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Some Minor River Water Disputes

A. Tungabhadra River Water Dispute

Although a tributary of Krishna, the Tungabhadra river itself is a major river. A brief description of the river Tungabhadra as a part of the Krishna River System, is given in Chapter 8. At an elevation of 610 m. (2,000 ft.) north of Shimoga it is formed by the union of two rivers Tunga and Bhadra, which themselves rise together in the Western Ghats at Gangamula at an elevation of about 1198 m. (3,930 feet). The Tungabhadra joins Krishna beyond Kurnool at an elevation of about 264 m. (865 feet)

Since the united river Tungabhadra flows through Karnataka and Andhra Pradesh, it itself is an inter-State river. An important tributary of the Tungabhadra is Varada river, which drains a large area of the Western Ghats and joins the Tungabhadra about 161 km. (100 miles) below the confluence of Tunga and Bhadra at an elevation of about 509 m. (1,670 feet). The Hagari, also called Vedavati, is another important tributary of the Tungabhadra, and joins it about 169 km. (105 miles) above its (Tungabhadra's) confluence with the Krishna.[1] The Tungabhadra has a drainage area of 27,574 sq. miles.

The government of the erstwhile Princely State of Hyderabad and the government of the then Province of Madras arrived at an agreement on November 7, 1938 regarding utilization of the waters of the river Tungabhadra. The two Governments, later, in a Conference held at Hyderabad on 24 to 26 June 1944, concluded another Agreement concerning partial utilization of the waters of the Tungabhadra river, which superseded the earlier Agreement of November 7, 1938.

This Agreement of June 1944 was meant to enable the two governments to start immediately a joint scheme for partial appropriation of the Tungabhadra waters at Mallapuram leaving all matters of absolute rights, claims and disputed points for future settlement.[2] Each party was permitted to draw off 65,000 million cubic ft., including evaporation losses, from the reservoir to be constructed across the river Tungabhadra at Mallapuram. It was, however, expressly stated in the agreement: "It is equally, to be clearly understood that the present arrangement of equal abstraction of water is not to be considered as any

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1. For more details see S.N. Jain, Alice Jacob and S.C. Jain, Inter-State Water Disputes in India, 1971, 49
2. For text of the said Agreement see, Govt. of India, Ministry of Agriculture and Irrigation, Central Water Commission, Agreements on Development of Inter-State and International Rivers, 1978, 217-19

settlement of the rights in the waters of the Tungabhadra nor is it to serve as a basis for the building up of any rights of any of the Governments concerned".[3] The remaining provisions of the Agreement regulated the irrigation from Rajalibanda Canal of Hyderabad, Kurnool-Cuddapah Canal of Madras, Kistna Irrigation system and other co-related matters.

On July 27, 1944, another Agreement was arrived at between the Governments of Madras and Mysore pertaining to the sharing of the waters of the Tungabhadra. The purpose of this agreement was to regulate the utilization and sharing of waters of the Tungabhadra between Madras and Mysore above Mallapuram. It also covered the question relating to royalty to be paid by Mysore to Madras in lieu of the utilization of their share of waters of Kavery at Sivasamudram by the Government of Mysore.[4]

In terms of this Agreement, the Government of Mysore was entitled to draw off, through sluices, a quantity of water not exceeding 57,000 million cubic ft. nett, from the total yearly flow of Bhadra river at Lakkavali, from the Lakkavali reservoir, for irrigation and power purposes. By virtue of clause 9 of this Agreement the two Governments agreed that after accounting for the draw off of 57,000 million cubic ft. as per clause 1, as mentioned above, and that of 15,000 cubic ft. as permitted to Mysore under clause 6 as also an allowance of 12,000 million cubic ft. for miscellaneous irrigation, an amount of water supply estimated at 256,000 million cubic ft. will be available at Mallapuram in respect of which the Government of Mysore undertook not to claim any share against Madras Government. Consequently, as per clause 10, the arrangements agreed to thereby, as mentioned above, constituted a final settlement between Mysore and Madras regarding their rights in the waters of Tungabhadra Basin above Mallapuram. However, these arrangements were subject to the condition that, if on challenge from Hyderabad, or otherwise, any dispute arose regarding this issue and the matter went to arbitration, the two parties would abide by the award of any such arbitration.

Further, regarding royalty, Madras Government agreed that "the Sivasamudram royalty of Rs. 20,000 per anum now agreed to vide Part II (clause 13) of this Agreement shall not in any circumstances be reopened or revised".[5]

It was also agreed that this Agreement was not, in any way, to be "deemed to qualify or limit in any manner the operation of the Agreement of 18th February, 1892 between the Governments of Madras and Mysore in regard to matters other than those to which this Agreement relates".[6]

It is worth mentioning here that arbitration was accepted as a mode of settlement, by the parties to this Agreement, in respect of any dispute arising out of issues touching interpretation, operation or carrying out of this Agreement.[7]

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3. See Ibid., 217 for clauses 1 and 2 of the Agreement.
4. Ibid., 220-225
5. See clause 10, ibid., 224
6. Clause 11, see ibid.
7. Clause 12, see ibid.

On 26-27 December 1945, the Governments of Hyderabad, Mysore, Madras and the Government of India concluded an Agreement to supplement the Agreement of 1944. According to this Supplement Agreement Mysore was allowed to construct Sacrebyle anicut on the Tunga river subject to the condition that Mysore was not to extract supplies from the Tunga at the Sacrebyle anicut during low flow period, pending the construction of Tungabhadra dam, if such extraction was likely to affect the existing pre-Moghul irrigation.[8]

Hyderabad did not commit itself either way to the limit of 57,000 million cubic ft. to be drawn off at Lakkavali reservoir by Mysore in terms of Madras-Mysore Agreement, and reserved its right to challenge the same as also provided in clause 10, sub-para 2, of that Agreement itself.

One specific feature of this Agreement was that the Governments of Hyderabad, Madras and Mysore recognized the claims of Sangli, Bombay and any other riparian areas (including of course, Madras, Mysore and Hyderabad which were already covered by the above-mentioned Agreements) to an equitable share of waters to be decided by any Tribunal to be set up by the Government of India for settling final apportionment of Tungabhadra waters.[9]

Later, through a Supplement Agreement of 1946, in the form of Supplements I and II to the Madras-Mysore and the Madras-Hyderabad Agreements as agreed to by the technical representatives of the three Governments in December, 1945, some minor changes were incorporated to change the wording of the main Agreements and the same were duly accepted as notified by the Secretary of the then Governor General, vide his communication, dated 23rd April, 1946, duly communicated to the Secretary of the Government of Madras, Public Works Department.[10]

In the Inter-State Conference on the Tungabhadra High Level Canal held at Bangalore on June 18, 1956 and attended by the representatives of the Government of India, Government of Mysore, Government of Andhra Pradesh and the Tungabhadra Board, and held under the Chairmanship of the Deputy Chairman, Planning Commission, it was unanimously agreed that the waters of the High Level Canal should be shared in the ratio of 35:65 between Mysore and Andhra Pradesh .[11] It was also agreed that the sharing of the cost of common works of the canal should generally be on 'cusec mile' basis.

Certain pertinent facts deserve a mention here. The work on Tungabhadra Dam started in February 1945 and in 1953 the dam was formally opened. The dam was, however, completed in 1956. From 1956 onwards complications regarding sharing of benefits of water resources of the Tungabhadra arose for two reasons: (i) the Tungabhadra, though itself a major inter-State river, was in ultimate analysis a tributary of Krishna river and it was problematic whether a tributary could itself be taken as a 'unit' for the purpose of inter-State water disputes;

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8. Clause A. For text see ibid., 226
9. Clause E, see ibid.
10. For text see ibid., 228
11. For reference and text see ibid., 35-36

(ii) there were significant political changes whereby the boundaries of certain States got drastically changed. In 1953 the State of Andhra Pradesh was created, which became the successor of Madras. The right side of the dam fell in the area of the State of Mysore and thus it became the joint responsibility of Mysore and Andhra Pradesh. Later, in 1956, the States Reorganisation Act, 1956 brought about drastic changes, whereby the State of Hyderabad ceased to exist and its area fell in the States of Mysore and Andhra. Consequently, the dam got located entirely in the State of Mysore. Under section 66 of the Andhra State Act, 1953, the President of India constituted the Tungabhadra Board, and as a result of disappearance of Hyderabad in 1956, the Tungabhadra Board acquired an over-all control over the dam. The Board consists of a Chairman appointed by the Central Government and three members, one to be nominated by the Central Government and one each by the Governments of Mysore and Andhra Pradesh. Its functions include completion and construction of the Tungabhadra Project and its operation and maintenance, the regulation of the supply of water and power and maintenance of main canal and other allied works related to both Andhra Pradesh and Mysore (now Karnataka).

It is submitted that the question of the validity of the above-mentioned Agreements of 1892, 1944 and 1945 and the effect of the Indian Independence Act, 1947 on these Agreements was raised before the Krishna Water Disputes Tribunal. However, Mysore and Andhra Pradesh got this issue separated and asked for the decision of the Tribunal over the water of the entire River Krishna, as one complex, including the Tungabhadra as its one tributary. The Tribunal acceded to this request and gave its verdict accordingly.

In its award, on being requested by Andhra Pradesh and Karnataka to decide upon the same, the Tribunal decided that the benefits of utilization under Rajalibanda Diversion Scheme between Karnataka and Andhra Pradesh be shared as under :

Karnataka	- 1.2 thousand million cubic feet (T.M.C.F.)
Andhra Pradesh	- 15.9 T.M.C.F.

The other aspects of sharing of the Tungabhadra waters, as a part of the Krishna River system, have been discussed in chapter 13 dealing with the Krishna Water Dispute .

B. Palar River Water Dispute

The river Palar has its source in Karnataka and then flowing through Andhra Pradesh it flows into Tamil Nadu. A brief description of the Palar river system is given in Chapter 8. The river is the main source of irrigation in two districts of Tamil Nadu, namely, Arcot and Chingelput. There are 211 spring channels taking off the Palar river irrigating 11,400 acres of land and feeding 317 tanks with an ayacut of 75,078 acres. Formerly, the river was generally in flood, which necessitated the construction of an anicut in North Arcot district in Tamil Nadu. Since forties there have been no floods, with the result that the springs or Kasam Channels have got dried up and the tanks have not been getting any supply of water.[12]

12. See S.N. Jain and others, supra note 1,52

The river Palar comes within the scope of the Agreement of February 18, 1892, which provided that no new anicut or irrigation reservoir, that could result in the diversion of waters from any river, (out of the 15 rivers mentioned in Schedule A, which included Palar river) could be constructed by Mysore without the previous consent of Madras.[13] The Bethamangalam tank and the Ramasagar tank are the last of a series of fourteen tanks right across the Palar River, just before it enters Mysore territory. In 1902, the Mysore Darbar approached the Madras Government to give consent to their proposal to increase the capacity of the Bethamangalam tank from 222.56 to 572 million cubic ft. by raising the level of the weir by 2.74 m. (9 ft.). It was given to understand by Mysore that after improvement and storage the water in the tank would be utilized only for domestic purposes and for manufacturing purposes of the Kolar gold-fields and not at all for irrigation purposes. Mysore also pointed out that the increased capacity was proposed for storing sufficient water to last for three years of bad rainfall and that actually only 72 million cubic ft. per annum will be utilized for gold-fields. Madras gave its consent with the undertaking or understanding that the yearly draw off of 72 million cubic feet should not at any time be increased without a previous reference to them.[14]

Madras had been complaining that Mysore had not been honouring the understanding of 1902. In 1927 there was a marked fall in the freshes of the Palar River flowing into the Madras territory. Madras suspected that Mysore had constructed additional anicut to extend the area of irrigation in its territory. As Mysore was reluctant to supply any data in this regard so the suspicion, that Mysore was extracting more water than its entitlement, grew stronger. The reduced supply affected irrigation in the Arcot and Chingelput districts of Madras, which had been using the Palar water for irrigation under the 1892 Agreement, as a result of which usually 32,000 acres of land used to benefit. This controversy surfaced openly in 1954. Madras alleged that the shortfall in supply was due to greater draw-off in the upper region lying in Mysore whereas Mysore argued that the short supply was due to shortage of rain in the catchment area. The Inter-State Water Disputes Act, had not come into being as yet.

Since Mysore was not prepared to supply any data no investigation could be carried. Madras approached the Central Government to constitute a Council under Article 263 of the Constitution. The Madras Government alleged that Mysore had violated the Agreement of 1892 in the following manner: (i) Full Reservoir Levels (F.R.L.) of Bethamangalam, Ramasagar and Holali tanks had been raised by Mysore; (ii) withdrawals from Bethamangalam tank had exceeded 72 million cubic ft; (iii) the Mysore Government had constructed some new unauthorised tanks in Palar basin ; (iv) Mysore had constructed an additional anicut below Bethamangalam tank against the spirit of the

13. For reference and text of the Agreement of 18 February 1892 see Agreements, supra note 2, 202
14. See S.N. Jain and others, supra note 1, 52-54

Agreement of 1892; and (v) Mysore had been withdrawing water directly form Palar, by pumps, for irrigation purposes in contravention of the Agreement of 1892.[15]

As a result of joint investigations conducted on the basis of the deliberations of three meetings held in May 1955, August 1955 and June-July, 1956 it was found that there was no breach of the Agreement of 1892 by Mysore so far as the Bethamangalam, Ramasagar and Holali tanks were concerned. However, as a safeguard against any future infringement it was decided that Mysore should connect all the weir crest level of tanks and anicut, falling within the prohibited areas, with the G.T.S. bench marks and that the diminution of supplies be monitored and causes thereof detected.

The decisions of the meetings of 1955 and 1956 were confirmed by Mysore and in 1958 Madras officially stated that they did not wish to pursue the matter further at that stage.[16]

C. Musakhand Dam Project.

The river Karamnasa, on which the Musakhand dam in Uttar Pradesh is constructed, rises in Bihar and then runs through Uttar Pradesh. It is a small project. Out of the total catchment area of 1474 sq. km. (569 sq. miles) of the river Karamnasa about 425 sq. km. (164 sq. miles) falls in Bihar and therefore the Central Water and Power Commission asked the Uttar Pradesh Government to obtain the consent of Bihar for execution of the project for the construction of an earthen bund (dam) 203 m. (665 ft.) high and 3.2 km. (2 miles) long, near the village Musakhand situated in the Varanasi district of Uttar Pradesh.

The Government of Uttar Pradesh wanted that Bihar should share the cost and benefit in proportion to the respective catchment area of each State. At the negotiation stage Bihar wanted 3,300 million cubic ft. of water and was prepared to share only 50 per cent of the costs whereas U.P. was not willing to give more than 1,500 million cubic ft. of water to Bihar and desired that 66 per cent of the costs of the said project be shared by Bihar.

When no agreement could be reached by direct negotiations the Union Ministry of Irrigation and Power was approached and consequently, in an inter-State meeting, held under the auspices of the Union Ministry of Irrigation and Power in 1965 the parties concluded an agreement with the following terms :

(i) The total capacity of the Musakhand dam would be 525 million cubic ft. out of which the share of Bihar and Uttar Pradesh will be 225 million cubic ft. and 3,000 million cubic ft. respectively.

(ii) The cost of the construction and future maintenance of the dam was to be shared by the two parties equally.

(iii) The cost of the envisaged canals, to be built up by the two States, was to be borne by the respective State in whose territory the concerned canal

15. Ibid., 53-54. For texts of these issues see also Agreements, supra note 2, 269.

16. See S.N. Jain and others, supra note 1, 54

was to be constructed. Bihar was also to bear the cost of the construction of the canal taking off from the Uttar Pradesh border and carrying water into Bihar.[17]

D. Bajaj Sagar Dam Project.

The Mahi River rising on the northern slopes of the Vindhya ranges in Madhya Pradesh and flowing in north-westerly direction for about 121 km. (75 miles), enters Banswara district of Rajasthan. Subsequently, it enters Gujarat and, thus, after flowing for a total length of about 579 km. (360 miles) through the three States of Madhya Pradesh, Rajasthan and Gujarat, enters the Gulf of Cambay. A brief description of the Mahi River System is also given in Chapter 8.

The multipurpose development scheme for Mahi River planned for three projects : (i) the Mahi stage I project comprising the construction of a diversion weir with a canal system at Wanakbori in the Balasinor Taluk of Kaira district for irrigation of about 4.6 lakh acres of land in Gujarat; (ii) the Mahi Stage II project, envisaging the construction of a dam at Kadana and irrigation canals in Gujarat; and (iii) the Bajaj Sagar Project at Banswara in Rajasthan.[18]

As a result of discussions and negotiations between Gujarat, Rajasthan and the Central Government the reservoir level at Kadana was agreed to be reduced from original plan of +465 to +419 as otherwise it would have submerged a large territory of Rajasthan including the famous shrine at Galiakot(Dargah). Rajasthan later suggested rather further lowering of this level. For compensating the loss of storage it was agreed to increase the height of the dam near Banswara in Rajasthan from the originally contemplated +872 to +921. There were differences between the parties regarding sharing of cost of the project as well as apportionment of power and irrigation benefits and costs. Ultimately, through the good offices of the Union Ministry of Irrigation and Power an agreement was reached between the parties, namely, Gujarat and Rajasthan on January 10, 1966. The terms of the said Agreement are as follows:

(i) Kadana dam should be built to Full Reservoir Level (F.R.L.) 419.00. The entire cost and benefits of this project will be borne by Gujarat. At a later date when some Mahi areas are taken over by Narmada and a part of the Krishna waters is released for use in Rajasthan, Rajasthan should pay to Gujarat an appropriate cost of the dam for such use. The exact proportion will be fixed at the time when such releases become available.

(ii) Banswara dam across Mahi, located in Rajasthan, will be built to F.R.L. 921.00. Out of the total cost of the dam, a portion will be allocated for power which Rajasthan will develop from the waters of this reservoir. This will be at the rate of Rs. 1,250 per kw firm power. If the total cost of the dam increases beyond Rs. 14 crores, the allocated cost per kw taken above will also be increased proportionately.

17. Ibid., 41-42
18. Ibid., 42-44

(iii) The cost of the dam for F.R.L. 915.00 should be shared between Gujarat and Rajasthan in the ratio of 40:9 as the utilization of the waters for irrigation inclusive of evaporation losses is 40,000 million cubic ft. in Gujarat and 9,000 million cubic ft. in Rajasthan.

(iv) Building the dam upto F.R.L. 921.00 will give an additional storage of 7,000 million cubic ft. which will be useful in lean years for ensuring firming of power generation. In view of this, Rajasthan has agreed to bear the difference in cost for building dam between F.R.L. 921.00 and F.R.L. 915.00.

(v) At a later date when Narmada development takes place and when Mahi areas are fed by the waters of Narmada and the Mahi waters at Banswara are released for use in Rajasthan, Rajasthan should reimburse the cost of the Banswara project paid by Gujarat.[19]

Later, in pursuance of the above-mentioned Agreement, a Supplemental Agreement was arrived at between Rajasthan and Gujarat, on ad hoc basis, on May 29, 1975 with the purpose of smooth implementation of the work of acquisition and making available of land as also that of rehabilitation of displaced persons from the submerged areas and settlement of amount of compensation to be paid to Rajasthan by Gujarat in lieu of the submerged areas affected by construction of Kadana dam.[20]

Further details of compensation, etc., were regulated by two other Supplemental Agreements between Gujarat and Rajasthan concluded at New Delhi on September 2, 1976 and April 5, 1978 respectively.[21]

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19. See Agreements, supra note 2, 109
20. Ibid., 110-12
21. Ibid., 113-15, 116-18