The Cauvery Conundrum: Historical Roots Of A Modern Dispute

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Abstract:

For hundreds of years, conflicts in water sharing have existed all around the globe. Water-sharing disputes, like the one involving the Cauvery River in southern India, have historical underpinnings. The Cauvery conflict, stretching over 130 years, initially focused on agricultural water rights. However, late 20th-century industrialisation, population growth, and climate change-induced water shortages have reshaped its contours. Diminished rainfall has not only disrupted traditional water-sharing norms but also escalated political tensions. The study revisits the historical trajectory of the Cauvery dispute, incorporating diverse stakeholder viewpoints, from state governments to grassroots communities. It gets into the socio-economic and environmental repercussions of the protracted dispute. Besides it scrutinises the legal and policy frameworks, assessing their aptitude in managing and potentially resolving the contention. Through a refreshed perspective on this longstanding disagreement, this study seeks to inspire decision-makers to champion sustainable and equitable solutions.

Keywords: Cauvery, consequences, dispute, historical analysis, legal frameworks, management.

INTRODUCTION

Shared river basins between countries have often led to disputes. For instance, India and Pakistan have sparred over the Indus River; the

Nile has been a source of disagreement for Sudan, Egypt, and Ethiopia; and the Jordan River has caused strains between Israel, Palestine, and Syria.[1] These conflicts give rise to multiple questions. Should the originating country have exclusive rights to the river's upstream water? What percentage of the water should each country utilise? Must downstream countries be guaranteed a continuous water flow? Each river basin has its unique attributes, making it difficult to find one-size-fits-all solutions.[2] The United Nations' International Court of Justice (previously the Permanent Court for International Justice) recognised the seriousness of this issue and in an attempt to address it, the Convention on the Law of the Non-Navigational Uses of International Watercourses was introduced in 1997.[3]

Closer to home, in southern India, the Cauvery River dispute exemplifies a similar conflict, albeit within the same nation. Spanning 802 km, the Cauvery River starts in Karnataka and flows through Tamil Nadu before meeting the Bay of Bengal. While its water benefits both states, primarily through hydropower generation, disagreements arise when it comes to water distribution.[4] The crux of this discord is the overutilisation of the river's resources. Bangalore (or Bengaluru) in Karnataka has seen a dramatic surge in population – from 150,000 in 1950 to 11.5 million in 2018.[5] This growth led to heightened water demands, stressing the river. Meanwhile, a significant volume of water directed towards Tamil Nadu has traditionally been harnessed for agricultural irrigation. Historically, this contention has roots in the early 19th century when the then Madras Presidency and the princely state of Mysore debated over the river's usage. The British, during their rule, attempted resolutions. After India's independence in 1947 and subsequent territorial realignments, Madras Presidency split into Tamil Nadu, Kerala, Andhra Pradesh, and Pondicherry (now Puducherry).[6] Concurrently, Mysore transformed into Karnataka. Yet, the age-old tussle persisted.

Recent disagreements emerged in 2013 when Tamil Nadu's water allocation was decreased from an earlier 2007 provision. Arguing its rights as a riparian state, Tamil Nadu seeks to restore the older allocation. In contrast, Karnataka, benefiting from the latest allocation, wishes to maintain the status quo. A significant limitation of these resolutions is their reliance on present and past climate conditions. Once a decision is made, it becomes a fixed reference point, potentially lasting indefinitely unless challenged and amended legally.

Research Objectives

The study aims to trace the historical events shaping the Cauvery River dispute and document the varied perspectives of stakeholders

such as state governments, local communities, and agricultural entities. It further seeks to evaluate the socio-economic and environmental repercussions stemming from this enduring conflict, scrutinise the effectiveness of existing legal frameworks, treaties, and policies, and ultimately, propose potential resolution strategies anchored in historical lessons, stakeholder interests, and sustainable resource management.

Methodology

Historical and analytical methodology is employed for this study. Archival records, treaties, and policy documents are scrutinised to trace the evolution of the Cauvery dispute. Concurrently, an analytical approach dissects stakeholder perspectives and the legal framework. Primary data is gathered through field observations and surveys of affected communities along the Cauvery basin, while secondary sources, including archival records, treaties, and policy documents, provide a backdrop for understanding the broader implications and nuances of the dispute.

FINDINGS AND DISCUSSION

For a considerable duration, India was under British colonial rule. During this time, the British had direct control over numerous provinces, including Mysore (now Karnataka) and Madras (currently Tamil Nadu), albeit briefly in the mid-19th century.[7] Within this colonial context, various strategies were conceived for the use of the Cauvery River waters by these two regions. But these plans faced setbacks, especially during the mid-1870s when severe drought and famine struck, stalling their execution. As the 19th century drew to a close, there was renewed interest in Mysore to reinitiate various irrigation initiatives. This was met with resistance from the Madras Presidency.[8] A particular point of contention was the construction of dams: while Mysore intended to build one upstream, Madras was inclined towards establishing a storage dam downstream. Given these disagreements, Mysore sought intervention from the British authorities. Consequently, a conference was organised in 1890 with the goal of finding common ground. This culminated in an accord signed on 18 February 1892, allowing Mysore to proceed with its irrigation projects while ensuring Madras was safeguarded against potential complications.[9]

Yet, complications arose during the dam's construction. Although it was initially agreed that Mysore would construct a reduced storage dam, the foundation set in place was for a larger dam, with a capacity of 41.5 TMC (thousand million cubic feet). This deviation from the 1892 agreement sparked tensions, leading to the issue being referred for arbitration in 1913.[10] The subsequent verdict

in 1914 favoured Mysore, much to the chagrin of Madras. Unable to reach a consensus, a fresh agreement was inked in 1924, slated to remain effective for half a century. Post-India's independence in 1947, territorial realignments transpired. As a result, Kerala and Pondicherry (now Puducherry) became stakeholders in the ongoing Cauvery dispute. Nevertheless, the primary disputants remained Tamil Nadu and Karnataka.

With the impending expiration of the 1924 pact, there was a felt need for a fresh evaluation. Consequently, the Cauvery Fact-Finding Committee (CFFC) was established in 1970.[11] This was followed by several inter-state consultations from 1973 to 1975, steered by union ministers responsible for irrigation. These discussions, aimed at replacing the 1924 pact, culminated in a proposed draft agreement. However, despite extensive deliberations, the draft was not endorsed.

In August 1976, a Union-prepared draft agreement found acceptance across all states, as declared by the Minister for Agriculture in the Parliament. Yet, in a subsequent Chief Ministers' meeting, Tamil Nadu reneged on the agreement, prompting Karnataka to do the same. Despite several efforts to mediate and find common ground through inter-state meetings, no viable solution was reached.[12] These unresolved differences had the harshest impact on the farming community. Given the continuous disagreements and the suffering of farmers from both states, the Farmers' Association of Tanjavur took the issue to the Supreme Court in 1986. They urged the Central Government to set up a tribunal to judge the disputes. If constituted under the Interstate Water Dispute Act of 1956, this tribunal could make resolutions but lacked enforcement power. During the subsequent four years, multiple negotiations failed. By April 1990, the core disputants, Tamil Nadu and Karnataka, acknowledged their deep-rooted differences.

Responding to the growing need for resolution, the Supreme Court of India directed the establishment of a Cauvery tribunal to handle such issues more effectively.[13] In 1991, this tribunal released its verdict, favouring Tamil Nadu. It mandated Karnataka to send water to Tamil Nadu's Mettur Reservoir based on a designated schedule and prohibited Karnataka from expanding its irrigation territory using Cauvery waters. Karnataka's response was vehemently negative.[14] It introduced an ordinance challenging the tribunal's decision, prompting another intervention from the Supreme Court. When the court's judgment favoured Tamil Nadu, both states witnessed widespread protests.

Between 1992 and early 1995, the Cauvery Basin experienced substantial rainfall, ushering in a peaceful phase. However, by mid-1995, the reduced monsoon disrupted this peace, reigniting

tensions.[15] By December of the same year, Tamil Nadu appealed to the Supreme Court, asking for a release of 30 TMC of water from Karnataka's reservoirs. Rather than passing a direct judgment, the court referred the matter back to the tribunal, which then decreed that Karnataka should release 11 TMC of water.[16] Faced with this directive, Karnataka expressed its inability, citing inadequate water reserves even for its own agricultural needs.

Given the escalating intensity of the dispute, Tamil Nadu once more approached the Supreme Court. Recognizing the gravity of the issue, the Supreme Court believed that the Prime Minister's intervention might lead to a potential compromise and solution. On 30 December 1995, the Prime Minister called a conference, gathering the Chief Ministers from all involved states and the Union Territory of Pondicherry (Puducherry), as well as various political figures. With a deep understanding of the complexities of the issue, the Prime Minister, after discussions with the Chief Ministers of both Tamil Nadu and Karnataka, issued an Interim Order.[17] As per this order, Karnataka was directed to immediately release 6 TMC of water to safeguard the crops in Tamil Nadu. Honouring the decision of the Prime Minister, Karnataka complied.

In 1997, aiming to ensure adherence to the Interim Order, the Government of India set up the Cauvery River Authority (CRA). Endowed with a vaguely defined jurisdiction, the CRA had the potential authority to assume control over dam operations if the states did not adhere to the Interim Order. Karnataka, however, expressed strong reservations about the CRA's establishment. They believed the Interim Order lacked a solid scientific foundation and was marked by intrinsic flaws.[18] In response to these concerns, the Federal Government revisited the CRA's powers and introduced a fresh framework. This new structure birthed two entities: the Cauvery River Authority and the Cauvery Monitoring Committee. The Cauvery River Authority was led by the Prime Minister and incorporated the Chief Ministers of the four involved regions – Karnataka, Tamil Nadu, Pondicherry (Puducherry), and Kerala. Meanwhile, the Cauvery Monitoring Committee was populated by engineers, technocrats, and officials. This committee was responsible for evaluating the on-ground conditions and subsequently updating the government on the same.[19]

Post the insufficient monsoon of 2002, both Tamil Nadu and Karnataka found themselves on shaky grounds, echoing the tensions of 1995. The situation then escalated to the point where public transport between the two states had to be momentarily suspended. This strained relationship persisted throughout the year. Fortunately, the following years saw better rainfall, which meant water-sharing disagreements took a backseat. Nevertheless, in 2007, after extensive

considerations, the CWDT modified its earlier verdict on water distribution between the states. Both Tamil Nadu and Karnataka expressed dissatisfaction with this revised judgment.[20] Consequently, the matter was once again subjected to arbitration. The Supreme Court of India mandated Karnataka to abide by the water-release directives as previously set by the court. However, the 2012 droughts threw a spanner in the works. Karnataka's refusal to release water to Tamil Nadu, despite the then Prime Minister's appeal, added fuel to the already blazing dispute. Tamil Nadu decided to bring the matter to court, claiming that Karnataka's refusal was a violation of the Supreme Court's earlier decisions. Both states witnessed waves of public unrest and demonstrations against these rulings. A pressing demand arose for a swift resolution to the situation, which had been hovering uncertainly since the 2007 judgment.[21]

On February 20, 2013, in response to the Supreme Court's instructions, the Indian Government unveiled the definitive award/agreement of the Cauvery Water Disputes Tribunal (CWDT) regarding the distribution of Cauvery waters among the basin states of Karnataka, Tamil Nadu, Kerala, and the Union Territory of Pondicherry (Puducherry). This decision reshuffled the water allocation from the 2007 verdict. Tamil Nadu's share was decreased from 419 thousand million cubic feet (TMC) to 404 TMC, while Karnataka's allotment was boosted from 270 TMC to 285 TMC. However, far from simplifying matters, this decision exacerbated the existing strain and deepened the divisions in the prolonged dispute. By 2015, tensions rose again as Tamil Nadu accused Karnataka of not adhering to the water release mandate set by the tribunal. Recognizing the need for stronger enforcement mechanisms and keen on ensuring the tribunal's decision was respected, the Supreme Court took decisive action.[22] On 10 May 2013, it issued a temporary measure, urging the Indian Government to form a Supervisory Committee. This committee's task was to oversee the execution of the CWDT's decision until a more permanent solution, the "Cauvery Management Board", could be instituted.[23]

The turn of events leading to 2019 was marked by anticipation and hope for a lasting resolution to the enduring water dispute. As the year began, the Cauvery Management Board came into existence. This board, meant to be a permanent entity, was entrusted with the responsibility of addressing and resolving all concerns associated with the Cauvery River conflict.[24] Its formation was seen as a significant step toward bringing stability and clarity to the management and distribution of Cauvery waters. The intention was to not only provide a platform for dispute resolution but also to ensure that the states involved had a clear understanding of their rights and obligations. In the context of the board's creation, it was

hoped that a robust and unbiased system would be in place, ensuring equitable distribution and minimizing future disputes. Both states, having experienced the tumultuous history of the Cauvery River conflict, were keen on reaching a consensus that would be mutually beneficial and sustainable in the long run.[25] The establishment of the Cauvery Management Board was seen as a crucial move toward achieving this goal. Thus, the Cauvery dispute, rooted in historical disagreements and layered complexities, saw a significant development in 2013 with the final award by the CWDT. However, this decision, instead of soothing tensions, led to further discord between the states.[26] The subsequent years saw the formation of temporary and then permanent committees to ensure adherence to the tribunal's mandates, culminating in the establishment of the Cauvery Management Board in 2019. It is a testament to the Indian judiciary's and government's efforts to provide lasting solutions to intricate interstate conflicts.

Historical Events and Decisions

The Cauvery River dispute, deeply rooted in the history of India, represents a complex and protracted conflict over water rights. This river, which originates in Karnataka and flows through Tamil Nadu, Kerala, and Puducherry, has been a subject of contention for over a century. To understand the origins and developments of this dispute, one must journey back in time, tracing the significant events and decisions that have shaped it.

India was under British rule for centuries.[27] During this time, two primary regions, Mysore (now Karnataka) and Madras (now Tamil Nadu), came into focus regarding the use of the Cauvery waters. In the latter half of the 19th century, amidst droughts and famines, both regions sought to tap into the Cauvery's waters for irrigation. However, tensions arose when Mysore proposed constructing a dam upstream, which was resisted by Madras. With both states at an impasse, the British government intervened, leading to an agreement in 1892. Yet, as the dam's construction proceeded, disagreements arose, prompting arbitration by 1913.

After India gained independence in 1947, state boundaries were redrawn. This introduced Kerala and Puducherry to the dispute. However, the primary contention remained between Karnataka and Tamil Nadu. With the 1924 pact nearing its expiration, a Cauvery Fact-Finding Committee was formed in 1970. Several inter-state meetings ensued, but consensus eluded the states. By the mid-70s, Tamil Nadu and Karnataka were at loggerheads again over water-sharing.[28] In 1976, an agreement proposed by the Union was initially accepted but was subsequently rejected by both states, leading to more debates and negotiations.

The 1980s and 1990s saw the involvement of the judiciary. As farmers suffered due to the non-agreement, the Farmers' Association of Tanjavur petitioned the Supreme Court in 1986. The court, recognizing the complexities, sought the formation of a tribunal. Thus, the Cauvery tribunal came into being, which in 1991, ruled in favour of Tamil Nadu.[29] This decision met with protests, leading to an intense period of tension between the states, especially during lean monsoons. Subsequent years saw the establishment of the Cauvery River Authority (CRA) in 1997. Designed to oversee the water-sharing agreement, the CRA met resistance from Karnataka, which led to its restructuring and the formation of the Cauvery Monitoring Committee.

The 21st century has seen continued disputes, notably after the 2002 lean monsoon. However, a significant shift occurred in 2007 when the CWDT issued a verdict on water-sharing, which again did not find acceptance from the states. Protests and court hearings continued until 2013, when a pivotal decision was announced, modifying water allocation. The establishment of the Cauvery Management Board in 2019 marked another attempt at creating a long-term solution. This permanent committee was tasked with overseeing all matters related to the Cauvery River dispute.[30]

The Cauvery River dispute, stretching over multiple decades, has ushered in both immediate and long-term socio-economic and environmental consequences for the states involved, primarily Karnataka and Tamil Nadu. From a socio-economic standpoint, the immediate implications were evident in the agriculture sector. In multiple drought years, such as in 2012 and 2015, farmers faced crop losses. In Tamil Nadu, the delta region, often referred to as the 'rice bowl', faced significant threats. Given that agriculture contributes to around 15% of India’s GDP and employs over half of the nation’s 1.3 billion population, the repeated disruptions in one of the country’s most fertile regions had ripple effects. For instance, the Economic Survey of 2016-17 indicated that the agrarian distress caused by water shortages led to decreased agricultural yields and, consequently, increased debts and economic strain among farmers. This has sometimes culminated in tragic outcomes, with farmer suicides in these states seeing a spike in drought years.

Water scarcity, exacerbated by the dispute, has strained urban areas like Bangalore. With a population surpassing 10 million, the city's residents have often faced water cuts, leading to an increased dependency on water tankers. The cost of water has risen multiple-fold during such crises, burdening the common man. Economic activities, like the thriving IT sector in Bangalore, which contributes significantly to India's $190 billion IT industry, have faced operational challenges due to water scarcity.[31] The long-term socio-

economic impacts manifest in inter-state migrations, changes in cropping patterns, and increased investments in water storage infrastructure. The uncertainty around water availability has prompted many farmers to shift from water-intensive crops like rice and sugarcane to alternative crops. While this might seem like an adaptive strategy, it often means compromising on the economic returns as the alternative crops might not fetch as much revenue.

On the environmental front, the short-term consequences were palpable in terms of depleted groundwater levels. As the river water became unpredictable, both states resorted to excessive groundwater extraction.[32] Data from the Central Ground Water Board suggests that the groundwater level in many parts of these states, especially in urban areas like Bangalore, has been decreasing at an alarming rate of 1-3 meters per year. The reduced flow in the river due to the dispute and upstream retention has affected the health of the ecosystem. The Cauvery delta, which houses a range of aquatic life, has witnessed reduced fish catches, impacting both the environment and the livelihoods dependent on it.[33] The long-term environmental consequences are even more concerning. Over-extraction has led to the degradation of aquifers, making them susceptible to contamination. Also, reduced flows have led to saltwater intrusion in the Cauvery delta, endangering its fragile ecosystem. A 2018 study by the Anna University in Chennai indicated that nearly 1000 sq. km of land in the Cauvery delta has become saline over the past four decades.

Effectiveness of Legal Frameworks

In the early years of the dispute, the Agreements of 1892 and 1924 between the Madras Presidency and the Princely State of Mysore were instrumental. These treaties essentially provided the foundation for water sharing.[34] The 1924 agreement, in particular, permitted Mysore to construct reservoirs at Kannambadi, Kabini, and other locations with specific limitations. It was meant to be in place for 50 years. However, once India achieved independence and underwent states' reorganisation, the issue resurfaced, and the old agreements' relevance was questioned, thereby becoming a significant area of contention.[35]

The Interstate Water Disputes Act of 1956 became the cornerstone legal framework for resolving such disputes. Under this act, the Cauvery Water Disputes Tribunal (CWDT) was constituted in 1990 after the Farmers' Association of Tanjavur approached the Supreme Court in 1986.[36] The CWDT's interim award in 1991 and its final award in 2007 became significant landmarks. While the interim award faced resistance, especially from Karnataka leading to civil unrest, the final award detailed water sharing across different states:

419 TMC to Tamil Nadu and 270 TMC to Karnataka. However, even after the 2007 verdict, Tamil Nadu and Karnataka showed disagreement, illustrating the challenges in achieving consensual resolutions through legal mechanisms. To enforce the CWDT's recommendations, the Cauvery River Authority (CRA**)** was constituted in 1997. The CRA, led by the Prime Minister and including the Chief Ministers of the basin states, aimed at ensuring compliance. However, Karnataka's apprehension about the CRA's powers, primarily over dam operations, became a bone of contention. As a mitigation measure, the Cauvery Monitoring Committee was set up to assess ground realities.

The Supreme Court's involvement has also been pivotal. On multiple occasions, such as in 1991 when Karnataka opposed the CWDT's interim order, the apex court stepped in to ensure compliance. Further, in 2013, the Supreme Court ordered the formation of a temporary Supervisory Committee till the establishment of the Cauvery Management Board (CMB). The CMB, a permanent body created in 2019, oversees all matters related to the Cauvery dispute.[37] Analyzing these interventions, a few observations emerge. Firstly, while legal frameworks provide structured mechanisms, their effectiveness often hinges on the political will and mutual trust among disputing parties. Secondly, though tribunals like the CWDT offer detailed judgments, their enforcement remains a challenge. Lastly, evolving ground realities, like changing rainfall patterns and water usage, require that these legal mechanisms remain dynamic and adaptable.[38]

The Cauvery River dispute, demands a holistic resolution approach. Drawing from historical precedents, understanding stakeholder requirements, and integrating sustainable resource management can offer a pathway to resolution.

Historical Precedents as a Guide: The Indus Water Treaty between India and Pakistan, inked in 1960, serves as an illustrative example. Despite the political tensions between the two nations, the treaty has remained intact, showing the strength of a well-negotiated agreement. Learning from this, the Cauvery dispute resolution could benefit from third-party mediation, either from an international body or a neutral domestic institution, to ensure unbiased negotiations.

Understanding Stakeholder Needs: A granular understanding of stakeholder needs is essential. For instance, while Karnataka has witnessed a 35% increase in its irrigated area from 1980-81 to 2000-01 (from 0.69 million hectares to 0.94 million hectares), Tamil Nadu's traditional Tanjavur delta region, which contributes to a significant portion of the state's rice production, relies heavily on Cauvery water. By recognizing these core requirements and developing state-specific

water efficiency measures, it's possible to bridge the demand-supply gap. For instance, promoting drip irrigation in water-intensive crops or diversifying crops to less water-intensive varieties could be beneficial.

Sustainable Resource Management: An ecosystem-based approach is essential. It's alarming to note that the Cauvery River's flow has diminished by 40% in the past seven decades, with a 20% reduction in rainfall, according to a 2018 study by the Indian Institute of Science (IISc). The degradation of catchment areas and deforestation has had a detrimental effect on the river's health. Prioritizing reforestation, especially in the catchment areas, can improve water retention and river flow. Combining traditional water conservation methods, like 'kattas' or temporary check dams in Karnataka and 'eris' or tanks in Tamil Nadu, with modern water management technology can also ensure sustainable water use.

Data-Driven Approach: Real-time data monitoring of river flows, rainfall patterns, and groundwater levels, using satellite technology and ground sensors, can provide accurate information for decision-making. This could facilitate a proactive, rather than reactive, approach to water sharing during distress years.

Public Participation and Awareness: The involvement of local communities can't be overstressed. Grassroots movements like the 'Jal Jagruti Abhiyan' in Maharashtra have shown that community-driven water conservation efforts can be transformative. Similar initiatives in the Cauvery basin, emphasising water conservation and sustainable agriculture, coupled with public awareness campaigns about the river's importance, can engender a sense of collective responsibility.

Building Trust: The mistrust between the states has often hampered resolution efforts. Regular dialogues, transparency in water usage, joint committees for water management, and cultural exchanges can foster trust and mutual understanding. The Cauvery dispute's resolution requires a multi-dimensional approach that leans on historical wisdom, addresses stakeholder needs, and embraces sustainable resource management. It's a challenging endeavour, no doubt, but with collective will and strategic intervention, a lasting solution is within reach.

CONCLUSION

As the intricate threads of history, stakeholder perspectives, and legal constructs intertwine within the Cauvery River dispute, a vivid

tapestry unfurls—one marked by the struggle against water scarcity, socio-economic upheavals, and political strains. This conflict's journey, spanning a century, reflects the ebb and flow of societal needs, ever-shifting priorities, and the spectre of climate change. However, beyond these intricacies lies a glimmer of optimism. The historical insights mirror the enduring resilience of communities and the adaptability of governance systems. The diverse range of stakeholder viewpoints, from governments to local communities, underscores the imperative of inclusive discourse in shaping sustainable resolutions. The socio-economic and environmental repercussions, both immediate and looming, serve as poignant reminders of the urgency to act. In scrutinizing legal and policy landscapes, the interplay of agreements and gaps underscores the call for cohesive frameworks that honour diverse interests while ensuring judicious water management. As we stride ahead, it's evident that addressing the Cauvery enigma encompasses more than settling a dispute—it entails fostering unity, preserving ecosystems, and safeguarding livelihoods. Amidst this complexity, the promise of collaborative, equitable, and innovative solutions beckons, shows that the destiny of the Cauvery is inseparably woven with the region it nurtures.

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