

Case Study

Inter-State Water Disputes among the Riparian States: The Case of Cauvery River from Peninsular India

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Abbreviations and Acronyms

ACE	Associated Consulting Engineers
CRA	Cauvery River Authority
CWDT	Cauvery Water Disputes Tribunal
GWP-SAS	Global Water Partnership - South Asia
IDS	Institute for Development Studies
ISWD	Inter-State Water Disputes
MIDS	Madras Institute of Development Studies
MP	Member of Parliament
MSD	Multi Stakeholders' Dialogue
NGO	Non-Government Organisation
SC	Supreme Court
SOPPECOM	Society for Promoting Participative Ecosystem Management
SPL	Special Leave Petition
TMC	Thousand Million Cubic
UNDP	United Nations Development Programme
WEAP	Water Evaluation and Planning System

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PREFACE

Differences exist among the federating units in Pakistan over the distribution and development of Indus water resources. Despite the fact that the provinces had signed a landmark Water Apportionment Accord in 1991, the differences over the interpretation of the accord continue to stall the development of water reservoirs and construction of hydro-electric projects especially on river Indus. These differences are not unique to Pakistan. Wherever a river passes through more than one country or more than one units within a country, the upper and lower riparians generally face these differences.

While studying the current inter-provincial water issues in Pakistan and promoting a dialogue among various stakeholders with the aim to resolve such issues, PILDAT tried to look outside Pakistan for similar inter-provincial disputes among the units of a country to learn how those countries and units of a country have tried to resolve the differences. The objective is to learn from other cases similar to ours while trying to address our inter-provincial differences over river water.

It was in this background that PILDAT requested **Mr. K. J. Joy** and **Mr. S. Janakarajan** in India to describe the case of an inter-state (states in India are the equivalent of provinces in Pakistan) water dispute in India and how the efforts have been made to resolve such a dispute. The two eminent professionals in India graciously agreed to author this case study on **Inter-state Water Disputes among the Riparian States: The Case of Cauvery River from Peninsular India**. It is an extremely interesting case study. Although the dispute is far from resolved, there are several lessons to be learnt from the case. Similarities in the socio-economic conditions of India and Pakistan make the Case Study even more relevant and useful for Pakistan.

We hope that this case study will help in putting the Pakistani Inter-provincial Water disputes in a broader context and help Pakistani experts and stakeholders in using the lessons learnt through the Indian case study.

Acknowledgments

PILDAT would like to acknowledge with gratitude the services of Mr. K. J. Joy and Mr. S. Janakarajan for authoring this excellent case study despite their several engagements. PILDAT also wishes to place on record its deep appreciation for **Sardar Muhammad Tariq**, Former Member (Water), WAPDA, Regional Chair Global Water partnership - South Asia (GWP-SAS), **Mr. Amjad Agha**, President Associated Consulting Engineers (ACE) Ltd. and **Mr. Shams-ul-Mulk**, former Chief Minister, Khyber Pakhtunkhwa Province (formerly NWFP) and former Chairman WAPDA, for reviewing the case study and offering useful comments to further enhance its utility. Mr. Joy and Mr. Janakarajan were gracious to have incorporated the comments generated from in-house review by PILDAT and the ones offered by Sardar Tariq.

We also wish to thank the British High Commission, Islamabad for its support to the project aimed at promoting understanding of inter-provincial water issues as a first step towards their resolution through dialogue. This Case Study is one of the outputs of the project.

Disclaimer

The authors, the reviewers and PILDAT have made every effort to ensure the accuracy of the contents of this paper. They, however, do not accept any responsibility of any omission or error as it is not deliberate. The content of this background paper does not reflect the views of PILDAT or British High Commission, Islamabad.

Islamabad
January 2011

CASE STUDY

Inter-State Water Disputes among the Riparian States: The Case of Cauvery River from Peninsular India

ABOUT THE AUTHORS



Mr. S. Janakarajan, currently a Professor of Economics in Madras Institute of Development Studies (MIDS), obtained his Masters and Ph.D from University of Madras. He did his post-doctoral work in the Cornell University (USA) during the year 1993 and subsequently spent a year in the University of Oxford, UK as a Visiting Fellow. His areas of specialization include agrarian markets and agrarian institutions, water and environment, climate change and adaptation, urban and peri-urban issues, water conflicts and conflict resolution and coastal vulnerabilities and wetlands. He has published a few books, many journal articles and presented many papers in the national and international workshops and conferences. He has been the author and convener of the Cauvery Family, a civil society initiative or what may be called the Track-II approach to resolve the long standing and the bitterest inter-state water conflict in the history of contemporary India.



Mr. K. J. Joy is a Senior Fellow with Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune. He has been working on water issues for that two decades and has a special interest in people's institutions for NRM both at the grassroots and policy levels.

His other areas of interests include drought and drought proofing, participatory irrigation management, river basin management and multi-stakeholder processes, watershed based development, water conflicts and people's movements.

Introduction and Geo-hydrological Context

The Cauvery river - considered to be the lifeline of peninsular India - is an inter-state river. Karnataka, Tamil Nadu, Kerala and Pondichery are the four riparian states staking claim on the Cauvery water and of these Karnataka and Tamil Nadu are the major riparian and contending states.

Cauvery river basin is spread over an area of 87,900 km accounting for nearly 2.7% of total geographical area of the country. The basin covers an area of 36,240 km in Karnataka and 48,730 km² in Tamil Nadu. Harangi, Hemavathi, Shimsha, Arkavathi, Lakshmanathirtha and Swarnavathi are the major tributaries joining the river Cauvery in Karnataka and Amaravathi, Bhavani, Noyyal

and Kodaganaru are the major tributaries of Cauvery in Tamil Nadu. Kabani is the main tributary from Kerala. The main structures and projects on the river include Krishnarajasagar dam (constructed in 1931 near the city of Mysore in Karnataka), a hydro-electric project near the island of Sivasmudram (in Karnataka), Mettur reservoir (constructed in 1934 in Tamil Nadu) and the Grand Anicut (built around 2000 years ago during the mid to late Chola period in Tamil Nadu). The river travels through a distance of 800 km before reaching the Bay of Bengal in the Southern Tamil Nadu coast. (See Figure 1).

The total yield in the basin at 75% dependability for the period from 1934 to 72 was 670 Thousand Million Cubic Feet (TMC ft). The state-wise break up at both 50% and

Figure 1: The map of Cauvery basin

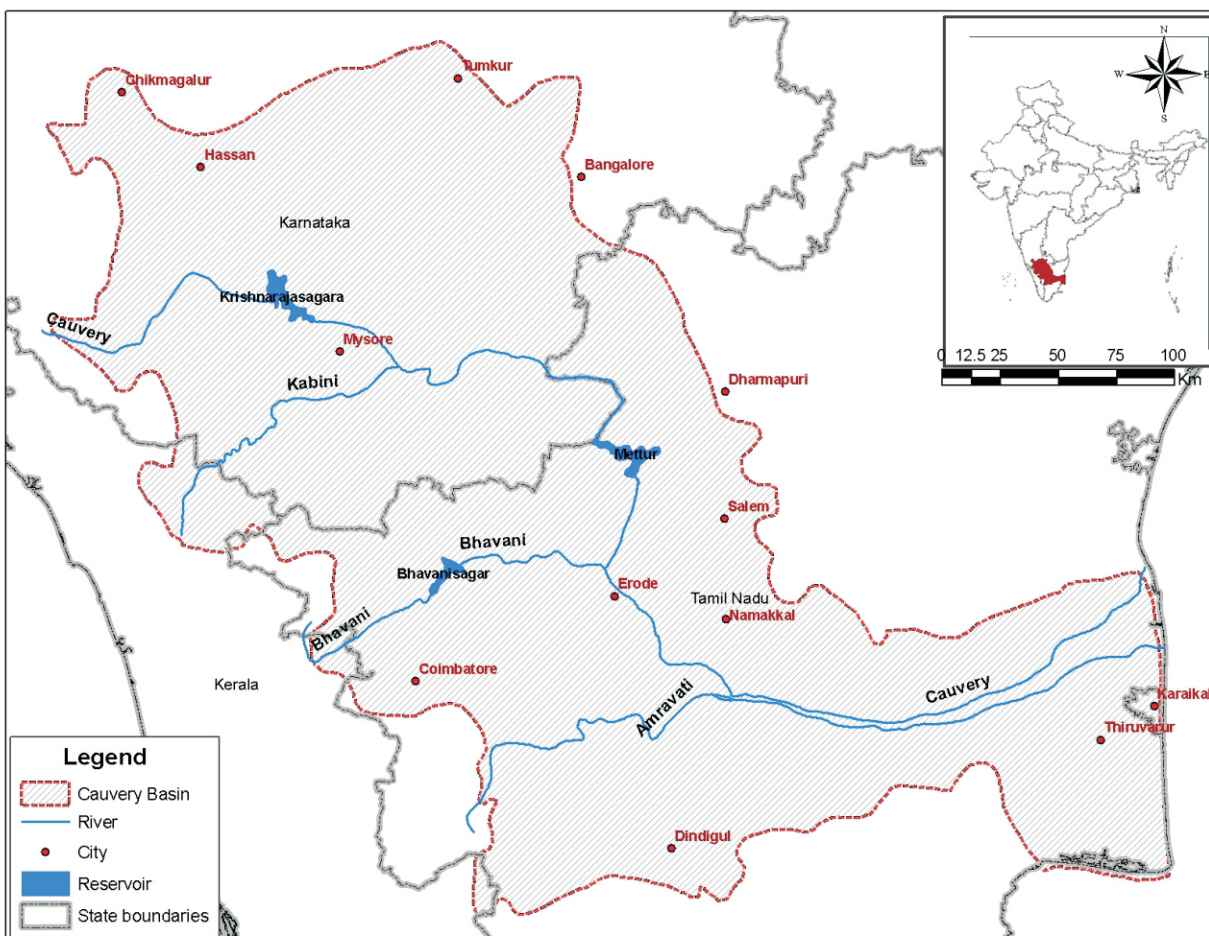


Table 1: Yield in the Cauvery basin 1934-1972

State	Yield (50% dependability) TMC ft	Yield (75% dependability) TMC ft
Karnataka	392 (53%)	355 (53%)
Tamil Nadu + Pondicherry	222 (30%)	201 (30%)
Kerala	126 (17%)	114 (17%)
Total	740 (100%)	670 (100%)

(Source: The Cauvery Water Disputes Tribunal)

75% dependability is given in Table 1.

Cauvery is one of the most disputed and litigious rivers in contemporary India. Monsoon failure invariably heightens the conflict between the major riparian states of Tamil Nadu and Karnataka. In the past several distress years, anxiety and stress between both the States have resulted in violence, the worst form of which was witnessed in December 1991, when thousands of Tamil population and their properties were the target of attack in Karnataka. During such tensed conditions, the judiciary could help only marginally in easing the tensed situation.

During the distress agricultural season of 2002-2003, the Supreme Court's (SC) directive to the Karnataka Government to release at least 0.8 TMC ft of water to the Tamil Nadu State had almost resulted in a kind of constitutional crisis. This is unprecedented in the history of any inter-state water dispute in India. Thanks to the strong stand of the SC, the Chief Minister of Karnataka not only tendered an unconditional apology for having disregarded the SC's directive, but also released the water. Apparently the SC passed the orders for the release of the water at 1.00 am on 28th October 2003 and the crest gates were opened at 1.45 am! The Karnataka Chief Minister had taken this decision despite strong protests from the Cauvery delta farmers from Mandya and Mysore districts of Karnataka. There was a sigh of relief from many quarters, in particular from the concerned civil society of both the States, not because the released water would contribute to saving of crops of Cauvery farmers in Tamil Nadu, but more importantly, because a major constitutional crisis was averted. However, large scale farmers' violent protests

followed the release of water in Karnataka causing enormous damage to the public property. In fact the Karnataka Government had to impose curfew in the Mandya district of Karnataka. The Congress Member of Parliament (MP) from Mandya had even sent his resignation letter.

A prudent analysis of the longstanding and a widely debated dispute between Karnataka and Tamil Nadu exposes the sense of distrust that they show on each other. Karnataka, a relatively late entrant in the development and unitization of Cauvery water, believes that its legitimate entitlement to use water was being questioned. Tamil Nadu, on the other hand, has had a much earlier and a more rapid history of development of irrigation command in the Cauvery basin and being a lower riparian State feels that it is at the receiving end both literally and metaphorically and the situation is further exacerbated as it has to bear the brunt of the burden of floods, drought and pollution. But none of these negates the fact that the food production in both the States depends significantly on the availability of water in their respective dams and consequently the livelihoods of millions of people in the basin area are contingent on the quantum of flow of water in the river. While Tamil Nadu finds it devastating and vulnerable to be at the mercy and goodwill of Karnataka Government during each scarcity year, Karnataka feels that when there is no water for its farmers how would it be possible to release water to the downstream state. The Tamil Nadu government has sought the intervention of the SC for a clear title of its share of the Cauvery water.

The establishment of the Cauvery Water Disputes Tribunal (CWDT) in 1990 as per the provisions of the Constitution of

India was expected to give a permanent solution. But the lasting solution to the dispute is still slipping away even after the announcement of the Final Award in 2007 by the CWT which in fact was delivered 17 years after its constitution as both the states have approached the SC with a Special Leave Petition (SPL). Therefore, the key questions are: can the SC deliver a lasting solution to the intense inter-state disputes such as Cauvery? If not, why not?¹ Do we have any other ways of resolving the dispute within the given democratic framework?

Description of the Dispute

The Cauvery water dispute is quite different from other inter-state water disputes of India such as Krishna, Godavari or Narmada. While these revolve around the utilisation of the untapped potential, in the case of Cauvery the dispute is around the most fundamental issue of sharing the available water in the river and in this case the available water potential stands already utilized to the maximum extent. Two issues emerge from this: one, the Cauvery water dispute should not, and cannot, be compared with other inter-state water disputes, and two, whatever the potential that has already been developed by the two states should be protected irrespective of whether it is in the upper or the lower riparian State. In this sense, the Cauvery water dispute is around the issue of not sharing but re-sharing of the river water (Guhan, 1993).

Whenever monsoons fail, the conflict between Karnataka and Tamil Nadu explodes, at times even taking violent turns. In the case of inter-state water disputes very often it is the lower riparian State, which is at the receiving end.²

Compared to Karnataka, as discussed above, Tamil Nadu started irrigation development in the Cauvery basin earlier and much more rapidly. In the case of Tamil Nadu, there have been significant additions to the initial pre-Mettur command area of 14.4 lakh acres for example, 3.2 lakh acres with the construction of Mettur dam, 2.5 lakh acres during First Five Year Plan period, 0.64 lakh acres during the Second Plan period, 4.47 lakh acres by way of extension to the existing command area and so on. Therefore, the total command area of 25.8 lakh acres in Tamil Nadu was developed over a long period of time.

Whereas, the irrigation development in the Karnataka part of the basin was only 4.42 lakh acres up to 1971 and it was only after 1971 that new schemes were drawn up to bring new areas under irrigation. In other words, millions of Tamil Nadu farmers and landless agricultural labourers have had access to the Cauvery water for centuries. It would not be an exaggeration to say that their life style, culture and livelihood revolve around Cauvery. Any denial of the hitherto access to this precious resource will result in serious socio-economic setback, in the region, in addition to opening up grounds for peasants' unrest. It is important to note in this context "*the doctrine of prior appropriation,*" an international water law for settling river water disputes. According to this theory, "*the first user who puts the water to beneficial use acquires a prior right to the extent of such use.....*".

However, in Indian case law before tribunals, as well as in international literature, 'prior appropriation' has not been considered to be an overriding principle for allocation, although it is to be given due weight as one among other relevant considerations' (pp.49, Guhan, 1993). On the other hand, if the upper riparian state is allowed to expand irrigation development quite late in the day, without considering the irrigation network already developed by a lower riparian state, not only that it creates tensions (as it happened in 1996, when thousands of Tamils and their properties were the target of attack in Karnataka) and livelihood problems, such a dictum could lead to a situation at some future point of time in which a lower riparian State would get hardly any access to water. That is why it is necessary to protect the 'historical uses and interests' of a lower riparian State. However, it is also true that the upper riparian state cannot be totally denied its share of water just because, for whatever historical reasons,³ it could not develop and utilize water resources earlier.

Historical Context of the Conflict

During the colonial period the Mysore and the Madras governments entered into the 1892 and 1924 agreements. The 1892 Agreement relates to all the main and minor rivers in the basin. The 1924 Agreement was framed and agreed to by both Mysore and Madras Governments in order to define the terms under which the Mysore

1. In fact there are many experts like Ramaswamy Iyer who have said that the SC should not have entertained SPL as it is beyond its mandate.
2. This emanates primarily from bio-physical (more specifically the gravitational) characteristic of unidirectional flow of water and the relationship between upstream and downstream is often asymmetric in the sense that the actions of the upstream would impact on the downstream and not vice versa.
3. One of the reasons for this uneven development of water sources in both these states is that under the colonial rule, especially under the British, Tamil Nadu has been always politically more powerful as compared to erstwhile Mysore state (which became Karnataka later) which was ruled by the Mysore Raja. This issue is discussed later in the paper.

Government were to construct the Krishnarajasagar dam and to provide for extension of irrigation in both the States utilising the flows in the river. While the 1892 Agreement was a general agreement relating to a number of interstate rivers, the 1924 Agreement related to the irrigation development in the basin of the interstate river Cauvery alone. Both the 1892 and 1924 Agreements are permanent. The basic tenet enshrined in both these agreements is that no injury could be caused to the existing irrigation in the downstream by the construction of new works upstream. It also stipulates that when upstream works are planned, the prior consent of the State Government of the lower down area is to be obtained and the rules of regulation so framed as not to make any reduction in supplies to the established irrigation downstream. This is to ensure that nothing shall be done in Mysore which will have the effect of curtailing the customary supply of waters for the ancient ayacut in the lower riparian State (The Report of the Cauvery Water Disputes Tribunal with the Decision, 2007).

Apparently the immediate context of the conflict is the violation of the 1892 and 1924 agreements by Karnataka by constructing four new dams across the tributaries of Cauvery. Though the Government of India and the Central Water Commission did not clear these projects and the Planning Commission did not approve these projects for plan assistance, the Government of Karnataka proceeded with these projects in stages from their own funds under Non-Plan. The four projects are Harangi, Kabini, Hemavathi and Suvarnavathi with a total capacity of total storage capacity of 59.1 TMC and an irrigation potential of 13.25 lakh acres (The Report of the Cauvery Water Disputes Tribunal with the Decision, 2007).

The Karnataka State maintains that the State suffered due to its 'discriminated past'. All attempts to develop irrigation infrastructure in the then Mysore State (which became Karnataka later) was successfully frustrated by the British rulers, who had much greater inclination in protecting the interest of the then Madras Presidency. Therefore, it has been contended that 1892 and 1924 agreements were imposed on the then politically weak Mysore State. As against this, Tamil Nadu argues that early irrigation development has always been in the delta region, as it has been the case in many other river basins of the world, which is primarily due to the conducive soil, water and topographic conditions. Furthermore, it is erroneous to identify the Cauvery irrigation in Tamil Nadu with the British rule, which is only the immediate past; its actual history dates back to 2nd century AD. Therefore, it is inevitable to

protect the interest of the lower riparian State. At the same time, Karnataka was allowed to increase its irrigation infrastructure gradually, which became rapid after 1974.

Constitutional, Legal and International Context

In India water is primarily a state subject except in the case of inter-state rivers where the Union government can intervene. In India, there are many inter-state rivers such as Narmada, Godavari, Krishna, Cauvery, Mahanadi, etc., to mention only a few (in fact Brahmaputra and Ganga are transboundary rivers both in the sense of transnational and inter-state). The Inter-State Water Disputes Act 1956 (ISWD Act) was enacted as per the provisions of the Article 262 of the Indian Constitution. This Act was later amended in 2002 as per the recommendations of the Sarkaria Commission. In India, this Act provides for an important legal mechanism to resolve the inter-state water disputes. Indeed, the Cauvery Water Disputes Tribunal was constituted on 2nd June 1990 as per the provisions of the ISWD Act 1956 to adjudicate dispute among the contending states. Once the Tribunal is constituted, this Act bars the intervention of the Supreme Court in the adjudication process. In the case of Cauvery water dispute, after the declaration of the Final Award in 2007 the contending states have had the liberty to go back to the tribunal with a review petition for a supplementary award. Instead, the contending states have approached the Supreme Court with what is called Special Leave Petition (SLP) for the intervention of the Supreme Court. Since the ISWD Act bars the intervention of the Supreme Court after the constitution of the Tribunal, instead of admitting them, the Court should have directed the SLPs to the Tribunal. Another constitutional/legal window for inter-state water dispute redressal is the River Boards Act of 1956. However, this has never been used in India because of the resistance from the states. Since for various reasons both the ISWD Act and River Boards Act have not been able to resolve the conflicts, the constitutional review committee has recommended that the water be shifted to the concurrent list so that the Union government can make decisive interventions.

Several principles and doctrines have evolved for resolving disputes, which occur between nations or States. Some of these are Harmon doctrine, the principle of natural flow, doctrine of prior appropriation, theory of community interest, theory of equitable apportionment and Helsinki rules. Of all these, Helsinki rules are best known and comprehensive enough and which are adopted by the

International Law Association Article V of the Helsinki Rules presents 11 factors to determine 'reasonable and equitable share' (see Guhan 1993 for details).

Let us consider the specific case of the Cauvery water dispute. While Tamil Nadu attempts to protect its rights over Cauvery by invoking the doctrine of prior appropriation, Karnataka tends to go along with the Harmon doctrine or what is called 'upholding absolute territorial integrity'. According to this principle a riparian State is the sole authority and can do what it pleases with its waters. Both are extreme and wrong positions.

As a matter of fact, both states have been taking hard lines. As Ramaswamy Iyer puts it, "It must be noted that in Indian or international law, there is no ownership right over flowing waters. Neither Karnataka nor Tamil Nadu (nor Kerala, nor Pondicherry) owns the Cauvery. They all have use-rights. There is no hierarchy of rights; neither the upper riparian nor the lower riparian has primacy. There is an equality of rights, but of course not an entitlement to equal shares. How much each State is entitled to is a matter for agreement or adjudication with reference to the considerations mentioned earlier. It is inappropriate to talk of the upper riparian 'giving' waters to the lower riparian, as though this is a gift. At the same time, there is no question of the lower riparian asserting a pre-emptive right to waters to the detriment of the upper riparian. The upper riparian (India vis à vis Bangladesh, Karnataka vis à vis Tamil Nadu) cannot say to the lower riparian: "*This is a difficult year. We do not have enough water for our own needs. We cannot spare any water for you.*" Even in a difficult year the available waters have to be shared. The lower riparian cannot say to the upper riparian: "*We have been receiving certain flows for centuries. They must continue to come to us undiminished. This is our absolute right.*" (Private note circulated by Ramaswamy R. Iyer, 2003).

Political Context

Indeed, the Cauvery water has become a matter of more intense political dialogue and an election issue ever since the non-renewal of the fifty-year-old agreement in 1974. Political parties in both the States have championed the cause of their Cauvery farmers. People have shown emotional responses and cultural attachments to Cauvery water. But unfortunately, political dialogues that have taken place so far in both the States have only hardened the issue further. The dispute between Tamil Nadu and Karnataka at times seems to shake even the very foundation of India's

federalism despite the interventions of the Central Government and the India's highest judicial authority. The dispute has become deep-rooted, more delicate and bitter. This is high time to break the deadlock through dialogue between farmers of both major riparian states. The establishment of the Cauvery Water Tribunal in the year 1990 as per the provisions of the Constitution of India was expected to give a permanent solution. But, given the past history and hard positions taken by both the States, the Final Award delivered by the Tribunal in 2007 did not please any of the contending states. On the contrary, all the contending states have gone back to the Supreme Court bypassing the Tribunal which is considered as competent and empowered as the Supreme Court.

Given the history of the dispute it is difficult to be sanguine about a solution through the law. As expected by many, the final award did invite fresh litigation. Such a scenario is reinforced, unfortunately, by the proclivity of the disputants to politicize the issue. Claims and counter-claims have a strong emotional overlay. Such dialogue as has taken place has succeeded only in fanning regional chauvinistic interests.

Attempts to Resolve the Conflict

Most of the initiatives taken in the past did not seem to have resulted in any success and the response to these initiatives by the community of water users in the basin states was almost negative. In fact the problem got intensified ever since the 50 year old 1924 agreement never got extended in 1974. Before 1924 and between 1924 to 1974 agreement periods, there were protests but they were sporadic and were not noticeable. This period could be called as the Stage 1 in the conflict. In Stage 2, that is between 1974 - 1990, the dispute got intensified and distrust has since been building up, thanks to information and communication gap. After 1990, that is, in the Stage 3, all judicial and state interventions have been attempted. Most important among them has been the formation of The Cauvery River Authority (CRA) and its Monitoring Committee. The Authority is headed by the Prime Minister with Chief Ministers of riparian states as its members. However, the CRA has not been functioning effectively. No attempt has been made by CRA to evolve any kind of water sharing formula. However, the formation of the Cauvery Water Tribunal in 1990 under the Inter State Water Disputes Act 1956 did create renewed interest in arriving at a solution to the much vexed Cauvery impasse. The Tribunal gave an interim order in 1991 and the final award in 2007.

According to the final award, the share of the four contending parties is as follows: Kerala 30 TMC, Karnataka 270 TMC, Tamil Nadu 419 TMC and Pondicherry 7 TMC. (The final award is given as Appendix A).

After the Tribunal gave its final award in 2007 Tamil Nadu expressed no major reservations about the final award initially; and raised objections only subsequently, fearing apparently the opposition parties in the State. Furthermore, expression of total satisfaction over the award and jubilation over it would make the other contending state feel that injustice has been done to it. After all, even in the traditional cake cutting problem, one looks for what the other party gets rather than to look at one's own share! Eventually, all the parties are back to the Supreme Court by filing Special Leave Petitions (SLP) bypassing even the Tribunal. In the normal course, the Supreme Court could have directed the states to go back to the Tribunal with a Review Petition. Instead, the Supreme Court admitted the petitions, which only means that the dispute is back to square one. It is already three years since SLPs were filed in the Supreme Court and one wonders how long will it take to arrive at a legal solution and what would happen thereafter.

One important element missing from the various attempts to resolve the conflict is the active participation of farmers, the primary stakeholders. In view of the dispute having defied political and legal solution for a prolonged period of time, in fact decades, it is appropriate to look for a fresh approach. Multi Stakeholders' Dialogue (MSD) appears to offer one such possibility. It was general realization that it is high time to break the deadlock through direct dialogue between farmers of both these states. The Madras Institute of Development Studies (MIDS) initiated the dialogue process in the year 2003.

After the initial dialogue meetings *The Committee of the Cauvery Family* was set up and it has met several times and has made significant progress. It also organized a one day national workshop at MIDS in collaboration with Institute for Development Studies (IDS) Jaipur with the support of the UNDP on 19th January 2005 with an idea to discuss

the insights emerging from the dialogue process with a larger set of audience and experts.

First of all, the need was to ascertain the total quantum of water available in the basin. The figures vary from 671 TMC ft to 750 TMC. The Central Fact Finding Committee in the 1970s had arrived at the figure of 671 TMC. With Kerala and Pondicherry claiming around 50 TMC, the remaining 600 plus TMC of water could be shared using some mechanism taking, of course, into consideration relevant agro-economic and agronomic factors. Prof. Ramaswamy Iyer says that allocation of water may turn out to be insufficient for the basin States but they will have to learn to manage their needs within what is available. After all, supply cannot be enlarged. It was pointed out that the most difficult Ganga Water Dispute between India and Bangladesh was resolved through Ganga Water Treaty in 1996. Even more difficult dispute was between India and Pakistan, which was resolved through the Indus Treaty in 1960. The latter treaty has survived for over 50 years despite extremely turbulent and unstable political conditions. Thus the very logical question posed by Ramaswamy Iyer: 'If India and Bangladesh and India and Pakistan could successfully resolve their disputes over river waters there is no reason why a dispute between States within the Indian Union cannot be settled amicably'. However, the experience so far does not bear out this optimism we have been able to "resolve", to some extent, the conflicts with the neighbouring countries and not the conflicts within the country! (Joy et al 2008).

Multi Stakeholder Dialogue and the Story of the Cauvery Family

In fact many had originally predicted that the dispute would snowball into such a scenario after the final award by the Tribunal as back as 2003.⁴ The belief that the dispute may not be resolved through the existing institutional and legal mechanism was the main reason behind initiating a dialogue with a view to bringing together all stakeholders and to promote people to people contact. As a matter of fact, judicial activism, remnants of which could be witnessed in a few historic judgments delivered by the highest judicial authorities of India, could not also travel too far due to various compulsions.⁵

4. S. Janakarajan, one of the authors of this paper, also had visualized such a scenario.

5. For example, the Supreme Court judgment on tannery pollution case in the Palar river basin in Tamil Nadu, South India, was historic and quite strong. But despite such a strong judgment pronounced in the year 1996, untreated effluent from tanneries continue to be dumped in the Palar river: The Judges pronounced, It is no doubt correct that the leather industry in India has become a major foreign exchange earner and at present Tamil Nadu is the leading exporter of finished leather accounting for approximately 80% of the country's export. Though the leather industry is of vital importance to the country as it generates foreign exchange and employment avenues it has no right to destroy the ecology, degrade the environment and pose as a health-hazard. It cannot be permitted to expand or even to continue with the present production unless it tackles by itself the problem of pollution created by the said industry, AIR 1996, Supreme Court 2715, paragraph: 9

Under these *vulnerable circumstances*, and when all *entities seem unyielding*, what one needs is a platform for a sustained dialogue between all those concerned. This is what is referred to as multi-stakeholders' dialogue (MSD), a widely advocated measure all over the world, for resolving volatile and explosive situations in natural resource management and presents an alternative thinking as well as a methodology in conflict resolution. The alternate thinking aims to initiate a dialogue process, to draw together all stakeholders in a selected river basin into a common platform. The dialogue process, more in a positive sum game framework, aims to bring about changes in the overall welfare of people through amicable settlement of disputes and through equitable allocation and sustainable use of water in all sectors like domestic, ecology, agriculture, industry and domestic.

As indicated earlier, the farmers have been listening to what the political parties and bureaucrats have been saying in this matter. Thanks to the efforts of the politicians (and also the media), there has been a lot of communication gap between farmers of Tamil Nadu and Karnataka! The information flow is in fact severely restricted. Wrong data and misinformation have further widened the gap between the actual water users of the respective states. Some of the critical areas where such information and data gaps exist are discussed below:

- a. The farmers in Karnataka believe that the Thanjavur district (in Tamil Nadu) farmers grow three crops in a year using the Cauvery water; by three crops, they refer to *kuruvai*, *thaladi* and *samba*. But these are not crops but seasons. While the first two are short duration seasons, the last one is a long duration season. Given the available water (which never exceeds 8 months' supply even in the best years); Tamil Nadu farmers can grow either two short duration crops (*kuruvai* and *thaladi*) or one long duration crop (*samba*). As a matter of fact, the crop months of all three seasons work out to 14 (4+4+6). Therefore, it is impossible to grow three crops in all three seasons using the Cauvery water. This is an ill-conceived notion, which prevails primarily due to communication gap between farmers of the two States.
- b. There is a feeling among farmers of Karnataka that Tamil Nadu has massive unutilised groundwater potential in the delta region and also that they are unwilling to shift their crop pattern from paddy to

less water intensive crops. Moreover, it is often stated that Tamil Nadu farmers need to adjust their farming to the growing scarcity conditions. First of all, the data published by the Central Groundwater Board gives exactly opposite indication. As on 1992, groundwater development in Nagappattinam district is 100 % (eastern part of the Cauvery delta). Block-wise information in this district indicates that in six out of eight blocks groundwater is over-exploited; the remaining two blocks were categorised as dark blocks where the groundwater development is in the range of 85% to 100%. It is obvious that in the last 10 years the situation would have been worsened. Secondly, until 1931 when the Krishnaraj Sagar dam (in Karnataka) was commissioned, the utilisation of water from the Cauvery river for agriculture was entirely depended upon the river course or run of the river or through water diverted through the anicuts. In other words, water kept flowing downstream and flooded the delta region of the lower riparian State. This kind of a long history of flooding and water logging has resulted in soil salinity and as a consequence the land in this delta region has become unsuitable for any crop other than paddy. Annual crops like sugarcane and banana and oil seeds are cultivated in the western part of the delta using canal water supplemented by groundwater, where water logging is not an acute problem especially in Thanjavur district.

- c. People in Karnataka believe that a good deal of water is wasted in the Tamil Nadu part of the delta. This is absolutely baseless because there are many structures specifically designed and constructed in Tamil Nadu delta with a view to even reusing the drained water.

Thus it was felt that a farmer to farmer contact and dialogue is important to remove the bridge the gap in data and misunderstandings regarding the confusion 'use rights' (meaning equating use rights to a resource to 'exclusive rights' over that resource). The problem arises mainly because of the feeling of such exclusiveness in particular among farmers in Karnataka. It is the responsibility of the Governments in both the States to educate farmers that no single State can have an exclusive right over the Cauvery waters. Until now, all the political parties failed in their duty to educate farmers about this distinction; all the successive governments in both the States have spent their energy in politicising the issue, thereby promoting a regional

chauvinism. It is also necessary to educate the farmers of both the States about the relevance and the significance of the country's federal structure of governance. Finally, the dialogue is also absolutely necessary to undo all the hitherto built-up apprehensions and tensions and to create a climate of warmth, sense of caring and sharing and to promote an intense feeling of brotherhood and fraternity and seeing Cauvery as a common heritage that should link all of them together and not divide them.

However, it should be also realized that the need for a 'non-official initiative' is only the first step towards finding a lasting solution. Such a dialogue could then provide a favourable climate and mindset for the farmers of both States to accept the final award of the Tribunal.

Objectives of the Cauvery MSD

The broad objectives underpinning the multi-stakeholder dialogue on the Cauvery issue that began in 2003 was as follows:

- To bring together farmers of the riparian States on a common platform for a fruitful dialogue
- To take a pragmatic view of the current situation in the Cauvery basin
- To reduce differences and communication gap among riparian States
- To set in motion healthy information flow among the riparian States
- To undo the apprehensions and misgivings built up over time and to create a climate of warmth, sense of caring and sharing and to promote an intense feeling of fraternity
- Most of all, to find a way forward for the benefit of the entire Cauvery family in the larger interest of the country

The main participants of this MSD process have been the farmers drawn from the principal riparian States of Karnataka and Tamil Nadu. In addition, a few academics, retired bureaucrats, NGO persons, lawyers, leaders of farmers' organizations, people from media and other concerned citizens were also invited to participate. As a beginning for the dialogue process, two meetings of farmers' representatives of both the States were held one in Chennai and the other at Bangalore. The Chennai (Tamil Nadu) meeting took place on 4th and 5th April and was attended by 110 participants while the Bangalore (Karnataka) meeting took place on 4th and 5th June, which was attended by 120 participants.

Processes involved

Some spade work was necessary before organizing the dialogue between farmers of both states: the key step was hydro-historical research and documentation. Need of the hour was to understand the dispute in a socio-economic, historical and cultural perspective. Subsequently, a tour of the basin areas in both states was undertaken to meet, discuss and promote the idea of the dialogue with key leaders of farmers' organizations, individuals such as retired judges, NGOs, and some political veterans. This tour took six full months. This involved visits, individual and group meetings and documentation. The third step was to hold two above mentioned meetings of farmers' (and a few other concerned persons). *The Committee of the Cauvery Family* (hence onward Cauvery Family) was formed immediately at the end of the second meeting with 32 members from both states. This Committee has met so far 17 times in different parts of the basin in both states and have also visited different segments of the Cauvery basin area in order to gain some first hand information for the first time.

What solution(s) could be arrived at?

Though no clear cut solution has been reached so far the dialogue has been quite successful in defusing the tension especially in terms of violence and destruction to property and also has created an atmosphere of mutual understanding and sensitivity. Furthermore, the Cauvery Family is currently developing scenarios of water use by using the WEAP (Water Evaluation and Planning System, a hydrology model developed in Stockholm Environment Institute, Boston). It is also in the process of producing a film on Cauvery to disseminate the message of negotiation through social dialogue to the grassroots in both states. It developed six water sharing formulae of which four have been shot down by both states. Two have been approved for further discussion and negotiation.

The Gains

Though bringing varying interests groups together into a common platform was a very difficult task, the dialogue could achieve two things: one, created greater understanding of the problem among farmers of both states; and two, created an opportunity for farmers to meet in a common platform to share their problems and this developed the feeling of brotherhood and camaraderie among farmers and helped to undo the hitherto built up mutual prejudices and hatred, redefine issues in the larger socio-economic and cultural perspectives and above all

facilitated a process to resolve the dispute by adopting a more scientific approach. Though the dialogue process has evoked overwhelming response from the farming community in both the states, the political parties due to political compulsions (especially the vote bank politics) in each state continue to stick to their hard positions. The media in both states has been very supportive of this initiative.

The media reported after the 6th meeting of the Cauvery Family held at Tiruchi on April 9, 2006 as follows: *The mutual visits of farmers' leaders to the command area in the Cauvery basin, it is learnt, have removed suspicion over the irrigation practices, which have often caused heartburn among the farmers... the mutual visits have helped in clearing the air about the misconception and lack of faith in each other.* (The Hindu, 13.04.06).

As mentioned earlier the final award given by the Tribunal has not solved the dispute; instead the parties have approached the Supreme Court. The legal course has already taken one full round without any sighting of a prospect. Thus the ongoing social dialogue gains more significance precisely under these circumstances.

Lessons Learnt

Though the dialogue process may not have resulted in a solution yet, the process provided valuable lessons and some of the critical ones are detailed below:

- i. A sound research is a necessary pre-condition for undertaking and carrying forward the dialogue. Or in other words knowledge can play an important role in narrowing down the differences between the contending parties and any dialogue has to be knowledge based.
- ii. Degree of success or failure of dialogue initiatives depends upon active and sustained state support and also a mandate from the state and in the Indian context this is totally lacking today.
- iii. Need for an untiring, objective and credible facilitator (and it could be an institution or an individual) who can carry on with the job of facilitating and arranging a platform for the dialogue to continue. In other words any dialogue process needs an anchor institution/person.
- iv. Dialogues are never smooth; there will be lots of ups and downs and this is something to be expected.
- v. Final outcome of MSD is uncertain and difficult to judge; but in the absence of a viable alternative there is a case for pushing the dialogue initiative as far as possible until one reaches any where near a viable solution.

dialogue.

Conclusions

The Cauvery water dispute has the distinction of being the mother of all inter-state water disputes in India. Its complexity, uncertainty and anxiety contribute negatively to sustainable water management in the Cauvery basin contending states.

- First one needs to understand the complicated nature of the basin complexity due to over-politicization of the issue and emotional attachment to the Cauvery water in the major contending states of Tamil Nadu and Karnataka.
- Second, one needs to acknowledge the fact that the Cauvery basin is a deficit basin in that the total claims of all the contending states is nearly double the quantity of water that is actually realizable.
- Third, the crux of the issue in the Cauvery basin (unlike many other river basins in India) is not the sharing of the unutilized surplus water but re-sharing of the water shortages.
- Fourth, farmers and political leaders in both major contending states should recognize the fact that losing or gaining some quantities in the process in the process of negotiation is much better than keep on bargaining forever or keeping conflict alive. Mere uncertainty and anxiety put farmers in both under states enormous pressures in terms of earning livelihoods, while concerned states and people pay a political, social, economic and ecological price for the prolonged conflict.
- Fifth, one should not forget that hard bargainers eventually lose opportunities because of speedy industrialization and rapid urbanization (which can grab the waters of farmers).
- Sixth, adaptation is what is most needed at the moment - adapt to the changing needs and changing socio-economic and ecological condition. To put it candidly, adapt for a better living through resilience and cooperation.
- Seventh, since the basin has already been under severe stress for various ecological and

environmental reasons, the negotiators and bargainers should move ahead with a long-term perspectives and agenda of sustainable use of water resource.

- Eight, in the case of inter-state rivers sharing of data amongst the riparian or conflicting states and also agreeing on a common data set is an important pre-requisite for any negotiated settlements.

Finally, if this or similar other conflicts have to be resolved then one needs to use both routes the formal legal and institutional path as well as the social dialogue process (multi stakeholder processes) especially if the award given by the formal process is to be respected.

Conversely, the social process conducted first would also help the formal legal-institutional route to come up with a socially acceptable solution. If this two-pronged strategy is to succeed, then there should be more transparent and institutionalized engagement between these two routes, especially when the multi stakeholder dialogue (MSD) process is mandated politically and legally.

Appendices

Appendix A: Cauvery Water Disputes Tribunal

Appendix A**Cauvery Water Disputes Tribunal ⁶****Final Order**

The Tribunal hereby passes, in conclusion the following order:-

Clause-I

This order shall come into operation on the date of the publication of the decision of this Tribunal in the official gazette under Section 6 of the Inter- State Water Disputes Act, 1956 as amended from time to time.

Clause-II

Agreements of the years 1892 and 1924:

The Agreements of the years 1892 and 1924 which were executed between the then Governments of Mysore and Madras cannot be held to be invalid, specially after a lapse of about more than 110 and 80 years respectively. Before the execution of the two agreements, there was full consultation between the then Governments of Madras and Mysore. However, the agreement of 1924 provides for review of some of the clauses after 1974. Accordingly, we have reviewed and re-examined various provisions of the agreement on the principles of just and equitable apportionment.

Clause-III

This order shall supersede

- i) The agreement of 1892 between the then Government of Madras and the Government of Mysore so far as it related to the Cauvery river system.
- ii) The agreement of 1924 between the then Government of Madras and the Government of Mysore so far as it related to the Cauvery river system.

Clause-IV

The Tribunal hereby determines that the utilisable quantum of waters of the Cauvery at Lower Coleroon Anicut site on the basis of 50% dependability to be 740 thousand million cubic feet-TMC (20,954 M.cu.m.).

Clause-V

The Tribunal hereby orders that the waters of the river Cauvery be allocated in three States of Kerala, Karnataka and Tamil Nadu and U.T. of Pondicherry for their beneficial uses as mentioned hereunder:-

i)	The State of Kerala -	- 30 TMC
ii)	The State of Karnataka	- 270 TMC
iii)	The State of Tamil Nadu	- 419 TMC
iv)	U.T. of Pondicherry	- 7 TMC

		726 TMC

In addition, we reserve some quantity of water for (i) environmental protection and (ii) inevitable escapages into the sea as under:-

6. Available at www.indiawaterportal.org/node/1108

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i)	Quantity reserved for environmental protection	- 10 TMC
ii)	Quantity determined for inevitable escapages into the sea	- 4 TMC

		14 TMC
		Total (726 + 14) 740 TMC

Clause-VI

The State of Kerala has been allocated a total share of 30 TMC, the distribution of which in different tributary basins is as under:

(i)	Kabini sub-basin	- 21 TMC
(ii)	Bhavani sub-basin	- 6 TMC
(iii)	Pambar sub-basin	- 3 TMC

Clause-VII

In case the yield of Cauvery basin is less in a distress year, the allocated shares shall be proportionately reduced among the States of Kerala, Karnataka, Tamil Nadu and Union Territory of Pondicherry.

Clause-VIII

The following inter-State contact points are identified for monitoring the water deliveries:

(i)	Between Kerala and Karnataka	: Kabini reservoir site
(ii)	Between Kerala and Tamil Nadu	
	a) For Bhavani sub-basin	: Chavadiyoor G.D.site

It is reported that Chavadiyoor G.D. Site was being earlier operated by the State of Kerala which could be revived for inter-State observations.

	b) For Pambar sub-basin	: Amaravathy reservoir site
(iii)	Between Karnataka and Tamil Nadu	: Billigundulu G.D. site/any other site on common border
(iv)	Between Tamil Nadu and Pondicherry	: Seven contact points as already in operation

Clause-IX

Since the major shareholders in the Cauvery waters are the States of Karnataka and Tamil Nadu, we order the tentative monthly deliveries during a normal year to be made available by the State of Karnataka at the inter- State contact point presently identified as Billigundulu gauge and discharge station located on the common border as under:-

Month	TMC	Month	TMC
June	10	December	8
July	34	January	3
August	50	February	2.5
September	40	March	2.5
October	22	April	2.5
November	15	May	2.5

			192 TMC

The above quantum of 192 TMC of water comprises of 182 TMC from the allocated share of Tamil Nadu and 10 TMC of water allocated for environmental purposes.

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The above monthly releases shall be broken in 10 daily intervals by the Regulatory Authority.

The Authority shall properly monitor the working of monthly schedule with the help of the concerned States and Central Water Commission for a period of five years and if any modification/adjustment is needed in the schedule thereafter, it may be worked out in consultation with the party States and help of Central Water Commission for future adoption without changing the annual allocation amongst the parties.

Clause -X

The available utilisable waters during a water year will include the waters carried over from the previous water year as assessed on the 1st of June on the basis of stored waters available on that date in all the reservoirs with effective storage capacity of 3 TMC and above.

Clause-XI

Any upper riparian State shall not take any action so as to affect the scheduled deliveries of water to the lower riparian States. However, the States concerned can by mutual agreement and in consultation with the Regulatory Authority make any amendment in the pattern of water deliveries.

Clause-XII

The use of underground waters by any riparian State and U.T. of Pondicherry shall not be reckoned as use of the water of the river Cauvery. The above declaration shall not in any way alter the rights, if any, under the law for the time being in force, of any private individuals, bodies or authorities.

Clause-XIII

The States of Karnataka and Tamil Nadu brought to our notice that a few hydro-power projects in the common reach boundary are being negotiated with the National Hydro-Power Corporation (NHPC). In this connection, we have only to observe that whenever any such hydro-power project is constructed and Cauvery waters are stored in the reservoir, the pattern of downstream releases should be consistent with our order so that the irrigation requirements are not jeopardized.

Clause-XIV

Use of water shall be measured by the extent of its depletion of the waters of the river Cauvery including its tributaries in any manner whatsoever; the depletion would also include the evaporation losses from the reservoirs. The storage in any reservoir across any stream of the Cauvery river system except the annual evaporation losses shall form part of the available water. The water diverted from any reservoir by a State for its own use during any water year shall be reckoned as use by that State in that water year. The measurement for domestic and municipal water supply, as also the industrial use shall be made in the manner indicated below:

Use

Measurement

Domestic and Municipal Water supply

By 20 per cent of the quantity of water diverted or lifted from the river or any of its tributaries or from any reservoir, storage or canal.

Industrial use

By 2.5 per cent of the quantity of water diverted or lifted from the river or any of its tributaries or from any reservoir, storage or canal.

Clause-XV

If any riparian State or U.T. of Pondicherry is not able to make use of any portion of its allocated share during any month in a particular water year and requests for its storage in the designated reservoirs, it shall be at liberty to make use of its unutilized share in any other subsequent month during the same water year provided this arrangement is approved by the Implementing

Authority.

Clause-XVI

Inability of any State to make use of some portion of the water allocated to it during any water year shall not constitute forfeiture or abandonment of its share of water in any subsequent water year nor shall it increase the share of other State in the subsequent year if such State has used that water.

Clause-XVII

In addition, note shall be taken of all such orders, directions, recommendations, suggestions etc, which have been detailed earlier in different chapters/volumes of the report with decision for appropriate action.

Clause XVIII

Nothing in the order of this Tribunal shall impair the right or power or authority of any State to regulate within its boundaries the use of water, or to enjoy the benefit of waters within that State in a manner not inconsistent with the order of this Tribunal.

Clause-XIX

In this order,

- a. "Normal year" shall mean a year in which the total yield of the Cauvery basin is 740 TMC.
- b. Use of the water of the river Cauvery by any person or entity of any nature whatsoever, within the territories of a State shall be reckoned as use by that State.
- c. The expression "water year" shall mean the year commencing on 1st June and ending on 31st May.
- d. The "irrigation season" shall mean the season commencing on 1st June and ending on 31st January of the next year.
- e. The expression "Cauvery river" includes the main stream of the Cauvery river, all its tributaries and all other streams contributing water directly or indirectly to the Cauvery river.
- f. The expression "TMC" means thousand million cubic feet of water.

Clause-XX

Nothing contained herein shall prevent the alteration, amendment or modification of all or any of the foregoing clauses by agreement between the parties.

Clause-XXI

The State Governments of Kerala, Karnataka, Tamil Nadu and Union Territory of Pondicherry shall bear the expenses of the Tribunal in the ratio of 15:40:40:5. However, these parties shall bear their own costs before this Tribunal.

Sd/-
Sudhir Narain J.
MEMBER

Sd/-
N. S. Rao J.
MEMBER

Sd/-
N. P.Singh J.
CHAIRMAN

New Delhi
5th February 2007



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