

Significance of Water and Need for Co-related Research

A. Significance of Water

It is a matter of common knowledge now that "life had its origin in water and the aquatic environment today is the abode of life in almost unlimited quantities and varieties among which are the tiniest of all animals and the biggest forms in existence."¹ Hence, it would not be an overstatement to say: "Not only that life started in water but rather water is life itself and it is essential for earthly life as living cells live in water and water is flowing through us all the time, entering as food and drink and as such participating in virtually every process that occurs in plant and animal organism."² Water is a gift of nature to humankind. The coming into existence, growth and sustenance of humankind, flora and fauna are dependent upon water. Even for the bare existence of life, water is, in comparison to air, if not of equal value, the second important elementary substance.³ The research in this field has established that in earlier times water played an important role not only in the origin of the civilizations, but also for the development of political and state organizations.

According to F.J. Berber, the exodus and movements of the inhabitants of the Afro-Asiatic grasslands in the river valleys of the Nile, the Euphrates, the Indus and the Hoangho, caused by drought and scarcity of water there, led to the emergence of the first historical cultures. In Berber's opinion, further, the permanent committees of engineers, scribes, astronomers and mathematicians, which planned and built dams for protection against floods and constructed canals for irrigating fields, provided a basic structure for future governmental and state oriented administrative organizations.⁴

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1. Schantz, 'Water as a Determinant of Flora and Fauna' in Janathan Foreman and Ollie E. Fink (eds.), *Water and Man*, Columbus (Ohio): Friends of the Hand, 1950, 122ff.
 2. For more details see B.R. Chauhan, *Settlement of International Water Law Disputes in International Drainage Basins*, 1981, 31-32
 3. For similar views see B.R. Chauhan, *Rangordnung verschiedener Arten von Wassernutzungen nach internationalem Wasserrecht*, 1963, 1. See also the Report of the 48th Conference of the International Law Association, New York, 1958, III-2-Alternative (Water in all its forms humidity, rain, snow, ice, drainage of every description, rivers, lakes, seas-is like air, a general endowment of nature essential to human life. Part III.: Principles of Law, p. 56; see also Holms J. in *New Jersey v. New York*, 283 U.S.336,342. "A river is more than an amenity, it is a treasure" (cited by James W. Garner, *The Doctrine of the Thalweg*, British Year Book of International Law, 1935,178)
 4. See F.J. Berber, *Die Rechtsquellen des internationalen Wassernutzungsrechts*, 1955,3

There is no denying the fact that water is becoming day by day an important factor in the economic development of the states and since economic development affects the social development also, this factor gains still higher significance. Recently, a realisation has dawned upon the states that the intensive development and utilization of the water resources of a state serves both as a cause as well as an effect for the prosperity of the concerned state because a state, which through the proper utilization of its water potential attains some level of prosperity and technological advancement, can, as a result of that much prosperity and technological development, make use of its water potential still better for its further prosperity and technological advancement.⁵

It may be pertinent to point out here that, on the average, a person takes in about 16,000 gallons (60,600 litres) of water during his life time and in industrialized countries like the U.S.A., each person presently uses at least about 70 gallons (260 litres) of water every day in his house.⁶

With the advent of the machine age and the development of technology, aquatic resources are being tapped more vigorously. But as the technology and civilization are advancing, water needs are increasing. More and more people want more and more comforts. Facilities like air-conditioners, garbage disposers, automatic washers and extra bath rooms which were earlier considered as luxuries, are considered as necessities of life with the ever-increasing standard of living of a large human population.⁷

B. Need for Co-related Research

It is a well established fact that India is endowed with enviable wealth of water resources. There are more than twenty major river systems in India. Prior to 1947 most of them, leaving aside rivers like Teesta, were national rivers. At present, some of them like the rivers of Indus Basin, Ganga, Brahmaputra and Teesta are international rivers because geographically they flow through the territories of more than one sovereign states. Speaking in terms of the Indian federalism most of the rivers in India are inter-state rivers as they flow through the territories of more than one state (federal units) within India.

The international as well as the inter-state character of the Indian rivers has given rise to a number of disputes amongst the basin states, be it between India and its neighbouring sovereign states, at international level, or between the federal units within the Indian federal set up, at inter-state level. These disputes may pertain to the sharing of the quantum of water, vis-a-vis the affected water

5. For similar views see also Chauhan (1981), *supra* note 2,50

6. For sources of this data see *World Book Encyclopedia*, vol. 21, 1976, 92, 96-98; *Collier's Encyclopedia*, vol. 23, 328, 330, 337; *Chamber's Encyclopedia*, vol. XIV, 1950, 449-50; *Encyclopedia Britannica*, vol 23, 270; Schantz (1950), *supra* note 1, 122, 270, 274, 290, 390; see also Chauhan (1981), *supra* note, 29ff

7. For similar views see R.V. Truit in *Water and Man*, (1950), *supra* note 1, 27; also see Chauhan, *ibid*; 48

resource, amongst the concerned sovereign neighbouring basin states or the units of Indian federation, as the case may be; or such disputes may even pertain to the preservation of the quality of the respective water resources to enable the concerned contestant states to make use of these resources in their natural usable form. Sometimes the disputes have arisen even regarding priority in respect of various uses of water, in the background of the conflicting claims of the contesting states in favour of one use or the other.

It may be pointed out here that with regard to the utilization of water resources there is an increasing tendency, the world over, towards multipurpose development of water resources for the attainment of the ideal of optimum use of water for maximum benefit to the concerned community and with that end in view various uses of water together with the requirement of flood control find their proper position in the scheme of development prepared in accordance with local, regional or national social and economic needs. Naturally, India also cannot remain unaffected by these tendencies.

Under these circumstances every contestant party, whether a sovereign state or the unit of a federation would like to have the maximum quantum of water out of the water of a water resource which is the subject matter of a dispute. Consequently, the contestant states feel emotionally involved in such international or inter-state water disputes some of which defy solution and many of which get spread over a period of decades before a solution is found. Obviously, the settlement of international or inter-state water disputes, whether in India or elsewhere, poses a burning problem. Thus, it has been rightly observed that "while sorting out or evolving rules for the settlement of such international or, so to say, inter-state water disputes, we are concerned with not only the logical formulation of legal rules and principles, which may indicate the ideal wishes of some authors, without being able to solve the actual problems of international or inter-state life, in this regard, but rather come face to face with far more vital considerations and complex questions whose incautious and careless handling could create a confusion in the life of the community of states, or within, a federation, as the case may be and also damage the interests of the concerned states and people."⁸

All these complicated disputes, complex questions and baffling controversies cannot be tackled and resolved in isolation. They necessitate a co-related research, in all the inter-connected fields, aimed at providing an abundant help-material for the technicians, experts, statesmen or governments to enable them not only to tackle but successfully resolve the said disputes, questions or controversies.

C. Water as Medium for Amelioration of the Underprivileged.

The problems of water management, water development, distribution of water resources and settlement of international or inter-state water disputes are

8. See Chauhan (1981), *ibid*, 56

to be considered not only from rigid technical or legal angle but also from the pre-eminently important humanitarian point of view because water, representing water wealth, forms a focal point and basis for the biological existence as well as sustenance and socio-economic progress and well-being of the respective human-folk of the concerned states involved in these controversies or disputes.⁹

It does not need an emphasis that water law problems and disputes sometimes unfold such insurmountable complexities that in spite of the best intentions of the contestant parties to resolve them early, they defy solutions and get dragged for decades. Under such circumstances and situations the development work on the concerned water resources gets blocked and consequently even the socio-economic planning comes to a standstill.

This situation reminds us about the responsibility of the researcher not only in the form of searching, evolving and laying down sound legal norms and principles but also paying due heed to the elements of equity and distributive justice in the said research endeavour. The desired research should aim at evolving sound principles, judicious forums and expeditious procedures for resolving such disputes. This fact has to be always kept in mind by all the concerned parties that the deficiency in the dispute-settlement mechanism and the consequent delay in resolving it stops or at least blocks the phenomenon of water utilization, puts a brake upon the process of 'optimum exploitation' of the said water resource and as such denies the concerned states and their humanfolk the access to that water resource, which is not only their wealth but their life as well as foundation of their economic growth and cultural well-being, nay their entire future.

The worst sufferers in this entire process are the least-privileged humanfolk of the concerned states who pay a very heavy price even at the time of development and exploitation of the concerned water resources. As water disputes defy solution and drag on they expose the concerned states and particularly their underprivileged population to a very heavy burden of ever-increasing social cost which they must bear willingly or un-willingly.

Thus, the research involved in such issues is not only to scrutinize the existing dispute-settlement mechanism with all ingredients of thoroughness but also strive for evolving or suggesting a mechanism which should, primarily, make a speedy solution of such disputes possible. Besides, such a research should be helpful in improving the quality of the future dispute-settlement mechanism from all angles so that the concerned disputant states succeed not only in resolving their respective water disputes but also in accomplishing the ideal of 'optimum exploitation or utilization' of the concerned water resource in such a way that in the ultimate analysis the maximum benefits of that water wealth reach the grassroots level and the entire phenomenon of water utilization serves as a model for amelioration of the lot of the least-privileged humanfolk.

9. See Chauhan (1963), *supra* note 3,140