Cover Story

Blue Gold: India At War

INTRODUCTION

Water covers more than 70% of the surface of the earth. It fills the oceans and the rivers; it resides underground and is also present in the air which we breathe. Great civilisations have been founded on the banks of rivers – the Egyptian civilisation (on the Nile), the Mesopotamian civilisation (on the Tigris and the Euphrates), the Indian civilisation (on the Indus) and the Chinese civilisation (on the Hwange Ho). Great civilisations have also perished for scarcity of water – e.g., the Sumerian civilisation (Mesopotamia), which was destroyed because of salt built up in the soil.

Great cities have been born on the rivers and many have vanished when the rivers dried up. Today, more than ever, water is both slave and master to the people. It has more uses than can be counted on the fingers, and it is utilised in almost every activity of the civilised man. But one important fact about water is, that while our demand for it is increasing, it is not possible to increase the supply. Viewed in this light, water must be preserved and managed properly.

After independence, demand for water had been increasing at an accelerated rate due to rapid growth of population, agricultural development, urbanisation, industrialisation, etc. These developments have led to several inter-state disputes about sharing of water of these rivers. India faces a water storage problem. Its annual demand for water is more than two times the available storage behind reservoirs. The lack of significant reservoir storage in India puts it at a disadvantage: it must rely on precipitation during the annual monsoon season. Farmers are especially vulnerable to those weather patterns because they depend heavily on river water for irrigation.

Disputes relating to water should therefore deserve our closest attention. In the Indian context, this aspect becomes further more important, because over 85 % of Indian territory lies within its major and medium inter-State rivers. Thus, the interstate river conflicts affect virtually every area of the country and virtually every part of the economy, from irrigation to industrial uses. India has 14 major rivers, which are all inter-State rivers. India has 44 medium rivers, of which 9 are inter-State rivers.

In the background of above discussed stress on water and its demand-supply mismatch, let's delve into the constitutional status of water, the institutional mechanism for dealing

with inter-state river waters, illustration of major water disputes, the reason for such disputes, and the suggestions to sort out frequent occurrence of such disputes.

CONSTITUTIONAL AND STATUTORY PROVISIONS

- ***Entry 56 of List I (Union list)*** reads as follows: "Regulation and development of inter- state rivers and river valleys to the extent to which such regulation and development under the control of the Union, is declared by Parliament by law to be expedient in the public interest.
- ***Entry 17 in List II(State List)***reads as "Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to provisions of Entry 56 of List I.
- Constitution has a specific article (***Article 262***), dealing with adjudication of disputes relating to matters of inter- state rivers or river valleys.
- The two laws enacted by the Union under Article 262 and Entry 56 of List I are the ***Inter-State Water Disputes Act, 1956***and the ***River Boards Act, 1956.***

On paper, India has adopted *a cooperative, non-litigation means of resolving interstate water problems*. In 1956, Parliament enacted the ***River Boards Act*** that allows the Central Government, upon request and after consultation with the States, to create basin-wide river boards to provide advice (So River Boards are advisory body) on virtually every aspect of river management, including flood control, navigation, irrigation, power generation and environmental issues. *But this authority has never been invoked in the 60 years* since it was authorized by the Parliament because of State Government suspicions of Central Government control.

The second statute created special tribunals to adjudicate interstate water rights (e.g., in circumstances when the cooperative approach of river boards does not work or when the States do not want to create a river board in the first place). Let's see the second statute in detail.

INTER-STATE RIVER WATER DISPUTE ACT 1956

The Interstate River Water Disputes Act, 1956 (IRWD Act) was enacted under the Constitutional provision of Article 262 to resolve the inter-state water disputes. This Act has undergone subsequent amendments, the most recent one in 2002 to accommodate

the recommendation of Sarkaria Commission. Let's see in the brief the provisions of the Act.

Complaints by State Governments as to Water Disputes

If it appears to the Government of any State that a water dispute with the Government of another State has arisen or is likely to arise by reason of the fact that the interests of the State, or of any of the inhabitants thereof, in the waters of an inter-State river or river valley have been, or are likely to be, affected; the State Government may request the Central Government to refer the water dispute to a Tribunal for adjudication.

Constitution of Tribunal

When such request is received from any State Government in respect of any water dispute and the Central Government is of opinion that the water dispute cannot be settled by negotiations, the Central Government shall, within a period *not exceeding one year* from the date of receipt of such request, by notification in the Official Gazette, constitute a Water Disputes Tribunal for the adjudication of the water dispute.

The Tribunal shall consist of a Chairman and two other members nominated in this behalf by the Chief Justice of India from among persons who at the time of such nomination are Judges of the Supreme Court or of a High Court. The Central Government may, in consultation with the Tribunal, appoint two or more persons as assessors to advise the Tribunal in the proceedings before it.

Powers of Tribunal

The Tribunal shall have the same powers as are vested in a ***civil court*** under theCode of Civil Procedure, 1908, in respect of the matters such as summoning and enforcing the attendance of any person and examining him on oath, requiring the discovery and production of documents and material objects, issuing commissions for the examination of witnesses or for local investigation etc.

The Tribunal may require any State Government to carry out, or permit to be carried out, such surveys and investigation as may be considered necessary for the adjudication of any water dispute pending before it.

Adjudication of Water Disputes

The Tribunal shall investigate the matters referred to it and give its decision on the matters referred to it within a *period of three years*. Provided that if the decision cannot

be given for unavoidable reason, within a period of three years, the Central Government may extend the period for a further period not exceeding two years.

If, upon consideration of the decision of the Tribunal, the Central Government or any State Government is of opinion that anything therein contained *requires explanation*, the Central Government or the State Government, as the case may be, *within three months* from the date of the decision, again refer the matter to the Tribunal for further consideration, and on such reference, the Tribunal may forward to the Central Government a further report *within one year* from the date of such reference giving such explanation or guidance as it deems fit: Provided that the period of one year within which the Tribunal may forward its report to the Central Government may be extended by the Central Government, for such further period as *it considers necessary*". Thus, the tribunal can have been given infinite time if the Central Government feels so. This is why the tribunal decisions stretch over long period.

If the members of the Tribunal differ in opinion on any point, the point shall be decided according to the opinion of the majority. The Central Government shall publish the decision of the Tribunal in the Official Gazette and the decision shall be ***final and binding on the parties to the dispute*** and shall be given effect to by them. The decision of the Tribunal, after its publication in the Official Gazette by the Central Government under sub-section (1), shall have the same force as ***an order or decree of the Supreme Court***.

Bar of Jurisdiction of Supreme Court and Other Courts

Notwithstanding anything contained in any other law, neither the Supreme Court nor any other court shall have or exercise jurisdiction in respect of any water dispute which may be referred to a Tribunal under this Act.

Under a strict reading of the Inter-States Water Disputes Act, a Tribunal's decision is final. But in practice the *Supreme Court has allowed limited appeals to proceed*. In 2007, for example, several States filed special petitions in the Supreme Court, seeking to review the 2007 award by an Inter-States Water Disputes Tribunal for the Cauvery River in peninsula India.

LEGAL DOCTRINES RELATING TO INTER-STATE WATERS

In the area of the law relating to waters flowing inter-State, there have emerged certain legal doctrines, which can be usefully considered at this stage. A brief look at these doctrines may possess some utility, when examining the question of evolving an

appropriate procedure for the settlement of such disputes. Of course, some of the doctrines described below do not apply to inter-state river disputes. The various doctrines are:

- **Doctrine of Riparian Rights**: The doctrine of riparian rights emphasises the recognition of equal rights to the use of water by all owners of land abutting a river, as long as there is no resulting **interference** with the rights of other riparian owners. The doctrine may not be of much use in the context of inter-State rivers.
- **Doctrine of Territorial Sovereignty (Harmon Doctrine):** This doctrine (not applied in inter-State disputes) was evolved by Attorney General Harmon, of the US in 1896, to justify the action of the US in reducing the flow of the river Rio Grande into Mexico. According to Harmon, the rules of international law imposed, upon the US, no duty to deny to its inhabitants the use of the waters of that part of the Rio Grande which was lying wholly within the US, although such use resulted in reducing the volume of water in the river below the point where it ceased to be entirely within the US. In his view, the supposition of the existence of such a duty was inconsistent with the sovereign jurisdiction of the United States over the national domain.
- **Doctrine of Prior Apportionment**: The doctrine of prior apportionment has been applied in some decisions of the US Supreme Court. The cardinal rule of the doctrine is, that priority of appropriation gives seniority of rights.
- **Doctrine of Equitable Apportionment**: As against doctrine of prior apportionment, there is the doctrine of equality. Equitable apportionment is the term commonly used to denote the division of water among competing parties. It is usually a slow and sometimes contentious process that involves hydrology, economics, engineering, law and sometimes the resolution of ethnic politics or historical claims from decades ago. The doctrine of equitable apportionment seems to have originated after the decisions of the US Supreme Court in Connecticut Vs. Massachusetts (1931) judgement.
- **Doctrine of Community of Interest**: According to the theory of community of interest, a river passing through several States is one unit and should be treated, as such, for securing the maximum utilization of its waters. This theory, if properly applied, would secure integrated development. Its smooth implementation would seem to require mutual agreement. The Kosi project (India and Nepal) is often cited as an example of the adoption of this approach.

In India, "***equitable apportionment***" is commonly accepted as the preferred means for dividing interstate waters. Equitable apportionment, the U.S. Supreme Court has said, is a flexible doctrine that calls for the "exercise of an informed judgment" after considering

many factors, including physical conditions and climate, the use of water, the character and rate of return flows, the extent of established uses, the availability of storage water and the practical effects of wasteful uses.

INTERNATIONAL WATER DISPUTES

India-China and Water Security

Tibet's rivers have remained largely untapped because of the difficult terrain, but with improvements in technology in the past decade, China's leaders have embarked on a damming spree in the mountains of Tibet and Yunnan in the southwest. The plans will have an impact on the lives of millions in seven countries that lie downstream of these rivers — *India, Bangladesh, Myanmar, Cambodia, Laos, Vietnam, and Thailand*. The dams on the Salween river in Yunnan, by some reports, have already resulted in flooding in the Mekong region downstream.

India's Concern

China's projects on Brahmaputra are of two kinds — one for hydel power generation and other of a more ambitious kind, a massive diversion project that envisages diverting the river's waters to the arid north. The real worry for India is due to second kind, i.e., when China embarks on its diversion plan. The mammoth $62 billion ***"South-to-North Water Diversion" project***, currently embroiled in debates and delays in Beijing, is the centre piece of the Chinese government's plans to address its northern water crisis.

The diversion project, first mooted by Mao Zedong in the 1950s, involves diverting water from the south to the north along three routes. The central and middle routes, which have no impact on India, will divert water from the Yangtze river to Beijing and Tianjin in the north. The western route, from the Brahmaputra, is the most ambitious and is of huge consequence to India and Bangladesh. It involves building a dam on the 'great bend' of the Brahmaputra — the spot where the river does a u-turn of sorts and begins its journey east to India.

But the Chinese officials contend that the run of the river projects [such as Zangmu] are of lesser concern to India and China has every right to use water resources for energy. International norms allow any country upstream to do so. The Indus river water treaty allows India to do the same.

The more troubling fact is the *weak international laws and no robust water-sharing arrangements between the two countries*. The pressing concern for New Delhi is to

begin to actively engage with Beijing on water sharing issues. Between India and Pakistan, we have a treaty which provides for third party arbitration and defines what the rules and no-go areas are. *Thus, India needs to institutionalise a sharing mechanism before it is too late.*

India-Pak Water Issue

Under the *1960 Indus Waters Treaty (IWT)*, Pakistan has exclusive right over three of the common rivers - Indus, Jhelum and Chenab - while India has exclusive right over Sutlej, Ravi and Beas. Earlier, many power projects had been delayed for long because of Pakistani objections.

Under the Treaty, the waters of Eastern Rivers are allocated to India. India is under obligation to let flow the waters of the Western Rivers except for the *Domestic Use, Non-consumptive use,Agricultural use as specified, and Generation of hydro-electric power as specified.*India has been permitted to construct storage of water on Western Rivers upto 3.6 MAF for various purposes. No storage has been developed so far.

India is under obligation to supply information of its storage and hydroelectric projects as specified. The IWT treaty had worked reasonably well for four decades, even when the two countries went to war. However, the increase in population in the two countries, accelerating economic activities, advances in technology and poor water management on both sides of the border have put the treaty under considerable strain over the last decade. This is evident from the Indo-Pak dispute over many projects, some of which are discussed next.

- ***Baglihar Project:*** On the 450-MWBaglihar project on chenab, Pakistan had moved the World Bank in 2007, which has the role of neutral arbitrator, under the IWT, in the case of disputes. The project could go ahead only after the World Bank gave its clearance and Pakistan decided not to raise the matter further. The difference was on the filling of baglihar dam by India which Pakistan claimed that it affect the flow of river.

Permanent Indus Commission

- Under the Treaty, India and Pakistan have each created a permanent post of Commissioner for Indus Waters. They together constitute the Permanent Indus Commission (PIC), which is entrusted with the implementation of the Treaty. The PIC is required to hold meetings and tours and submit report on its work to the two Governments every year.
- The Commissioners may discuss the questions arising under the Treaty under Article IX of the Treaty related to Settlement of Differences and Disputes and in the case of non-resolution, take further action under this Article for resolution through a Neutral Expert, negotiators or Court of Arbitration. A Neutral Expert was appointed by World Bank on Pakistan's request on Baglihar Hydroelectric project in 2007. On request of Pakistan again, a seven member Court of Arbitration was set up in 2010 to resolve the issues of Kishenganga HE project.

- In June 2010, Pak withdrew objection to 240 MW ***Uri-II project*** being constructed on the Jhelum in the Kashmir and the 44 MW ***Chutak plant*** being built on Suru, a tributary of the Indus in Kargil after *India agreed to continue providing Pakistan with advance flood warning*.
- However, the difference on 45 MW ***Nimboo Bazgo*** hydel project on Indus river in Leh remained. Pakistan is against India's move to fill the Nimoo-Bazgo dam in Jammu and Kashmir, worrying it could slash Islamabad's share of water from the Indus River.
- ***Kishanganga Dispute***: Kishenganga is a tributary of Jhelum river which it joins in Pakistan occupied Kashmir. In India, it flows through Jammu & Kashmir. It is known by the name of River Neelum in Pakistan. This was the second major dispute between the two countries over the IWT after Baglihar. Pakistan had dragged India to Hague Court of Arbitration raising two legal issues. It claimed that the inter-tributary diversion violated the IWT, and that it would reduce its share of water by 15%.It questioned whether India could draw down the water level at run-of-the-river plants below the dead storage level to flush out sediments. In June 2011, the Swiss court passed its interim judgment saying that India can proceed with the construction required for the project, but only through a temporary bypass tunnel. India will not be allowed to draw the water level down below the dead storage level to flush out sediments. The court felt that this does not fall within the purview of "*unforeseen*

emergency", as defined in the existing treaty. After all, this technique of desilting was not available when the treaty was signed in 1960. In December 2013, the Hague ruled that India could divert a minimum amount of water for power generation.

Review Of IWT

After Uri attack several experts has been advocating in favour of India withdrawing from this 55-year-old water sharing treaty unilaterally as a response to the attack.This open and concerted demand for the abrogation of Indus Waters Treaty is something very new in the Indian public discourse.

Although the two countries have been managing to share the waters without major dispute, experts say that the agreement is one of the most lop-sided with India being allowed to use only 20 % of the six-river of Indus water system. Pakistan itself in July this year sought an international arbitration if India sought to build hydro power projects on the Jhelum and Chenab rivers. Though the agreement has been seen as one of the most successful water-sharing pacts, the current tension between the two South Asian neighbours might well lead to a flashpoint.
However, the abrogation of treaty seems unlikely since the treaty has survived three wars between the two countries. Although India raised the issue, saying that for a treaty to work there had to be "mutual cooperation and trust" between the two sides, this seems to be more pressure tactics than any real threat to review the bilateral agreement. A unilateral abrogation would also attract criticism from world powers, as this is one arrangement which has stood the test of time.

As an upper riparian state in the Indus river system, India has certain advantages. Nevertheless, with reference to China and Nepal, India is the ***lower riparian state***. Thus, it is essential that India maintains good relations with both its upstream and downstream neighbours on international rivers.

India-Bangladesh Water Issue

India and Bangladesh share 54 common rivers. So far, only one agreement on sharing Ganga waters exists — signed in 1996 — and that is up for renewal in 2026. India accepted the status of the Ganga as an international river only in 1970, and the ***Ganges Water Treaty*** was a product of 25 years of negotiations that finally recognised Bangladesh's rights as a lower riparian state and set up a procedure to manage Ganga waters to ensure Bangladesh got an equitable share during the dry season (January 1-May 31).

Tipaimukh Controversy

Tipaimukh multipurpose hydel project is to be built on *Barak River in Manipur*. India is planning to build this dam which is just 100km off the Bangladesh border. Initially the dam was planned to contain the flood waters in the lower Barak Valley. Hydro Power Generation was also added in this project later. The project has led to controversy between India and Bangladesh as Tipaimukh area lies in an **ecologically sensitive and topographically fragile region**. It falls under one of the most seismically volatile regions on the planet. Further, Bangladeshi experts have said that the massive dam will ***disrupt the seasonal rhythm*** of the river and have an adverse effect on downstream *agriculture and fisheries.* The Bangladesh has also raised concerns over the impact of the dam on the flow of water into the ***Surma*** and the ***Kushiara***. Another is the environmental factor and rehabilitation of displaced people.

A *Joint Rivers Commission* for Joint Study on Tipaimukh Project was set up in Aug 2012. The ToR for conducting the Joint Study was finalized here and the Indian side handed over the Detailed Project Report on the Tipaimukh project to the Bangladesh side. But in 2013, the governments of India and Bangladesh announced further delays, as the latter nation undertakes additional studies about expected effects and mitigating measures.

Teesta Controversy

The Teesta river is said to be the lifeline of Sikkim, flowing for almost the entire length of the state. The river then forms the border between Sikkim and West Bengal before joining the Brahmaputra as a tributary in Bangladesh. Teesta is the main river of the northern regions of present-day Bangladesh. It is the country's fourth largest transboundary river for irrigation and fishing activities. Over one lakh hectares of land across five districts are severely impacted by upstream withdrawals of the Teesta's waters in India and face acute shortages during the dry season. Bangladesh wants 50 % of the river's water supply, especially in the months between December and May annually, while India claims a share of 55 %.

Negotiations have been on since 1983, when a preliminary arrangement had allocated 39 % for India and 36 % for Bangladesh. The remaining 25 % was left unallocated for a later decision. In 2011, Delhi and Dhaka reached another agreement — an interim arrangement for 15 years — where India would get 42.5 % and Bangladesh, 37.5 % of the Teesta's waters during the dry season. The deal also included the setting up of a joint hydrological observation station to gather accurate data for the future. But the deal could not be signed due to vociferous opposition by the Trinamool Congress (TMC) in West Bengal. After the 2014 elections in India, Dhaka expressed renewed hope for an

agreement, especially ahead of Prime Minister Narendra Modi's visit in June 2015. But the deal was not inked then, either, in spite of the Prime Minister's saying that "rivers should nurture the India-Bangladesh relationship and not become a source of discord."

INTER-STATE WATER DISPUTES

Indian States are also constantly fighting with each other on river water sharing. Efforts have bene made to resolve disputes through ***negotiations*** amongst the basin states with the assistance of the Central Government. Many of these interstate river water disputes have been settled on the basis of *equitable apportionment* which is the universally accepted principle. ***Adjudication*** through appointment of water disputes tribunals has also been resorted to as and when required.

Till now four tribunal awards are notified in official gazette by the Government of India.These are Krishna Tribunal 1,Godavari Tribunal, Narmada Tribunal, and Cauvery Tribunal. The tribunals formed on sharing water of Ravi & Beas rivers,Vamsadhara River,Mahadayi / Mandovi River, and Krishna River (tribunal 2) are either yet to pronounce the verdicts or the issued verdicts are to be accepted by the Government of India. We will see some of these disputes next.

Ravi Beas Dispute

The four perennial rivers, Ravi, Beas, Sutlej and Yamuna flow through Punjab and Haryana, which are heavily dependent on irrigated agriculture because of the scarcity and uncertainty of rainfall in this arid area. An initial agreement on the sharing of the waters of the Ravi and Beas after partition was reached in 1955, through an inter-state meeting convened by the central government.

The present dispute between Punjab and Haryana about Ravi-Beas water started with the reorganization of Punjab in November 1966, when Punjab and Haryana were carved out as successor states of erstwhile Punjab. Irrigation became increasingly important in the late 1960s with the introduction and widespread adoption of high yielding varieties of wheat.

As a result of the protests, an agreement was signed in 1976 followed subsequently by another agreement in 1981. Despite these agreements, Punjab entered a period of great strife, and a complex chain of events led to the constitution of a tribunal to examine the Ravi-Beas issue in 1986. The Tribunal passed its judgement in 1987, but both states

sought clarifications of aspects of the award by this tribunal, which the center has not provided yet. Hence, the award has not been notified, and does not have the status yet of a final, binding decision.

Vansadhara River Water Dispute

Orissa in February 2006 requested Centre to set up a Tribunal for adjudicationunderIRWD Act, 1956 regarding disputes between Orissa and Andhra Pradesh pertaining to Inter-State River Vansadhara. The main grievance of Orissa was the construction of a canal taking off from the river Vanasadhara called as flood flow canal at Katragada by the Andhra Pradesh, and failure of Govt. of Andhra Pradesh to implement the terms of inter-State agreement understanding etc. relating to use, distribution and control of waters of inter-State river Vansadhara and its valley. Basic contention of Orissa is that the flood flow canal would result in drying up the existing river bed and consequent shifting of the river affecting ground water table.

After all the negotiations failed, with the approval of the Cabinet, Ministry of Water Resources constituted Vansadhara Water Dispute Tribunal (VWDT) in 2010.Hon'ble Tribunal delivered its judgement in 2013, allowing Andhra Pradesh to construct the Side Channel Weir along with the ancillary works as proposed and has, inter-alia, directed for constitution of a 3 member Supervisory Flow Management and Regulation Committee on River Vansadhara. Meanwhile, Govt. of Odisha has filed Special Leave Petition (SLP) in 2014 in Hon'ble Supreme Court against the order of the Tribunal, which is still pending.

Mahadayi/Mandovi River Water Dispute

In July, 2002, Goa made a request for constitution of the Tribunal to decide upon the dispute relating to Mandovi River. The issues mentioned in the request included the assessment of available utilisable water resources in the basin at various points and allocation of this water to the 3 basin States (Goa, Karnataka, Maharashtra) keeping in view priority of the use of water within basin as also to decide the machinery to implement the decision of the tribunal etc.

After all negotiations to settle dispute failed, theCentral government constituted Mahadayi Water Disputes Tribunal (MWDT) in 2010.Recently in July 2016, the Mahadayi Water Disputes Tribunal (MWDT) passed an interim order rejecting Karnataka's petition seeking 7 tmc of water for the Kalasa-Banduri Nala project.

Krishna River Water Dispute Tribunal

River Krishna is an inter-State river traversing states of Maharashtra, Karnataka and Andhra Pradesh. Krishna Water Disputes Tribunal (KWDT) was set up under Inter-State River Water Disputes Act, 1956 in 1969 (hereinafter referred to as KWDT-I) to adjudicate upon the water dispute regarding the Inter-State river Krishna and the river valley thereof. KWDT-I delivered its final decision in 1976. It allocated water to the three riparian States, of which share of Andhra Pradesh was 811 TMC. The Tribunal stipulated that at any time after the 31st May, 2000, this order may be reviewed or revised by the competent authority or Tribunal.

In pursuance of the decision of KWDT-I and the requests received under Section (3) of the said Act from Maharashtra, Karnataka and Andhra Pradesh, the Central Government set up another Krishna Water Disputes Tribunal in 2004 (hereinafter referred to as KWDT – II).KWDT – II after examining the submissions made by the three States gave its report in 2010. But again, immediately after submission of the report by the Tribunal, Andhra Pradesh filed an SLP in March, 2011 before the Supreme Court. Thus the matter of KWDT-II is sub-judice before the Hon'ble Supreme Court.

The term of the KWDT-II has been extended for two years w.e.f. 1st August 2014 for making project-wise specific allocation, and determine an operational protocol for project-wise release of water in the event of deficit flows in terms of the Andhra Pradesh Reorganization Act, 2014.

Further, in accordance with the said Act, the Central Government has constituted the Krishna River Management Board and Godavari River Management Board for the administration, regulation, maintenance and operation of projects on rivers Krishna and Godavari respectively vide Gazette Notification dated 28th May, 2014. An Apex Council for supervision of Krishna & Godavari River Management Boards has also been constituted vide Notification on 29th May, 2014.

Cauvery Water Dispute

The disputes in India over the Cauvery River began in 1807. In that year, the Presidency of Madras (now the State of Tamil Nadu) complained about excessive upstream use of Cauvery River water by the Princely State of Mysore (now Karnataka).The dispute led to an *1892 agreement*, followed by another dispute, an arbitration decision, an appeal of the arbitration decision to the Secretary of State in London, and then another *agreement in 1924.* That agreement ultimately proved inadequate to solve modern-day needs and

led to a new round of disagreements, which continued intermittently until Cauvery Water Disputes Tribunal (CWDT) was constituted in 1990.

Tamil Nadu argues that since Karnataka was constructing the Kabini, Hemavathi, Harangi, Swarnavathi dams on the river Cauvery and was expanding the ayacuts (irrigation works), Karnataka was unilaterally diminishing the supply of waters to Tamil Nadu, and adversely affect the prescriptive rights of the already acquired and existing ayacuts. It also maintained that the Karnataka government had failed to implement the terms of the 1892 and 1924 Agreements relating to the use, distribution and control of the Cauvery waters. Tamil Nadu asserts that the entitlements of the 1924 Agreement are permanent and only those clauses that deal with utilization of surplus water for further extension of irrigation in Karnataka and Tamil Nadu, beyond what was contemplated in the 1924 Agreement can be changed. In contrast, Karnataka questions the validity of the 1924 Agreement. According to the Karnataka government, the Cauvery water issue must be viewed from an angle that emphasizes equity and regional balance in future sharing arrangements.

It took the CWDT 17 years to arrive at its final order in 2007 on how the Cauvery waters should be shared between the four riparian states—Tamil Nadu, Karnataka, Kerala and Puducherry. The CWDT allocated 419 tmc ft water to Tamil Nadu, 270 tmc ft to Karnataka, 30 tmc ft to kerala, and Puducherry got 7 tmc ft. The Tribunal had come to a conclusion that total availability of water in Cauvery basin stood at 740 tmc ft. The central government another six years to notify the award in 2013, that too at the prompting of the Supreme Court. When this happened, all the states rushed to the Supreme Court challenging the award. As a result, the apex court has now been handed the task of apportioning water shares. The central government has yet not constituted the Cauvery Management Board.

Indirasagar (Polavaram) Project

Indirasagar Polavaram, an interstate project on river Godavari, has been conceived as a part of recommendations of Godavari Water Disputes Tribunal (GWDT).As a part of the award, the states of Andhra Pradesh, Madhya Pradesh and Orissa executed an agreement in 1980 to enable clearance of Polavaram Project to be undertaken by AP.

Polavaram project is located on river Godavari in Polavaram Mandal of West Godavari district in Andhra. The project is multipurpose major terminal reservoir project on river Godavari for development of Irrigation, Hydropower and drinking water facilities to East Godavari, Vishakhapatnam, West Godavari and Krishna districts of Andhra Pradesh.

The project implements Godavari-Krishna link under Interlinking of rivers project. The project envisages transfer of 80TMC of surplus Godavari water to river Krishna which will be shared between AP, Karnataka and Maharashtra in proportion of 45 TMC by AP and 35 TMC by Karnataka and Maharashtra as per the decision of the GWDT award.

The project proposal of Polavaram Project was considered and accepted by the Advisory Committee of MoWR in its meeting held in 2009. But, the Government of Orissa has filed original suit in the Supreme Court against clearances granted by various Central Agencies including MoWR and against proceeding with the construction of Polavaram project by Andhra Pradesh. No verdict or stay-order against the construction of Polavaram project or against declaring it National Project has been delivered by the Supreme Court so far. In 2011, the Supreme Court had asked Central Water Commission(CWC) to make inspection of Polavaram dam and submit a report to find out whether construction of Polavaram dam is carried out in terms of GWDT Award. The CWC report concluded that the planning of Polavaram project and limited construction activities seen so far by the team at the Polavaram dam site are in tune with approved project and GWDT provisions.

Meanwhile Ministry of Environment & Forest (MoEF), while responding to the special mention by a Rajya Sabha MPin Aug' 2011,has issued stop work order for the project as the Government of Andhra Pradesh has so far not conducted the requisite public hearings in Orissa and Chhattisgarh. A final decision in this regard shall be taken after the orders of the Hon'ble Supreme Court.

Babhali Barrage Dispute

The Andhra Pradesh in2005 brought to the notice of the Central Government thatMaharashtra was constructing Babhali barrage in the submergence area of Pochampad Project (Sriramsagar Project) in violation of the Godavari Water Dispute Tribunal (GWDT) award of 1980. Babhali barrage is located on the main Godavari River in Nanded district; 7.0 km upstream of Maharashtra – Andhra Pradesh border. The Pochampad dam on Godavari River is 81 km downstream of Babhali barrage.

Andhra Pradesh complains that construction of Babhali barrage will interfere with natural and continuous flow of water by stopping the freshes into Pochampad reservoir resulting in Pochampad project getting water only when the Babhali barrage gets filled up. In July 2006, Andhra Pradesh filed an original suit in Supreme Court where it prayed to the Court to grant a permanent injunction restraining Maharashtra from undertaking or proceeding with the construction of Babhali Barrage.

The Supreme Court in April 2007 passed an interim order. The Supreme Court delivered its final judgment in 2013 which reads as follows.

"…a three member supervisory committee is constituted. The committee shall have one representative from the CWC and one representative each from the two states. The committee shall ensure that Maharashtra maintains Babhali barrage storage capacity of 2.74 TMC of water out of the allocation of 60 TMC given to Maharashtra for new projects under the agreement dated 06.10.1975. The gates of Babhali barrage remain lifted during the monsoon season, i.e, July 1 to October 28 and there is no obstruction to the natural flow of Godavari river during monsoon season. During the non-monsoon season i.e., from October 29 till the end of June next year, the quantity of water which Maharashtra utilizes for Babhali barrage does not exceed 2.74 TMC of which only 0.6 TMC forms the common submergence of Pochampad reservoir and Babhali barrage."

Mulla Periyar Dam Issue

A lease indenture for 999 years was made in 1886 between Maharaja of Travancore and Secretary of State for India for Periyar irrigation works. The Mullaperiyar Dam was constructed during 1887-1895. Its full reservoir level is 152 ft and it provides water through a tunnel to Vaigai basin in Tamil Nadu for irrigation benefits.

In 1979, reports appeared in Kerala Press about damage to Periyar Dam. On 25th November, 1979 Chairman, CWC held meeting with the officers from Kerala andTamil Nadu and some emergency medium term measures and long-term measures for strengthening of Mullaperiyar Dam were decided. It was also opined that after the completion of emergency and medium term measures, the water level in the reservoir can be raised up to 145 ft.

The raising of water level became matter of several petitions. On the directions of the Supreme Court in 2000, an Expert Committee under Member (D&R), CWC with representatives from both States was constituted. The Committee in its report of March, 2001 opined that with the strengthening measures implemented, the water level can be raised from *136 ft To 142 ft* without endangering safety of the dam. Further raising of water level to 152 ft. would be considered after balance strengthening measures are implemented.

The Supreme Court in its orders in 2006, permitted the Government of Tamil Nadu to raise the water level of Mullaperiyar dam from 136 ft. To 142 ft. and to carry out the remaining strengthening measures. After that the Government of Kerala passed the

Kerala Irrigation and Water Conservation (Amendment) Act 2006 on 18th March 2006 which prohibited the raising of water level beyond 136 ft. in the Mullaperiyar Dam and placed it in the Schedule of 'Endangered Dams'. Government of Tamil Nadu filed a suit in the Supreme Court on 31.3.2006 praying for declaration of above Act as unconstitutional.

Secretary (WR) convened an interstate meeting on the Mullaperiyar Dam on 31.7.2009. In the meeting, the representative of Kerala informed that the Kerala Govt. visualizes construction of a new dam as the only feasible solution. They could also consider the construction of a new dam at their own cost. But, Tamil Nadu mentioned that there is no need for construction of a new dam by the Kerala, as the existing dam after it is strengthened, would function like a new dam.

The Supreme Court, vide order 18.2.2010, directed constitution of an Empowered Committee to look after the concern of both States. Accordingly, the Ministry of Water Resources constituted the Empowered Committee in 2010. In its report submitted in 2012, the Committee concluded that dam is hydrologically safe and that the proposal of State of Kerala to build a new dam requires reconsideration by State of Kerala.

A Constitution Bench in 2014, while hearing the Mullaperiyar Dam Case, had declared the Kerala Irrigation and Water Conservation (Amendment) Act,2006 unconstitutional and directed Union Government to set up a three member Supervisory Committee about the safety of the Mullaperiyar Dam on restoration of the FRL to 142 ft. In pursuance to the approval of the Cabinet, an OM constituting a three member supervisory committee on Mullaperiyar Dam was issued on 01.07.2014.Kerala had filed a Review Petition against the Hon'ble Supreme Court Order dated 7.5.2014, but was dismissed by the Apex Court on 2nd December, 2014.

Some Other Inter-State River WaterDisputes

- Tungabhadra water dispute between Andhra Pradesh and Karnataka.
- Aliyar and Bhivani river water dispute between Tamil Nadu and Kerala.
- Narmada water dispute between Gujarat, Maharashtra, Madhya Pradesh and Rajasthan.
- Mahi river dispute between Gujarat, Rajasthan and Madhya Pradesh.
- The Satluj-Yamuna Link canal dispute between Punjab, Haryana and Rajasthan.
- Yamuna river water dispute between Uttar Pradesh, Haryana, Himachal Pradesh, Punjab, Rajasthan, Madhya Pradesh and Delhi.

- Karmanasa river water dispute between Uttar Pradesh and Bihar.
- Barak river water dispute between Assam and Manipur.

CONCERN AREAS AND WAY FORWARD

The Inter-State Water Disputes Act of 1956 was legislated to deal with conflicts, and included provisions for the establishment of tribunals to adjudicate where direct negotiations have failed. However, the tribunals have taken many years to dispense with award. Also States have sometimes refused to accept the decisions of tribunals. Therefore, arbitration is not binding. Significantly, the courts have also been ignored on occasion. An unambiguous institutional mechanism for settling inter-state water disputes does not exist.

In the above light, there are certain suggestions that have been given to firsthand prevent any such disputes as well as streamline the water dispute settlement mechanism, if it arises. These suggestions have been mentioned next.

Define Dispute Resolution Procedures

A key insight into the issue points that the existing processes and institutions for resolving inter-state river disputes are not sufficiently well defined or definite. There are too many options, and there is too much discretion at too many stages of the process. It is therefore crucial that the dispute resolution mechanism be better defined, in terms of the order of the steps to be taken.

Tackling Delays

Extreme delays have been a very costly feature of the process of resolving inter-state water disputes in India. There have been three components or dimensions of delay.

(1) There has been extreme delay in constituting tribunals. Under Section 4 of the ISWD Act, the Union government is required to set up a tribunal only when it is satisfied that the dispute cannot be settled by negotiations. The center can thus indefinitely withhold the decision to set up a tribunal on the ground that it is not yet satisfied that negotiations have failed. Examples of delay include all the major disputes. The Narmada Tribunal was constituted in 1969 while the dispute itself dates back to 1963. The Godavari and Krishna disputes started around 1956. But the Godavari and Krishna disputes were referred to tribunals in 1969.

(2) Tribunals have taken long periods of time to give their awards. It took nine years from reference in the case of the Narmada Tribunal, four years in the case of the Krishna Tribunal and ten years in the case of the Godavari Tribunal.

(3) There have been delays in notifying the orders of tribunals in the Government of India's official gazette; this has resulted in delays and uncertainty in enforcement. The process took three years in the case of the Krishna Award and one year in the case of the Godavari Award.

The kinds of recommendations with respect to delays are old ones, going back to the Administrative Reforms Commission report of 1969, and repeated by the Sarkaria Commission in 1988. To reduce delays, the center as well as any state that is involved in a dispute should be able to request adjudication. The process of adjudication should began within a prescribed time (for example, six months or one year) and conclude within a prescribed time (for example, three or five years).

Enforcement

State governments have sometimes rejected tribunal awards, as in the case of Ravi-Beas Tribunal and the Punjab government. In this case, the central government avoided notifying the tribunal's award, to prevent further deterioration of the conflictual political situation in Punjab. In the case of the Cauvery dispute, the Karnataka government sought to nullify the tribunal's interim order through an ordinance. Though the Supreme Court pronounced that the ordinance was unconstitutional, the Karnataka government showed no inclination to implement the tribunal's interim order, until a compromise was reached through political negotiations behind closed doors.

The Sarkaria Commission was of the view that in order to make tribunal awards binding and effectively enforceable, the ISWD Act should be amended to give these awards the same sanction as an order or decree of the Supreme Court. However, as noted in section 5, tribunals seem to have this force in theory: the problem is of penalties to be imposed for noncompliance. The solution would require decoupling water disputes from more general problems of Indian federalism and center-state relations. This brings us to a discussion of alternative institutions such as permanent water commission.

Permanent And Independent National Water Commission

Current institutions do not do a good job of resolving inter-state water disputes. To some extent, the lack of well-defined procedures, the endemic delays and the weak enforcement of decisions are all linked to a deficiency in the design of the relevant

institutions. The entanglement of inter-state water disputes with more general center-state conflicts and political issues compounds problems.

The solution is the creation of specialized permanent institutions to regulate the allocation of water across states, including the resolution of water disputes. These institutions would themselves respect the federal structure of the country, but will have a greater degree of independence and transparency than the current situation. The idea of such institutions is not far- fetched. The Finance Commission has done a relatively good job of handling central-state financial transfers, including making allocations across states according to public and rational criteria.

This kind of institutions would incorporate the specific recommendations to clarify and streamline procedures, reduce delays, and improve enforcement that have been made above and by numerous others. However, they would be quite different from the NWRC (National Water Resource Commission), which is very much a political creature. A possible guide for specifics of organization is the ***Murray River Commission (MRC)*** in Australia, where the states and the central government have equal representation, and each state typically has drawn its representative from a major rural water management authority, while the central representative is a senior civil servant. This is not to suggest that the MRC is a perfect model. However, a permanent institution, with rotating membership weighted towards technically knowledgeable administrators, seems a feasible improvement over the current situation.

Hence, we should envisage a national level water institution as incorporating the tasks of dispute resolution, perspective planning, and information gathering and maintenance. These tasks are currently scattered among tribunals, the NWRC and the NWDA. The last of these organizations seems to be particularly isolated and relatively unsupported. The advantages of integrating information collection and storage with long-range planning and dispute resolution seem manifest.

The ***National Water Policy 2012***has called for a permanent Water Disputes Tribunal at the Centre to resolve the disputes expeditiously in an equitable manner.

Payments for Watershed Services

Adjudication -- the process of going to tribunals/courts -- offers only a limited solution to the complex problems of interstate river management in any country. Courts are generally not well-equipped to resolve convoluted problems of hydrology, economics, engineering and law. Litigation takes too long and is too expensive.

As a result, there is no easy "legal fix" in India that allows for the speedy and fair division of water from an interstate river, particularly a river that crosses multiple State boundaries and that is already used for multiple purposes (e.g., irrigation, power generation, navigation, etc.).

The better approach is to rely on a system of cooperative mechanisms that allows States to manage a river as if the infrastructure were owned by a single entity. Among the most promising of these tools are transactions called "***payments for watershed services***," where one State pays another for enhanced flood control protection or where one utility leases upstream reservoir storage in case of drought, or where one State "banks" (stores) water with another State to use later.Those types of transactions are in their infancy in the United States but are infrequently analyzed in India.

On the Colorado River, for example, the States in the Lower Basin have adopted innovative interstate water banking arrangements. These transactions allow States to store water in another State. The State (or local agency) that wants to "bank" the water pays the other State (or local agency) a fee. This is a financial as well as an operational arrangement. The transactions occur pursuant to federal regulations allowing States to use store their "unused apportionment" of water.

These types of mechanisms are rarely used on interstate waters in India; there is little public discussion of the merits that these mechanisms might offer for India's interstate water stalemate. Yet the cooperative transactions from the United States illustrate the potential for resolving interstate water disputes without litigation in India and must be analysed.

Moving Water To Concurrent List

Under our Constitution water is primarily ***a state subject (Entry 17)***. Nevertheless, it is an important national concern in context of spacial disparity, Inter-state conflicts, and International dimensions of some Indian rivers.Due to its prime national concern, it is being argued that water should be moved to Concurrent list. Moving water to concurrent list **will lead to b**etter water planning and management under the aegis of proposed national Water Framework, better implementation of Watershed management programmes, and smooth conduct of River Linking Projects can be fulfilled by this move. These all will help in avoiding inter-state river disputes.

However, some other sections regard this as ***against federalism***. Few argue that right to water is *not explicitly declared as a fundamental right*. States will also see this as a *centralizing tendency* and ripples will be created leading to practical difficulties in doing so. ***Sarkaria Commission*** was against inclusion of water in Concurrent list.

CONCLUSION

While the draftsmen of the Constitution had the right intention in framing Article 262 in the way they did, their hopes were belied as they could not envisage that states would fight tooth and nail for what they considered their right. The Inter-state Water Disputes Act, 1956, which Article 262 gives way to opens a new platform for adversarial litigation which was sought to be avoided. Ironically, the Supreme Court which should have thought better than to drag itself into this mess, has consistently and without any caution decided on such issues which has in many ways nullified the principle which Article 262 originally stood for.

Therefore, avoidance of a constitutional-legal approach is the key and an institutional approach focusing on allocation of water resources should be the way forward. Hence a cooperative bargaining framework should be decided so that water can be shared efficiently, coupled with compensating transfers, well-defined initial water rights, and new institutions to facilitate and implement cooperative agreements.