

## Political Ecology of Water Resource Management in the Ganges Basin

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### **Abstract**

The happiness and survival of the humankind are entirely dependent on the proper use of water resources which is becoming scarce gradually to meet the demand. Against this backdrop hydro-politics promises to become increasingly contentious and nasty. Powerful and upper riparian countries have already started to use water, the liquid gold to disrupt peace, accumulate power and force neighbours to submit. Now the best use of natural resources, more importantly water, is critically important. The persistent expansion of inhabitants across the Ganges basin requires millions of tonnes of food grains. In this context various projects to harness the water resources in particular in maximizing food production has become an economic obligation to meet the food and power in the nations of the basin areas. The harmonious blend of the engineering planning of water resources projects and environmental planning for conservation and preservation of ecology has become one of the crucial challenges for the governments of the Ganges basin states. Being predominantly agricultural nations, the basin areas depend on monsoons which cover about half of the year for keeping of flows in the Ganges river basins. As its aftermath the problems like salinity, soil erosion logging, arsenic poisoning etc. are reported hugely in Bangladesh and the state of West Bengal in India. Disruption of hydrologic cycles hastens the process of desertification, as is evident from the ravines of the Sub- Himalayas zone. Based on the above arguments the present work tries to figure out the political ecology of the water resource management in the Ganges basin. The paper suggests that there is need to standardise methods for calculating the water requirements for the conservation and sustainable management of forests and natural ecosystems, so that this need can get integrated in sectoral assessments. The paper finally urges that there is need for policy making and implementation structures to deal water allocation and use issues in a holistic manner which have become most urgent for the countries of the Ganges basin.

### **Introduction**

The mankind's happiness and survival are entirely dependent on the proper use of environmental resources. The natural resources are becoming scarce gradually to meet the extending burden of population. At this juncture the best use of natural resources, more importantly water, is critically important. The persistent expansion of inhabitants across the Ganges basin requires millions of tonnes of food grains in Nepal, India and Bangladesh.<sup>1</sup> In this context various projects to harness the water resources in particular in maximizing food production

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has become an economic obligation to meet the food and power of the nations. From 1950s to 1970s the region witnessed the green revolution and industrial growth. Therefore, the harmonious blend of the engineering planning of water resources projects and environmental planning for conservation and preservation of ecology has become one of the crucial challenges for the governments. Being predominantly agricultural nations the basin states depend on monsoons which cover about half of the year for keeping of flows in the Ganges river basins.<sup>2</sup> The basin states' multipurpose projects i.e., constructing dams, barrages etc. in harnessing the Ganges have created severe problems like salinity, soil erosion logging, arsenic poisoning etc. are reported hugely in Bangladesh and the state of Bihar and West Bengal in India.<sup>3</sup> Hence, the paper argues that the water allocation policies in the basin states should include adequate provision for safeguarding the integrity of critical systems. The disruption of hydrologic cycles hastens the process of desertification. This is evident from the ravines of the Sub-Himalayas zone and there is need to standardise methods for calculating the water requirements for the conservation and sustainable management of forests and natural ecosystems. The paper argues that the need can get integrated in sectoral assessments and for policy making and implementation structures to deal water allocation and use issues in a holistic manner have become most urgent for the countries of the Ganges basin.

### **Background and Objectives of the Study**

The water sharing disputes in the Ganges river basin had its genesis in the partition of India when Britain relinquished its hold on the Indian Subcontinent. Since then newly born states in the Ganges basin began to formulate their own plans for development of water resources lying within their territories, dispute over these waters surfaced both east and west and thus the dispute over the sharing of the Ganges waters has been a major international river water dispute and a serious irritant between the nations who share the basin areas. The issue has been influenced and accentuated by factors arising out of the geographical location of the basin states, the historical background and the sub-continental and international political situation. The water of the successive international river Ganges is of great importance since time immemorial to the people of the entire region. For centuries the Ganges waters have been used for navigation, fishing, social, cultural and even religious purposes to the inhabitants of its basin areas. In the post colonial period the non-economic or small-scale economic utilization of the Ganges waters have

turned into manifold uses. Till the colonial period the lower riparian used the natural flows of the Ganges for various purposes but these were not harnessed until after the end of the colonial rule. The Ganges riparians post colonial period have given emphasize to their internal economic development and brought not only the arid lands under cultivation but also double cropping-winter crops to feed enormously increasing population. As a result they have started harnessing the Ganges water mainly for irrigation in their territories by a combination of newly improved technology, of economic planning and of availability of loans, grants, technical and financial assistance from foreign and international agencies.<sup>4</sup> Apart from irrigation needs Indian government was particularly concerned about navigability of its important port Calcutta, thus invested in navigability of rivers. Perennial rivers of Indo-Gangetic doab are snow fed with seasonal monsoon rains inundating its course, thus these rivers have a highly variable seasonal flow. Because of seasonal fluctuations the Ganges flow is sufficient to meet the demand neither for Bangladesh nor for India. At this juncture any major harnessing of the Ganges water during the dry season upsets its natural equilibrium and brings about a whole chain of important and interrelated repercussions. Moreover, since 1947 there has been no permanent arrangement between India and its easterly neighbouring states initially Pakistan and later on Bangladesh over any joint utilization and development of the Ganges water system. They are interested in drawing maximum amount possible during the dry season flow and have undertaken their own development plans and projects on the Ganges independently and unilaterally. The inevitable result of this is conflict of national interests.

The very controversy that incepted with the artificially created political boundary of the subcontinent with the end of colonial regime in Indian subcontinent has been continuing till present. The issue involves a wide spectrum of concerns such as historical, geographical, techno-economic, political, socio-environmental and strategic conditions. In an environmentally interdependent world the environmental or ecological decline of one country or region is a problem for the entire community of nations on earth. With the emergence of post-colonial nation states, an array of demarcation lines was drawn on the common rivers according to the borders of newly established states. It developed a sense of individual ownership instead of collective ownership of the common rivers. Rivers were no longer being considered as an integrated unit of resources. Upper riparian states started to use common rivers to the end of their own interests at the cost of the interests of the lower riparian states. And

this can be identified as one of the major reasons that created problems among the co-riparian states around the world.

A peaceful internal political atmosphere and a sound relationship among the co-riparian states acts as the successful catalysts of bilateral negotiations that create an environment of peaceful coexistence and helps growing an attitude of sharing water resources of the common rivers. Absence of such friendly atmosphere between the states might lead to a popular movement in the lower riparian state if deprived by the unilateral water withdrawal by the upper riparian state. This situation might also lead lower riparian state towards internationalization of the issue though it often does not earn much for the lower riparian state if the upper riparian state insists on bilateral solutions. A kind of cooperation is possible for a common interest for the countries concerned if the bilateral negotiations are tuned up. It is important for the policy makers of both the countries to critically analyze how bilateral negotiations and their results reflect on the internal political and economic dynamics.

In ground of the political reality of this region this is observed that water governance and management in India and Bangladesh is significantly influenced by the internal political atmosphere of both the countries. So it is important to consider historical development of political ecology of both countries to reach an amiable solution over water sharing of the River Ganges. As the flow of this river passes not only between West Bengal and Bangladesh, problem of water sharing cannot be solved until and unless the economic interests of other co riparian provinces of India are brought into the negotiation process because they are also diverting water from this river. It is also important to consider the whole river as an integrated unit to solve the ecological problems created by the basin states.

The subject which is studied here is a complex one and invariably raises questions which come under variety of topics from history, political science, hydrology, ecology, agriculture, economics, international law, international relations and a host of related matters. Fundamentally the study examines various forms of environmental politics on Ganges water sharing disputes and nationalist expressions of them. In doing so, our main objectives are to analyse the history of hydro-political negotiations between the two riparians of the Ganges river and to map out the political ecology of water resources management of the Ganges basin. To examine the influence of ecological and environmental elements affect the social and cultural life of the people of Bangladesh.

**Methodology**

The present research has been conducted on the basis of the primary and secondary sources followed by the qualitative method. A balanced approach of data gathering and analysis has been used and maintained, including an analysis of both official and unofficial documents that discuss the perspectives of the political ecology. Multiple sources have been used for the research, combining primary and closely related secondary materials, including archival documents, newspapers, policy reports etc. The parliamentary debates, press releases, press notes and ministerial statements after the protracted hydro-political statements of Nepal, India and Bangladesh on water, environmental and ecological issues have been studied to understand the nature of national interest and the political ecology of the Ganges basin. I have sought to look beyond partisan governmental documents and tried to understand and reconstruct on what actually happened. For exploring primary and secondary materials, both theoretical and empirical have been quite helpful for our research. I have studied the noted national dailies, weeklies and monthly newspapers published from different countries of the Ganges basin.

**Rationale of the Study**

A study of mutual relationship between political ecology and water resource management is important not only because this has not been adequately addressed and explored in serious academic forums, but also because region of the Ganges basin itself offers an intriguing context for examination of the subject offers stimulating scope for environmental history. There is a large literature on the water-sharing protocols and the impact of Indian hydro-electric development on Bangladesh. However, there have been no substantial studies of the political ecology to such developments. One response has been to argue that because India is such a powerful country, Bangladesh must seek to solve controversies with India with cautious bilateral diplomacy. Another has been to argue that Bangladesh should turn to international law and regulations and appeal to international institutions including the United Nations to settle water disputes with India. Yet another response has been to argue that Bangladesh should use popular resistance and alliances with activists and organizations both inside Bangladesh and India. A substantial research in the field could be a great contribution in the arena of environmental history of South Asia. The commitment for the historical research on such an issue which is entirely interdisciplinary gives us some advantages for the research on this subject.

### **Political Ecology**

The term “political ecology” is reported to be first used by the anthropologist Eric R. Wolf<sup>5</sup> in his article “Ownership and Political Ecology” where he emphasised on the role of power relations in mediating the relations between human and the environment. Wolf used political ecology in its neo-Marxist sense which is marked as a departure from the canonical texts of Marx and Engel and ignored nature and environment.<sup>6</sup> Placing power at the centre of analysis, political ecology also differs from an apolitical “cultural ecology” that focused on the problematics of adaptation to the environment without attending to the structures of inequality that mediated human nature articulations.<sup>7</sup> In combining political economy with ecology, political ecology strove to the deficiencies in both frameworks.<sup>8</sup> It was a method of fusing cultural ecology with the political economy<sup>9</sup>. According to Malthus ecological crisis erupts when the environmental system fails to support the demands of growing population. Malthus argued for population control to meet the challenges of ecological crisis.<sup>10</sup> As opposed to Malthusian idea of overpopulation, early political ecologists were interested in the impact of national or global economic or legislative processes on the local environmental practices.<sup>11</sup> Thus the early writings in political ecology focused on the relations between political economy and the ecology. It comprises the interactions between the society and the natural resources as well as interactions within the classes of the society.<sup>12</sup> This political economic approach of studying political ecology was the phenomenon of 1980s and early 1990s what is now considered as “structuralist” phase of political ecology. Ecology remained the focal point in this first phase of studying political ecology.<sup>13</sup>

In the late 1990s, political ecology approach experienced many changes where ecology became less central and politics gained momentum over political economy.<sup>14</sup> The dominance of politics in political ecology can be demonstrated in various ways. Paulson et al. focused on the impacts of politics on the access to environmental resources.<sup>15</sup> Sutton and Anderson highlight aspects of day-to-day conflicts, alliance and negotiation, and effects of politics in using resources.<sup>16</sup>

In connection with the political ecology of the water resources of the Ganges basin this is evident that the basin states particularly the upper riparians have been mainly concerned with their national development without paying heed to the interest of neither the lower riparian nor the ecological issues. Before setting up a multipurpose water projects this is a must to ensure a maximum social benefit and the ecological balance

safe. This two are already a big threat and challenge for the nations of the Ganges basin. In the entire Ganges basin areas the Ganges water is normally used in four major sectors- domestic need, agriculture, industry and ecosystem conservation. Interesting enough, in most calculations this is seen that the need for water to maintain ecosystems, particularly the biodiversity, is not taken into consideration. The political ecology of the water resource management of the Ganges basin, for example in the countries of India and Bangladesh reveals that the livelihoods of millions of people of the basin states and many mangrove forest ecosystems which occur in the estuaries of major rivers of Ganges and ecological balance of the entire region are adversely affected due to the mismanagement of the water resources of the Ganges.

### **The Striking Realities of Ganges Basin Water Resource Management**

In the recent past, the rapid developmental activities seem to have lost touch with our ancient tradition and wisdom in protecting the natural ecological balance. The imbalance of developmental activities by utilizing the locally available natural resources, forestry, agricultural and industrial technology based on outdated models, the pressure of population and growing demand for resources and the poverty which depend directly on natural resources for their survival, has taken a heavy toll of our ecology and environment. Given the range of water related challenges faced by the region, many countries have reviewed or revised their national policy on water resources development and management to incorporate approaches and perspectives as that of integrated water resource management.<sup>17</sup>

The advocacy of inter-country cooperation has tended to centre on a handful of gigantic project like huge dams and reservoirs in India's north-east, or a very large canal from the Brahmaputra to the Ganges. Underlying these projects are projections of future needs based on certain notions of 'development'. These projections lead to the formulation of supply side solutions in the form of 'mega' projects that may cause great harm to the environment and the ecological system; they may also lead to conflicts both within countries and between countries. It is wrong ways of living that lead to conflicts among human beings and between humanity and nature. We cannot live in harmony with one another until we learn to live in harmony with nature. This theme cannot be developed here. The point that is sought to be made is that inter-country cooperation has come to be identified with a few projects, and other possibilities of cooperation (e.g. in the re-greening of the Himalayas, the preservation of

the Sunderbans, a sharing of experience in agriculture, water management and social mobilization, managing floods while minimizing damage) have not received the attention they should have.

This is told that “the wars of the next century will be over water.”<sup>18</sup> In the course of the study of ecological history of the region of South Asia in general and the Ganges basin states in particular, this is seen that the regions face same domination of the elite politics of water resources. The theme of equality and equity in the common water resource management could be the only possible way out in conceptualizing and strategizing this age old controversy. So far the discourse of water sharing issue between India and Bangladesh is concerned the nationalist language remains the utmost hindrance in negotiating this resource management. The present study argues that a cooperative framework on this dispute could bring a solution in this regard. The multidimensional political perceptions during colonial and post colonial era involved in the dispute illustrates how the nationalist metaphors of the language remain as a guiding force of the conflict on Ganges waters. In this connection the present work explored this very perception as the central argument and justifies the commissioning and operating of the Farakka Barrage as a ‘techno-political tangle’ in this area.<sup>19</sup>

Without water as we know the life is not possible on earth. The human beings are the creatures of water, dependent on water and are safeguarded with the flow of water. The civilizational and cultural progress the human being these days reckon were basically incepted with their ability to make water work for them and to sustain the production systems. Even the last stage of civilization building process man’s efforts, industrialization, was heralded, only a few hundred years ago with the water-driven mechanical reverberation. At the end of the 20<sup>th</sup> century when the ground water of many parts of the world are declining, great rivers are utilized excessively, more soils are taken out of production due to erosion, we could come to a point that water scarcity has increasingly perceived as an imminent threat, sometimes even ultimate limit, to development, prosperity, health, even national security.<sup>20</sup> At this juncture the use of a common resource like water of a multiriparian river is beset with conflicting problems.

This is an eye-opening for the mankind to know how water can be used by competing country to fulfil certain dubious objective oblivious of the destructive effects of such use on another’s means of sustenance of life and economy and sometimes existence. The very tangible ecological changes those have set in Bangladesh consequent upon actions taken in

India are more or less connected to her sustainability and identity as a nation. India, however, in most of the cases has to ignore many of the complaints and entreaties Bangladesh has made so far. India has advantageous position geographically in respect of potential use of the run of the international rivers and she has apparently attached to her objectives for the preservation of Kolkata Port a preference to the vital need of a downstream coriparian country. In contrast to the worldwide notion of availability of plentiful water in Bangladesh she suffered from moisture deficiency and pollution in February through May in about one-third of its total area. This might be in this perspective that amongst people of both in the pre and post independence Bangladesh an anti Indian nationalism took birth which was fundamentally connected to her ecological issues in general and water in particular. India's efforts to take some calculated steps in this respect have posed a great threat of disturbance on the balance of nature Bangladesh because ecologically and geographically Bangladesh is located in such a location of the world map to bear almost the entire load of this very disturbance.<sup>21</sup>

During the period of post-colonial Sub-continent, the political grip on the situation has made the situation more complicated. The dispute encompassing the water issue took an intricate form in an interaction of multidimensional "causes and effects of motives and interests of-geographical, environmental, technological, economic, social, political and so on".<sup>22</sup> In this research this has been found that the political objectives and ideals have played a decisive role in the decision making process. This has been observed that the political agendas of the governments of the nations preconditioned the expertise and imposed limitations on the neutrality of the experts' scientific knowledge and techniques in the name of the confidential subject of national interests. The countries for legitimizing their claims are inclined to refer to a third party on expert level. Interestingly once the claims favoured a particular country, the concerned country gave publicity to its views. On the contrary if the claims did not favour that particular country those were kept top secret.

In course of this study it has been noticed that when the question of legitimacy of the Farakka Barrage project was with India, her supporting literatures and documents were full of appraisals of the 3<sup>rd</sup> party favouring the barrage although India had always been against the attachment of any 3<sup>rd</sup> party in settling the a bilateral issue. The loss of the freedom of expertise was found to be a serious drawback in matters of the India-Bangladesh water sharing disputes. In most of the cases the

expert-politician collaboration and political interests determined the nature of the Ganges water disputes between those two neighbouring states. To some of the independent experts the whole project appeared to be “a unique gambit of unmitigated opportunism”.<sup>23</sup> The issue of incorporating Nepal as an important player in this regard has been ignored from the part of India in the entire period of the ongoing debate.

The political ecology of the whole process denotes that the government of India decided to undertake the Farakka barrage project without any pre-feasibility study of the potential dangers on the downstream nation which were beyond the calculations of Sir Cotton, the British expert who conceived the idea of the barrage first and to whom India must be indebted for the idea. The political ecology also suggests that the government of India undertook the project as a multipurpose one primarily for the country-wide irrigational development plan. The political leadership was then highly influenced by the attractive expertise of the ‘National Water Grid’ which was very much urgent for India to boost up agricultural production for feeding the rapidly growing population. Those plans, prospects and expertise influenced the Indian political figures in decision-making favouring the Farakka barrage.

On the other hand in the independent Bangladesh the ecological nationalism on the basis of the water sharing issue with India was programmed and articulated in a stronger manner than it had been during the Pakistan regime. With its downstream position, weak economy and instability of political institutions Bangladesh failed to keep pace with India in the race of water development planning. India from its advantageous position as upper riparian nation thumbed its nose at Bangladesh to show her nationalist interest. This would be pertinent to mention here that the Indian gesture in this regard vitally affected the fate of crores of people as well as their ecological regime on the countries in the Ganges basin.

The role of water in preservation of life on earth and necessity of keeping it in adequate quantity and quality is enormous. This is thus important for every person and nation to be aware of the responsibilities enjoined upon them as members of human society and to act in a manner that helps in attaining the same for the sake of human and other form of life. The decades of 1950s to 1970s were such a period when the ecologically friendly initiatives were being taken in different corners of the world. The Japanese were enforcing pollution control measures in their own territory, the United States was building the world’s largest desalting plant, at a cost of 155.5 million dollar capable of delivering

100, 000 acre feet of water per annum with an intent to deliver an agreed quantity of Colorado river water of certain quality across the international border to Mexico.<sup>24</sup> The oil companies in Alaska, North Canada and Siberia were now under legal obligations to raise the giant size oil and gas pipes above ground to enable certain species of arctic animals to migrate. Canada and USA joined together to keep Lake Superior water at certain standard. Millions of dollars, roubles, pounds and pesos were being spent for research and development directed towards keeping the world habitable.

But here in this part of the world two South Asian nations India and Bangladesh were in conflict over the use of Ganges water. One was apparently intent upon establishing its authority by dubious use of flushing a tidal channel for improvement of its navigability and wasting otherwise most productive water into the sea and the other was trying to struggle out of the stranglehold of shortage of life-sustaining water supply created by upstream diversion.

The environmental situation prevailing in Bangladesh consequent upon reduction of the Ganges flow in November through May when rainfall was minimal called attention of all the environmentalists of the world. A segment of humanity larger than that of the 'Sohel' region of the Africa was lying prostrate due to man-made actions a fledgling nation was in the grip of fear of food shortage while her fertile land was rendered a desert comprising a tract of dry patches and saline marshes during the productive part of the year when it would produce otherwise food adequate for sustenance of her population.<sup>25</sup> Bangladesh had repeatedly drawn the attention of the thinking world for the cause. Irony was that the appeal failed to have reached a stage serious enough to rouse the good sense of the people of India to prevail upon their Government for restoration of adequate Ganges flow for the preservation of life in this part of the world.

### **Regional Cooperation on Water and Environment in the Ganges Basin**

Bangladesh, India and Nepal through which the Ganges River systems mostly flow, have been originated in China. The equitable sharing of common water resources among all co-shares is a well established principle which has a clear and forceful codification in the Helsinki Rules.<sup>26</sup> Common resources are usually best developed and utilized for maximum possible mutual benefit under the cooperative arrangement among the co-basin states. The benefits derivable in terms of, for

example, irrigation, hydropower generation, flood mitigation and fresh water supply to stem salinity ingress-from water resources development and utilization in the Ganges basin might a win-win situation for all, under a cooperative regime involving all coriparians, compared to what may be possible under separate national approaches, pursued by the countries sharing the Ganges basin-China, Nepal, India and Bangladesh. The regional cooperative approach to water development and management in the Ganges basin areas by those countries would surely enable, pooling of technical expertise, facilitate mutually beneficial joint investment, enlarge markets, encourage cooperation in the other possible areas, and minimize conflicts those are harmful to all concerned. The cost of non-cooperation among the coriparians of the Ganges basin has been already enormous for each coriparian individually and for basin-region collectively since the region continues to be characterised by sluggish economic and social progress and high levels of poverty.

Appropriation, negotiations, management and exploitation are regular process of human nature interactions. The Southeast Asian nations and European Union have greatly benefited by cooperating and have been marching ahead. Regional cooperation is therefore, critically important for the entire basin areas. The cooperation in disaster management, multiple benefits of water storage upstream, climate change, navigational route, water quality, watershed management etc. are easily identifiable as potential area of regional cooperation. What is worrisome is magnitude and nature of contemporary intervention. In the context of the ecological status this is quite evident that the advocacy of inter-country cooperation has tended to centre on a handful of gigantic project like huge dams and reservoirs this region. Underlying these projects are projections of future needs based on certain notions of 'development' which leads to the formulation of supply side solutions in the form of 'mega' projects. Irony is that those projects have already caused great harm not only to the environment and the ecological system but also lead to conflicts among the countries of the river basin.

The underlying thesis is that conflicts over natural resources and environmental issues could become acute and even these could have 'regional security' implications. Because of increased populations there is severe pressure on finite resources which is likely to follow lead to wars in many parts of the world. The idea of water conflicts (in many ways the terminology of water nationalism as a significant part of ecological nationalism could be relevant here) seems improbable. There might have some special combination of circumstances that a country can hope to

acquire control over headwaters through building dams or barrages. The disputes between Bangladesh and India over the share of the common rivers and territories are the major threats to the environmental security of Bangladesh. These disputes have not only led to verbal and political confrontations and tense disagreements between the two countries but also to violence, either among civilians or military forces. Bangladesh is burdened with large population, dwindling natural resources and acute socio-economic problems. At this connection the problem with sharing water India lies at the interface of environmental management and national sovereignty.<sup>27</sup> Furthermore, there are economic and political instabilities and high level of dependence on foreign aid in the country. In addition of this, domestic and trans-border disputes over natural resources are likely to intensify in the future. All these factors make it imperative to integrate environmental issues as major security concerns of Bangladesh.

For the countries this is the high time to undertake a serious examination of the entire gamut of water sharing management of the Ganges rivers basin. Development of friendship and good neighbourliness with Nepal and India is critical to Bangladesh's success in promoting its national interests. The fact remains that the resolution of water sharing problem is a precondition for a comprehensive range of cooperation among the neighbours. On the part of Bangladesh, the intensity of India-bashing must be brought down through graduated and sustained efforts, and the government should prove itself to be amenable to prudent handling of complex Indo-Bangladesh relations.<sup>28</sup> Conversely, being the dominant power in South Asia, it is obvious that India may have to adjust with some moments of affinity or disaffection while maintaining its relationship with the peripheral powers. Such issues become more penetrative and definitive when they are concerned with a contiguous power like Bangladesh with whom India has an intensive age-old socioeconomic, political and cultural relationship. As the upper riparian country to both Indian and Bangladesh, Nepal should play a crucial role and but generous gesture. It is hoped that any Indian initiative and Nepalese proactive interference would alone set a positive tone for a better water resource management in future.

The retail price of bottled water is already higher than the international spot price of crude oil and this is not any surprise that many investors are beginning to view water as the new oil of the twenty first century.<sup>29</sup> We must not forget that the use of water as a weapon will become more common during the coming years, with more powerful

upstream nations impeding or cutting off downstream flow.<sup>30</sup> At this point we become curious about the policy-makers who developed and strategy for the future on sharing the Ganges waters. We know that the policies and programs, moods and temperaments, aims and ideals of the top leadership of either political system accounted for the complicated nature of the Ganges water dispute to a great extent.

In respect of the Indian scheme of inter-linking rivers, 'the principles of equity, fairness and no-harm to either party' demands that India consults Bangladesh and Nepal and reaches an agreement with them before undertaking the relevant parts of the scheme of transferring of water from the Eastern Himalayan Transboundary Rivers. This is also necessary for the peace and stability of the region, and so vital for economic and social progress. Unfortunately, however, mistrust and lack of action for promoting cooperation water-based or otherwise- in the region continues to hold back progress. That is, the logjam continues.<sup>31</sup>

### **Conclusion**

In the twenty first century there has been significant shift in global-policy thinking regarding water resources, in which rivers are increasingly considered as objects of management rather than "control." The issue of management is quite relevant here in the context of common resources and ecological balance. And of course the final decision in this respect is taken by the politicians who always enjoy the superior advantage in the expert-politico decision making hierarchy.<sup>32</sup> In case of the Ganges water sharing dispute the politicians must evaluate the way in which the precious gift of the nature 'is utilized by human ingenuity, prudence and sagacity'. Many social critics surveying the technological society have suggested that much of today's modern dilemma stems from the fact that people's capabilities for environmental control have outpaced the capability to judge how such control should best be utilized. In the technological society "means are always available for ends that have yet to be evaluated. If he (the politico) works for selfish ends, we call him a political hack; if his conduct seems tempered by moral principles and aimed towards some worthy goal, we call him a statesman."<sup>33</sup>

The problems of flood, river-bank erosion, generation of hydro-electricity, irrigation, transport, communication and vital elements of well-being, are now all seen from an integrated management perspective, which suggests tailoring of people's needs according to the natural setting of the rivers, not the other way round. Vigorous eco-regional cooperation

is naturally sought in this regard from the civil society across the region. In this context, we need to particularly focus on the political and technical capacities by which existing national water policies of Bangladesh, India, Nepal and China could be reconciled. We must seize the time, and find ways in which we may modify our attitudes towards boundaries that represent fluid nationalist zeal, rather than the state's stated goal of well-being of its citizen. By disassociating the largely imagined "nation" from the "state" we may perhaps appreciate the possibilities of frontiers within states becoming alternative sites for economic and social mobility which, in turn, may actually assist the state in its quest for spatially equitable distribution of the fruits of development as it mobilizes its ecological resources across borders.

Anthony Giddens, rightly argues, "Nations today face risks and dangers rather than enemies, a massive shift in their very nature."<sup>34</sup> Unless there is spontaneous cooperation at regional and global levels to mitigate their risks by industrial nations and neighbours. The Ganges basin states in the twenty first century may witness the unfolding of a poignant tragedy of epic proportions. It is time for the countries to move beyond narrow ecological nationalism and look at the common water crisis from a regional perspective. Cooperation, for which immense scope and mutually beneficial potentials exist, remains a mirage. People particularly the poor, in all regional countries, continue to suffer. What is necessary is, for the regional political leaderships and other concerned actors to get out of their narrow national interest-based mindset and seek to cooperate objectively with the neighbours for mutual benefit, for which immense potentials exist.

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