty
20. Article 3.3 of Mahakali Treaty
21. Paragraph 3(a) of Mahakali Treaty
22. Salman, M. A. S. & Uprety, K. (2002) *Conflict and Cooperation on South Asia's*

- International Rivers: A Legal Perspective (Washington DC: The World Bank, p 108
23. Giordano, M. A. & Wolf, T. A. (2003) Sharing waters: post-Rio international water management, *Natural Resources Forum*, 27 , p. 170)
  24. Uprety, K. & Salman, M. A. S. (1999) Hydro-politics in South Asia: a comparative analysis of the Mahakali and the Ganges Treaties, *Natural Resources Journal*, 39, pp. 295-343.p. 338).
  25. Article 1, Mekong Agreement
  26. Article 2, Mekong Agreement
  27. Article 3, Mekong Agreement
  28. Article 5, Mekong Agreement
  29. Article 26, Mekong Agreement
  30. Article 6, Mekong Agreement
  31. Article 6, Mekong Agreement
  32. Article 34 , Mekong Agreement
  33. Article 35 , Mekong Agreement
  34. Art. 7 of Mahakali Treaty
  35. Articles 7 and 8 of Mekong agreement
  36. Article 8 of the Mekong Agreement
  37. Salman, M. A. S. & Uprety, K. (2002) Conflict and Cooperation on South Asia's International Rivers: A Legal Perspective (Washington DC: The World Bank, p. 115
  38. McGregor, 2000
  39. Uprety & Salman, 1999, pp. 336-338.
  40. Dr. George E. Radosevich & Mr. Douglas C. Olson, "Existing and Emerging Basin Arrangements in Asia: Mekong River Commission Case Study", Third Workshop on River Basin Institution Development: MRC Case Study, World Bank, WDC, 24 June 99 p.16