Water Laws in India: An Assessment And Way Forward

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Preface

*"**Water Laws in India: An Assessment and Way Forward**" is probably the first study of its kind which makes an analysis of water laws covering not only surface irrigation, but also several other aspects like ground water, flood management, drinking water, inter-state water disputes, environmental aspects related to water, participatory irrigation management, public private partnership, role of panchayats and municipalities in water management, apart from water related constitutional aspects and water rights. Ascertaining the level of implementation of various water laws and rules along with problems encountered in the process is another special feature of this study. Suggestions made take into account the views of stake holders at various levels, as collected through interaction with officials at state, district and down below. Focus Groups comprising of villagers, representatives of Panchayati Raj Institutions, and feedback from a sample of 720 Households' in both rural and urban areas.*

The study, sponsored by the Ministry of Water Resources, Government of India, was undertaken in 8 states, covering one or two states from each agro-climatic zone of East, West, South, North and Central India. Thereafter, districts, villages, towns and Households' were selected as per prior approved study design detailed in chapter 2. Several instruments of observations were developed and administered personally by the project staff.

Information collected both from secondary as well as primary sources like household surveys and feedback from state level officers were taken into account while drafting the report.

The study commenced in May, 2011 and the Draft Final Report was submitted to INCID in September 2012 as per schedule. This was possible due to cooperation received from all concerned specially the project staff. Comments of the INCSW experts on the Draft Report were received in early February, 2013. The report was finalized after making some changes in the light of the comments of the experts to whom we express our sincere thanks.

25th February, 2013

Kamta Prasad
Principal Investigator

Acknowledgement

The Institute for Resource Management and Economic Development *offers sincere thanks to the following for help and cooperation provided during the conduct of the study. This enabled the study to be completed in time.*

To *INCID and specially to Shri Yogesh Paithankar its Member Secretary, for providing guidance as and when needed and for getting the cooperation of the state governments without which the study would not have been completed in time.*

To *Shri Sunil Kumar Director (R&R) INCSW for help and cooperation in finalization of the Report.*

To *the Principal Secretaries, Water Resources Department, Governments of Andhra Pradesh, Assam, Bihar, Kerala, Punjab, Chhattisgarh, Maharashtra and Uttar Pradesh, for nominating Nodal Officers in their respective states to help the study team in establishing contacts with various departments of the State Governments dealing with the water sector. The state level Nodal Officers of the rank of Superintending Engineers and above helped in nominating the district level coordinating officers of the rank of Executive Engineers and above, who, in turn, offered able guidance to the study team for selection of villages and towns for conduct of the field survey. These officials provided all sorts of help needed by the team during the time of field investigation.*

To *Shri A. B. Paul, retired chief engineer, Public Health Engineering Department (PHED) of the Government of Assam and Dr. G. K. Pillai, Retired Professor of Economics, University of Kerala, Thiruvanantapuram for providing useful inputs during the state level meetings of the Principal Investigator in Guwahati and Thiruvanantapuram respectively.*

To *the Principal Investigator, the two Water Law specialists, the Socio-Economic Expert and all other staff of the Institute associated with the study whose devotion and tireless efforts made it possible for the Institute to complete the study and submit the report in time.*

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Executive Summary

(A) Introductory

1. The rationale for undertaking the present study is highlighted. [1.1]

2. The study has a large scope covering legal aspects of not only canal irrigation but also several other aspects of water resources like ground water irrigation, participatory irrigation managements, flood management, drinking water, public private partnership, inter-state conflicts, water pollution, Panchayats and municipalities. It also throws light on status of implementation of water laws at the grass root levels and gives suggestions for improvement. [1.2]

3. The objectives of the study are: [2.1]

   a. To provide a brief analysis of the Constitutional provisions related to development and management of water resources in India.

   b. To provide a consolidated picture of both central and state water laws in India at one place. This would include laws dealing with not only canal irrigation but also ground water, flood management, environmental and inter-state aspects. An attempt is also made to ascertain and examine the well established local practices having force of law with respect to the water sector.

   c. To examine the present legal status with regard to privatization and public-private partnership in the water resource sector.

   d. To make a critical review of the water laws including local practices having force of law, with respect to (i) attaining such national objectives as water use efficiency, equity, environmental sustainability and inter-state harmony specially in the light of future challenges facing the water resource sector in India , (ii) their implementation at the grass root levels.

   e. To find out the extent of implementation of the 73rd and 74th Constitutional amendments brought about in 1992 with respect to water laws in different states of India and reasons for the slow progress, if any.

   f. To analyse the present status with respect to ownership of rights to water in India with particular reference to the new challenges and new developments in the water sector.

   g. To provide suggestions for improvement and indicate action points so as to facilitate better management of water resources.

   The study thus, aims to provide an elaborate picture of water laws in India. It also highlights their inadequacies and shortcomings in dealing with present as well as

future water scenario. And finally, it gives suggestions for improving the legal system related to water.

4. Information and data for the study were collected from both secondary and primary sources; secondary sources for the legal provisions and primary sources for the views and perceptions of officers in states and for ascertaining the status of implementation of laws [2.2.1]
5. INCID was consulted at different stages of the study [2.2.1]
6. Considerable interaction took place with officers at state and district levels in eight selected states. [2.2.1]
7. Following the guidelines provided in the study design and in consultation with INCID, states of Andhra Pradesh, Assam, Bihar, Chhattisgarh, Kerala, Maharashtra, Punjab and Uttar Pradesh, were selected for a detailed study. [2.2.2]
8. From each state, one district and from each district 6 villages and 2 towns were selected for field enquiry. [2.2.3]
9. Finally 10 households from each selected village and 15 households from each selected town thus forming a total of 720 households were selected to get a diverse set of water users whose views and perceptions were obtained through a house to house survey conducted by the Project Staff. [2.2.3]
10. In order to collect the relevant information, four types of instruments of observation were developed and used. [2.2.4]
11. Field studies were conducted from September 2011 to March 2012 [2.2.5]

(B) Main Findings

12. A fundamental right to water available to all persons in the country, though not mentioned explicitly in the Constitution of India, has been evolved through judgements of the Supreme Court and several High Courts under Article 21 of the Constitution providing for fundamental right to life. [3.1]
13. With respect to allocation of responsibilities between the centre and states, the Constitution gives adequate powers to the centre to legislate on matters related to inter-state rives. [3.2]
14. The 73rd Amendment of the Constitution has listed drinking water, water management, minor irrigation, watershed development as subjects that may be under the jurisdiction of Panchayat as decided by the state legislature. [3.3]

15. The 74th Amendment of the Constitution has listed water supply for domestic, industrial and commercial purposes as subjects that may be entrusted to Municipalities as decided by the State Legislature. [3.3]

16. A brief overview of canal irrigation laws in the context of historical perspective is provided. [4.1]

17. The early irrigation laws beginning from the Northern India Canal and Drainage Act, 1873 (which is applicable even now), without talking about ownership, have asserted the right of the state to control and use water of all rivers and streams flowing in natural channels within their respective territories. [4.2]

18. According to the 1873 Act, while the state governments are empowered to take water from a river for any irrigation project, they are to pay compensation on certain specified basis if the project caused stoppage or diminution of supply to an inundation canal. [4.3]

19. Unauthorised use of canal water is not regarded as a criminal offence as per the 1873 Act. It only results in levy of enhanced water charges. [4.3]

20. A notable feature of the 1873 Act, and similar other Acts such as the Bihar Irrigation Act, 1997 is that it provides virtual immunity to the state government against its failure to supply water. This provision has provided scope for inefficient management of canal irrigation system. [4.3]

21. Fixation of water rates as per the 1873 Act (and other Acts following its pattern) is left at the complete discretion of the state government. This has enabled state governments to fix rates which do not cover even the O & M expenses resulting in huge losses to the government, poor maintenance of the system and erosion of any incentive to farmers to avoid wastage of water. [4.3]

22. The Bihar Emergency Cultivation and Irrigation Act, 1995 gives wide powers to the collector to extend irrigation from a canal to a certain land if his enquiry suggests that such land is likely to be benefitted by the proposed irrigation work. [4.3]

23. The Kerala Irrigation and Water Conservation Act, 2003 authorises the state government to entrust the construction or maintenance or both of any irrigation work to any local authority or to any cooperative society or other society of farmers or to any other body/corporate benefitted by that irrigation work. But the Act also makes it clear that the construction and maintenance of all minor and petty irrigation works within the limit of a local authority shall be subject to the provisions of Kerala Panchayat Raj Act, 1994. [4.3]

24. The Kerala Act 2003, constituted the Kerala Dam Safety Authority for the purpose of surveillance, inspection and advice on maintenance of dams situated within the territory of the State. The Act was amended in 2006 to include a new Section on functions of this Authority. [4.3]

25. The Chhattisgarh Irrigation Act, 1931, like Acts in other states, also mentions that charges for the supply of water "shall be paid at such rates as may be fixed by the State Government in accordance with rules made under this Act." The Act goes on to add that "the State Government may by notification, reduce or remit the whole or any part of the charges for the supply of water" for all the purposes specified in the Act. [4.3]

26. When it comes to supply of water for industrial and other purposes, the Chhattisgarh Act of 1931, provides little guidance beyond saying that the conditions for supply of water and the charges for that will depend on agreement between the government and the private entity concerned. [4.3]

27. The Chhattisgarh Irrigation Act, 1931 provides for the establishment of an Irrigation Panchayat for every village or chak and at the discretion of the Collector, for a group of villages in the commanded area of canal, to assist the officers of the Irrigation Department in certain functions. But no thought has been spared as to the fate of such Irrigation Panchayats after the establishment of the Water Users Associations. Further no rules were made under the Act with regard to functioning of the Irrigation Panchayats. [4.3]

28. While most States have failed to streamline their irrigation Acts following the enactment of laws regarding participatory irrigation management, the State of Maharashtra can be said to an exception to this trend. [4.3]

29. Notwithstanding the imperative need to undertake time bound rehabilitation of the existing canal systems, the State laws do not have any mandatory provisions obliging the irrigation departments to do so. This too is a major gap in the context of the objective of efficiency. [4.3]

30. When it comes to household's awareness on canal irrigation laws, the responses from households have shown that they were not aware of the laws on the subject. [4.4]

31. A majority of the respondent farmers felt that they were not consulted by irrigation department officials on various aspects of irrigation management including distribution of water, maintenance of canals and on irrigation charges. [4.4]

32. A majority of farmers (241 out of 377) were not satisfied with the mechanism for resolution of disputes regarding canal irrigation charges. But significant inter-state differences in this respect were also found. [4.4]

33. Most of the state government officials, except those from Punjab, acknowledged that the implementation of the laws was far from perfect. Some of the reasons for the same mentioned by them included action not taken against those flouting the laws, lack of fear for flouting laws and rules, action not taken against officials not implementing the laws, absence of public awareness of laws and rules, and illiteracy of most farmers even though law presumes literate and aware farmers, the general law and order problems in some areas and/or in certain periods and political interference. [4.5]

34. Other reasons for non or imperfect implementation of the water laws mentioned by states were deficiencies in irrigation management, e.g. field irrigation did not make it possible to restrict irrigation to those who were defaulters or otherwise found ineligible to receive canal water for irrigation, and it did not ensure water to tail-enders. A major hurdle as reported by Bihar, and which might be true in other states also, was non-availability of adequate quantity of water to the requirements as provided in the law. [4.5]

35. Another reason cited by states was administrative inadequacies such as inadequacy of grass root level functionaries like Assistant Engineer, Junior Engineer, Amin, Patrol, Chainman, mate, etc. duties of all of whom have been prescribed in the law, because of posts lying vacant for years, lack of basic amenities like vehicles, rest houses, camps inspection bungalows, etc. absence of judicial powers to Executive Engineers and lack of proper knowledge of laws and rules by many field level officers. [4.5]

36. Another set of problems arises on account of laws becoming outdated, as for example, monetary fine as fixed under Sec. 82 of Bihar Irrigation Act, 1997 and which continues till today is Rs. 500 only. Hence, it had no effect on those found guilty. The jail clause was hardly implemented due to absence of needed cooperation from police and district civil administration. A major legal inadequacy, highlighted earlier also, related to absence of any objective principle or criteria for fixation of water rates. [4,.5]

37. The widely held understanding that ground water belongs to the land owner does not strictly correspond with the law as embodied in the Indian Easements Act, 1882 according to which ground water flowing in defined channels (and bulk of ground water falls in this category) is a state property. [5 . 1]

38. There is now a growing perception supported by a series of court judgements that ground water is public property under the doctrine of Public Trust and that only user rights accrue to owners of overlying lands. The government, therefore, has an obligation and is empowered to regulate ground water in public interest. It is on this basis that some states in India have enacted specific ground water laws. [5.1]

39. The famous 1996 directive of the Supreme Court regarding establishing Central Ground Water Authority implies that regulating ground water is the responsibility of the Central Government also. [5.1]

40. With a view to regulating ground-water resources, the Government of India first formulated a draft Model Bill in 1970. This was subsequently revised in 1992, 1996 and 2005.The model bill empowers the state to restrict construction of ground water abstraction structures in any area declared as a notified area and to constitute a ground water authority for discharging the various functions in this respect. The civil courts were to be barred from granting injunctions on any decision taken by the Authority. [5.2]

41. Based on a directive of the Supreme Court in December 1996, a Central Ground Water Authority has been constituted under the Environment Protection Act, 1986 to regulate management of ground water in India. [5.2]

42. Only a few states in India such as Gujarat, Karnataka, Kerala, West Bengal, Himachal Pradesh, Maharashtra and Andhra Pradesh have enacted specific ground-water legislation. These laws apply in restricted areas, have limited purposes and generally suffer from a low level of implementation. These specific ground-water legislations of the above states are discussed in the text. [5.3]

43. It was found that in Maharashtra, the law does not have any provisions to control the ground water abstraction for irrigation or industrial use. Further the law in that state does not have strong enabling provisions for any involvement of local community in ground water management. [5.4]

44. The field findings confirm why the level of implementation of the ground water law has stayed dismal. The household survey across the eight study states showed that there were literally no respondents who said that they had taken permission before installing tubewell. [5.4]

45. Far from taking permission before installing tubewell, the responding farmers in all study states were not even aware that permission for installing tubewell was required by law. This is true even for the states where ground water law has been enacted. [5.4]

46. Tubewell using farmers mentioned that there were no restrictions on the quantum of water to be withdrawn from existing tubewells. Hence, there was no control on depletion of ground water by existing tubewell users. Freedom to withdraw any amount of water by existing tubewell users who generally belong to better off section implies absence of equity provision in the legal system. Making electricity available at subsidised rates or free to tubewell owners as in Punjab leads to further inequality. [5.4]

47. As reported by farmers at the time of interview in sample states, there was no law to regulate sale of water from tube/bore-wells by water lords in any state. [5.4]

48. Fields findings indicate that farmers are aware of the gravity of the problem of continuing fall in level of ground water. [5.4]

49. The main constraints in the implementation of the state laws on ground-water management include: (a) political difficulties facing district authorities charged with its implementation due to strong and influential farmers' lobbies who resist such regulation, (b) lack of awareness among the general public; and (c) lack of capacity with the State Department's technical body for ground water survey and (d) lack of mandate to it for the requisite policing functions. [5.4]

50. As per views of the state level officials of Andhra Pradesh, it is difficult to implement the spacing norms of 250 meter between two tubewells as laid down in law because every

small and marginal farmer wants to have a tubewell. Hence, if law is applied then many such farmers will not have tubewells. [5.4]

51. State level officials of Maharashtra are of the view that, the ground water law is only for the protection of public drinking water sources and does not address the issue of ground water overuse specially through drilling of deep bore wells for irrigation and industrial use. The law does not have any involvement of local community, no mandatory provision of artificial ground water recharge within over exploited areas, no control on taking the water intensive crops like sugarcane, banana etc., no provisions for protecting the quality of ground water. [5.4]

52. Realising the shortcomings of the existing law, the Government of Maharashtra introduced a new bill on ground water management in the Maharashtra Legislative Assembly on 15th December, 2009 for effective management of ground water resources by community involvement. [5.4]

53. As per constitutional and legal provisions, while the primary responsibility for flood control lies with the states, the Centre too has a role specially for floods having inter-state dimensions and in flood disaster management. [6.1]

54. Major flood prone states like Assam, Bihar and Uttar Pradesh have laws for dealing with almost all matters connected with flood control works such as prevention and removal of obstructions in rivers, streams and drainage channels, compulsory evacuation of land in case of floods, suitability of lands for construction of flood works, construction and maintenance of embankments and drainage works, requisition and acquisition of land required for flood control including anti-erosion works, remission and suspension of land revenue, betterment levy etc. [6.2]

55. The laws provide wide powers to the state officials to deal with almost all aspects of flood control works. There are no specific qualifiers built into these laws and judicial review is also circumscribed to a great extent. These laws also provide ample scope for administrative discretion. [6.2]

56. The present legal regime, however, deals inadequately with the rehabilitation of people affected by flood. [6.2]

57. The laws reviewed in this report include the Northern India Canal and Drainage Act, 1873 the Assam Embankment and Drainage Act 1954, the Assam Land (Requisition and Acquisition) Act 1964, the Assam Land Revenue Reassessment Act, 1936, the Assam Land and Revenue Regulation Act, 1886, the Bihar Irrigation Act, 1997, the Bihar Irrigation and Flood Protection (Betterment Contribution) Act, 1959, the Andhra Pradesh Rivers Conservancy Act 1884, the Andhra Pradesh Irrigation (Levy of Betterment Contribution) Act, 1955, the United Provinces Acquisition of Property (Flood Relief) Act, 1948, the Uttar Pradesh Flood Emergency Powers Evacuation and Requisition Act, 1951, the Uttar Pradesh Zamindari Abolition and Land Reforms Act, 1950, the Uttar Pradesh Awas Evam Vikas Parishad Adhiniyam, 1965, and the Maharashtra Panchayat Act, 1961.

[6.2]

58. There is no single law dealing with all aspects of flood management in any state. The states have isolated provisions in various laws that could be utilized to deal with flood management. [6.2]

59. A model draft bill for flood plain zoning was circulated by the Union Government in 1975 to all the states. But very few states have implemented it. [6.3]

60. There are two Central laws in flood management. These are the Brahmaputra Board Act, 1980 and the Damodar Valley Corporation Act, 1948. These are reviewed briefly. [6.4]

61. The state laws dealing with flood control provide very little scope for community participation in flood management. There is no institutional mechanism backed up with funds and functionaries for this purpose. [6.5]

62. The powers given to community under state Panchayat Acts are not mandatory but only enabling clauses which the concerned wings of Water Resources departments have, by and large, ignored since no funds were provided to Panchayats for this purpose. They were not even aware of such laws. [6.5]

63. More than 50 percent of the households in the flood prone states surveyed were found to be unaware of the administrative provisions for their participation in flood management activities. [6.5]

64. The Constitutional provisions provide adequate space for the central government to take proactive steps for inter-state rivers including measures for avoidance and/ resolution of inter-state disputes. [7.1]

65. The Inter-State River Water Disputes (ISRWD) Act, 1956 as amended subsequently provides the legal framework for settling inter-state water disputes. Under the Act, 8 Tribunals have been constituted of which 5 have given final Awards. [7.2]

66. The ISRWD Act has some inadequacies such as the inability of the central government to appoint a water dispute tribunal on its own, inordinate delays in the process of adjudication, absence of provision to enforce the tribunal's award and a lengthy process in constituting a tribunal and thereafter in giving the awards by the tribunals. [7.2]

67. The awards of Inter State Water Disputes Tribunals have also helped in shaping the law relating to the rights between states in inter-state rivers in India. [7.2]

68. States have also appealed directly to the Supreme Court of India under Article 131 of the Constitution for resolving some inter-state disputes. [7.3]

69. There is no satisfactory legal mechanism to prevent or discourage the occurrence of disputes related to sharing of water which arise mainly due to lack of well defined legal

principles regarding allocation of water among the concerned states and deficiencies of data. [7.4]

70. Agreements between the states, which enjoy legal sanctity, have also helped in settlement of several inter-state water disputes in India. [7.5]

71. At present, 15 states have enacted legislation for involvement of farmers in irrigation managements. This includes 7 of the 8 states selected for this study. [8.1]

72. There are some state laws enabling farmers participation in irrigation management which existed even before coming into force of the new paradigm of PIM laws. One good example of this, namely the Assam Farmers (Group Irrigation) Act, 1978. This is briefly reviewed. [8.1]

73. The basic legal regime created by laws of different states comprises of delineation of water users areas, establishing a democratically elected Water Users' Association (WUA) consisting of all water users for every Water Users' area. Above this is the second tier of the Distributory Committee comprising of the Presidents or representatives of WUAs within its jurisdiction. Finally, there is the Project Committee comprising of Presidents of the Distributory Committees in the project area. These associations at different levels are expected to be actively involved in: (i) maintenance of irrigation system in their area of operation; (ii) distribution of irrigation water to the beneficiary farmers as per the warabandi schedule; (iii) assisting the irrigation department in the preparation of water demand and collection of water charges; (iv) resolving disputes among the members and WUA; (v) monitoring flow of water in the irrigation system etc. [8.1]

74. Apart from features common to all the concerned states, there are a few states specific variations. Summarised in Section 8.3, of chapter 8, these indicate more (Uttar Pradesh) or less (Kerala, Bihar) number of tiers, some formal linkage between WUAs and Panchayats, (Chhattisgarh, Bihar) concept of minimum water entitlement (Maharashtra), right to recall elected functionaries (Chhattisgarh) right to the state to take over non-functioning PIM (Bihar) etc. [8.3]

75. The PIM laws give little attention to water rights, thereby implying that the governments' rights to water are unchallenged, while its obligations to deliver water to WUAs are rarely legally binding. [8.3]

76. Farmers in the surveyed villages did not have appreciation of the role of WUAs in saving water through better water management. [8.3]

77. Notwithstanding the laws passed, the coverage of areas under PIM was found to be quite limited in the selected districts where field surveys were conducted. [8.3]

78. In Bihar , a reverse process has also started since 24 out of the 52 distributory committees formed earlier, have been taken back by the state by April, 2012. [8.3]

79. There is lot to be done to make PIM effective across the country. [8.3]

80. The associations in surveyed villages formed under PIM performed a number of functions of which the major one was maintenance of canals as stated by a large number of households surveyed while to a few, the exact functions of their association was not known. This shows lack of awareness as well as lack of interest among members. [8.3]

81. Even while the State laws require that the Distributory Committee and the Project Committee need to be constituted above the WUAs, this has not been constituted in most of the States except Andhra Pradesh. [8.3]

82. Maharashtra has been the first state in India to set up and activate a Water Resource Regulatory Authority under a specific law passed for the purpose [9.1]

83. The Maharashtra Authority has devised and operationalized procedure for prescribing, enforcing, regulating and monitoring water entitlements and laid down three steps for this which are explained in the text. [9.1]

84. In the event of water scarcity, the Maharashtra Water Authority shall adjust the quantities of water to be made available to all Entitlements and shall permit the temporary transfer of Water Entitlements between users. [9.1

85. The Maharashtra Water Authority is also mandated under the Act to establish and revise every three years, a water tariff system, and fix the criteria for water charges at sub-basin, river basin and State level after ascertaining the views of the beneficiary public, and based on the principle that the water charges shall reflect the full recovery of the cost of the irrigation management, administration, operation and maintenance of water resources project. [9.1]

86. The Maharashtra Water Authority has to promote efficient use of water and to minimize the wastage of water and to fix reasonable use criteria for each user of water resources. [9.1]

87. The Maharashtra Water Authority, while performing its adjudicatory functions under the Act, has all the powers of a civil Court trying a suit in respect of a) summoning, b) requiring the discovery and production of any document c) receiving evidence on affidavits, d) requisitioning any public record and e) issuing commissions for the examination of witnesses and documents. [9.1]

88. There is a provision in the Maharashtra Water Authority Act for preparation of the Integrated State Water Plan and its review after every five years. [9.1]

89. The legal regime paving the way for water regulatory authorities in both Uttar Pradesh and Andhra Pradesh is similar to that in Maharashtra. The objectives and institutional framework too are similar. [9.4]

90. The water regulatory authorities in all the three states have been endowed wide ranging powers and functions. While Maharashtra has made some progress in implementation, the other two states are in the initial stage. [9.4]

91. According to Maharashtra Water Authority Act, neither the Authority nor the River basin Agencies can ever be questioned on the extent of distribution of these entitlements. This creates a strange fiction - a system where 'entitlements' exist without corresponding obligations to ensure that one receives them! [9.4]

92. While Maharashtra Water Authority Act has a weak provision for public participation in tariff fixation process through ascertaining of views of beneficiary public before determining tariff (Section 11-D), there is no such provision in the law in both Andhra Pradesh and Uttar Pradesh. [9.4]

93. A series of Court judgements have established that the right to safe drinking water is a fundamental right. It cannot be made subservient to any other use of water and cannot be denied even on ground of paucity of funds. [10.1]

94. Field surveys indicated that a significant proportion of households did not have assured sources of drinking water. The problem was perceived to be more acute in urban areas as compared to the rural ones. [10.3]

95. Municipalities in urban areas were perceived to be making no arrangement for water as reported by about two-third of urban households. The finding in particular from Bihar show that access to drinking water is a problem in two thirds households amongst the households surveyed under the present study. [10.3]

96. Only one-fifth of the households surveyed seemed to be even aware that they had a right to potable drinking water. [10.3]

97. None of the state governments had any law specifying the necessary minimum quantity of water to a family in rural, urban and tribal areas. [10.3]

98. In Assam a detailed "activity mapping" and devolution of functions at the various levels of Panchayats on subject of drinking water has been carried out. [10.4]

99. Surveys in sample villages revealed that there were no households/respondents who were aware of any VWSC existing or being planned in the village. [10.4]

100. Except for Bihar, there is no law in other study states detailing out the water supply related functions to be performed by the municipalities. [10.4]

101. States have not done well enough to transfer water supply services to the Municipalities. [10.4]

102. Despite its obvious importance and inclusion as a fundamental right, drinking water has not received the priority that it deserves. [10.4]

103. The 73rd amendment to the Constitution of India in 1992 led to changes in the then existing state level Panchayat laws to bring them in harmony with the Constitutional amendment. [11.1]

104. The Panchayat laws of the states indicate several common features with respect to powers and functions of Panchayats on matters related to management of water resources. [11.3]

105. The State Panchayat Acts contain a number of provisions which may enable Panchayats to play a role in development and management of water resources at local level provided requisite funds are made available by the State Governments, since there is no legal mandate to provide the funds. [11.3]

106. Many of the State Panchayat Acts, such as those of Uttar Pradesh, Punjab and Kerala also provide several regulatory powers to Panchayat over local water resources specially to control water pollution. [11.3]

107. Panchayat Acts in some states such as Kerala, Andhra Pradesh and Punjab have vested ownership of all local water courses including irrigation and drainage channels, lakes etc. in the village Panchayat. [11.3]

108. The State Panchayati Raj Acts have largely retained the Constitutional style of listing out broad functions, instead of formulating relevant rules and guidelines detailing functional responsibilities of each tier of Panchayats for each of the subjects. Assam, however, has carried out 'activity mapping' i. e. delineating clearly the functions to be performed at different levels. [11.3]

109. The review of the state laws shows that the supremacy of the state bureaucracy over the Panchayats has remained intact despite the Constitutional amendment. While it is implicit in several states, it is explicit in the Uttar Pradesh Act. [11.3]

110. Replies to the state schedule indicate that the states of Bihar, Chhattisgarh, Uttar Pradesh, Andhra Pradesh and Kerala have some role for Panchayati Raj Institutions in management of water resources whereas the remaining three states of Assam, Maharashtra and Punjab did not acknowledge such role. On further analysis, it was found that the role of PRIs was primarily in respect to drinking water. In Chhattisgarh, panchayats have a role in minor irrigation upto a command upto 40 hectares. In Kerala, panchayats have a role in desilting of tanks. And from 2011-12, panchayats will be involved in repair of canals also. But panchayats have no role in ground water management in any state. [11.4]

111. In the Schedule V areas i.e tribal areas of the States of Chhattisgarh, Orissa, Maharashtra, Andhra Pradesh and Bihar amongst the Study States, the *provisions of Panchayat (Extension to Schedule Areas) Act, 1996* are applicable. The Act mandates that the Gram Sabha and Panchayats at appropriate level shall be vested with the power of planning and management of minor water bodies. [11.5]

112. Field findings in respect of the community owned or managed water bodies showed that there was no law ensuring equitable distribution of water from community owned water bodies. [11.5]

113. Except for the State of Maharashtra, there were no households providing information about any customary practices for sharing of water from community owned water bodies specially between poor and affordable households. [11.5]

114. There are restrictions on use of water from community owned tanks, ponds etc. as reported by 29 households out of 60 in a tribal district (Kanker) of Chhattisgarh. The restrictions are in the form of demarcation of ponds for use by human beings and animals. [11.5]

115. As per 74th Constitutional amendment, while the setting up of urban local bodies at the level of each town is mandatory, the exact scope and extent of powers to be devolved to them is left to the discretion of the state governments. [12.1]

116. Following the 74th Amendment, relevant changes have been carried out in Municipal laws in all over the country. [12.1]

117. The amendments to the Municipal laws have not become effective in devolution of additional power to Municipalities. [12.3]

118. As in the case of Panchayats, the state Acts dealing with Municipalities also have largely retained the 'Constitutional style' of listing out broad functions, instead of formulating relevant rules and guidelines detailing functional responsibilities of each tier of the Municipalities for each of the subjects. [12.3]

119. The Bihar Municipalities Act, 2007, has made a good beginning in detailing functional responsibilities. [12.3]

120. The functions actually performed by municipalities in different states are pointed out. [12.4]

121. Municipalities covered under the survey reported about the difficulties faced by them in carrying out their responsibilities due to inadequate and irregular grant by the respective State Governments. [12.4]

122. In almost all the surveyed states, wastage of water due to overflow/leakage in the municipal pipelines was reported by about 40 percent of the households' . [12.4]

123. Water quality monitoring/checking system in municipal areas, as reported by sample households was reported to be available in most of the states except Assam. [12.4]

124. Circumstances conducive to private sector partnerships with local self governments as recommended in the Planning Commission's report on PPP are indicated. [13.2]

125. An appropriate legal framework is a key element for the success of PPP. Need for evolving such a framework emphasized in the Government of India Guidelines on PPP in January 2004 since the present legal structure is built around state ownership of water. Several elements of legal framework considered necessary for water and sanitation sector are also indicated in the above Guidelines. [13.2]

126. A close scrutiny of municipal Acts in Andhra Pradesh, however indicates that there is nothing in these Acts which prohibit a Municipal Corporation to enter into contract with a

private company. The Hyderabad Municipal Corporation Act, 1955, empowers the Corporation to "enter into an agreement with any person for a supply of water". Any person would include a private entity having a legal status. Further, as per the said Act, water works which are not serving any gratuitous use can be vested to a private entity. [13.3]

127. The Bihar Municipalities Act, 2007, specifically lists out various types of Private Sector Participation Agreements. [13.3]

128. None of the eight state governments had any example of Public-Private-Partnership (PPP) in water resources projects (mainly canal) despite the Planning Commission's persistent recommendation in its favour for more than a decade. [13.5]

129. The state governments in the water resources department are not favourably inclined towards the PPP model. [13.5]

130. The legal regime for prevention and control of water pollution in India is provided by The Water (Prevention and Control of Pollution) Act, 1974. This Act is used by both the Union and State Governments. [14.1]

131. This Act has provisions for setting up of Central and State Pollution Control Boards for regulating water pollution so as to promote cleanliness of streams and other water bodies. [14.2]

132. The Boards have the power to obtain information, take sample of effluents, get injunction issued, impose penalties, order closure of polluting units, give consent for establishment of new units and indicating conditions thereof, and withdraw the consent in case of serious violations etc. [14.2]

133. The above Act prescribes punishment in terms of fines or imprisonment or both for offences committed by the polluting units. And the courts have taken a strict view while dealing with offences under the Act. Several Court judgments have been cited in this respect. [14.3]

134. The Water Cess (Prevention and Control of Pollution) Act, 1977, empowers the Central Government to impose a cess on water consumed by certain industries depending upon their nature as determined by their dominant primary purpose. The funds collected are provided to Central and State Pollution Control Boards. [14.4]

135. A number of Court judgments in India as explained in the report have upheld right to pollution free water, enunciated several principles like the precautionary principle, the pollutor pays principle, and principle of absolute liability and made them a part of the environmental law of this country. [14.5]

136. Several Court judgments examined show how the Courts have given decisive operative directions for checking pollution of water and providing clean water to public in specific contexts. [14.6]

137. Environment being a subject in concurrent list under the Constitution of India, all states covered in the survey were found to be following the laws and rules framed by the Union Government. The states have not made any law on their own with regard to water pollution. [14.7]

138. The State Pollution Control Boards were found to be not very effective in ensuring enforcement of water quality standards. A major reason for this is the hesitation to take action against senior government officers in charge of Municipalities and public sector units. In the case of private sector units, the problem arises due to the cumbersome legal process with trials running over several years. [14.7]

139. There was a system to check the quality of ground water for drinking purpose in most states with manual methods in some states and mechanical methods in others. But the system was considered reliable only upto some extent. [14.7]

140. Different Water Laws as well as various Court judgments made before India's independence establish that the state has a right to use and control water. But these rights of the states are not proprietary in nature but sovereign in character. Moreover, this right could not be exercised arbitrarily. It was subject to the riparian's right to get the quantity of water to which he is entitled by custom. [15.1]

141. The right of the state over control and use of water continued to hold sway in the water laws enacted in post independence period, though there are some cases where the state asserted its right of ownership also. The Supreme Court of India in the landmark verdict in 1997 adopted the Public Trust Doctrine in relation to natural resources. [15.2]

142. With respect to ground water, the emerging consensus is represented best by what was stated by the Andhra Pradesh High Court in 2002 that Deep Underground Water is the property of the State under the Doctrine of Public Trust. The holder of land has only a user right towards the drawing of water in tube wells. Thus neither his action nor his activity can in any way harm his neighbors and any 'such act would violate Article 21 of the Constitution.' [15.2]

143. The legal provisions on the question of vesting rights with people including right of ownership over local water bodies and structures are not clear. [15.3]

144. Arrangements for ensuring coordination between increasing number of line government departments/agencies concerned with management of water resources at different levels are quite inadequate in states. Also there is no law for coordination in any state. [16.1]

145. The legal position regarding management of water for energy, industrial and commercial purposes is quite vague and nebulous in almost all the study states. [16.2]

146. There is a gap in the canal irrigation law with respect to equity. As regards management of ground water, the existing laws, whether under the purview of newly enacted state ground water laws or the guidelines of Central Ground Water Authority, are also tilted against equity. [16.2]

147. There is no explicit legal provision on the important issue of inter basin transfer of water even though no law prohibits it. [16.4]

148. The increasing multiplication of water laws in states has produced the inevitable result of overlapping and inconsistency between them. [16.5]

149. The legal system for water resources management in India is weak in facilitating attainment of efficiency, equity and environmental sustainability, which are the three well accepted basic objectives of water resource management. [17.1]

150. Implementation has turned out to be a real problem with respect to most of the laws in the water sector. Neither people nor even officers dealing with water resources at grass root levels are fully aware of the laws. [17.7]

(C) Suggestions

151. The fundamental right to drinking water should be explicitly incorporated in the Constitution of India so as to ensure that a certain quantity of water to every person in the country becomes a non negotiable and mandatory legal requirement. [3.1]

152. Some of the suggestions for better implementation of canal irrigation laws by the state governments and supported by the study team include (i) adequate arrangement for public awareness generation programmes regarding water laws and rules, (ii) giving refresher courses on water laws and rules to officers dealing with canal irrigation, (iii) removing the administrative inadequacies in terms of staff and their pre-requisites as mentioned earlier, (iv) providing a more effective regime of incentives and disincentives including penalty clauses, (v) full cost recovery and (vi) collection of water rates by the Irrigation Department. However, a suggestion regarding giving judicial powers to canal officers requires further discussion. [4.5]

153. Suggestions for better ground water management offered by state government officers included (i) the need for surveys on water availability and water budgeting, (ii) the need for water security plans at village level for domestic and irrigation purpose, (iii) awareness generation about the need for conservative use and preservation of ground water resources including awareness for growing less water intensive crops, (iv) more group tubewells for small and marginal farmers, (v) obligatory registration of all wells, (vi) restriction to be imposed on supply of electricity for regulating extraction and use of ground water, (vii) imposing cess on large scale use of ground water specially for industrial, commercial and recreational purposes, (viii) control over private drilling agencies, (ix) regulating transportation of ground water from notified areas, (x) increase in fines for offences committed, and finally, (xi) sharing and optimal use of ground water through community controlled participatory management of resources. While some of these suggestions only require better implementation of existing provisions, others need new legal formulations or amendments in the existing law. These suggestions are supported. [5.4]

154. There is a need for restructuring of relief management mechanism in order to ensure speedy dispatch of relief materials to flood affected families. [6.5]

155. There is a strong need to integrate the disparate laws addressing the range of flood management issues so as to have an unifying legal perspective. [6.6]

156. In view of the predominance of floods with inter-state dimensions in India, it is necessary to have river basin authorities for effective flood management. [6.6]

157. Legal provision should be made to provide central financing for flood control works on inter-state rivers. [6.6]

158. State Acts dealing with Panchayati Raj Institutions should be amended to make mandatory provisions along with allocation of funds required for effective community participation in flood disaster management at local levels. A Panchayat Flood Management Committee should be constituted at Gram Panchayat level in frequently flooded areas. [6.6]

159. The Central Government must fix a deadline to finalise the guidelines for allocation of inter-state river water among the concerned states and give them a legal shape. Considerations like population dependent on water, contribution of water by each basin state, availability of alternate water sources and maximum satisfaction of the need of a state without causing substantial injury to other states may be taken into account. [7.4]

160. The Government of India in consultation with the states should devise an effective mechanism with legal backing for a reliable data system. [7.4]

161. A lasting solution to the inter-state water disputes would take place if management of inter-state rivers comes under the effective control of the Union Government, by activating Entry No. 56 of the Union List of the Constitution. But, that seems quite difficult for the time being if past experience is any guide. [7.4]

162. The following were some of the more useful suggestions made by state level officers for better resolution of inter-state water disputes:

(I) ISRWD Act should be strengthened for preventing non-compliance of the Award of a Tribunal by a state.

(II) Fix time limit with respect to implementation of an Award.

(III) Modify the Award due to changes in underlying conditions including changes in the legal framework due to enactment of new laws or repeal of the earlier laws.

(IV) Fix a time limit for clarificatory or supplementary orders.

(V) Prohibit appeal to the Supreme Court on the award of the Tribunals,

(VI) Tribunals should be multidisciplinary bodies headed by a judge with experts from hydrology, sociology, agriculture and economics etc. as members.

(VII) Information dissemination among the affected people about the conditions in the other states,

(VIII) A more active role by the Central Government.

(IX) Mutual understanding and cooperation between the concerned states.

(X) Use of water saving devices, etc. [7.6]

163. Many of the special features of Panchayat Raj laws in certain states such as formal linkages between WUAs and Panchayats, concept of minimum water entitlement, right to recall elected functionaries and right of the state to take over non-functioning PIM deserve to be emulated by other states. [8.3]

164. A limited number of respondents have given suggestions to make the WUAs more effective and farmers friendly. These include need for proper coordination among members, regular meetings and providing incentives to office bearers of the association. [8.3]

165. The Irrigation departments along with WUAs should carry out time bound joint inspection of the irrigation canals followed by identification and execution of priority works for rehabilitation of the existing canal systems so as to ensure proper delivery of water in time. Secondly, the minimum water entitlement of the water users association needs to be built in the laws (as has been done in Maharashtra) so that a total volume of water, as per its overall availability is guaranteed to be supplied to a Water Users Association at agreed points of supply. [8.3]

166. The institution of regulatory authorities has the potential to usher in a new era in management of water resources in India. The experience, therefore, needs to be watched on a continuing basis so that problems, if any, are taken care of at the initial stage and appropriate changes are made in the institutional structure. [9.4]

167. As in Assam, a detailed activity mapping and devolution of functions with respect to drinking water at different levels of Panchayats should be carried out for which legal provisions should be made. [10.4]

168. Village Water and Sanitation Committee needs to be given legal footing and for this, necessary amendments should be made in existing Panchayat laws. The provision of the "Standing/ Subject Committees" as available in law may be utilised for this purpose. [10.4]

169. As in Bihar, there should be legal provision in other states also detailing out the water supply related functions to be performed by the municipalities. [10.4]

170. States should take legal measures to transfer water supply services to the Municipalities. [10.4]

171. For drinking water, some budget (in terms of percent total budget) should be apportioned and no authority should have the power to curtail the budget allocation, except in emergencies. [10.4]

172. For ensuring adequate supply of drinking water in urban areas, there is need for explicit provision for allocation of drinking water from surface water. [10.4]

173. Aspects related to quality of water should be taken into account in water supply schemes. [10.4]

174. Regulatory Authority may be formed at state level to monitor pricing as well as adequate supply of drinking water. [10.4]

175. The department dealing with drinking water in the state government should be legally bound to supply water of BIS standard, failing which punitive action should be taken. [10.4]

176. Other states should incorporate measures similar to those in Kerala, Andhra Pradesh and Punjab to vest the ownership of local water resources in the Panchayats, thereby, giving Panchayats the status of local self government in the real sense. [11.3]

177. An exercise of activity mapping needs to be carried out by all the States with respect to the specific provisions vesting different functions to the Panchayats. [11.3]

178. Other states should also enact laws like Kerala and make it explicit that the powers given to Panchayats for management and development of local water supply would override provisions of any other law. [11.3]

179. If the letter and spirit of the 74th Amendment are to be realized through the respective state Acts then the states must supplement the stated eighteen functions in the 12th Schedule of the Constitution with detailed functional responsibilities, and identification of functionaries and funds for these. [12.3]

180. Authorities at the state level should ensure timely release of adequate grant to municipalities so as to help them in providing better service. [12.4]

181. The authorities should take note of the situation arising out of wastage of precious water through leakage in the pipelines etc. and do the needful in this respect. [12.4]

182. There is need to build a strong legal foundation for private sector participation through devising appropriate legal framework in the water sector. Laws like Bihar Municipalities Act, 2007 have more defined legal provisions on some of the aspects that may be worth emulating in other States. [13.4]

183. Keeping in view the increasing need for coordination between different line agencies dealing with water from village to state level, there is need to establish satisfactory institutional mechanism preferably with legal backing for ensuring effective inter departmental/agency coordination related to different sources and uses of water including environmental aspect. [16.1]

184. In view of the expected fast growth of energy, industrial and commercial sectors in future and increasing stress on water resources, it is necessary that the legal framework for allocating water to these sectors is put on a sound footing. A task force having membership from the water law, canal and ground water, industry, commerce and energy disciplines may be appointed for this purpose. [16.2]

185. A number of laws need to be reviewed and amended to sub-serve the objective of equity. This may be a major legal challenge of the future. [16.3]

186. The legal aspect with respect to inter basin transfer of water should be clarified by the Union Government either through an explicit amendment to existing laws or enactment of a new law. [16.4]

187. There is need for codification of different laws and formulation of one water code in every state. [16.5]

188. There is need for conducting refresher courses on water laws for officers at frequent intervals. [16.6]

189. Suitable legal measures are needed to break the vicious circle of low water rates, inadequate funds for maintenance, poor maintenance, poor delivery system, little accountability, low recovery and so on. For this it is necessary to provide for accountability of the Irrigation Department and ensure its compliance by instituting an independent, transparent and speedy dispute resolution and grievance redressal machinery on the one hand and specifying principles for fixation of water rates on the other or assigning this responsibility to an independent agency as envisaged in the new law on water regulatory authorities as in Maharashtra. [17.1]

190. Laws dealing with water resources regulatory authority/commission may be amended to ensure that these authorities/commissions follow a public consultation process in the procedures and processes adopted by them. [17.1]

191. Over exploitation by the existing tubewell owners, which is the real problem in ground water, needs to be removed through specifying and enforcing principles of reasonable use of water by existing tube well owners and involving Panchayats in implementation. [17.1]

192. State Pollution Control Boards require a complete revamp with adequate personnel and powers specially those for dealing effectively with pollution by municipalities, public sector undertakings and big private industrial units. [17.1]

193. The right to water should inspire a simultaneous movement towards laying down a framework of laws/regulations that would ensure a minimum quantum of water needed per person along with the quality of water defined in easily measurable terms. [17.2]

194. The water rights regime needs to evolve conditions under which a group entity can also become a right holder so that an entity like a legally constituted Village Water and Sanitation Committee (VWSC) or a Water Users Association (WUA) can exercise such rights to its advantage. [17.2]

195. The legal regime needs to respond to a growing feeling that without a sense of ownership, villagers including farmers will not participate whole heartedly in the maintenance of the structures. This 'sense of ownership' should be grounded on people's right to water and local water harvesting structures. [17.2]

196. In the context of PIM, the Distributory Committee and the Project Committee should be established by making it mandatory for the states to do so within a specified period of time. [17.3]

197. There is need to amend several laws to empower Panchayats at all the three levels to take care of management of sources and uses of water resources at local levels. Similar

considerations apply for municipalities. These local bodies should be provided adequate space in local works including rain water harvesting, watershed development and managing local water resources including ground water. Provision of adequate funds to Panchayats and municipalities should be a part of the proposed amendment. [17.4]

198. In the context of inter-state water disputes, the scope for the intervention of the Supreme Court under Article 131 of the Constitution needs a serious review. [17.5]

199. There is need to build a stronger legal foundation for PPP in the water sector. Laws like Bihar Municipalities Act, 2007 may be worth emulating in other States. [17.6]

200. Administrative implications of laws must be taken into account while creating the needed institutions and providing administrative support to these. [17.7]

201. There should be consolidation and unification of laws hitherto scattered in different legal documents in each state and as understood/modified in the light of a number of court judgments over a period of time. This exercise should be done state wise. [17.7]

202. There is need for updating of laws at required intervals. The administrative machinery at the state level should be authorized by law to update fines and other monetary figures with respect to changes in the price level. [17.7]

CHAPTER-1

INTRODUCTION

This chapter provides the basis for undertaking the present study on "Water Laws in India: An Assessment and Way Forward". As water use scenario is fast changing due to increased demand for water in household as well as industrial and commercial sectors coupled with changes in the cropping pattern towards water intensive and high yielding varieties, the water laws for both irrigation and drinking purposes, enacted several years ago, need a review. These aspects are examined here.

1.1 Need and Justification

Indian economy, society and polity are fast changing. Old institutions are crumbling and new ones are emerging. The water resource sector is no exception. The increasing demand for water in the country in the face of its limited availability is posing new challenges for the development and management of water. There are signs of a looming crisis with respect to water which might become more acute in future unless the authorities in charge of water resources development and management take appropriate action at the earliest possible. Several aspects are involved of which the legal ones are quite crucial, since these provide the basic framework for governance. Many of the recent controversies surrounding management and development of water resources in India veer around legal issues. Questions related to water rights, delegation of authority, the hitherto followed command and control system, inter-state water disputes, role of associations, legal control over ground water etc. are being raised more frequently. Appropriate and universally acceptable answers to these questions are not available because of the inherent complexities and continuing changes. Some of the more crucial laws framed decades ago have become either redundant or less useful for dealing with the present day water resources scenario.

Study of the water related legal system has not kept pace with changes in the underlying scenario. Some work on water laws covering mostly canal irrigation was done by Prof. Chhatrapati Singh, Shri S.N. Singh, Prof. (Mrs.) Alice Jacob and Prof. B.R. Chauhan about twenty to thirty years ago. For example, the book by S.N. Singh and Alice Jacob was published in 1972 by the Indian Law Institute. Since then, there has been several Court cases which need to be integrated. Little work has been done on newly passed laws related to ground water, water users associations etc. Dr. R.G. Chaturvedi and Dr. M.M. Chaturvedi's standard book on Law on Protection of Environment and Prevention of Pollution came as early as 1997 and therefore does not take into account several significant Court decisions in this area. There is practically no publication on laws related to flood management. There is hardly any information on variations in practices at grass-roots levels, if any, and whether the

legal provisions are being implemented at those levels in their true spirits. Information is also lacking on the extent of involvement of Panchayati Raj Institutions in management of water resources. There is no analysis of the laws from the point of view of the national objective of equity which has become more important now on account of the recently adopted objective of Inclusive Growth.

In view of the above background, there is a need to undertake a study to provide a comprehensive review of the present day legal framework under which the management and development of water resources in India take place. New findings and suggestions emerging from the study would raise awareness and information base of policy formulators, planners and administrators at national, state and lower levels. This, in turn, would facilitate more efficient, equitable and sustainable utilization of water in our country in future, thereby subserving public interest. The possible end users of the study would include. Ministry of Water Resources, Central Water Commission, Central Ground Water Board, State Water Resources Departments and their associated organisations, research and academic institutions and water resource professionals. Such a document would be useful not only to administrators and researchers but also to the public at large.

Information about water laws in India is not available at one place. Unlike some other countries, India does not have a national water law or code. There are a number of laws both at the national and state level having direct or indirect bearing on water resources. Further, because of some changes taking place in water laws at the state level during recent years, a more or less uniform pattern, which used to characterize Indian water law scenario in earlier years, no longer prevails. For example, some states like Andhra Pradesh and West Bengal have brought about a new law for ground water management whereas other states are still following the earlier set of laws. Similarly, in the case of water users associations, while some states like Andhra Pradesh and Chhattisgarh have given them a legal status, others have not done this so far. These changes suggest the need for putting the salient features of different laws related to water resources in a consolidated form at one place so as to indicate the real picture. Such an exercise would also help identifying inconsistencies, if any, between different laws. It might ultimately facilitate formulation of a national water law or code. In view of the above, an attempt has been made in this study to provide a comprehensive view of legal position with respect to different aspects of management and development of water resources in India.

Decades ago, when irrigation laws were enacted, the authorities were concerned mainly with surface or canal irrigation. Ground water occupied a very minor role in their vision and operation. But during the last fifty years, ground water use has expanded considerably in India and has come to occupy a very important place in

irrigation as well as in meeting the needs of water for drinking and domestic purposes. Further, much of the ground water development in India has been under the private sector. Earlier private sector exploitation of ground water was mainly for self use. But, in due course of time, there has been an emergence of sale of ground water by some of the owners and this tendency is increasing. As a result of these developments, ground water has been over extracted in many parts of the country resulting in lowering the ground water table at an alarming rate. This continues to happen even in states with new ground water regulation Acts based on the Model Bill circulated by the Government of India. The reasons for the ineffectiveness of new laws, therefore, required to be investigated and remedial measures related to legal and institutional set up suggested. Should the regulatory framework be mainly bureaucratic or should it also involve the newly created Panchyati Raj Institutions at local level is an additional issue. There is thus a strong need for a critical review of laws related to ground water in India.

The frequent occurrence of major floods is another aspect of water scenario in India which deserves to be looked into. The recent Kosi flood has been an eye opener. The study, therefore, analyses the existing laws related to different aspects of flood management operations such as acquisition of land for structural measures like embankments, reservoirs, flood detention basins, drainage channels etc., management of non-structural measures including rescue and relief, community participation in flood management for both frequently flooded as well as occasionally flooded areas.

Another area of public debate revolves around privatization and related aspect of public private partnership. During 1995, the Ministry of Water Resources had constituted a High Level Committee under the Chairmanship of the then Union Minister of State for Water Resources to examine the feasibility of private sector participation in irrigation and multipurpose projects. The Committee had made several recommendations. But not much progress has taken place. Are the existing water laws conducive to these new approaches? If not, what amendments are needed in this respect and how to bring them about? What are the views of the state bureaucracies?

While examining the nitty gritty of regulatory aspects, this study tries to find out whether the legal framework in India is adequate to ensure, encourage or facilitate the attainment of such national objectives as efficiency, equity, environmental sustainability and inter-state harmony. The relevance of these considerations is too obvious to require much elaboration. For example, wastage of water and inefficiency in water use have been appalling. Water use efficiency as reported in Ninth Five Year Plan was only 40 percent for canal irrigation. The situation is more bleak as per data presented in Eleventh Five Year Plan (Vol. III, Page 58) according to which there is

"low irrigation efficiency of about 25% to 35% in most irrigation systems with efficiency of 40% to 45% in a few exceptional cases." Are there legal provisions to check mismanagement in the supply of water by the irrigation officials and to encourage farmers to optimize the use of water? Are there provisions to ensure that water rates charged from individuals or associations must cover the cost? Since it is easier to handle associations, it deserves to be enquired the extent to which the laws accord legal sanctity to involvement of water users associations in management of irrigation and other water resource projects. Equity has been an important stated objective of development policy in India which is reflected prominently in all Five Year Plans. Equity also is an integral part of the concept of Integrated Water Resource Management (IWRM) and the most-important component of Millennium Development Goals (MDGs). It is therefore, useful to enquire whether there are adequate legal provisions to promote equity and how these are implemented. The years since 1972 have witnessed a tremendous upsurge in environmental issues related to water resources in India. A part of the current debate in the water resources sector in India veers around these issues. It is, therefore, necessary to provide an analysis of laws related to environmental aspects of water resources, specially as environmental preservation has emerged as a major objective of national policy. Inter-state issues related to water resources are becoming increasingly important in India. Conflicts between states in this respect are becoming endemic. There is an urgent need to settle such disputes as expeditiously as possible and promote interstate harmony in place of the prevailing conflicts. Hence, an attempt is made to have a critical review of the laws on this issue.

The Constitution of India was amended in 1992 to delegate powers at levels below the State to Panchayats and Municipalities. Additional schedules dealing with subjects to be handled at these levels were added. In the 11th schedule dealing with Panchayats, the subjects "minor irrigation, water management and watershed development", drinking water and "maintenance of community assets" are listed. In the 12th schedule dealing with municipalities, the subjects "water supply of domestic, industrial and commercial purposes" is listed. Functional responsibilities are thus visualized for local governments with regard to several aspects of water. It, therefore, deserves to be enquired as to what efforts have been made since then in different states to move forward in this direction specially with respect to local level water resource projects like watershed development, rain water harvesting, ground water extraction and for taking up flood rescue and relief operations etc. The study tries to find out provisions of the Panchayati Raj Acts or water resources related Acts concerning this aspect of the respective state governments, and make suggestions for improvement.

In recent years, there has been an increasing public debate on issues concerning ownership of and rights to water. Much of this debate gets confused because there are no categorical statements in our statute books regarding ownership of water though it is generally assumed that the ownership of water, specially surface water, belongs to the State. Various irrigation Acts follow the same pattern. But these Acts passed several decades ago by different State Governments had been framed mainly with

canal irrigation in view. The problem of drinking and domestic water was not a major issue at that time since most people used to have enough water to fulfill their basic needs. With the increasing scarcity of water, there is need for taking a fresh look on issues related to water rights specially for drinking and domestic purposes. Moreover, the scenario with regard to irrigation also has undergone several changes like conjunctive use of surface and ground water, entry of water users association, increasing role of environmental factors etc. Further, apart from government and private individuals, community is now emerging as another entity owning or controlling water. The legal position with regard to this aspect needed to be fully analysed. This has been attempted in the present study.

Since laws work within the overall framework of the Constitution, an analysis of the Constitutional provisions with respect to water resources has been provided. This is also needed to make the study as self contained as possible. Since this information is available in several other publications also, this part of the study has been kept as brief as possible.

The real test of laws lies in implementation. The extent to which these are implemented, the constraints faced and view points of the grass root functionaries as well as water users would be known from an empirical analysis. The review of the water laws would, therefore, try to find out the extent to which these laws are implemented at the level of water users like farmers for irrigation, flood affected people and drinking water users in both urban and rural areas. This is a special feature of this study. Such an analysis makes it the first study of this type in India.

1.2 Scope of the Study

(1) It has larger scope covering laws related to most aspects of water resources at one place.

(2) It indicates the latest position with respect to ownership and rights to water in the light of recent Court judgments.

(3) It provides an updated analysis of laws related to management of not only canal irrigation but also ground water, including participatory irrigation management.

(4) It provides a status report on laws related to flood management,

(5) It throws light on laws related to drinking water which has now emerged as an important subject.

(6) It provides an analysis of water laws from the point of view of national objectives like efficiency, equity, environmental sustainability and inter-state harmony.

(7) It examines the legal implications with respect to privatization and public private partnership model in the water sector.

(8) It looks into the role of decentralized institutions like panchayats and municipalities in management local water resources.

(9) It throws light on the status of implementation of the water laws at the grass root levels based on the information obtained directly from surveys conducted at the grass root levels.

(10) It gives suggestions for improvement based on the analysis in different chapters.

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CHAPTER -2

OBJECTIVES AND METHODOLOGY

This chapter provides a statement of the objectives of the study and the methodology adopted for the same. In order to ascertain the status of implementation of the laws, a field study was launched in the selected states. Besides, the study team had intensive interactions with the concerned officers at the state and district levels. Details of the methodology adopted for the field survey and instruments of observation are spelt out in this chapter. The list of selected states, districts, villages and towns is also provided.

2.1 Objectives

In view of the context and scope indicated in chapter 1, the overall objective of the study is to indicate a roadmap for water laws in India based on a critical review of the prevailing system. This, in turn, would have several components which are indicated below.

1. To provide a brief analysis of the Constitutional provisions related to development and management of water resources in India.
2. To provide a consolidated picture of both central and state water laws in India at one place. This would include laws dealing with not only canal irrigation but also ground water, flood management, environmental and inter-state aspects. An attempt is also made to ascertain and examine the well established local practices having force of law with respect to the water sector.
3. To examine the present legal status with regard to privatization and public-private partnership in the water resources sector.
4. To make a critical review of the water laws including local practices having force of law, with respect to (i) attaining such national objectives as water use efficiency, equity, environmental sustainability and inter-state harmony specially in the light of future challenges facing the water resources sector in India , (ii) their implementation at the grass root levels.
5. To find out the extent of implementation of the 73rd and 74th Constitutional amendments brought about in 1992 with respect to water laws in different states of India and reasons for the slow progress, if any.
6. To analyse the present status with respect to ownership of and rights to water in India with particular reference to the new challenges and new developments in the water sector.
7. To provide suggestions for improvement and indicate action points so as to facilitate better management of water resources.

The study, thus aims to provide an elaborate picture of water laws in India. It would also highlight their inadequacies and shortcomings in dealing with present as well as future water scenario. And finally, it gives suggestions for improving the legal system related to water.

2.2 Methodology

2.2.1 Sources of Information

Information and data relevant to the objectives of the study were collected from both secondary and primary sources. The secondary sources included the relevant laws passed by the central and state governments as well as significant Court judgments on the related matters. The central Acts include the River Boards Act 1956 along with the River Board Rules 1958, the Inter State Water Disputes Act, 1956 as modified up till now, the several environmental Acts and Rules therein, like the Water (Prevention and Control of Pollution) Act 1974, and the Environment (Protection) Act 1986, the Indian Easement Act 1882, and the Land Acquision Act, 1884 etc. The state Acts analysed included the Northern Indian Canal and Drainage Act, 1873, the Assam Embanment and Drainage Act 1953, Andhra Pradesh Irrigation Utilization and CAD Act 1984, Andhra Pradesh FMIS Act 1997, the Assam Irrigation Act, 1983, the Bihar Irrigation Act, 1997, the Chhattisgarh Sichai Prabandhan Me Krishkon ki Bhagidari Adhiniyam 2006, Uttar Pradesh Participatory Irrigation Management Act 2009, Maharashtra Irrigation Act 1976, Maharashtra Water Resources Regulatory Authority Act, 2007, The Kerala Ground Water (Control and Regulation) Act 2002, the Kerala Irrigation and Water Conservation Act 2003, and the Administrative Orders, Rules, Regulations thereon. These are only illustrative and not exhaustive. Apart from the relevant Acts and Rules, the secondary sources also include a few books and journal articles, chapters in government reports etc.

INCID has been consulted in the conduct of the study by way of seeking their opinion/suggestions at appropriate stages as considered necessary for the study.

In view of its objectives and scope, this study required some information which was not available in secondary sources. More particularly, there was no publication available, nor any study made so far, providing information on aspects related to implementation of the water laws including their awareness as well as constraints faced in implementation at the grass root level. Laws are, however, effective only if these are implemented at the grass root level. Hence, it was considered highly useful to know the actual status of the laws at the grass root levels. Since water is a state subject, the viewpoints of the relevant officials at the state level regarding adequacy of existing laws/rules for efficient uses and equitable distribution of water and the requirement of new laws/rules to regulate the use of water for various uses have been taken into account. For this purpose, considerable interaction took place with officers of a representative group of eight states mentioned below. Information was obtained on the basis of a state level schedule developed specifically for this study. Views and perceptions of district level officials was obtained through district level schedule. Views, perceptions and suggestions of the users of water are also necessary. Hence, there was need to collect this type of information from primary sources for which

scientific field surveys at the grass root levels were conducted. The required field survey involved interaction with and procurement of responses through canvassing of schedules amongst the grass-roots level users and functionaries.

Thus, the methodology followed for the present study was a combination of both secondary and primary sources; secondary sources for the existing laws and primary sources for getting feedback of states, and responses from the actual users of water so as to make the study as realistic as possible. For the purpose of collecting information from secondary sources, libraries and government offices were consulted by the Study team. Besides, copies of the state Acts were also obtained from the state governments. For the purpose of collecting information from primary sources, members of the study team interacted with concerned officers of the selected state government, functionaries at selected districts and panchayats and collected information directly from users of water at village and town levels in selected districts. For this purpose, four types of schedules and points for Focus Group Discussion as mentioned under Para 2.2.4 of this chapter, were developed.

2.2.2 Selection of States

This is an all India study. As such, the areas selected for collecting data and information through primary sources should reflect the diversity of hydrological, geological, socio-economic, legal and administrative setup that characterize India. There are rocky strata and alluvial plains, areas having abundant and scanty rainfalls, prosperous and poor areas etc. In addition, there are state specific legal differences. For example, a few states like Andhra Pradesh, Kerala, Goa, West Bengal have enacted and implemented legislation on control and development of ground water resources while some other states have not even passed the bills. Similarly some states like Andhra Pradesh have laws for water users associations while others do not have such laws.

It was, however, not possible to conduct the field surveys in all the states due to constraint of both funds as well as time, nor was it necessary. The purpose was served by selecting a representative sample of states and thereafter specific areas within a state through a multistage sampling process.

The selection of states was guided by the following considerations.

1) Representation of major agro climatic zones like East, West, North etc. to the extent useful and selection of one or two states from each zone as per requirement.
2) States where ground water laws formulated and states where water users associations have been formed under legal provisions.
3) States where no new water laws have been enacted
4) States dominated by flood
5) States dominated by Tribals since they constitute a special socio-economic group and are usually habitated in clusters of contiguous villages.

Almost all the states have canal irrigation laws. Hence, particular attention needed to be given to aspects other than canal irrigation while selecting states. It may also be noted that some states came under more than one category. For example, Andhra

Pradesh had effective water laws empowering water users to form associations as well as laws for regulation of ground water. Hence, selection of this state helped to study more than one aspect. States like Bihar and West Bengal are flood prone. The states dominated by tribals are Chhattisgarh and Jharkhand where tribals right to water assumes a great significance. Keeping the above into account, the states selected in consultation with INCID, were Assam, Bihar, Maharashtra, Chhattisgarh, Uttar Pradesh, Punjab, Andhra Pradesh and Kerala. The reasons for selecting each of the states are given below.

S No	State	Reasons for Selection
1	Assam	North Eastern Zone, No new water law formulated and flood prone
2	Bihar	Eastern Zone, No new water law formulated and flood prone
3	Maharashtra	Western Zone, Ground Water Laws formulated, WUA formed under legal provisions, having tribal presence and one of most progressive states in making laws relating to water sector and adoption of Micro – Irrigation Systems
4	Chhattisgarh	Central Zone, WUA formed under legal provisions and tribal dominated
5	Uttar Pradesh	Northern Zone, WUA formed under legal provisions, eastern part prone to floods and recently certain laws relating to water sector have been enacted .
6	Punjab	Northern Zone, No new water laws formulated and ground water depletion a source of major concern.
7	Andhra Pradesh	Southern Zone, Ground Water Laws formulated, PIM under legal provisions, having tribal presence and one of most progressive states in making laws relating to water sector
8	Kerala	Southern Zone, Ground Water Laws formulated with strong involvement of panchayati raj institutions in water resources management.

2.2.3 Selection of districts, towns, villages and households

From each of the selected states, one district was purposively selected in consultation with state government officials so as to cover as many aspects of the study as possible. For example, the district selected from Bihar was one which had canal irritation, ground water irrigation and was also flood affected. Similarly, the district selected from Andhra Pradesh was the one which had canal irrigation having water users association and ground water irrigation. Drinking water use, of course, was found be common to all the districts.

From each selected district, 6 villages and 2 towns were selected. For this purpose, an attempt was made initially to select a block from the district based on the above considerations and then to select two panchayats from each selected block and 3 villages and a small town from each Panchayat on the same basis. But in many states, it was not possible to find any one Panchayat or even one block having the type of diverse picture regarding water management needed for the study. For example, villages served by canal irrigation generally did not have irrigation from government tubewells. Similarly flood prone villages did not have canal irrigation. In view of this, in many districts, it was not possible to get a combination of such villages even within a block. Hence, in such cases, the sample villages and towns were selected from different blocks within the selected district. Moreover, in most of the states, panchayats consisted of only one village rather than several. Hence, the 3 selected villages were not necessarily from one panchayat. It was also found more useful to have a bigger and a smaller town in the district to account for the variation in water use practices for domestic purpose. Hence, in consultation with district level officers with whom the study team was in frequent touch, 6 villages and 2 towns, within the selected district, were selected.

Thereafter, 10 households from each village and 15 households from each town were purposely selected in such a manner that taking together all the households selected in a block, a diversity of water users as needed for the study could be obtained. The main consideration in selecting households was that they should have experience as users of canal or surface water or affected by floods, so that they were able to understand and answer the questions relevant for the study. While doing so, attempt was also made to include households from different socio-economic strata. Background information on their socio-economic status collected as a part of the household survey indicate that the respondent households came from all religions and all caste categories. As expected, the majority were Hindus with Muslims and Christians constituting about 5 to 7 percent each, Caste wise information indicates that the majority belonged to the OBC category followed by general and SC/ST. This is in line with inherent ground realities. There are, of course, considerable district wise variations. A diverse picture also emerges with respect to the economic classification of the respondents. In rural areas, they belonged to the categories of the landless labourers, tenant farmers, marginal farmers, small farmers and large farmers. In rural areas, most of them were employed in agriculture but a few had petty business and some were salary earners. But in urban areas, as could be expected the majority were in the category of pursuing business or self employed followed by salaried employees.

In all, 720 households (480 rural and 240 urban) covering different social segments, were interviewed to elicit their view about issues related to water sector. Separate structured schedules were administrated to rural as well as urban households. Each state had a share of 60 and 30 households spread in 6 villages and 2 towns respectively. Thus, the sample size was as below.

Sample Size

States	-	8
Districts	-	8
Villages	-	48
Towns	-	16
Households- Rural	-	480
Households- Urban	-	240
Households Total	-	**720**

The list of sample districts, villages and towns is given below.

List of Sample Villages and Towns

Sl. No.	State	District	Block	Panchayat	Village	Town
1	Assam	Kamrup	Barduar	Chatpur	Chatpur	Guwahati Palasbari
			---do---	---do---	Borjhar	
			Sualkuchi	Bangehar	Srihati	
			KamalPur	Bardakpar	Dighpar	
			---do---	---do---	Bamundi	
			---do---	Kendukona	Hahara	
2	Bihar	West Champaran	Jogapatti	Bahuarwa	Misroli Bazar	Bettiah Narkatiaganj
			---do---	Donwar	Sahadatpur	
			---do---	Choumukna	Choumukha	
			---do---	West Nautan	Laxmi Pur	
			Bettiah	Barbatsena	Barbatsena	
			---do---	Barbat	Barbat Pasrahi	
3	Maharashtra	Pune	Daund	Yavat	Yavat	Indapur Dound
			---do---	---do---	Pimpla Chamula	
			---do---	---do---	Ghige Wadi	
			---do---	Nathachi Wadi	Nathachiwadi	

			---do--- ---do---	Ladkatwadi Pimpalgaon	Ladkatwadi Pimpalgaon	
4	**Chhattisgarh**	**Kanker**	Kanker ---do--- ---do--- ---do--- ---do--- ---do---	Kanharpuri Dhaneli Kanhar Nathia Nawagaon Kodagaon ---do--- Mankesheri	Kanharpuri Dhaneli Kanhar Nathia Nawagaon Tikrapara Amapara Mankesheri	**Kanker CHarampa**
5	**Uttar Pradesh**	**Deoria**	Deoria ---do--- ---do--- Rudrapur ---do--- Salempur	Piparpati Gobraikhas Pindra Narayanpur Sitalmanja Gumtiha	Piparpati Gobrai Khas Pindra Narayanpur Sitalmanja Gumtiha	**Deoria Salempur**
6	**Punjab**	**Ferozpur**	Zira ---do--- Guallkhurd ---do---	Gadriwalla Bhurana Firozshah Noorpur Sethan	Gadariwalla Bhurana Firozshah Noorpur Sethan	**Ferozpur Zira**

			---do--- Ferozpur	Rattakhera jokeharihar	RattaKhera Jokeharihar	
7	**Andhra Pradesh**	**Nalgonda**	Kattamgur ---do--- Chitiyala ---do--- Miryalguda Damachrla	Dugunavally Muttymmagedem Urumandla Thalla vellamula Rayanipalem KJRcolony	Dugunavally Muttymmagudem Urumandla Thalla vellamula Rayanipalem Ganianayakthanda	**Nalgonda Miryalguda**
8	**Kerala**	**Quilon**	Kottarakera Vattikavela Mukhathala Chavara SasthamKota ChittuMala	PooyaPally Vettikavela Mayyanad Chavara Sooranad East Kallada	Pooyapally Vettikavela Mayyanad Chavara Sooranad North East Kallada	**Quilon Karunaga Pally**

2.2.4 Instruments of Observation

In order to collect the relevant information, four types of instruments of observation such as schedules at state, district and household levels (both Rural and Urban) were developed in consultation with INCID. In addition, points for focus group discussion at the level of village and town were also developed. These were the principal instruments of observation for collecting data and information through primary sources. While developing the schedules, care was taken to have some questions common to two or three schedules so as to have cross checks on the correctness of information provided by different respondents, e.g. those at the district and state levels or during household survey and focus group discussions. The state schedule was most comprehensive. It covered almost all legal aspects of management of water resources in India. It was designed to be replied by the key functionaries dealing with water resources at the state level. The households schedules, on the other hand, focused in ascertaining the ground realities and knowing the views and perceptions of households. The purpose of district schedule was to get feedback on status of implementation of water laws and views of district level officers on specific issues mostly as a cross check on information obtained from state and household schedules.

2.2.5 Conduct of Field Study

The field study was an important part of the project. Hence, the Institute devoted much time in establishing contacts with states so that field visits could be initiated at the earliest possible time. The Institute, at the outset, requested the state governments to nominate a senior officer to coordinate with the study team as well as the relevant departments/agencies in the state government having a major stake on the water sector. His good offices were also to be utilized for visits to the state headquarter, selection of a district, visits to the selected district and making arrangements for the conduct of the field survey. The states nominated such nodal officers/coordinators only after considerable follow up by the Institute. Chhattisgarh was the first state to respond to our request. It nominated the Chief Engineer, Mahanadi Project to work as the nodal officer for the study. After making further communication with him, the study team visited Kanker district on 20th September, 2011 for discussion with the irrigation and line departments officials for conduct of the household survey in selected villages and towns. Thereafter, other states followed the suit starting with Uttar Pradesh and Maharashtra in October, 2011, Punjab and Andhra Pradesh in November 2011, Assam and Kerala in January, 2012 and Bihar in February, 2012. The details of the visits of the study team for conduct of household survey and discussion with the district level officers thereof, are as given.

District (State)	Date
Kanker (Chhatisgarh)	20.09.2011 to 30.09.2011
Deoria (Uttar Pradesh)	10.10.2011 to 15.10.2011
Pune (Maharashtra)	17.10.2011 to 27.10.2011
Ferozpur (Punjab)	02.11.2011 to 08.11.2011
Nalgonda (Andhra Pradesh)	21.11.2011 to 01.12.2011
Kamrup (Assam)	07.01.2012 to 15.01.2012
Quilon (Kerala)	25.01.2012 to 08.02.2012
Bettiah (Bihar)	22.02.2012 to 02.03.2012

At the level of the district, the study team consisting of the Socio-Economic Expert and research officers, had interaction with the concerned departmental heads and collected information relevant for the study. Besides, the study team conducted Focus Group Discussions (FGDs) at each selected village and town in order to elicit views of a cross section of people consisting of local level officials, eminent personalities of the area, persons having sustained interest in water sector, farmers, school teachers, village level government staff, Anganwadi/Health workers etc. Separate schedules for conduct of group discussion at the level of the selected villages and towns were made use of for this purpose.

Procuring of information through the state level schedule took much longer time than expected because of slow response from state level officers. The schedule was sent to the concerned state level officers of different departments through the state level coordinator. Written replies were received after much persuasion and protracted correspondence. The replies were scrutinized by the Principal Investigator and discrepancies and inadequacies pointed out. Thereafter, the responses were finalized during discussions of the Principal Investigator with the concerned officers in a meeting held in the respective state capitals.

The Principal Investigator was in constant touch with the nodal officer in each state in order to have a specific date for the above meeting of irrigation as well as other line departmental officials in each state. This too was not an easy task. The nodal officers had to take a lot of pains to fix a date suitable for different officials. The first such meeting was held in Raipur (Chhattisgarh) on 23rd November, 2011. Thereafter, such meetings were arranged at Guwahati, Mumbai, Thiruvananthpuram, Lucknow, Chandigarh, Hyderabad and finally at Patna on 12th April, 2012. The details of state level meetings organized and attended by the Principal Investigator, are provided as under.

Dates of State Level Discussions

Place (State)	Dates
Raipur (Chhattisgarh)	23.11.2011
Guwahati (Assam)	09.01.2012
Mumbai (Maharashtra)	18.01.2012
Trivandrum (Kerala)	23.01.2012
Lucknow (Uttar Pradesh)	10.02.2012
Chandigarh (Punjab)	16.02.2012
Hyderabad (Andhra Pradesh)	07.03.2012
Patna (Bihar)	12.04.2012 & 13.04.2012

2.2.6 Checking of schedules, Data Processing and Analysis

The canvassing of information from rural as well as urban households in the selected states through a structured schedule containing several relevant questions which was initiated in September, 2011, was completed by the end of the February, 2012. The completed schedules were brought to Delhi after which these were subjected to cross checking through a process known as "editing" to eliminate discrepancies between various sections for maintaining accuracy. Simultaneously, a compatible format to enter the field level data collected from households was worked out. Using the format, household data from the canvassed schedules, were entered in the computer. This process of data entry took about a month. For this purpose, a fox pro based software at the front end and storing of data under DBF at the back end, was developed. Making use of this software, households data thus entered in the format, was analyzed and necessary tables generated. These tables were made use of while drafting different chapters of the report. Finally, the information obtained from the analysis of survey data was integrated with the analysis of information obtained from secondary sources namely Acts and Rules, to prepare the draft report.

2.2.7 Chapter scheme

Taking into account the objectives and scope of the study, the report is presented in the following chapters covering all aspects of the study.

Contents

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CHAPTER-3

WATER AND THE CONSTITUION OF INDIA

The Chapter here deals with the Constitutional aspects of water management and governance in three parts. A detailed first part deals with the fundamental right to water as part of right to life under the Constitution and how it needs to inspire growth of water rights. This is followed in the second part by a description of the 'legislative classification' of water under the State and the Union Lists of the Constitution of India. Finally, the 73rd and the 74th amendment to the Constitution of India are discussed analytically to map out their far reaching significance for water management in the coming years. The three parts are detailed in what follows below.

3.1 The Fundamental Right to Water and Water Rights

Is there a fundamental right to water available to all persons in the country? The answer is yes. This is because such a right has been judicially evolved by the Supreme Court and various High Courts of the country over the years under the fundamental right to life under Article 21 of the Constitution of India. Article 21 of the Constitution of India reads as under:

> "No person shall be deprived of his life or personal liberty except according to procedure established by law."

The right to 'pollution free water' and the right of access to 'safe drinking water' has been read as part of 'right to life' under the said article 21 of the Constitution of India . This has been possible by a liberal and activist interpretation of the fundamental right to life both by the Supreme Court and the High Courts of the country in a series of cases before these courts. After talking initially about right to water in the context of pollution cases, Courts have delivered a growing body of verdicts on the more fundamental concerns of access to drinking water and on the right to safe drinking water as a fundamental right[1]. These cases are discussed at length in the chapter on drinking water and are not repeated here for the sake of brevity.

[1] These cases include Wasim Ahmed Khan v. Govt. of AP, 2002 (5) ALT 526 (D.B.); Mukesh Sharma v. Allahabad Nagar Nigam &Ors., 2000 ALL. L.J. 3077; Diwan Singh and another, v. The S.D.M. and other 2000 ALL. L.J. 273; S.K. Garg v. State of U.P. 1999 ALL.L.J. 332; GautamUzir&Anr. V. Gauhati Municipal Corpn. 1999 (3) GLT 110

Incorporating right to water directly under the Constitution

Even while the cases before the Supreme Court and the High Courts make clear that there is a judicially evolved fundamental right to water, such a right is not explicitly incorporated under the Constitution of India. The closet that we came to directly incorporating this right was when the National Commission that reviewed the Constitution recommended in its report in 2002 that a new article 30d be inserted in the Constitution thus:

> *"Right to safe drinking water, prevention of pollution, conservation of ecology and sustainable development-*
>
> *Every person shall have the right-*
>
> *(a) To safe drinking water*
> *(b) To an environment that is not harmful to one's health or well-being; and*
> *(c) To have the environment protected, for the benefit of present and future generations so as to-*
>
> *(i) Prevent pollution and ecological degradation*
>
> *(ii) Promote conservation and*
>
> *(iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".*

Thus, the National Commission that reviewed the Constitution clearly recommended that *"every person shall have the right- (a) to safe drinking water..."* the recommendation of the National Commission reiterated what the higher Courts have been holding in similar words in the last few years. In that sense, one may argue that the National Commission was merely recognizing a pre-existing right, not creating a new one!

The recommendation, though lying in a cold box ever since, deserves to be taken seriously. Right to education of a child from 6-14 years of age, was a judicially evolved right which has been explicitly incorporated as fundamental right under new article 21a of the Constitution of India . There is no good reason why drinking water being more fundamental than even elementary education and similarly judicially circumstanced as education should not follow the same route.[2]

Explicit incorporation of a right that is fundamental and universal and, more importantly under the Indian context, clearly specifiable in terms as laid out above, has the potential to

[2] there are other countries of the world where the constitution specifically mentions a fundamental right to water including south africa, 'everyone has the right to have access to sufficient water' and ecuador, 'the human right to water is fundamental and irrenounceable', amongst others.

catalysing changes in law and policy in the area. A categorical carving out of a fundamental right to water in the Constitution of India has the potential to mobilise the people, the media and ultimately the decision-makers. Besides, it can serve to underline the fact that ensuring a certain quantity of water to every person in the country is a non-negotiable and mandatory legal requirement.

From Fundamental Right to Water to Strengthening Water Rights

However, mere incorporation of a fundamental right to water or having a judicially evolved fundamental right to water is not an end in itself. Mere right to water is not enough if people do not have water, which is safe to drink. In India, there are no legislated standards to define clean water, unlike other parts of the world. The right to water should inspire a simultaneous movement towards laying down a framework of laws/regulations that would support such a right. Besides, laws to regulate extraction of ground water and to mandate in phased manner, drinking water quality standards are also needed. The States and the local bodies involved in the management of drinking water supply schemes would need to work out the implications and become prepared to take on the responsibility of administering a legal entitlement and justifiable right enforceable in a Court of Law. A lot of work on all these aspects have to carried out in the years to come to realise the full be meaning and significance of the fundamental right to water.

Towards a Group Rights Regime in Water

Another important aspect to note is that what has been recognized by the higher Courts as a fundamental right is a right to each individual and not to a group. In the context of the fact that all the recent 'decentralizing' initiatives of the Central and State Governments have sought to vest powers to formal rural and urban groups and associations, this becomes an important point. In this context it is felt that "The water rights regime needs to evolve conditions under which a group entity can become a right holder so that an entity like a legally constituted Village Water and Sanitation Committee (VWSC) or a Water Users Association (WUA) can exercise such rights to its advantage. Apart from developing an understanding on the *external water rights* of the group, which it can use to its advantage against everyone outside the group, there is a need for better appreciation for *internal water rights* laying down the right of the group members vis-à-vis each other. A more mature regime on group rights in the water management sector is critical to resolving existing and potential conflicts surrounding access to and control over water resources."[3]

Even while a more mature group rights regime in water is imperative, one feels that given the state of water laws, we are still some distance and years away from it.[4]

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[3]Upadhyay, Videh (2009). *Water Law and the Poor* in Legal Grounds, Nandini Sundar (ed.); Oxford University Press

[4]The point can be seen most clearly with respect to Water Users Associations (WUAs) that has been created through a series of specific laws passed by various State governments in recent years.

3.2 Water and the Allocation of Responsibilities Between States and Centre: The Constitutional Legislative Entries

India is a union of States. The Constitutional provisions in respect of allocation of responsibilities between the State and Centre fall into three categories: The Union List (List-I), the State List (List-II) and the Concurrent List (List-III). Article 246 of the Constitution deals with subject matter of laws to be made by the Parliament and by Legislature of the States. In the Constitution, water is a matter included in Entry 17 of List-II i.e. State List. This entry is subject to the provision of Entry 56 of List-I i.e. Union List. Both the entries are reproduced below for ready reference:

> Entry 17 under List II of Seventh Schedule provides that:
>
> *"Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of Entry 56 of List I".*
>
> Entry 56 of List I of the Seventh Schedule provides that:
>
> *"Regulation and development of inter-State rivers and river valleys to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest".*

As per Entry 17 under List II of the Seventh Schedule the Constitution of India, *"water, that is to say water supplies, irrigation and canals, drainage and embankments, water storage and water power"* is a state subject and thus it is only state legislature, which is competent to enact laws on these subjects. However, this is subject *to the provisions of Entry 56 of List I.* As most of the rivers in the country are inter-State, the regulation and development of waters of these rivers, is a source of inter-State differences and disputes. As such, the Central Government is conferred with powers to regulate and develop inter-State rivers under Entry 56 of List I of the Seventh Schedule to the extent declared by the Parliament by law to be expedient in the public interest.

The Union of India also has the power to make laws for the adjudication of any dispute relating to waters of Inter-State River or river valley under Article 262 of the Constitution. In case of disputes relating to waters, Article 262 provides as below:

> *" (1)parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-state river or river valley.(2)notwithstanding anything in this Constitution , parliament may, by law*

provide that neither the Supreme Court nor any other Court shall exercise jurisdiction in respect of any such dispute or complaint as is referred to in clause (1).

Thus the Constitutional scheme makes it clear that, with regard to inter-state rivers, it is the Parliament that is competent to legislate.

Water in the Concurrent List?

It is pertinent to note that the Ashok Chawla committee was set up in February 2011 by the Government of India to draw a roadmap for distribution of natural resources. The chairperson of the Committee recently suggested shifting of water resources and planning from the State to the Concurrent List of the Constitution. Such an idea has been mentioned occasionally by a few others also. The idea has also been discussed in the Planning Commission in 2011 while shaping inputs for the 12th Five Year Plan. But there is no formal recommendation from any authoritative body including the Ministry of Water Resources in this respect. Any such change can only happen through a Constitutional amendment and that cannot go through unless the States of India agree to such a change. Given today's' political context any such shift does not seem foreseeable in the near future.

3.3 Water and the Local Self Governance Framework Under the Constitution

In addition to the Constitutional space for a fundamental right of water and the "legislative classification of water" as described above, the other spaces relevant for water rights and management are Part IX and IXA of the Constitution incorporated by the now famous 73rdand 74th Amendments to the Constitution of India that were brought into effect in 1993. Consequent upon the 73rd Amendment in 1992, Article 243G of the Constitution provides that the Legislature of a State may, by law, endow the Panchayats with such powers and authority as may be necessary to enable them to function as institutions of self-government with respect to the preparation and implementation of plans for economic development and social justice including for matters listed in the Eleventh Schedule. Article 243W has provisions similar to Article 243G with respect to Municipalities regarding matters listed in the Twelfth Schedule.[5]

The 73rd Amendment of the Constitution had cast a Constitutional imperative on all the State Governments to come up with appropriate Panchayat Raj Act detailing meaningful democratic devolution of functions, functionaries and funds. Specifically, it empowers States to endow Panchayats with such powers and authority to enable them to function as institution of self-government and goes on to list 'Drinking Water', 'Water Management', Minor Irrigation' and Watershed Development' as subjects under the jurisdiction of Panchayats.[6] In

[5] See Article 243 G and 243 W of the Constitution of India .
[6] The list can be seen under the Eleventh Schedule to the Constitution of India .

a similar vein, the 74th Amendment to the Constitution of India recognizes local self governance as an enforceable ideal and obliges the State Governments to constitute the Urban Local Bodies ("ULBs").[7] The 74th Amendment also requires that "the Legislature of a State may, by law, endow the Municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-government" [8] The "matters that may be entrusted" to the Municipalities include "Water supply for domestic, industrial and commercial purposes", amongst others.[9]

It is pertinent to note here that the Constitution vests the Panchayat Raj Institutions PRIs with very broad functions - in most cases covering the entire possible expanse of subject like agriculture, land improvement, social forestry and farm forestry, minor irrigation, water management, rural housing, poverty alleviation programmes, social welfare, maintenance of community assets etc. A high powered task force of the Union Ministry of Rural Development pointed out that "the functions devolved upon the PRIs are in the nature of 'subjects' rather than in terms of 'activities or 'sub-activities'".

Both the 73rd and 74th Amendments to the Constitution inspired changes in the existing State level Panchayats, Municipal Corporation and Municipal Council laws so as to bring them in line with the mandate under the Constitutional Amendments. To be sure, the Constitution, while visualizing panchayats as institutions of self-government, subjected the extent of devolution of powers and functions to the will of state legislatures. However, the statutes governing the PRIs in the states, although they devolve functions to panchayats, are worded generally, and specific items of responsibility or activities under the broad functions are not indicated. If the letter and spirit of the 73rd Amendment are to be realized through the respective state Acts then, the states must supplement the stated twenty-nine functions in the 11th Schedule of the Constitution with detailed functional responsibilities, and identification of functionaries and funds for them.

However, the state Panchayati Raj Acts have largely retained the style of listing out broad functions, instead of formulating relevant rules and guidelines detailing functional responsibilities of each tier of Panchayats for each of the subjects. This allows the state

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[7] The 73rd and the 74th constitutional amendments which provide for local elected bodies to "function as institutions of self-government" in rural and urban areas respectively are thus important landmarks in the history of Constitutional law in India .

[8] See Article 243W of the Constitution of India . relating to Powers, authority and responsibilities of Municipalities. It adds that such a law may contain provisions for the devolution of powers and responsibilities upon Municipalities with respect to : (i) the preparation of plans for economic development and social justice; (ii) the performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule.

[9] See the Twelfth Schedule of the Constitution of India . Other related matters that may be entrusted to the Municipalities include Urban planning including town planning, Planning for economic and social development; Public health, sanitation conservancy and solid waste management; Safeguarding the interests of weaker Sections of society, including the handicapped and mentally retarded; Slum improvement and up-gradation and Urban poverty alleviation.

governments enough legal space to negate any transfer of substantial powers to the PRIs. The basic problem seems to be the absence of clarity on the role of the PRIs with regard to functions assigned to them. In any case, the result has been that despite a categorical Constitutional imperative, the functional domain of the PRIs more or less remains unaltered even after a decade of the 73rd Amendment.[10]

As matters listed in the Eleventh and Twelfth Schedules are also State subjects, for genuine devolution in the present Constitutional framework, the Ministry of Panchayati Raj (MoPR) had supported the States in carrying out 'activity mapping', i.e. delineating clearly the functions to be performed at different levels (State Govt., 3 tiers of Panchayats, ULBs etc.), following the principle of subsidiarity (i.e. devolving functions to the lowest possible level where it can be performed), to be followed by appropriate devolutions of funds and functionaries. But, this has not led to the desired outcome. But, the Ministry of Panchyat Raj, Government of India, maintains that either the activity mapping has not been done, or has not been followed with government orders, or the principle of subsidiarity has not been followed, or funds and functionaries have not been devolved. It may be noted here that these critical aspects of the development of laws are fleshed out in greater detail in two subsequent chapters on role of Panchayats and Municipalities on water management.

From the discussion above and before concluding, it is useful to reconcile the fundamental right to water with the mandate for water supply and management with the rural and urban local bodies. First, both the fundamental right and the creation of rural and urban local bodies are non-negotiable, mandatory and enforceable under the Constitution. Second, how and how much of the water supply function are taken out of parastatal agencies/Water Boards and how the accountability for the service remains with the Panchayats/municipalities is to be worked out by the State governments. Thirdly, in any event, both the Water Supply and Sewerage Boards and Municipal Corporations/Councils are 'State' within the meaning of the Constitution of India and are as on today duty-bound obliged to honour the fundamental right to water of every person. Thus, much like the Central and the State Governments, the Panchayats and the Municipalities are responsible for ensuring that every person has access to an adequate supply of safe water.

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[10] See VidehUpadhyay**Panchayats and paper laws:** Simmering discontent over 73rd Amendment, Economic and Political Weekly, 2003

CHAPTER-4

LAWS RELATING TO CANAL IRRIGATION

This chapter is concerned with laws related to canal irrigation, which several decades ago, were the only major laws in the water sector in India. But gradually laws for ground water irrigation, participatory management of canal irrigation, environmental aspects etc. were also enacted. These laws are discussed in relevant chapters. Attention in this chapter is focussed on laws related to canal irrigation only. The chapter also provides feedback received from the eight states government on problems faced by them in implementation of canal irrigation laws as well as suggestions to overcome the same. Results of the field survey in this respect, are also provided.

4.1 Introduction

Laws related to canal irrigation have traditionally been the most important component of water laws in India. These continue to be the most important even though laws on several other aspects of water resources have been enacted during the past few decades. These laws have provided the umbrella under which massive development of irrigation took place for several decades in this country. Most of the professional engineers in the water resources departments in state governments deal mainly with these laws. A comprehensive and systematic formulation of these laws took place about 140 years ago in the decade of the seventies of the 18th century. The first of these laws was the Northern India Canal and Drainage Act, which was enacted in 1873. This law still holds good and applies to two of our selected states namely Punjab and Uttar Pradesh. On the same pattern, the Bengal Irrigation Act covering the eastern provinces was enacted in 1876 and the Bengal Drainage Act was enacted in 1880. Likewise, the Bombay Irrigation Act for provinces in the western part of India was enacted in 1879 and the Madras Canals and Public Ferries Act for southern provinces in 1890. These Acts had similar vision and approach and conferred more or less similar powers and obligations for the functionaries' responsible for canal water. Besides, there were laws on limited aspects of canal irrigation like the Madras Irrigation Cess Act of 1865, the Punjab Minor Canals Act, 1905, Uttar Pradesh Irrigation (Emergency Power) Act, 1950, Bihar Irrigation Field Channels Act, 1965 etc.

The carving out of new provinces e.g. of Bihar and Orissa from Bengal and later on of Orissa from Bihar led to enactment of new laws like the Bihar Public Irrigation and Drainage Act, 1947 and the Orissa Irrigation Act, 1959. But these Acts more or less followed the same pattern as the original ones enacted in the 1870s. The Acts were also amended from time to time like for example, Uttar Pradesh amended the Northern India Canal and Drainage Act in 1936, 1953 and 1978, Similarly, Punjab amended the same several times. But there has

not been much change in the basic structure of the law, as enacted in 1873. In what follows, we provide main features of the Northern India Canal and Drainage Act 1873 and a few later versions of the similar state Acts like the Andhra Pradesh Irrigation Utilisation and Command Area Development Act, 1984, The Bihar Irrigation Act, 1997, the Bihar Emergency Cultivation and Irrigation Act, 1955, The Kerala Irrigation and Water Conservation Act, 2003, the Chhattisgarh Irrigation Act, 1931 and the Maharashtra Irrigation Act, 1976. This cross section of irrigation laws of different states and of different vintages provides an appropriate description of the present status of canal irrigation laws in India. The key points with regard to canal irrigation laws which are more or less common across different states are examined with reference to the first Act being considered namely Northern India Canal and Drainage Act, 1873. In order to avoid repetition only the additional points of significance for this study from the other Acts are discussed below.

4.2 States' Entitlement to River Water

Canals come out of the rivers. Hence states' authority to construct canals implied authority to control and utilise water of the river for this purpose. This aspect was made clear in the canal irrigation laws from the very beginning. Thus, the preamble to the North India Canal and Drainage Act 1873, one of the early irrigation legislations in modern India says that '[T]he Provincial Government is entitled to use and control for public purposes the water of all rivers and streams flowing in natural channels, and of all lakes and other natural collections of still water'. Likewise, the Bombay Irrigation Act, 1879, another early irrigation law, laid down that 'whenever it appears expedient to the State Government that the water of any river or stream flowing in a natural channel, or any lake or any other natural collection of still water, should be applied or used by the state government ....the State Government may, by notification declare that the said water will be so applied' (Section 5). As has been pointed out in another Chapter, these early Acts, without talking about ownership, asserted the right of the State to use and control water. A similar assertion of State ownership of water in the first half of the twentieth century was found in other legislations too. The Madhya Pradesh Irrigation Act, 1931 explicitly laid down that 'All rights in the water of any river, natural stream or natural drainage channel, natural lake or other natural collection of water shall vest in the Government ...' These early legislations like the North India Canal and Drainage Act 1873 and the Madhya Pradesh Irrigation Act, 1931 continue to be applicable in India even to this day with surprisingly very little amendments. In view of the above approach and perspective, states have Irrigation Acts which empower them to regulate the development and use of surface water within their respective territories. The significant feature of such laws being that water flowing in the rivers or even local streams cannot be impounded, used or diverted without government approval.

4.3 The General features of State Irrigation Laws in India

While it is neither necessary nor possible to discuss all the features of all the State Canal Irrigation Acts in this chapter for the purposes of the present study, some of the aspects of the

state canal irrigation laws which are more relevant for the present day requirements, have been examined in sections below. These Acts are supplemented with various government rules or orders, deciding about the specific aspects of water management within the state such as irrigation scheduling, and also provision of penalties for violating such rules. However, it is often seen that with ill defined rules or laws, there are situations where implementation of such rules or statutes are ad hoc and often, motivated by political considerations.

The Northern India Canal and Drainage Act, 1873

In Punjab, United Provinces, Central Provinces and the North West Frontier Province, of the British India, the rights of the Provincial Governments with respect to canals and drainage (other than certain minor canals in the Punjab and in the North West Frontier Province) were regulated by the Northern India Canal and Drainage Act, 1873 (Central Act VIII of 1873). As the Act stands today, it says that "It extends to Uttar Pradesh and the territories which, immediately before the 1st November, 1956, were comprised in the States of Punjab and Delhi." As stated earlier, the preamble of this Act declared that the Government was entitled to use and control for public purposes the water of all rivers and streams flowing in natural channels. Section 5 of the Act provided that whenever it appeared expedient to the Provincial Government that the water of any river or natural stream should be applied or used for the purpose of any existing or projected canal (which term included a reservoir) the Government may, by notification in the Gazette, declare that the water will be so applied or used after a specified date not being earlier than three months from the date of the notification. Under Section 7, the Collector had to give public notice of the intended application or use of the water, inviting claims for compensation. Section 8 laid down that compensation may be awarded only in respect of certain specified matters. For example, under clauses (a) to (d) no compensation was to be awarded for damage caused by stoppage or diminution of percolation, or floods, or by deterioration of soil, or by stoppage of navigation, or by displacement of labour. But under clause (e) compensation may be awarded for stoppage or diminution of supply of water through any natural channel to any defined artificial channel in use at the date of the notification. The Section also laid down how the amount of the compensation was to be determined from the diminution in the market value of the property, or, where that is not ascertainable; it is to be reckoned at twelve times the amount of the diminution of the annual net profits of the property. Section 9 provided that no claim for compensation could ordinarily be made after the expiry of one year from the date of the damage. Section 10 provided, in effect, for the tribunal assessing compensation in the same manner as under the Land Acquisition Act. In effect, therefore, under these legislations, the Provincial Governments were empowered to take water from a river for any irrigation project whenever they thought it expedient. However, if the project caused stoppage or diminution of supply to an inundation canal, the Act provided for compensation on certain specified basis. These statutory provisions clearly proceeded on the general principle that no new project, however, so ever beneficial in other ways, should be allowed to impair existing inundation canals without payment of compensation.

The Act takes a somewhat lenient view of unauthorised use of canal water. Unauthorised use of canal water is not regarded as a criminal offence. Hence it is not an offence for which an FIR can be registered. It only attracts the provisions of the Act regarding levy of enhanced water charges.[11] At same time, the Act provides more or less immunity to state government against its failure to supply water. According to clause **32 (b)** *"No Claim shall be made against the State Government for compensation in respect of loss caused by the failure or stoppage of the water in canal, by reason of any cause beyond the control of the State Government, or of any repairs, alterations or additions to the canal, or of any measures taken for regulating the proper flow of water therein or for maintaining the established course of irrigation which the Divisional Canal Officer considers necessary; but the person suffering such loss may claim such remission of the ordinary charges payable for the use of the water as is authorised by the State Government;"* And according to the clause **32 (c)** *"If the supply of water to any land irrigated from a canal be interrupted otherwise than in the manner prescribed in the last preceding clause, the occupier or owner of such land may present a petition for compensation to the Collector for any loss arising from such interruption, and the Collector may award to the petitioner reasonable compensation for such loss"*. These clauses provide several escape routes for the state government to avoid paying any compensation, which has been quite rare in practice. As is well known, the misuse of such powers has resulted in considerable inefficiency in management of canal irrigation system. This has led to very low water efficiency in several canal systems in the country, which is now regarded as one of the more important issues facing the water sector today. Real remedy lies in modifying such clauses so as to provide an incentive to canal officers to put a premium on efficiency. This matter is examined further in the last chapter.

The Northern India Canal and Drainage Act, 1873 also says that "..every supply of canal-water shall be deemed to be given at the rates and subject to the conditions prescribed by the rules to be made by the State Government in respect thereof" (Section 31). Further, the rates to be charged for canal water supplied for purposes of irrigation to the occupiers of land shall be determined by the rules to be made by the State Government, and such occupiers who accept the water shall pay for it accordingly." The rate so charged is called the" occupier's rate"(Section 36). In addition to the occupier' s rate, a rate to be called the" owner' s rate" may be imposed, according to rules to be made by the State Government, on the owners of canal irrigated lands, in respect of the benefit which they derive from such irrigation (Section 37). As can be seen in respect of all the charges and water rates above, the Act only provides for an enabling space to legally levy such charges but offers virtually no guidance on the basis of levying these charges. All of these are left to be developed 'by rules to be made by the State Government' or are being said to be 'subject to the conditions prescribed by the rules.' When it comes to these charges, the only further basis under the Act is under Section 38 wherein it is laid down that "The owner's rate shall not exceed the sum which, under the rules for the time being in force for the assessment of land revenue, might be assessed on such land on account of the increase in the annual value or produce thereof caused by the canal irrigation."

[11] Praksh Singh V. State of Punjab, 1994 (3) RRR 512 (p 2 H) and Prakash Singh V State of Punjab, 1996 (3) RCR (Civil) 172 (P & H.

This again provides no real basis or guidance for coming up with water charges. This vagueness has enabled state governments to misuse the law to fix rates which do not cover even the O & M expenses resulting in huge losses to the government, poor maintenance of the irrigation infrastructure and erosion of any incentive to farmers to avoid wastage of precious water and use it in an efficient manner. How to take care of this malaise is being examined in the last chapter.

Finally, there are penal provisions for violation of the provisions of the Act. It is interesting to note that recently in a bid to check the practice of theft of canal water in the state of Punjab, the Punjab Cabinet in April 2012 approved to amend Section 70 of the Northern India Canal and Drainage Act, 1873 to make it far more stringent and punitive. Under the amended provisions of the Act, the amount of fine for canal water theft had been enhanced from earlier Rs 1,000 to minimum Rs 5,000 up and a maximum of Rs 50,000 or imprisonment up to six months or both. The guilty would be deprived of the facility of canal water for two rounds for first time offence, for a season in case of second offence and for two years for third time offence. As pointed out later on in this chapter, a few other state governments have also drawn attention to the need for updating of the penal provisions.

The State of Andhra Pradesh had passed the *Andhra Pradesh Irrigation Utilisation and Command Area Development Act, 1984* to provide for an accelerated increase in agriculture and allied production in Andhra Pradesh through a programme of comprehensive and systematic development on scientific and modern lines of command areas, comprising measures, for optimum use of lands and water, prevention of land erosion and water logging, improvement of soil fertility and regulation of cropping pattern. The Act further says in its preamble that it seeks to ensure proper maintenance and upkeep of irrigation systems in the State for ensuring maximum benefits to the cultivators under the command areas. For these purposes, the Act constitutes a Command Area Development Authority "for the development of each Command area or two or more command areas or any part thereof"[12] Notably, the Act also provides that there shall be a Pipe Committee for each pipe outlet consisting of a President, who shall be the Chief Executive officer of the Pipe Committee, and such number of members as may be prescribed. The President and the members of each Pipe Committee shall be elected by the landholders under the pipe outlet from among themselves in such manner as may be prescribed.[13] The said Pipe Committee shall be responsible to perform the following functions namely: (a) the construction, maintenance, repair and upkeep of the irrigation system under the pipe outlet at the cost and expenses of the landholders; (b) to carry out obligations on behalf of the landholders, if the landholders fail to do so, and recover costs thereof from them in such manner as may be prescribed; (c) to enforce warabandi and to regulate supply of water for irrigation to each land holding by turns or rotation according to the time schedule approved by the Irrigation Officer. (d) to regulate and control water supply for irrigation by volumetric measurement in the manner specified by the Irrigation Officer;

[12] Section 3 of the Act.
[13] Section 5 of the Act

(e) to prevent unauthorised and unlawful use of water for irrigation; (f) to supervise the irrigation system with a view to preventing waste of water and damage to the system. It is also important to note that All lands comprising the command area under a pipe outlet shall form into a single unit for purposes of (i) systematic land development; (ii) maintenance of and upkeep of irrigation system (Section 11). Further, under the Act, the Irrigation Officer shall, while keeping in mind the availability of water and other factors, have power to regulate the supply of water from an irrigation system up-to and below a pipe outlet and specify the time for letting out water for irrigation, the duration of supply, the quantity of supply, and the different areas to be supplied at different times. Finally, there is also provision for liability for unlawful use of water or when water runs to waste under the Act.

The Bihar Irrigation Act, 1997 was passed to consolidate the law relating to irrigation, embankment, drainage, levy and assessment of water rates, betterment contribution and other connected matters. Section 3 of Bihar Irrigation Act, 1997 is notable. In that it vests "all rights in the water of any river, natural stream or natural drainage channel, natural lake or other natural collection of water" in the state government (subject to the provisions of Article 262 of the Constitution and entry 56 of the list 1). The term "natural collection" of water is broad enough to include all minor water bodies. Further, under the law, the divisional canal officer can regulate, in respect of any irrigation work, "the time for letting out water for irrigation, the period of supply, the quantity of supply and the areas to be supplied at different times." The canal officer, in certain circumstances, may also stop the supply of water to any channel, or to any person. Further, no claim shall be made against the state government for compensation in respect of "loss caused by failure or stoppage of water from an irrigation work".

Besides, the *Bihar Emergency Cultivation and Irrigation Act, 1955* empowers the collector to settle any such culturable land "that was lying fallow continuously for a period of two years with a person who has, *in his opinion*, the means to cultivate it and is willing to do so". Also note that the Act (Section 8(1)) says "Notwithstanding any entry in the record of rights or anything contained in any other law, if the collector is satisfied, after such inquiry as he thinks fit, that a certain land is likely to be benefited by any irrigation work, he may make an order that such land shall be irrigated from such work, on such terms, and subject to such conditions as he thinks fit." Similar provisions resonate in other irrigation laws in the state. Whether the collector should have such wide powers is questionable today especially in the light of the new policy language of participatory irrigation management.

The Kerala Irrigation and Water Conservation Act, 2003 aims to consolidate and amend the laws relating to construction of irrigation works, conservation and distribution of water for the purpose of irrigation and levy of betterment contribution and water cess on lands benefited by irrigation works in the State of Kerala. The Act also aims to provide for involvement of farmers in 'water utilisation system'. The Act also declares that all water courses and all water in such water courses in the State shall be the property of the Government, and the Government shall be entitled to conserve and regulate the use of such

water courses and the water in all those water courses for the purposes of irrigation and the generation of electricity (Section 3). The Act also makes clear that no person or agency shall abstract water from a water course by installation of any mechanical or electrical device, the capacity of which, in the aggregate, is more than five horse power, or any hose, pipe or other similar device or by any other means except with the previous permission of the officer authorised by the Government (Section 4). Further, the Act says that no person shall quarry sand in any area in a water course within a distance of five hundred metres from any dam, check dam, reservoir or any other structure or construction on or across such water course, owned or controlled or maintained by Government for the purpose of irrigation (Section 7).

In a significant provision, the Act lays down that "No person or agency or a local authority or any other authority shall divert any river or interlink two or more rivers or effect inter-basin transfer of water from such rivers without obtaining prior permission from the Government" [(Section 6(1)]. In another important provision, the Kerela Act says that "where the Government consider it necessary to do so, they may entrust the construction or maintenance or both of any irrigation work, to any local authority or to any co-operative society or other society of farmers or to any other body corporate benefited by that irrigation work." This provision is further supplemented by the following:

The local authority or co-operative society or other society of farmers or any other corporate body to which any work is entrusted shall undertake the maintenance and upkeep of such work after completion on proper agreement and if the local authority or co-operative society or other society of farmers or the other body as the case may be, fails to comply with such agreement, the persons who have executed the agreement shall be responsible for the loss, if any, or the cost of maintaining the same by the department subsequently and such loss or cost of maintenance shall be realised from them.[14]

The Act also makes it clear that the construction and maintenance of all minor and petty irrigation works within the limit of a local authority shall be subject to the provisions of the Kerala Panchayat Raj Act, 1994.[15]

Unlike the 'different' provisions above that can be seen in Kerela, the 2003 Act, much like other Irrigation Acts from other States, has an open-ended provision on irrigation cess that says that the levy of irrigation cess on lands benefitted from irrigation works "shall be at such rate as may be notified by Government from time to time and shall be paid within such time and in such manner as may be prescribed" (Section 23). In another open-ended provision, the Act says that "distribution of water from all irrigation works constructed or maintained wholly or partly at the cost of Government shall be regulated by such rules or orders as may be made or issued by the Government from time to time."

[14] Section 13(1) and 13(2) of the Act
[15] Section 14(1)

It is also notable that the Act provides for constitution of the Kerala Dam Safety Authority for the purpose of surveillance, inspection and advice on maintenance of dams situated within the territory of the State.(Section 57). The Kerala Irrigation and Water Conservation Act, 2003 was amended in 2006 to include a new Section on functions of the Kerala Dam Safety Authority as below:

"62. *Functions of the Authority*".-(1) Notwithstanding anything contained in any other law, judgment, decree or order of any Court or in any treaty, agreement, contract , instrument or other document, the Authority shall exercise the following functions, namely:-
(a) To evaluate the safety and security of all dams in the State considering among other factors, the age of the structures, geological and seismic factors, degeneration or degradation caused over time or otherwise;
(b) To conduct periodical inspections of all the dams;
(c) To advise the Government on security measures to be adopted in respect of any dam considering its vulnerability to terrorism, sabotage and the like;
(d) To direct the custodians to carry out any alteration, improvement, replacement or strengthening measures to any dam found to pose a threat to human life or property;
(e) To direct the custodian to suspend the functioning of any dam, to decommission any dam or restrict the functioning of any dam if public safety or threat to human life or property, so requires;
(f) To advise the Government, custodian, or other agencies about policies and procedures to be followed in site investigation, design, construction, operation and maintenance of dams;
(g) To conduct studies, inspect and advise the custodian or any other agency on the advisability of raising or lowering of the Maximum Water Level or Full Reservoir Level of any dam, not being a scheduled dam, taking into account the safety of the dam concerned;
(h) To conduct studies, inspect and advise the custodian or any agency on the sustainability or suitability of any dam not being a scheduled dam, to hold water in its reservoir, to get expert opinion of International repute, and provide advise by dam-brake analysis and independent study and to direct strengthening measures or require the commissioning of a new dam within a timeframe to be prescribed to replace the existing dam;
(i) To carry out such other functions not inconsistent with the provisions of this Chapter and necessary or expedient to carry out the provisions of this Chapter; and
(j) Such other functions as may be assigned to the Authority by the Government by notification in the Official Gazette."

The Chhattisgarh Irrigation Act, 1931 also has wide ranging provisions for construction and maintenance of canal network and also lays down that water may be supplied from a canal:(a) Under an irrigation agreement, in accordance with the provisions of Chapter VI (of the Act); (b) On demand, for the irrigation of specified areas; (c) To supplement a village tank; (d) For Industrial urban or other purposes not connected with agriculture and (e) For the irrigation of a compulsorily assessed area.[16] It is also notable that the Act goes on to add that charges for

[16] Section 37 of the Act

the supply of water for these purposes "shall be paid at such rates as may be fixed by the State Government in accordance with rules made under this Act."[17] This makes it clear that the Act itself does not lay down any criteria or rationale for determination of these rates. What compounds the issue is that the Act goes on to add that "the State Government may by notification, reduce or remit the whole or any part of the charges for the supply of water" for all the purposes noted above.[18] Similar provisions exist for levying of irrigation cess as can be noted form the relevant provisions extracted below:

"58-L. Levy of Irrigation cess- *In addition to the water rates or other charges Or levy leviable under the provisions of this Act, there shall be levied in respect of land under irrigable command of a canal, a cess called the irrigation cess at such rate and for such period as may be fixed by the State Government by notification:*
(1) Provided that having regard to the Potentiality of perennial or seasonal Supply of water from a canal different rate may be fixed for different canals.
(2) The irrigation cess shall be payable by every Permanent holder or occupier of land in the irrigable command of the canal.
58-M. *Subject to the rules made under this Act, the State Government may, by notification reduce or remit the whole Or any part of the irrigation cess levied under Section 58-L."*

When it comes to supply of water for industrial and other purposes, the Act says that "the conditions for the supply of water for industrial, urban or other purposes not connected with agriculture and the charges therefore, shall be as agreed upon between the State Government and the company, firm, private person or local body concerned and fixed in accordance with rules made under this Act." Here again, there is little guidance beyond only saying that supply will depend on agreement between the government and the private entity concerned.

For supply of water to the landed farmers, the Act says that for this purpose an "Agreement may be made, between the State Government and the permanent holders of land for the supply of water for irrigation either for a short term not exceeding one year or for a long term exceeding one year, at such rates as may be fixed by the State Government, from time to time"[19] Such Agreements are called "Irrigation Agreements" and the water rates payable there under are called "agreement rates" in the State.

In a notable provision, both the Madhya Pradesh Irrigation Act, 1931 and the Chhatisgarh Irrigation Act, 1931 require that "an Irrigation Panchayat shall be established for every village or chak and at the discretion of the Collector, for a group of villages in the commanded area of canal. Such Panchayats shall consist of a sarpanch and two or more members elected by the permanent holders and occupiers of the land from among themselves." [Section 62(1)] Such Irrigation Panchayats are required to assist the officers of the Irrigation Department in arranging for the construction of water-courses, in recording and

[17] Section 37 (2) of the Act.
[18] Section 37-A of the Act.
[19] The Act adds that if the State Government considers it necessary 80 to do, short term agreement may also be made with occupiers of land. See Section 45 of the Act.

checking irrigation, and in making measurements and settling disputes; collecting irrigation revenue and remitting it to the treasury; and arranging for the repair of water-courses.[Section 62(2)] But no thought has been spared as to the fate of such irrigation Panchayats after the establishment of the Water Users Associations under the policy approach of participatory irrigation management in these States.

The Act further provides for contracts that may be made whereby the Government undertakes to construct water courses and to bear the cost of construction and the permanent holders of irrigable land undertake to maintain them and to bear the cost of maintenance. Such Contracts are called "water Course Contracts". The Act adds that Irrigation Panchayat shall be responsible for the proper maintenance of all water courses constructed for the village. Although the Act required that the rules shall be made for the maintenance of water courses by irrigation Panchayats but no rules were ever made under the Act for this purpose.

Maharashtra Act XXXVIII of 1976 known as *Maharashtra Irrigation Act, 1976* was enacted on August 5, 1976 in order to unify and amend the law relating to irrigation in the State of Maharashtra and to provide water rates for lands under the irrigable command of canals and matters connected therewith. On mode of supply of canal water and minimum water charges the 1976 Act states that:

> *"(1) Water from a canal may be supplied, -*
>
> *a. on an application for irrigation or non-irrigation purposes as provided in Chapter II of this Part;*
>
> *b. On volumetric basis as provided in Chapter III of this Part*
>
> *c. Under an irrigation agreement as provided in Chapter IV of this Part; or*
>
> *d. Under a scheme in accordance with the provisions of Chapter V of this Part.*
>
> *"(2) All those holders or occupiers of the land within the irrigable command area of a canal (not being lands irrigated on wells within the irrigable command) who do not avail the facility of water supply during kharif and rabi season (being seasons determined as such by an order of the State Government) from such canal a water rate equal to fifty per cent of seasonal water rate applicable and in force in that season."*[20]

In respect of determination of rates for supply of canal water, the Act states that *"Such rates shall be leviable for canal water supplied for purposes of irrigation, or for any other purposes under this Chapter as shall from time to time be determined by the Appropriate Authority....."*[21] The Act defined 'Appropriate Authority' as *"Appropriate Authority", in relation to a canal constructed, maintained, controlled or managed by the State Government or the Company or a Zilla Parishad, means the State Government, the Company or the Zilla Parishad respectively;"*It is significant go note that by way of enactment of Maharashtra Water Resources Regulatory Authority Act 2005, the State Government has given these powers to Maharashtra Water Resources Regulatory Authority.

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[20] Section 46 of the Act.
[21] Section 59 of the ACT.

The Act has similar provisions for irrigation agreements as discussed in the case of Chhattisgarh Irrigation Act above. In respect of supply of water on volumetric basis and formation of Water Committee, the Maharashtra Irrigation Act, 1976 states:

1. *Where the holder or occupiers of not less than fifty-one per cent of the land or not less than fifty-one per cent of holders or occupiers of the lands to which supply of water to form a Water Committee of all such holders or occupiers for distribution of water on that canal.*
2. *Such water rates shall be levied for canal water supplied to the holders and occupiers for the purpose of irrigation as may be determined by the Appropriate Authority"*[22]

While most States have failed to streamline their irrigation Acts following the enactment of laws regarding participatory irrigation management – a point made out in context of Bihar and Chhattisgarh Acts discussed above, the State of Maharashtra can be said to be an exception to this trend. This gets clear from joint reading of the Maharashtra Act No XXIII of 2005 known as the Management of Irrigation Systems by Farmers' Act 2005 (MMISF Act, 2005) along with the_Maharashtra Irrigation Act, 1976. Section 71 of MMISF Act, 2005 under its General Provisions states that:

> *"Section 88 and 89 of Maharashtra Irrigation Act, 1976 shall mutatis mutandis apply to recovery of water charges in areas under the Management of Irrigation Systems by Farmers."*

At the same time, MMISF has repealed most of the tariff related provisions in the Maharashtra Irrigation Act, 1976 for areas under the management of farmers using Water User Associations. Section 77 of MMISF Act, 2005 states:

> *"On the commencement of this Act, in relation to the areas under the Management Irrigation Systems by Farmers, [Sub-Section (1) and (2) of Section 46,] Sections 46 to 48, Section 55, Sections 57, 58, 60 and 61 to 74 of Maharashtra Irrigation Act, 1976, shall be deemed to have been repealed"*

It may be noted that while some of the provisions of this Act have been repealed under Section 77 of MMISF Act for areas under management of Water User Associations, these provisions continue to apply to areas which are not under management of WUAs.

It is useful to assess the canal irrigation laws on the touchstone of efficiency. As pointed out earlier, a major drawback lies in the virtual immunity to state government against failure to supply water. Moreover, given the state of the irrigation and canal network across the states,

[22] Section 60 of the 1976 Act.

one feels that the irrigation departments need to carry out time bound joint inspection of the irrigation canals followed by identification and execution of priority works for rehabilitation of the existing canal systems. Without their rehabilitation, all water rights can come to a nought. Notwithstanding the imperative need for this to happen, the State laws do not have any mandatory provisions obliging the department to take a lead on this aspect. Besides the rehabilitation, operation and maintenance of canals requires finances and this inevitably raises the question of water charges. Even the existing water charges, which are not paid in many circumstances, are far less than the expenditure needed for proper operation and maintenance of the system. It has been pointed out before that "All across the country, the irrigation fees are a small fraction of the operation and maintenance costs of the systems and an even smaller fraction of the actual costs of private lift irrigation with diesel pumps. The highly subsidised irrigation fee structure has helped establish a low-level equilibrium. Farmers are unwilling to demand improved maintenance and service from the irrigation department lest it might result in higher irrigation fees. In turn, the department staff justifies lack of maintenance and poor operation and maintenance by citing low irrigation fees."[23] In this context, the fact that the Irrigation Acts themselves do not lay down any criteria or rationale for determination of these rates, represents a glaring omission in these laws. As pointed out above, this gets compounded by the typical formulation in the laws "the State Government may by notification, reduce or remit the whole or any part of the charges for the supply of water". As can be seen from the discussion above, Maharashtra seem to have taken some lead on this aspect by putting a regulatory mechanism in place that other States could use to their advantage. It transpired during discussions of the study team with state officers that some of the states have already prepared the bill and some others are in the process of doing so.

4.4 Farmers Perception of the Canal Irrigation Laws

Before parting with the section on State laws on canal irrigation, a couple of important points emerging from household surveys carried out as part of the present study merits attention. When it comes to households awareness on canal irrigation laws, the responses have been very discouraging. Virtually no one who was spoken to seemed to be aware of the laws on the subject. The table below shows this in clear terms:

[23] See Upadhyay Videh; *Command Area Development: Restructured Guidelines*, Economic and Political Weekly, July 15, 2005. The Author adds that perhaps the biggest reason that perpetuates this equilibrium is the fAct that there has been "absence of a link between the payment of service charges and the prospect of improvement in services provided by the system in response to the user requirements" and this has "provided a fertile ground for the politicisation of the cost recovery processes".

Table 4.1: Households' awareness about canal irrigation law.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	-	-	-	-	-	-
No	60	60	60	60	60	60	60	60	480
Total	60	60	60	60	60	60	60	60	480

The household surveys also point to an additional problem. A majority of the respondents feel that on various aspects of irrigation management including distribution of water, maintenance of canals and on irrigation charges they have not been consulted by irrigation department officials. In this regard see the Table below. It can also be seen that the maximum consultation is with regard, to distribution of water specially in Maharashtra whereas it is almost total and in Andhra Pradesh where a majority of farmers are consulted. However, least consultation is reported on irrigation charges as can be seen below.

Table 4.2: Households' report about consultation by irrigation department officials for various activities (Multiple Response)

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Distribution of water	21	4	55	21	16	11	37	17	182
Maintenance of canal/irigatiojn channels	22	-	5	20	4	3	21	15	90
Irrigation charges	10	-	-	1	3	3	10	4	31
Do not consult	30	56	-	30	41	43	15	31	246
Total sample	60	60	60	60	60	60	60	60	480

Levy of irrigation charges on farmers sometimes result in disputes. But a majority of farmers concerned with this issue (241 out of 377) were not satisfied with the mechanism for resolution of disputes regarding canal irrigation charges. One also notices significant inter-state differences in this respect. In Kerala and Maharashtra, all the 60 respondent farmers

were dissatisfied with the mechanism whereas in Andhra Pradesh and Chhattisgarh most of them (51 out of 60 in Andhra and 50 out of 60 in Chhattisgarh) were satisfied. Table 4.3 below provides the details.

Table 4.3: Households' report about satisfactory mechanism for resolution of disputes regarding canal irrigation charges.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	15	20	-	50	-	-	51	-	136
No	29	40	60	7	36	-	9	60	241
No Idea	16	-	-	3	24	60	-	-	103
Total	60	60	60	60	60	60	60	60	480

The aspects discussed above point out that the canal irrigation legal regime has not reached out well enough to the farmers. This has been one of the reasons which led to the introduction of Participatory Irrigation Management (PIM), which was thought of as a structural response to some of the problems of the canal irrigation legal regime. However, even the PIM has not been able to tide over all the issues that exist today with the legal regime on canal irrigation. This aspect would be explained further in the chapter on laws relating to PIM and is, therefore, not repeated herein.

4.5 Views of the State Governments on Problems Faced in Implementation of Canal Irrigation Laws and Suggestions for Better Implementation of the Laws

Views of the eight state governments on problems faced in implementation of canal irrigation laws were obtained through their responses to the questions sent in advance to them through the state schedule followed by intense discussion of the Principal Investigator with the concerned officers of different state governments in their respective state capitals. Most of the state government officials except those from Punjab acknowledged that the implementation of the laws was far from perfect. They mentioned several reasons for the same, many of which were found common across two or more states. Four states mentioned that no action was taken against those flouting the laws whereas only three mentioned that some action was taken while one did not respond to this question. There was general lack of fear for flouting laws and rules and therefore, lack of willingness among beneficiaries to follow them (Maharashtra). No action was taken even against officials not implementing the laws as

reported by a majority of states. Absence of public awareness of laws and rules pointed out by both Maharashtra and Uttar Pradesh and illiteracy of most farmers even though law presumes literate and aware farmers as pointed out by Bihar, were other reasons. Attention was also drawn to general law and order problems in some areas and/or in certain periods because of which it was not possible to enforce punitive measures (Assam and Bihar). Maharashtra drew attention to political interference whereas Uttar Pradesh mentioned about problems with big landlords having political connection who were not inclined to carry out the orders of the canal officers.

Assam referred to the general tendency of the cultivators to get free water from the government as well as poor condition of farmers. There was a problem of a very special nature in Assam where the District Council Authority in two hill districts of Assam did not permit implementation of the rules of the Assam Irrigation Act.

Deficiencies in irrigation management have been mentioned as another set of reasons for non or imperfect implementation of the laws. As Bihar pointed out, the method of irrigation followed in that state was field irrigation because of which it was not possible to restrict irrigation to those who were defaulters or otherwise found ineligible to receive canal water for irrigation. Uttar Pradesh referred to absence of monitoring of flow of water. Because of the field to field irrigation in Chhattisgarh , tail-enders did not get adequate water. A major hurdle as reported by Bihar , and which might be true in other states also, was non-availability of adequate quantity of water to the requirements as provided in the law.

Administrative inadequacies constitute another set of reasons. Both Bihar and Chhattisgarh reported about inadequacy of grass root level functionaries like Assistant Engineer, Junior Engineer, Amin, Patrol, Chainman, mate, etc. duties of all of whom have been prescribed in the law. Posts have been lying vacant for years. Bihar also drew attention to lack of basic amenities like vehicles, rest houses, camps, inspection bungalows, etc. Absence of judicial powers to Executive Engineers mentioned by Bihar and Uttar Pradesh was viewed as another problem since taking action through the collector was found to be quite inconvenient with uncertain outcome. In addition, there was lack of proper knowledge of laws and rules by many field level officers as mentioned by Bihar and as observed by the study team in several other states also.

Another set of problems arises on account of legal inadequacies. With the passage of time, certain provisions of laws become outdated. Five states acknowledged that the old irrigation laws have become outdated and therefore, require drastic amendment. Only two states had a different view point while one state (Maharashtra) mentioned that the laws have updated. In other states, little attempt has been made to update them at periodic intervals. For example, monetory fine as fixed under Sec. 82 of Bihar Irrigation Act, 1997 is Rs. 500 only. This is a paltry sum in terms of present day economic scenario. But the same penalty continues till today. Hence, it has no deterrent effect. Uttar Pradesh also opined that monetary penalty fixed several years ago had no effect on those found guilty. Only jail had the effect. But jail clause

was hardly implemented due to absence of needed cooperation from police and district civil administration.

According to canal irrigation Acts of almost all states, as articulated by Chhattisgarh and a few other states, no principle or criteria has been laid down for fixation of water rates. The Acts say that rates would be fixed as determined by the state government. This has resulted in fixation of lower rates leading to problems like lack of incentive for saving water by farmers and less funds for O & M for the irrigation department. In Andhra Pradesh, an additional reason mentioned for low water tax collection efficiency was inadequate coordination between Agriculture, Revenue and I & CAD departments for assessing the crop area for water tax collection. Another problem pointed out by Chhattisgarh , which might be true for a few other states is that there is a provision for recovery of arrears of water rates as arrears of land revenue. But irrigation engineers have been given powers to recover only through and upto moveable property. For immovable property, the Collector has to be involved. This requires a long process and hence hardly implemented. Maharashtra drew attention to lengthy and time consuming conflict resolution procedure.

The states have given a number of suggestions to deal with the problems cited above. These are briefly summarised below.

There should be adequate arrangement for public awareness generation programmes regarding water laws and rules at village, town, Panchayat and other levels for the stake holders through small street plays, radio, T.V., pamplets etc. (Chhattisgarh, Maharashtra, Bihar, Punjab, Andhra Pradesh). Such programmes should highlight the rights and responsibilities of individuals, organisations and field authorities, (Andhra Pradesh). Need for following laws and rules should be emphasized in such programmes (Maharashtra). In addition, Maharashtra also suggested the need for educating children regarding importance of water by introducing this subject in their curriculum since primary school.

Bihar made a very useful suggestion of giving refresher courses on the relevant laws and rules to officers at different levels dealing with canal irrigation. Two other suggestions by Bihar included (i) providing basic facilities such as vehicles, rest houses to staff and (ii) employing adequate number of grass root level functionaries.

There should be a set of incentives and disincentives and penalty clauses should be made more effective. The quantum of monetory fines fixed decades ago should be increased with respect to present level of prices. (Punjab, Bihar and Uttar Pradesh). Penalty should be mainly in terms of jail (Uttar Pradesh).

Legal authority to enforce laws and rules should be provided to district level canal irrigation officers by giving them the required judicial powers so that they need not go through the police or the Collector. (Assam, Bihar and Uttar Pradesh). At the same time, political

interference in the functioning of implementing agencies should be avoided. (Maharashtra and Uttar Pradesh)

Andhra Pradesh suggested the need for full cost recovery from irrigation rates so as to reduce subsidy. It suggested that water should be treated as an economic good. Andhra Pradesh and Kerala also suggested that Irrigation department should also collect water rates as is the practice in some other states in North India, to fix up tariff to ensure recovery of cost and sustainability of water sector. Uttar Pradesh suggested the need to make amendments in the Northern India Canal and Drainage Act, 1873 so as to update it to the present scenario and to monitor the flow of water. Quick & transparent conflict redressal procedure was suggested by Maharashtra. Andhra Pradesh suggested that annual plan and performance standards and improvements in efficiency should be taken up every year till suitable benchmarks and ready reckoner systems are established over a period of time.

The study Team considers most of these suggestions quite useful and would recommend their incorporation in state canal irrigation laws. However, the suggestion regarding giving judicial powers to the canal officers requires further discussion.

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CHAPTER-5

LAWS RELATING TO GROUND WATER

Over the past few decades, ground water has become the main source of water for all the important uses of water, in particular domestic and agriculture. The tremendous increase in the use of ground water has led to sharp decline in its level in several parts of the country with disastrous consequences. This calls for a strong legal and regulatory framework to meet the situation arising out of ground water overuse and abuse. The present Chapter deals with this issue. It is in four parts. The first part discusses the legal status of ground water whereas the second part throws light on the national legal initiatives in ground water management. The third part reviews the various State laws specifically enacted for ground water regulation and management. The final part brings together key implementation issues, field findings and the path ahead for better ground water management.

5.1 Legal Status of Ground water

The Indian Easements Act, 1882 points to *'the right of every owner of land to collect and dispose within his own limits of all water under the land which does not pass in a defined channel and all water on its surface which does not pass in a defined channel'*. The use of the words 'collect and dispose' seems to suggest that there is an unrestricted right to extract ground water under one's land. This then leads to a general understanding from the existing legal regime that, while surface water is a state property, ground water belongs to the land owner. While this seems to be a widely held understanding, this understanding does not strictly correspond with the law. The formulation under the Indian Easements Act, 1882 clearly distinguishes percolating ground water from ground water flowing in 'defined channels'. It confirms that wherever ground water is found to flow in defined channels, the regime for appropriation is the same as that for surface water. This aspect which is very important in the present context, seems to have gone unnoticed by administrators and policy makers. This is a matter of concern since most of the ground water being a dynamic resource, flows in defined channels.

In addition to the above, Indian Easements Act, 1882 does not define the rights of land owners over ground water and consequently does not constrain any possible reform of the legal regime today. This is because the legal position as clarified in *Acton v Blundell* is that

there is no easementary right in ground water but rather that access to ground water is a right attached to the land.[24]

There is a growing perception that ground water is public property and that only user rights accrue to the owners of overlying lands. Thus, governmental assertions of control can accrue from statutory vesting in the state of superior user rights or in the state as 'public trust' in the resources on behalf of the people. In this context the High Court of Andhra Pradesh in an important recent verdict held that 'Deep Underground Water' is the property of the state under the doctrine of Public Trust.[25] The holder of land has only a user right towards the drawing of water in tube wells. Thus, neither his action nor his activity can in any way harm his neighbours and any 'such Act would not violate Article 21 of the Constitution '. In another well-known 'Coca-Cola Case' involving centrally the question of the power of the *Panchayats* to control and regulate ground water in their territorial jurisdictions, the High Court of Kerala also held in clear terms that 'the underground water belongs to the public'. The state and its instrumentalities should Act as trustees of this great wealth. The state has a duty to protect ground water against excessive exploitation and the inaction of the state in this regard is tantamount to infringement of the right to life of the people guaranteed under Article 21 of the Constitution of India .[26]

The nature of state obligation stemming from the legal position, as laid out above by the High Courts, is that 'Deep Underground Water is the property of the state under the doctrine of Public Trust' and that the 'State should Act as trustee of the great wealth of underground water'. This is further affirmed by the Supreme Court of India, while adopting the public trust doctrine as part of Indian jurisprudence. The Supreme Court has held that: 'The state is the trustee of all natural resources which are by nature meant for public use and enjoyment... The state as a trustee is under the legal duty to protect the natural resources.'[27] The famous directive of the Supreme Court issued on December 10, 1996, under the Environment Protection Act, 1986 regarding establishing Central Ground Water Authority for regulating over exploitation of ground water implies that regulating ground water is a responsibility of the Central Government also.

The legal position as it is evolving should make clear that the government of the day has an obligation and is empowered to regulate ground water in the public interest. It can thus legislate to restrict the duration of the ground water exploitation permits, limit the amount of ground water used and lay down spacing norms between wells and water sources, among others. Even in areas where the rule of private ownership of ground water by the land owner would apply, it is empowered to declare areas as 'Ground water Conservation Areas' or 'Water Scarcity Areas' or 'Over-Exploited Watersheds', whereupon the state can set stringent requirements and norms. In fact, this is the way some states in India have enacted specific ground water laws which are discussed in detail in sections below.

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24 *Acton v Blundell* (1843) 12 M. & W., 324, cited in Frederick Peacock, *The Law Relating to Easements in British India* (Calcutta: Thacker, 1904).

25 *M.P. Rambabu* v. *District Forest Officer*, AIR 2002 A.P. 256.

26 *Perumatty Grama Panchayat* v. *State of Kerala*, 2004(1) KLT 731

27 M. C. Mehta vs Kamal Nath and M. I. Builders vs Radhey Shyam Sahu

5.2 NATIONAL LEGAL INITIATIVES FOR GROUND WATER PROTECTION

As 'Water' is state subject (aside from inter-state water and water disputes) under the Constitution of India [28] it is the States that have the legislative competence to enact ground water laws. Thus, some states in India have enacted specific ground water laws. Before we examine closely the nature of regulation by some of those states, a brief overview of the Centre's Model Ground Water Bills and the nature and role of Central Ground Water Authority constituted under a central law, The Environment (Protection) Act, 1986 is in order.

The Model Bills of the Union Government on Ground Water Regulation and Management

With a view to regulating ground water resources, the Government of India first formulated a draft Model Bill in 1970. This was subsequently revised in 1992, 1996 and 2005. Some of the salient features of this bill, as it stood before the 2005 Amendment, were identified by a Commission of the Union Ministry of Water Resources itself as follows[29]:

- The state governments were to acquire powers to restrict the construction of ground water abstraction structures (including wells, bore wells, tube wells, etc.) by individuals or communities for all uses except that of drinking water in any area declared as a notified area based on a report from the Ground Water Authority of the concerned State.
- For discharging the various functions to be acquired by the government under the legislation, a Ground Water Authority was to be constituted by each state.
- Applications for sinking wells for purposes other than domestic use, were to be considered by the State Ground Water Authority keeping in view the purpose for which water was to be used, the existence of other competitive users, the availability of ground water, and any other relevant factors.
- Persons or organizations desirous of taking up the business of sinking wells/tube wells were required to register with the State Ground Water Authority. The Authority was also to be vested with the power to cancel any permits, registrations or licences issued by them.
- The Authority was to be provided with complete legal support to enforce the various provisions of the legislation. The civil Courts were to be barred from granting injunctions on any decision taken by the Authority.

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[28]Refer Entry List II of the Seventh Schedule of the Constitution of India .

[29]Ministry of Water Resources (1999) *Report of theNational Commission for Integrated Water Resources Development Plan*, Government of India

One important chapter was added to the model bill through an Amendment in 2005. The Amendment introduced the chapter on 'Rainwater Harvesting for Ground Water Recharge' and had the following specific provision, among others:

> *"To improve the ground water situation, the Authority may identify the recharge worthy areas in the State and issue necessary guidelines for adoption of rain water harvesting for ground water recharge in these areas. In rural areas, watershed management to facilitate ground water recharge may be encouraged through community participation. The Authority may give appropriate directions to the concerned departments of the State/UT Government to include Rain Water Harvesting in all developmental schemes falling under notified areas. In urban areas, falling in notified areas, the Authority may issue directives for constructing appropriate rain water harvesting structures in all residential, commercial and other premises having an area of 100m^2 or more in a manner prescribed within the stipulated period, failing which the Authority may get such rain water harvesting structure constructed and recover the cost incurred along with a penalty as may be prescribed."*

As it is over four decades since the first draft of the 'model bill', it is evident that the states have shown virtually no inclination to adopt the draft model bill and the draft rules. Among the major reasons behind the proposed Centre's Model Ground Water Bill not taking shape in law, and most states not adopting the bill, has been the concern that a 'licensing type control' under the law could lead to widespread corruption on one hand and alienation of the people on the other.[30]

The bill, as it stands today, is also seen as being against the dominant thinking of water management in as much as this presently emphasizes decentralized and participatory decision making. Perhaps the strongest reflection of this thinking from within the official circles came in 1999 from a Working Group on Legal, Institutional and Financing Aspects constituted by the Union Ministry of Water Resources. It suggested that the best option is to introduce the participatory process in ground water management, whereby the role of the state could be that of facilitator and the role of the user organization/*Panchayat* an implementing regulatory agency. In this context, the Working Group specifically suggested that in 'dark' and 'over exploited areas':

- Gram Sabha as a whole may decide on ground water management; where villages are large, the Sabha could be formed for smaller areas.
- The use of ground water for irrigation and sale of ground water should be approved by the village community.

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[30]Dubash, N. K. (2002) *Tubewell Capitalism – Groundwater Development and Agrarian Change in Gujarat*, Oxford University Press, New Delhi

- The central and state ground-water officials may be required to extend full cooperation, rendering technical service and advice to the village communities.[31]

In line with the dominant thinking of decentralising powers for ground water regulation across the country and taking into account the inadequacies of the earlier versions of the Model bill , a new Model Bill for the Protection, Conservation, Management and Regulation of ground water, 2011 is understood to be drafted and finalised by the Planning Commission, Government of India . However, a larger question shall remain that even while the Centre can keep revising and coming up with new model bills, ultimately it is the States that shall have to demonstrate the requisite political will to adopt the model bill or any of its variants .

Central Ground Water Authority following intervention of the Supreme Court

In addition to the various versions of the model bill at the central level the Ministry of Environment and Forest, Government of India constituted the Central Ground Water Authority (CGWA) as an 'Authority' under the Environment Protection Act, 1986. However, the ground for Constitution of the CGWA was laid out by the Supreme Court of India .

The Supreme Court of India has held that *prima facie* the Constitution (Article 253) and provision of the Environment Protection Act, 1986 (EPA), empower the centre to regulate ground water exploitation. The Court also directed the Union Ministry of Environment and Forests to constitute a Central Ground Water Authority under Section 3 (3) of the EPA.[32]

In pursuance of the above order of the Supreme Court, the Ministry of Environment and Forests, Government of India , constituted CGWA as an 'Authority' under the EPA to regulate over exploitation of underground water in the country. Specifically, CGWA was required to regulate indiscriminate boring and withdrawal of ground water and to issue necessary regulatory directions in this regard. The authority exercises its power of issuing directions under the EPA.[33]In addition, it can also resort to the penal provisions contained in the said Act.[34] The authority functions under the administrative control of the Union Ministry of Environment and Forests and has jurisdiction over the whole of India.

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[31]Ministry of Water Resources (1999) *Report of the National Commission for Integrated Water Resources Development Plan*, Government of India

[32]See M. C. Mehta vs Union of India , 1997 (11) SCC 312

[33]Section 5 read with Section 3(2) of EPA.

[34]These provisions are from Sections 15 to 21 of the EPA.

5.3 REVIEW OF STATE LAWS ON GROUND WATER

Only a few states in India have enacted specific ground water legislation. These laws are applicable in restricted areas, have limited purposes and generally suffer from a low level of implementation. These specific ground water legislations are discussed below.

Gujarat amended its Irrigation Act in 1976, requiring land owners to apply for a licence to extract ground water from below a depth of 45m. The Regional Canal Officer (RCO) was vested with the sole power of granting or denying a licence. The Amendment applied to only a few districts and even where it was applied it was not possible for the RCO to supervise all districts. The state of Madhya Pradesh also came up with a specific law, namely the *Madhya Pradesh Peya Jal Prirakshan Adhiniyam, 1986* that provided for regulation of digging of tube wells in order to maintain the water supply to the public for domestic purposes. The Collector has the power and authority under this Act to grant or refuse permission for the digging of tube wells. Contravention of the provisions of this Act could lead to imprisonment for up to two years.

The Karnataka Ground Water (Regulation for protection of sources of drinking water) Act, 1999 was enacted with regulatory measures that included the following: (i) sinking a well for the purpose of extracting or drawing water within a distance of 500m from a public drinking water source without obtaining permission of the appropriate authority i.e. the Deputy Commissioner, is prohibited;(ii) the appropriate authority, in times of water scarcity may declare an area to be a water scarcity area for such period as may be specified in the order, but not exceeding one year at a time; (iii) upon declaration of any area as a water scarcity area, the appropriate authority may order for restricting or prohibiting extraction for any purpose where such well is within 500m of the public drinking water source; (iv) the appropriate authority on the advice of the technical officer may declare a watershed as over exploited; (v) the appropriate authority shall have powers to prohibit sinking of wells in over exploited watersheds;(vi) if the appropriate authority is satisfied that any existing well in the area of an over exploited watershed is already affecting any public drinking water source, it may prohibit the extraction of water from such well during the period from February to July every year.

The Kerala Ground Water (Control and Regulation) Act, 2002 also creates a State Ground Water Authority in the State of Kerala which is 'empowered to notify areas for the control and regulation of ground water development in the State'. Any person desiring to dig a well or to convert the existing well into a pumping well, for his own or social purposes in the notified area, shall submit an application before the Authority for the grant of a permit. The applicant shall not proceed with any activity connected with such digging unless a permit has been granted by the Authority. The Act further lays down a procedure for registration of existing wells of the notified area and adds that no person shall, without the permission of Authority, dig a well for any purpose within 30m of any drinking water source from where water is pumped for public purpose.

The West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005 was enacted 'to manage, control and regulate indiscriminate extraction of ground water in West Bengal' and create an authority at the state level known as the West Bengal State Level Ground Water Resources Development Authority. To enable the State Level Authority 'to perform its functions and exercise its powers efficiently' the government also establish the District Level Ground Water Resources Development Authority at the district level in the state. Under the Act, no user shall sink any well for extracting or using ground water without obtaining a permit issued by the State Level Authority or the District Level Authority. The District Level Authority shall have power to issue a permit for sinking a well for extraction or use of ground water at a rate not exceeding $50m^3$ per hour from each well under intimation to the State Level Authority. For offences, a fine up to 10,000 rupees is provided for under the Act.

The Himachal Pradesh Ground Water (Regulation and Control of Development and Management) Act, 2005 establishes the Himachal Pradesh Ground Water Authority at the state level. If the Authority feels that it is necessary or expedient in the public interest to control and or regulate the extraction of ground water in any form in any area, it shall advise the state government to declare any such area to be a notified area and the state government, after examining the advice of the Authority, may declare such an area as a notified area under the Act. Any user of ground water desiring to sink a well within a notified area, for any purpose, shall apply to the Authority for grant of a permit, and shall not proceed with any activity connected with such sinking unless a permit has been granted by the Authority. If any user of ground water sinks, constructs or uses a well in contravention of the provisions of the Act, imprisonment for a term which may extend to six months is also provided for.

There are useful additional provisions under this Act, including that every user of ground water in a notified area shall pay to the state government a royalty for extraction of ground water at such rates and in such manner as may be prescribed. However, a user of ground water who irrigates less than one hectare of land, whether owned or leased or both, shall be exempted from payment of royalties. Further, the Authority may, in order to improve the ground water situation, identify the areas of ground water recharge and issue guidelines for adoption of rain water harvesting for ground water recharge in such areas. On this aspect, the Authority may issue directions to the concerned departments of the state government to include rain water harvesting in all developmental schemes within notified areas.

It is notable that most of the state laws whether it is The Himachal Pradesh Ground Water (Regulation and Control of Development and Management) Act, 2005; The West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005 or The Kerala Ground Water (Control and Regulation) Act, 2002 have similar provisions saying that in granting or refusing a permit the appropriate state authority shall have regard to:

(a) the purpose or purposes for which water is to be used;

(b) the existence of other competitive users;
(c) the availability of water;
(d) quality of ground water to be drawn with reference to proposed usage;
(e) spacing of ground water structures keeping in view the purpose for which water is to be used;
(f) minimum distance of 200m in case of shallow well and 300m in case of tube well from the existing source of water supply scheme or irrigation scheme, as the case may be;
(g) long-term ground water level behaviour ; and
(h) any other factor relevant thereto.

In addition to the states mentioned in the Section above, Maharashtra has also separately enacted a law for ground water regulation and management "The Maharashtra Ground Water (Regulation for Drinking Water Purposes) Act, 1993" (hereinafter called GWA). The Act seeks to regulate the exploitation of ground water for the protection of ground water resources. The GWA seeks to prevent sinking of any well within 500m of a public drinking water source, regulates extraction of water from any well within 1km of the public drinking water source in a declared water scarcity area and prevents sinking of a well in a declared and 'over exploited' watershed. The declaration of an over exploited watershed or a water scarcity area is to be done by the 'appropriate authority' which is the Collector/Deputy Collector of the District. Contravention of the provisions of the Act could entail payment of compensation as well as imprisonment for up to six months.

However, a more recent law that is likely to regulate ground water in significant ways in the future in Maharashtra is the Maharashtra Water Resources Regulatory Authority Act, 2005 (MWRRA). The provisions of the Act seek to strengthen the control of the state over all water resources. Section 11 of this Act defines roles, responsibilities and powers of the Authority which is to be set up under the Act. It empowers the Authority inter alia to make a state water-use plan, assign priority for use of water, determine water allocations to various users, prevent people not allotted water allocations from using it, regulate owners of lift irrigation equipments (after five years from the date of coming in force); it also requires all drilling contractors to register, and requires prior permission before drilling new tube wells. The provisions of the Act are enforceable either in watersheds declared as over exploited (this declaration is of a permanent nature) or if a specific locale (generally defined as a micro watershed) is notified as scarcity affected in a particular year. These provisions provide the basis to substantially regulate ground water though the precedence of the Ground water Regulation (Drinking Water) Act and is accepted explicitly the MWRRA Act. More specifically, these documents contend that 'the Authority shall abide by the relevant provisions of the Maharashtra Ground Water Regulation (Drinking Water Purposes) Act, 1993'.[35] It is also notable that some of the thinkings earlier on empowering the Gram *Panchayat* and the Gram Sabha in the state by vesting in them powers for regulation of ground water has been restored. Rules made under the MWRRA require that the Gram

[35]This is as per Section (12) (8), Maharashtra Water Resources Regulatory Authority Act, 2005.

Panchayat (GP) must be cognisant of violations and make a written complaint to the Block Development Officer (BDO), should a violation be observed.

There is also the Andhra Pradesh Ground Water (Regulation for Drinking Water Purposes) Act, 1996 which, in terms of the legislative mechanism that it created, fell into the same pattern as the Maharashtra 1993 Act. However, unlike the Maharashtra Act, which is very much an existing law, the Andhra Pradesh Act, 1996 has been repealed and replaced by the Andhra Pradesh Water, Land and Trees Act, enacted in 2002.

The Andhra Pradesh Water, Land and Trees Act, 2002 has a large and ambitious mandate. The preamble of the Act points out that it aims to 'promote water conservation, and tree cover and regulate the exploitation and use of ground and surface water for protection and conservation of water sources, land and environment'. Under the Act, the state government has constituted an authority called the Andhra Pradesh State Water, Land and Trees Authority. The Act also notes that the government, may also, in consultation with the State Authority, constitute by notification authorities at district and mandal levels.[36] The functions of the Andhra Pradesh State Water, Land and Trees Authority include the following: promotion of water conservation and enhancement of tree cover in the state; regulation of exploitation of ground and surface water in the state; making regulations for the functioning of the authorities at district and mandal level constituted under the Act; advising the government on the legislative and administrative measures to be taken from time to time for the conservation of natural resources; advising on economic measures to be taken by the government as incentives or disincentives relating to taxes, levies, fees or other charges to promote conservation of natural resources; and advising on strengthening public participation in conservation of natural resources from time to time in such a way that equity in access to water in different basins, sub-basins and regions in the state is maintained.[37]

After declaring that all ground water resources in the state shall be regulated by the Authority, the Act lays down that 'the owners of all the wells including those which are not fitted with power driven pumps and water bodies in the state, shall register their wells/water bodies with the Authority'.[38] Under the Act, there is also a prohibition on water pumping by individuals, groups or private organizations in any particular area, 'if such water pumping in such area is likely to cause damage to the level of ground water or cause deterioration or damage to natural resources or environment'[39]Further, the Act provides that to have the supply of requisite quantity of water for drinking purposes from the public drinking water source, no person shall sink any well in the vicinity of a public drinking water source within a distance of 250m. Other provisions in the area of ground water management include

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[36]Section 3, The Andhra Pradesh Water, Land and Trees Act, 2002. The Andhra Pradesh State Water, Land and Trees Authority was constituted, see GOMs No. 240, PR & RD Dept., dated 25 June 2002. For effectively implementing the Act, provision was made in GOMs No. 244, PR & RD Dept., dated 26 June 2002 for the constitution of subsidiary Authorities at District and Mandal levels.

[37] Section 6, The Andrah Pradesh Water, Land and Trees Act, 2002

[38]Section 8, The Andrah Pradesh Water, Land and Trees Act, 2002

[39]Section 9, The Andrah Pradesh Water, Land and Trees Act, 2002

registration of all the bore wells with concerned revenue authorities at the mandal level; prior permission for digging of new bore wells from revenue authorities, and, registration of all the rigs with the government.

The government of Andhra Pradesh amended the 2002 Act in 2004 and rules were brought out for effective implementation of the Act.[40] The most important features of the recent amendment are the introduction of a Single Window Approach for speedy clearance of the applications for new bore wells and ensuring all new bore wells to assist the farmers wherever bore wells fail. While the state government has designated the Commissioner, Rural Development as the Administrator for the purpose of the Act, it is notable that there has been no attempt made under the Andhra Pradesh Water, Land and Trees Act, 2002 to vest powers with the Gram Panchayat or the Gram Sabha, as envisaged in Maharashtra.

5.4 IMPLEMENTATION ISSUES, FIELD FINDINGS AND THE PATH AHEAD

The findings from the field visits in the course of the study are also instructive. For example, it was found that in Maharashtra the law does not address the issue of ground water over use for irrigation, it does not have any provisions to control the ground water abstraction for irrigation or industrial use and there are no restriction on the drilling of deep bore wells for irrigation or industrial use. Another aspect that is critically looked at in the State is that law does not have strong enabling provisions for any involvement of local community in ground water management. It is also pointed out in this context that as per clause 4 of the Maharashtra Ground Water (Regulation for drinking water purpose) Rules, 1995 the violation of the provisions of the Act has to be reported by the village Panchayat. However, it is observed that the village Panchayats are not at all reporting the violations hence there is no effective implementation of the existing law.

The level of implementation of the law can also be seen from the fact that according to official Maharashtra studies as reported in Sukhtankar Committee Report of the Government of Maharashtra, only a meager 10% of the water extracted in scarcity areas is ever officially "declared," a reporting requirement mandated under the law. Perhaps even more troubling, is that between 1996 and 2000, actions to restrict withdrawal in water scarcity areas were taken by the MGWA in only 15 cases. These reports are particularly striking considering Maharashtra contains over one million wells and other extraction structures.

The field findings confirm why the level of implementation of the law has stayed dismal. The household survey across the eight study states showed that when it comes to taking permission for installing tube well, there were literally no respondent who said yes that they had taken permission before installing tubewell. At the same time most of the respondents from States of Maharashtra and Punjab went on to say categorically that no permission was required. See the table below affirming these findings.

[40]This was done through GOMs No. 339, PR & RD Dept., dated 6 November 2004

Table 5.1: Farmers' response on whether prior permission taken for installing tubewells.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	--	-	-	-	-	-	-
No	1	-	28	-	2	22	2	-	55
Not required	-	--	1	1	-	12	-	-	14
Total	1	-	29	1	2	34	2	-	69

A further point deserves notice from the field findings. Far from taking permission before installing tubewell, the responding farmers in all study states were not even aware that the permission for installing tubewell is required by law. This is true even for the states where ground water law has been enacted . It is therefore, not surprising that the people are not following the law. See the table below and read it together with the previous table (5.1) above.

Table 5.2: Households' awareness about laws/rules/local practice s for regulating use of ground water

(No. of Rep. hhs)

esponse	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	-	-	-	-	-	-
No	60	60	60	60	60	60	60	60	480
Total	60	60	60	60	60	60	60	60	480

Tubewell using farmers were also asked whether there were any restrictions on the quantum of water to be withdrawn from existing tubewells. Their responses given in table 5.3 shows that there are no restrictions. Hence, there was no control on depletion of ground water by existing tubewell users. Freedom to withdraw any amount of water by existing tubewell users who generally belong to better off section implies absence of equity provision in the legal system. Making electricity available at subsidised rates to tubewell owners leads to further inequality.

Table 5.3: Households' response about restriction on the quantum of water to be withdrawn from tube well.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	0	-	-	-	-	-	0
No	-	-	29	1	-	21	1	-	52
No Idea	1	-	-	-	2	13	1	-	17
Total	1	-	29	1	2	34	2	-	69

As understood, there is no law to regulate the sale of water from tube/bore wells by water lords in any state. This was reported by farmers at the time of interview in sample states. (see table 5.4)

Table 5.4: Households response about laws/rules for sale of water

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	-	-	-	-	-	-
No	-	55	-	-	52	-	-	-	107
No Idea	-	5	1	-	-	-	-	-	6
Total		60	1	-	52	-	-	-	113

Taking advantage of the situation, many a big farmers owning tubewells in Bihar as also in Uttar Pradesh, used to sell water not only in their villages as in the case of Bihar but also in the neighbouring villages too as in Uttar Pradesh. This report came from a large chunk of sample farmers from these states. Added to this was also that there was no restriction in any state on quantum of water to be withdrawn from these bore wells. Hence, water lords, without any concern for adverse effect on ground water stock, went on extracting water at their will to earn a handsome amount from sale of water.

The lack of willingness of the people to follow the law gets further accentuated by the fact that most of them seem to be aware of the gravity of the problem of ground water in the country. The household survey went on to show that they seem to be aware of the continuing fall in level of ground water. See the table below affirming this finding.

Table 5.5: Households' awareness about continuing fall in the level of ground water.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	43	40	37	60	52	50	282
No	-	-	17	20	13	-	8	10	68
Not applicable	60	60	-	-	10	-	-	-	130
Total	60	60	60	60	60	60	60	60	480

Note:- Assam and Bihar being flood prone states, this question was not relevant.

Nearly 80 percent households (excluding those from Assam and Bihar) who were aware of continuing fall in the level of ground water, provided various suggestions to overcome the problem. The major suggestion as per a third of sample households (33%) was to create new open water bodies which will help in recharge of ground water. This was, followed by a similar proportion of households who advocated for a change in the cropping pattern towards switching over to rainy season crops and growing of less water intensive crops. Going by replies from states, one can note the concern of farmers in Punjab, where this problem is most acute. It is noteworthy that 37 farmers have made a suggestion for putting restrictions on installation of new tubewells and 23 would like only group tubewells. The suggestions as given by farmers in different states are presented in the table that follows.

Table 5.6: Households' suggestions about steps to be taken to overcome the problem of fall in the level of ground water.

(No. of Rep. hhs)

Regulatory steps	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Restriction on new tube well installation	-	-	11	13	4	-	8	1	37
Change cropping pattern	-	-	-	8	3	60	2	1	74
Only group tube well	-	-	-	6	11	-	3	3	23
Create new open water bodies for recharge	-	-	32	10	13	-	14	25	94
Subsidy should be reduced for tube well or bores.	-	-	-	3	6	-	-	-	9
Growing of crop in rainy season	-	-	-	-	-	-	-	10	10
Only use of surface water	-	-	-	-	-	-	16	10	26
Introduction of less water intensive crops	-	-	-	-	-	-	9	-	9
Total	-	-	43	40	37	60	52	50	282

Both field findings in the course of the present study and official statistics from a State as quoted above help point to the main constraints with the state laws on ground water management that may include: (a) political difficulties facing district authorities charged with its implementation due to strong and influential farmers' lobbies who resist such regulation; (b) lack of awareness among the general public; and (c) lack of capacity and mandate with the State Department's technical body for ground water survey and development for the requisite policing functions. Is addition, governments at the state level have drawn attention to a few other difficulties. According to Andhra Pradesh, it is difficult to implement the spacing norms of 250 meter between two tubewells as laid down in law because every small and marginal farmer wants to have a tubewell. Hence, if law is applied then many such farmers will not have tubewell. And according to Maharashtra state, **the ground water law** is only for the protection of public drinking water sources and does not

address the issue of ground water over use specially through drilling of deep bore wells for irrigation and industrial use. The law does not have any involvement of local community, no mandatory provisions of artificial ground water recharge within over exploited areas, no control on taking the water intensive crops like sugarcane, banana etc., no provisions for protecting the quality of ground water. Further, as per clause 4 of the Maharashtra Ground water (Regulation for Drinking Water Purpose) Rules 1995, the violation of the provisions of the Act has to be reported by the village Panchayat. However the village Panchayats are not at all reporting the violations hence there is no effective implementation of the existing law.

In the course of discussions at the state level in particular, some suggestions for better ground water management also emerged. These included the need for surveys on water availability and water budgeting, the need for water security plans at village level for domestic and irrigation purpose, awareness generation about the need for conservative use and preservation of ground water resources including awareness for growing less water intensive crops, more group tubewells for small and marginal farmers, obligatory registration of all wells, restriction to be imposed on supply of electricity for regulating extraction and use of ground water, imposing cess on large scale use of ground water specially for industrial, commercial and recreational purposes, control over private drilling agencies, restricting transportation of ground water from notified areas, increase in fines for offences committed, and finally sharing and optimal use of ground water through community controlled participatory management of resources. While some of these suggestions only require better implementation of existing provisions, others like need for water security plans and greater participatory management need new legal formulations or amendments in the existing law. It might be mentioned that realising the shortcomings of the existing law, the Government of Maharashtra decided to rebuild the Maharashtra Ground water (Regulation for Drinking Water Purpose) Act, 1993 in the form of Maharashtra Ground Water (Development and Management) Bill, 2009. The bill is approved by the Cabinet in its meeting held on 15th October, 2008 and was introduced in the Maharashtra Legislative Assembly on 15th December, 2009. It is under consideration of the Legislative Assembly/Council. In the opinion of the Maharashtra government, this bill will ultimately take care of effective management (demand and supply) of ground water resources by community involvement, In this context, a new Model Bill on Ground Water prepared by a Sub-group of Water Governance for the 12th Five Year Plan in 2011 deserves a close appreciation. There are elements under the new Model Bill that may be worth incorporating in the State laws on ground water. This may require more debates and deliberations at the State level for improving existing ground water legislations. That is a starting point on the way ahead.

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CHAPTER-6

LAWS RELATING TO FLOOD MANAGEMENT

The Chapter discusses relevant Constitutional provisions relating to flood management and the allocation of Central and State responsibilities for this purpose. This is followed by a detailed review of specific state and central legislations seeking to address various aspects of flood management (including involvement of the community in flood management) before drawing some inferences and suggestions from the detailed review of legal provisions. An analysis of the findings from the field surveys and discussions, is also presented.

6.1 The Constitution and the Centre- States' Role in Flood Management

As per the Constitution of India, *"water, that is to say water supplies, irrigation and canals, drainage and embankments, water storage and water power ..."* is a state subject and thus it is only state legislature, which is competent to enact laws on these subjects.[41] A recent Working Group of the Planning Commission constituted for the 12th Five Year Plan noted that the subject of flood control, unlike irrigation, does not figure as such in any of the three legislative lists included in the Constitution of India. However, Drainage and Embankments are two of the measures specifically mentioned in Entry 17 of List II (State List) and on this basis it adds that "It may be seen that the primary responsibility for flood control lies with the States."[42] This observation and inference was a repeat of what the Rashtriya Barh Ayog (the National Flood Commission) way back in 1980 noted.[43] However, flood control and management goes beyond drainage and embankment and now is widely accepted including a host of non structural measures too. For example, it may be pointed out that Entry 17 of List II(State List) quoted above does not cover land use involved in the administrative measures of dealing with reduction of flood losses viz. flood plain zoning. Apart from the above, speedy acquisition and requisition of land, restriction and regulation of land use are critical for execution of an effective flood control programme and it is important to ascertain the legislative competence of the Union and the States in this regard. First, "acquisition and

[41] Entry 17 of List II (State List) of the Indian Constitution

[42] Report of the Working Group on Flood Management & Region Specific Issues, Planning Commission, Government of India , 2011

[43] Report of the Rashtriya Barh Ayog, 1980, Ministry of Irrigation, Government of India ; Rashtriya Barh Ayog noted in exactly similar terms that even while the subject of flood control does not figure in the three legislative lists in the Constitution, two forms of flood control viz., 'Drainage and Embankment' are specifically mentioned in the State list and it concluded thus that the "primary responsibility for flood control lies with the states".The Rashtriya Barh Ayog (National Commission on Flood), had emphasized that comprehensive or integrated basin-wise planning is necessary for flood protection and control instead of pressing on any one physical measure in a piecemeal manner like a dam or embankment.

requisition" of land falls under the Concurrent list and thus both Centre as well as States can legislate on the said subject.[44] Besides, even though state list does not cover the subject of land use, which is important for dealing with measures like flood plain zoning, it is said to be within the States' legislative jurisdiction included in the broadly worded State list *"Land, that is to say, right in or over land, land tenures... land improvement and agricultural loans"*[45]

Besides, in situations where flood is caused due to the rising waters of an interstate river, and where post flood devastations run across the borders of more than one state, it would be incorrect to say that flood management is the exclusive responsibility of one state. This is of special significance since most of the major floods in India occur in inter-state rivers. If there is a law to be mooted to deal with such situations, the Centre could be deemed to have the competence to do so. This could also be said on the basis that it is the Union Parliament that has the exclusive power to make laws with respect to any matter not enumerated in the Concurrent list or the State list with flood control being one such subject.[46] It is also important to note in this context that even while embankments & drainage works lie within the realm of States' legislative powers, the regulation and development of interstate rivers and river valleys falls under the Union list[47].

Another dimension worth noting here is that for prevention and mitigation of effects of disasters including flood disasters and for undertaking a holistic, coordinated and prompt response to any disaster situation, the Government of India has set up a National Disaster Management Authority (NDMA) in 2005 under the Chairmanship of Hon'ble Prime Minister of India . The functions of the NDMA include (i) laying down policies on disaster management;(ii) approving national Plan;(iii) approving plans prepared by the Ministries or departments of the Government of India in accordance with the National Plan; amongst a number of other functions. It is also noteworthy that the NDMA has issued guidelines in January, 2008 for management of floods and the roles of various Central and State agencies have been specified for preparation of flood mitigation plans and taking relief measures during flood disasters. Thus, the Centre continues to play an important role while dealing with flood disasters.

6.2 REVIEW OF STATE LAWS ON FLOOD MANAGEMENT

Notwithstanding the Centre's role in flood disasters and on inter-state dimensions, it may be seen from the discussion above that the primary responsibility for flood control lies with the States. A number of States have already enacted laws with provisions to deal with matters connected with flood control works. A review of the legal regime seeking to address various aspects of flood management drives home the point that different States have different laws,

[44] Entry 42, List III under Schedule 7 of the Constitution of India .
[45] Entry 18, List II under Schedule 7 of the Constitution of India .
[46] See Article 248 of the Constitution read with Entry 97 in the Union List under the Seventh Schedule of the Constitution.
[47] Entry 56 List I (Union List) of the Indian Constitution

dealing with whole range of issues, from land use planning, compulsory evacuation of land in case of floods, suitability of lands for construction of flood works, remission and suspension of land revenue in case of agricultural calamity caused by floods, to levying of betterment contribution for recovering the cost of flood control work. These laws with respect to the three major flood prone states of Assam, Bihar and Uttar Pradesh along with a few other states which are included in the present study are reviewed under different subject heads as below:

Irrigation and Drainage Laws with Implications for Flood Management

The Northern India Canal and Drainage Act, 1873: This important legislation is intended to regulate irrigation, navigation and drainage of all rivers, streams flowing in natural channels and all lakes and other collections of still water in the relevant States.[48] The Act applies to flood control as is evident from the definition of drainage works, which includes escape channels from a canal, dams, weirs, embankments, sluices, groins and other works for the protection of lands from flood or from erosion, formed or maintained by the State[49]. The Act empowers the State government to prepare schemes for drainage works, necessary for the improvement of any land, or for the protection of flood or other accumulations of water or from erosion by a river. The said schemes are required to be published, along with the estimate of its cost, the cost that the State is proposing to bear and the schedule of the land, which it proposes to make chargeable in respect of the scheme[50]. The State is also empowered to prohibit or remove formation of any obstruction in any river, stream or drainage channel, whenever it appears that any injury to any lands or the public heath, or public convenience has arisen or may arise.

The Assam Embankment and Drainage Act, 1954: The Act specifically deals with construction, maintenance and management of embankments and drainage works. The Supreme Court in a case had held that under the said Act, it is possible for the State government to undertake all necessary measures for flood control and construction of embankments, "without arrogating to itself the power to acquire private property without payment of adequate compensation"[51]. The Act authorizes the embankment officer to initiate a scheme for constructing any embankment or drain.[52].

The Assam Land (Requisition and Acquisition) Act 1964 gives special powers to the State for requisition of land, if in the opinion of the state government, it is necessary;

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[48] The Act extends to Uttar Pradesh, Punjab, Haryana and Delhi.
[49] Section 3 (3).
[50] See 57.
[51] AIR 1968 S.C. 394.
[52] It is to be noted that the term "drain" includes any channel, canal, a sluice, a syphon or any device excluding, regulating, floodwaters, among others. See Section 2 (v) of the Act.

a) for flood control and anti-erosion measures including embankment and drainage,
b) for providing land individually or in group to landless, flood affected or displaced persons,
c) for giving such land to a registered society working for rehabilitation of flood affected or displaced persons.[53]

The Bihar Irrigation Act, 1997: In 1997 the State of Bihar enacted the Bihar Irrigation Act, to consolidate the law relating to irrigation, embankment, drainage, levy and assessment of water rates, betterment contribution and matter connected[54]. The definition of drainage works includes flood embankments[55]. The Act provides for preparation and execution of schemes for drainage works, including those for protection from floods, or erosion by a river, and embankment works, which may be taken up by the state government whenever it appears necessary.[56] The Act has provisions whereby the State government may prohibit formation of encroachment on the river, stream or natural drainage course. The State is also empowered to remove the encroachments so formed. The Act empowers the Divisional Officer to execute works for removal or alteration of any embankment or any obstruction which endangers the stability of a public embankment or the safety of any town or village, which is likely to cause loss of property by interfering with the flood drainage or general drainage.[57]

Andhra Pradesh Rivers Conservancy Act, 1884, aims to provide for the conservancy of rivers and for that purpose it aims at preventing unauthorized action of private individuals in obstructing the flow of rivers. It is for the State to determine which river requires protection under this Act and to survey[58] the specified rivers and define the limits within which this Act can be applied. The charts, which are prepared after surveys, are exhibited for public information at the *kachahries* of all districts[59]. Any person who desires to raise objections to the boundaries or landmarks set forth in such charts is at liberty, during the specified period of ninety days to submit his objections to the collector. It is only after considering the objections raised and the response of the Collector on the same that the state government finally decides and declares the limits and boundaries[60] of rivers within which the Act shall apply[61]. The charts of such rivers are open to the inspection of public at all reasonable

[53] See Section 3 of Assam and the Nagaland Acts mentioned above.
[54] By virtue of this Act the Bengal Irrigation Act, 1876, Bengal Embankment Act, 1882, Bengal Drainage Act, 1880, Bihar Public Irrigation and Drainage Act, 1947 were repealed in the State of Bihar.
[55] Section 2(K) Likewise the term irrigation works includes drainage works.
[56] Sec 16-17.
[57] The Act also provides for applications for the construction of any public embankment by any person to the Executive Engineer.

[58] After the survey, detailed charts and registers are prepared on which all existing cultivation, buildings, constructions, plantations, within the surveyed limits of the said rivers are marked.
[59] Here we mean only those districts from where any part of the surveyed river is situated.
[60] The limits so defined and approved by the State shall be the river bed.
[61] Section 7.

times[62]. The Act prohibits certain works on land within the river-bed, without the permission of Conservator of rivers, for instance:

- ⇨ Fresh cultivation on the land which has not been cultivated for two years previous to the date on which this Act is applied to the river.[63].
- ⇨ Making, removing or extending any grove, building or construction, plantation, grass, trees within such river-bed. For the said purpose a license from the Conservator of Rivers is obtained.

The Act also empowers the Conservator of Rivers to do any Act that, in his discretion, is necessary to prevent erosion, breach of embankments or the flooding over them, encroachments by the stream or danger to life or property.[64] Further, the Conservator of Rivers with the previous sanction of the District Collector is empowered to direct removal of such unauthorized constructions and plantations. In this regard, whoever fails to comply with any order issued by the Conservator of Rivers could face penalty including simple imprisonment upto six months for every offence under the Act.[65]

Requisition and Speedy Acquisition of Land for Flood Control

Another relevant State Act here is *United Provinces Acquisition of Property (Flood Relief) Act, 1948.* The Act aims at providing immediate relief to flood affected areas. For that purpose, it contains detailed provisions regarding immediate requisition and acquisition of land for building sites and building materials and for the purpose of rehabilitation of flood affected people. The Act has a direct relevance both during floods and in post flood situations. Under the Act, a Requisitioning Authority is constituted comprising the Collector and an Assistant Collector. The Act vests the said Requisitioning Authority with a number of discretionary functions, which "may" be taken for public purpose. Here 'public purpose' for the land acquisition and requisition has been given a very specific meaning, including only "provision of village sites or repair or construction of houses for persons affected by floods"[66]. Under the Act, the Authority may take the following measures:

- Order for requisition of any land or building material, by serving proper notice on the owner or the person in possession of the land or building material. However, the land requisitioned[67] under the said Act can be used only for construction of houses or village sites, that too for flood affected people. The UP Acquisition of Property

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[62] Section 9.

[63] "Cultivation" here refers to growing of plants which require the ground to be ploughed once a year or at short intervals and which are ordinarily removed at the end of the season. See Section 11 of the Act.

[64] For that purpose he may also interfere with the private rights of property, enter upon or take up necessary works like digging of earth, construction etc on any private or public land within or outside the river bed.

[65] Section 13 and 14 of the 1884 Act.

[66] Section 2 (f) of United Provinces Acquisition of Property (Flood Relief) Act, 1948

[67] The land requisitioned can either be released or acquired as per the Act.

(Flood Relief) Rules, 1949 specifies that while ordering for requisition of land, the land used for religious purposes or containing monuments shall be as far as possible, avoided[68].

- Where the land or building has been requisitioned under the Act, the Authority may order for the acquisition of such land or building material. The acquired land may be retained, utilized, let on hire, leased out, sold or disposed off to any person affected by floods[69].
- The Requisitioning Authority may also release the land so acquired under the Act, after making inquiries as to the person entitled to the possession of such land or building material.

The Act specifically provides that no order made in exercise of the powers conferred by or under this Act shall be called in question in any Court[70]. Further, no suit, prosecution or other legal proceedings may lie against the Requisitioning Authority or the compensation officer or any other person for anything which is done or intended to be done in pursuance to this Act[71].

Here, it is pertinent to mention the Bihar Amendment[72] to the Land Acquisition Act 1894, wherein flood erosion has also been listed as one of the emergencies during which the District Collector can take possession of the land immediately after the declaration that such land is required for public purposes under the Act[73].

The above Acts enable the state officials with wide powers during emergencies like floods. There are no specific qualifiers built into these Statutes and judicial review is also circumscribed to a great extent. Besides, these Acts also lay down an essentially "may" regime, leaving ample scope for administrative discretion. However, it cannot be said that there is no check on administrative discretion; the administrative agencies are required to act in a fair, just, and reasonable manner.

Evacuation of People from Land and Property during Floods

Apart from speedy acquisition of land, an important aspect of flood relief works is immediate evacuation of people from lands affected or threatened by floods. In the State of Uttar Pradesh, a specific legislation, *The UP Flood Emergency Powers Evacuation & Requisition Act, 1951,* provides "for the protection of life and property from danger caused or threatened

[68] Rule 3 (1).
[69] Section 7.
[70] Section 12
[71] Section 13
[72] As mentioned earlier land acquisition is concurrent list subject. The States can adopt the Land Acquisition Act, 1894 with some modifications and amendments.
[73] Section 17(2) of the Land Acquisition Act, 1894 (Bihar Amendment). The said provision was incorporated by virtue of Bihar Amendment Act, 1961.

by floods".[74] It is important to note here that the Act can be used not only when some danger has been caused from floods, but also when the same is likely to be caused. The Act empowers the District Magistrate (DM) to take certain measures in cases of flood emergencies:

- To compulsorily evacuate the areas threatened by floods of people & property. In exercise of this power, he may specify the *route* and *time* by which people are to be removed and the *place* where they are to proceed.
- In order to accommodate the people so compulsorily evacuated, the DM may take possession of any premises other than those used for religious worships and private dwelling houses.
- The DM may also order requisition of boats.[75]
- He may also make order for diversion of flow of flooded water or for the removal of any wall, embankment, or object, which is causing obstruction to the flow of such water in order to prevent an imminent danger to life or serious damage to property, in public interest.

Here also, all the important measures that should be taken during or before a flood, are left to the discretion of D.M., without casting any mandatory obligation on him to necessarily take such measures in flood emergencies.

Remission/ Suspension of Land Revenues on Agricultural Calamity from Floods

There are adequate number of state laws which make it clear that land owners in the flood affected areas are entitled to remission and suspension of land revenues. *The Uttar Pradesh Zamindari Abolition and Land Reforms Act, 1950* lays down that land owners are entitled to remission or suspension of the land revenue on the occurrence of an 'agricultural calamity'.[76] Even though the Act does not define agricultural calamity, it is obvious that and it happens that severe floods often result in an agricultural calamity. It is also important to note here that a Government Order of the state of Uttar Pradesh has made clear that remission and suspension of revenue in cases of agricultural calamity would also extend to areas within the state not covered by the Uttar Pradesh Zamindari Abolition and Land Reforms Act, 1950.[77]

Another important legislation enacted in the State of Uttar Pradesh is the *UP Avas Evam Vikas Parishad Adhiniyam,* (Uttar Pradesh Housing and Development Board Act) *1965,* which essentially provide for the establishment, incorporation and functioning of a housing

[74] See the Preamble to the Act.
[75] The Act also provides for payment of compensation to the person, whose premises or boats have been requisitioned under the Act.
[76] Section 268 of the 1950 Act.
[77] GO No.4400/22-X-B-(6)39 as printed in the UP Revenue Manual Chapter 26

and development board in the State. The Board has been empowered to frame a housing or improvement scheme, either on its own motion or at the instance of some local authority. The said scheme may comprise a "flood scheme", providing for housing facilities for areas affected by flooding of any river or rivulet or by water logging. The said flood scheme may provide for:-

(a) the construction of structures for the protection of houses and essential supply installations affected or likely to be affected by flood;
(b) the repair or re-construction of houses damaged by flood;
(c) the construction of drains and other outlets for drainage of accumulated water;
(d) the raising of the level of any area;
(e) the re-laying of sites in any area;
(f) the acquisition of land necessary for the scheme;
(g) the evacuation of the inhabitants of any locality affected or endangered by flood and the provision of alternative accommodation for them.

The Assam Land Revenue Reassessment Act, 1936 mandates the State Government to reassess the land revenue - the term for which is ordinarily not less than 30 years - in special circumstances. One of these include the situation where 'the soil of any estate has permanently been improved or deteriorated through causes beyond the control of the settlement holder'.[78] Besides, the settlement officer is mandated to take into account the related advantages and disadvantages for any land for the purpose of assessment and one of the factors that he is required to consider is the liability and damage by natural causes.[79]

Betterment Fees and Enhanced Land Revenue due to Flood Control Works

In certain States, there are legislations providing for the levy of betterment contribution from the owners of lands which are benefited by flood protection works constructed by the government, as for instance the *Bihar Irrigation and Flood Protection (Betterment Contribution) Act, 1959, The Andhra Pradesh Irrigation (Levy of Betterment Contribution) Act, 1955.* The Bihar Act defines "flood protection work" to include embankments, groynes, spurs, dams, barrages, sluices and other works for the protection of buildings from flood erosion, constructed or maintained by the State Government. Interestingly, the Act makes a distinction between the flood protection works in rural and urban areas. In rural areas, if the cost of the flood protection work is less than Rs. 5 lakhs then no betterment contribution is to be charged. In the AP Act this is as low as Rs. 1,50,000.

The fact that benefits accruing due to flood control works on a land would lead to greater revenue assessments is also made clear by certain State Land Revenue Regulations. For example the Assam Land and Revenue Regulation 1886 makes clear that "water courses and

[78] Section 13 of the 1936 Act
[79] Section 9(2)(iii) of the 1936 Act.

embankments shall be considered attached to the land for the benefit of which they were originally made."[80]

Rehabilitation of Flood Affected People and Absence of Specific Provisions:

The present legal regime deals inadequately with the rehabilitation of people affected by flood. The *United Provinces Acquisition of Property (Flood Relief) Act, 1948*, however, deserves mention, as it provides for requisition of land and property so as to provide for the village sites and houses for flood-affected people. Having said that, even this Act, is inadequate, as it deals with provision of houses only, and overlooks other aspects like livelihood and development. It is also notable that details with respect to such relief works have not been elaborated like the criteria to determine who is a flood affected person and how should the houses be allocated to those people.

On another note *Maharashtra Panchayat Act, 1961* empowers the Zilla Parishad having jurisdiction over the area, if so directed by the State Government' to undertake relief operations. The provision reads as under:

"Where the State Government during any year has declared any area as (a scarcity area) and has granted suspension or remission of land revenue according to the scale prescribed by the State Government in this behalf under the relevant Code or where distress is caused by **floods** or other natural calamities in any area, it shall be the duty of the Zilla Parishad having jurisdiction over the area, if so directed by the State Government, to undertake relief operations in such area either by the grant of gratuitous relief in the form of doles of money or through expenditure on such public works or such preventive or remedial measures as may be specified by the State Government in the direction."[81]

Legally Mandated Famine Relief Funds

Certain State laws provide for the establishment and maintenance of relief funds to be utilized on occasions of serious famine and distress caused by floods or other natural calamities in the State, such as *AP Famine Relief Fund Act, 1936, Orissa Famine Relief Fund Regulation, 1937, the Bombay State Famine Relief Fund Act, 1958.* Under all these laws, it is incumbent upon the State to establish a famine relief fund. Such funds are required to be utilised only for the relief of famine and distress caused by serious floods and other natural calamities.

[80] See Regulation 111 of the Assam Land and Revenue Regulation 1886

[81] Section 107, Maharashtra Panchayat Act, 1961.

6.3 Flood Plain Zoning Regulations

The Central Water Commission (CWC) has been impressing upon the states the need to take follow-up action to implement the flood plain zoning approach. A model draft bill for flood plain zoning legislation was also circulated by the Union Government in 1975 to all the States. There has been resistance on the part of the states to follow up the various aspects of flood plain management including possible legislation. The State of Manipur had enacted the flood plain zoning legislation way back in 1978 namely, *Flood Plain Zoning Act, 1978*, but the demarcation of flood zones is yet to be done. The state of Rajasthan had also enacted legislation for flood plain management in the State but enforcement thereof is yet to be done. It is important to note that none of the major flood prone states have taken any action in this regard, since they had doubts about its implementability.

6.4 Two Specific River Valley Legislations for Planning Integrated Measures for Flood Control

There have been specific legislations constituting boards or corporations in charge of development of specific flood prone rivers and river valleys. The *Brahmaputra Board Act, 1980* was enacted for the establishment of Brahmaputra Board for the planning and integrated implementation of measures for the control of floods and bank erosion in the Brahmaputra valley. As per the Act, the Board shall carry out surveys and investigations in the Brahmaputra valley and prepare a Master Plan for the flood control and bank erosion and improvement of drainage in the Brahmaputra Valley[82]. The Board shall also prepare detailed reports and estimates in respect of the dams and other projects proposed in the Master plan[83] and publish statistics and other information relating to various aspects of flood control, bank erosion and drainage in the valley. However, this provision has been made subject to the rules made by the State from time to time, which have not been made yet. As per the Act, the Corporation shall be guided by the Central Government.

Another Legislation namely *Damodar Valley Corporation Act, 1948* also deserves mention here.[84] The Act provides for the establishment and regulation of a Corporation for the development of Damodar Valley in the States of Jharkhand (earlier Bihar) and West Bengal. One of the functions of the Corporation is promotion and operation of schemes for flood control, irrigation and drainage in the Damodar River and its tributaries and afforestation and soil erosion in the Damodar River[85]. For that purpose, it can take up construction of dams, drainage canals etc. The corporation is mandated to prepare an Annual Report, in which the

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[82] Section 12.
[83] Section 13 (a).
[84] The Objects and Reasons behind the Act mention that "the river Damodar was causing havoc in the rainy seasons, it was therefore necessary to harness the water of this river."
[85] Section 12 of the DVC Act.

details of all activities taken up by the corporation shall be given, including flood control, soil erosion, use of lands among others[86]. This body has been active and has much Impact on the relevant area.

6.5 Community participation in Flood Management and the Law

The need for community participation in flood management is now being increasingly stressed. The Flood Management Guidelines issued by the National Disaster Management Authority have also made a recommendation in its favour. Community participation in flood management has an edge over bureaucratic management due to several advantages. Community is better equipped to handle local flood management operations like rescue and relief, temporary shelters, ability to mobilise boats quickly, shift affected people to safer places even when flood comes in the dead night because the community is always available when a flood comes unlike officials who turn up much later after the occurrence of flood. It is in this context that an analysis of legal provisions related community participation in flood management becomes important.

Two separate stream of laws are important in this respect – the irrigation and flood laws and laws relating to Panchayati Raj Institutions. The State irrigation and flood laws[87] provide very little scope for community participation in flood management. They merely provide for publication of schemes and invitation of objections from persons interested[88]. It is incumbent upon the State government to publish a detailed description of the proposed works like land where the work is proposed to be situated, land likely to be benefited, or adversely affected. But mere information is no participation. Moreover, in case of emergencies, some of these procedural safeguards can also be dispensed with, for example under the Bengal Embankment Act, 1882 the State can proceed with the work, pending the proceedings.[89]. It is true that these Acts also have provisions for the community to make applications and suggestions to the government if they desire that a particular drainage and flood control work or irrigation work is required to be undertaken. But this too is no participation since it is open for the government not to pay any attention to such suggestions as often happens in practice.

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[86] Section 45.

[87] Those, which have been repealed as well as the present laws

[88] For example Bihar Public Irrigation and Drainage Act, 1947, Northern India Canal and Drainage Act, 1873, Assam Embankment and Drainage Act.

[89] Here it is notable that a law that now stands repealed *The Bengal Drainage Act, 1880* had provisions, which are most participatory and inclusive. The State government was empowered to appoint Drainage Commissioners to execute any scheme for drainage works. The number of such Commissioners should not be less than seven, and the majority should be the holders of lands to be effected by drainage works. The notification of such schemes was required to be published by beat of drum in every village affected, the details of the work are also deposited at the office of the sub-divisional officer, Court of *munsif and thana*. No work is required to be taken up until at least half of the landholders whose lands are affected assent to the work. All decisions relating to the landholders entitlement to vote, lands affected, ascertaining how many landholders have assented to the project, are taken by the Commissioners. The Act presents a good example of how affected community can be involved directly in the execution of schemes.

The powers and functions of Panchayat Raj Institutions (PRIs) for rehabilitation and relief measures in times of flood including provision for drainage are also relevant here. *Bihar Panchayat Raj Adhiniyam 1993* empowers the Village Panchayat to undertake relief measures in event of a natural calamity[90]. While the Panchayats at the Intermediate[91] and District levels[92], have been empowered to constitute standing committees, including a General Standing Committee. An important function of the General Standing Committees is undertaking relief works during natural calamities[93]. Similarly, *UP Panchayat Raj Act, 1947* includes "relief against famine and other calamities" as one of the discretionary functions of the village Panchayat[94]. Similar provisions can be seen in *Assam Panchayat Act, 1986*[95].

Under the *UP Panchayat Raj Act, 1947*, the Gaon Panchayat is duty-bound to provide for the "*maintenance, and repair of walls, bunds, raised platforms and other works for protection from floods*"[96], however this function of the *Panchayat* is subject to the funds that it may have at its disposal. While under the *Assam Panchayat Act 1965*, the *Goan Panchayat*[97] and *Anchalik Panchayat* [98] are required to execute development schemes and programmes within the areas under their respective jurisdiction, providing for matters such as construction, repair, maintenance of embankments, drains etc[99]. But the powers given to community under state Panchayat Acts are not mandatory but only enabling clauses which the relevant state government agencies namely the concerned wings of water resources department have, by and large ignored since no funds were provided to Panchayats for this purpose. They were not even aware of such laws. Similar is the case with respect to such aspects of flood management at local levels as flood rescue and relief operations, sanitation and hygiene, livelihood matters etc. To some extent, the outcome depends on local tradition and attitude of the local bureaucracy.

Flood management activities are generally being dealt by the district administration in association with block and Panchayat level officials. Funds are provided by the government to bureaucratic agencies. Villagers do come forward on their own to help the local administration in the rescue and relief and other flood management operations in their own interest. But there is no institutional mechanism backed up with funds and functionaries for peoples involvement in flood management as came to be known during the field survey as well as interaction with officials at both district and state levels.

During the time of field survey, the views of the households in the three flood affected states of Assam, Bihar and Uttar Pradesh were sought as to who manages the flood related

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[90] Sec 22.i (3) of the Act.
[91] Section 48.
[92] Section 75.
[93] Section 49 provides for the General Standing Committee of the Panchayat Samiti and Sec 76 provides for the General Standing Committee of the Zilla Parishad.
[94] Sec 16 (g).
[95] Under this Act the Panchayat at the intermediate level (called *Anchalik Panchayat*) has been empowered to undertake measures for relief of distress caused by floods and other calamities. (Sec 37.5.a)
[96] Section 15 (v)
[97] Panchayat at the village level.
[98] Panchayat at the intermediate level.
[99] Sec 36.2.g (*Gaon Panchayat*) 37.2.b. (*Anchalik Panchayat.*)

activities in the villages. Their responses in this regard are given in the table below. Only 50 percent of respondents had some perception about their role whereas only 5 percent felt that local people only have a role.

Table 6.1: Households' report as to who manages flood related problems in the village

(No. of Rep. hhs)

Multiple Response	Assam	Bihar	Uttar Pradesh	All
Government only	-	-	3	3
Panchayat only	-	-	5	5
Government & Panchayat	20	-	9	29
Government & panchayat in consultation with people	-	20	7	27
Local people only	-	-	3	3
Total	20	20	20	60

More than 50 percent of the households in the flood prone states surveyed were found to be unaware of the administrative provisions for their participation in flood management activities. In Bihar, none of the households contacted during the survey had any awareness about their involvement in flood related activities. Distribution of respondents by their knowledge about provision for participation in flood related activities given in the table that follows.

Table 6.2: Households' awareness about administrative provision for people's participation in flood management.

(No. of Rep. hhs)

Response	Assam	Bihar	Uttar Pradesh	All India
Yes	16	-	13	29
No	4	20	7	31
Total	20	20	20	60

An important task during and after flood is the relief management. Since the flood victims are evacuated barehanded and put up in make shift tents, the need for quick supply of food, safe drinking water and other essential items becomes quite important. The responses of the households were obtained as to how many days it takes to get the relief in the village. While a group of 24 households mostly from Bihar , say that is takes 6-10 days for relief to come in the village, another group comprising of similar number, gave their opinion in favour of 3-5 days. However, there are 5 households who report about very late arrival of relief over 10 days. Hence, there is a need for restructuring of relief management mechanism in order to ensure speedy distribution of relief materials to flood affected families. The responses of the households regarding time taken to get the relief are shown in the table given below.

Table 6.3: Households' report about duration of time for flood relief to reach the village

(No. of Rep. hhs)

Response	Assam	Bihar	Uttar Pradesh	All
Within 2 days	-	-	6	6
3 - 5 days	13	-	11	24
6 - 10 days	2	19	3	24
More than 10 days	5	1	-	6
Total	20	20	20	60

SOME INFERENCES, SOME SUGGESTIONS

As the above discussion shows, since the legislative competence on the structural measures for flood control have been seen to be an exclusive responsibility of the states (as 'embankment' and 'drainage' have been state subjects under the Constitution), different states have dealt with the subject with their own preferred emphasis on certain aspects of flood management. Even while the states have isolated provisions in various laws that could be utilized to deal with flood management, there is a strong need to integrate the disparate laws addressing the range of issues for a unifying legal perspective.

In view of the predominance of floods with inter-state dimensions in India, it is necessary to have river basin authorities for flood management. A Working Group on Flood Management & Region Specific Issues of the Planning Commission constituted for the 12th Five Year Plan, has recommended expeditious setting up of river basin authorities as the first institutional reform for effective flood management in the country. In fact, way back in 1976, the

Government of India had constituted the high level Rashtriya Barh Ayog (National Commission on Flood), which had emphasized that comprehensive or integrated basin-wise planning is necessary for flood protection and control instead of pressing on any one physical measure in a piecemeal manner like a dam or embankment. It is also notable that in 1978, a working group on flood control had emphasized that flood affected states should prepare master plans for each river basin.[100] This may require creation of new institutions or strengthening of the existing ones. There is a *River Boards Act,* enacted in 1956. The Act provides for the establishment of River Boards for the regulation and development of inter-state rivers and river valleys. The Boards are empowered to perform essentially advisory functions to the government. Notably, some of the issues on which they may be empowered to tender advice to the interested governments may include promotion and operation of schemes for flood control, drainage, promotion of afforestation and soil erosion. The River Board presents an example of a structure, which can take holistic and comprehensive view with respect to flood management in an inter-state river. The Act provides a potentially important legal space, but one which has not been utilized at all. No River Board has ever been constituted under the Act. Clearly, there is need for greater political and legislative will to give effect to comprehensive plans on flood management in inter-state rivers which account for most of the flood problem in India.

The best institutional option is the establishment of effective basin authorities for which sufficient Constitutional backing is provided by Entry 56 of List 1 (Union List) of the Indian Constitution for "regulation and development of inter-state rivers and river-valleys to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in public interest." But the required political will has not come so far and one is doubtful whether it will be forthcoming in the near future. Notwithstanding this, some improvements are feasible.

As has been pointed out elsewhere by the author, "the current practice of treating flood control as a state subject to be financed from state funds tends to favour adoption of methods like embankments whose planning and execution are within the states' full control. A state is expected to be less interested in spending its funds for more desirable measures like watershed management and flood control reservoirs which could be located in or giving benefit to other states. Apportionment of such benefits to different states for the purpose of cost sharing might become a cause for disharmony and wrangling among them. Central financing for inter-state flood control work must, therefore, become an integral part of the comprehensive approach to flood management as is the case in most of the important flood prone countries of the world. [101]" Hence, a suitable law may be enacted to provide central financing for flood control works on inter-state rivers.

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[100] With respect to embankment, the group asserted that "while embankments constructed so far has giving the desired protection to the large areas at comparatively low cost, their consequent long term affects on the river regime are yet to be evaluated. New embankment schemes should be taken up with caution".

[101] Kamta Prasad, *Manual on Community Approach to Flood Management in India*, WMO and GWP. The Associated Programme on Flood Management

There is now a worldwide consensus that complete immunity against flood is not feasible or economically viable. Certain areas have to live with floods. Hence, for such areas, the focus should be on minimizing people's sufferings and damages to their property through such measures as flood preparedness, rescue, timely deployment of adequate number of boats, temporary shelter through construction of community buildings on high level ground, relief measures, restructuring of cropping pattern, flood insurance etc., apart from flood forecasting and warning. There is an emerging consensus that these measures would be handled better by the community than by the government[102]. Hence, there is need for fresh laws to formalise community participation in local level management. The provisions should be mandatory rather than only enabling as has been the practice so far. Panchayati Raj Institutions Acts should be amended to provide functions, funds and functionaries to Panchayats at village and higher levels to take over these responsibilities with the required support provided by the local bureaucratic machinery. A formal institutional mechanism like a Panchayat Flood Management Committee in frequently flooded areas may be constituted at Gram Panchayat level to handle all flood related issues with appropriate legal backing. Care should also be taken to ensure proper representation from different sections of society. The composition, functions and other modalities of such a body have been explained in detail in the *Manual on Community Approach to Flood Management in India prepared* by Kamta Prasad and published jointly in 2005 by the World Meteorological Organisation, Geneva and Global Water Partnership, Stockholm and need not be repeated here. This committee can also take up such local works as digging of drainage channels, soil conservation, afforestation, watershed management and land use regulations. This would require necessary amendments in existing laws dealing with flood management.

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[102] Ibid P. 56-57

CHAPTER-7

INTER – STATE WATER DISPUTES AND THE LAW

This chapter deals with legal issues related to inter-state water disputes which tend to dominate the Indian water resource scenario from time to time. After giving an account of the constitutional context, the chapter discusses the Inter-State River Water Disputes Act, 1956, as amended upto 2002. This is followed by a few case studies of inter-state water disputes handled directly by the Supreme Court under Article 131 of the Constitution. The chapter then draws attention to the need for legal measures to prevent the occurrence of disputes. The role of agreements is also explained. After making a passing reference to the hitherto dormant River Boards Act, 1956, the Brahmaputra Board Act, 1980 and the Betwa River Board Act, 1976, the chapter ends by referring to the suggestions given by states for better management of inter-state water disputes.

7.1 The Constitutional Context

Indian Constitution empowers the Parliament to regulate inter-state rivers and river valleys as is reflected from entry 56 of the union list under the seventh schedule of the Constitution of India which reads as:

> *"Regulation and development of inter-state rivers and river valleys to the extent to which such regulation and development under the control of the Union is declared by Parliament by Law to be expedient in the public interest."*[103]

On the other hand, the state legislature is competent to legislate on "water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power".[104] Thus, the Constitutional provision makes it clear that with regard to inter-state rivers it is the Parliament that is competent to make legislation.

Besides, Article 262 of the Constitution provides for adjudication of disputes relating to waters of inter-state rivers or river valleys. It further says that Parliament may by law provide that neither the Supreme Court nor any other Court shall exercise jurisdiction in respect of any such dispute.

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[103] Entry 56 of list I.
[104] Entry 17 of list II under the seventh schedule of the Constitution of India.

Thus, the Constitutional provisions provide adequate space for the central government to take proactive steps for inter-state rivers including measures for avoidance and/ resolution of inter-state disputes. It is another matter that the centre has not made any use of the provisions given in entry 56. It could be due to political reasons.

7.2 The Inter-State River Water Disputes Act, 1956

In exercise of the powers provided under Article 262, the Parliament enacted the *Inter-State Water Disputes Act 1956* ("ISWD Act"). As explained below, its name was changed to Inter State River Water Disputes Act in 2002. As per the ISRWD Act, when a water dispute arises among two or more State Governments, Central Government is empowered to constitute a Water Dispute Tribunal for adjudication of such water disputes only after receiving a request from any of the concerned state governments and upon being satisfied that such dispute cannot be resolved by negotiations. The status of such inter-state water disputes under ISRWD Act is briefly presented in the table below:

S N.	Rivers	States	Date of Constitution of Tribunal	Date of Final Award
1	Krishna I	Maharashtra, Andhra Pradesh, Karnataka	April 1969	May 1976
2	Godavari	Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh and Orissa	April 1969	July 1980
3	Narmada	Rajasthan, Madhya Pradesh, Gujarat, Maharashtra	August, 1968	December 1979
4	Cauvery	Kerala, Karnataka, Tamil Nadu and Union Territory of Pondicherry	June 1990	February, 2007
5	Ravi Beas	Punjab, Haryana, Jammu and Kashmir, Rajasthan , Delhi	January, 1986	Not yet
6	Krishna II	Karnataka, Andhra Pradesh and Maharashtra	April 2004	December, 2010
7	Mandovi/ Mahadayi/	Goa, and Karnataka	November, 2010	Not yet
8	Vansadhara	Andhra Pradesh & Orissa	February, 2010	Not yet

*Information Sourced From: Website Of The Ministry Of Water Resources, Government Of India [165]

[165] HTTP://WRMIN.NIC.IN/INDEX1.ASP?LINKID=151&LANGID=1

As per the provisions of ISRWD Act, the central government's inability to appoint a water dispute tribunal on its own has been a subject of criticism. The ISRWD Act was also criticized for not having effective provisions to address certain issues such as inordinate delays in the process of adjudication, absence of provision to enforce the tribunal's award and inordinate delay in constituting a tribunal and thereafter in giving the awards by the tribunals. The delay in pronouncing the award has often led to pronouncement of interim awards resulting in further complications. There have been instances where the interim award of a tribunal itself has come in the way of resolution of the disputes. One good example is that in the case of Cauvery water disputes being adjudicated by the tribunal constituted under the ISRWD Act. The state of Karnataka had opposed the tribunal and the interim award and this had proved to be the stumbling block in the way of any negotiated settlement. In the absence of a mechanism to ensure the binding character of the award, the problem of its interpretation and implementation arise.[106] It is understood through media reports that the Government of India is seized with the problem of delay and is examining measures to reduce the same. One such measure is the proposal to have Standing Tribunal with different benches as per requirement and measures to cut delays at different levels. But the matter is still under consideration. Hence nothing can be said about the final picture. Further, inspite of the provision barring Courts from reviewing the awards of the tribunal, the intervention by the Courts have only increased.[107] The Courts have intervened on the grounds of non implementation of the award as well as under article 131 of the Constitution challenging the final award as in the recent case of Couvery award. Besides, judicial review has also spread to question arising out of specific project and relating to aspects of rehabilitation and resettlement, human rights and ecology. To illustrate, the award of the Narmada water dispute tribunal was challenged on all these aspects in the Supreme Court.[108]

On the question of enforceability of the award of any tribunal constituted under ISRWD Act, the following Section deserves notice:

> *"6. Publication of decision of Tribunal.—(1) The Central Government shall publish the decision of the Tribunal in the Official Gazette and the decision shall be final and binding on the parties to the dispute and shall be given effect to by them.*
>
> *(2) The decision of the Tribunal, after its publication in the Official Gazette by the Central Government under sub-Section (1), shall have the same force as an order or decree of the Supreme Court."*

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[106] *National Commission for Integrated Water Resources Development Plan:* Report of the Working Group on Legal Institutional And Financing Aspects. Ministry of Water Resources, Government of India ;1999 at page 8.

[107] A case in point is the dispute over the Cauvery river waters in which the Supreme Court have passed a number of directions from time to time.

[108] See Narmada Bachao Andolan vs. Union of India and others, (2000) 10 SCC 664.

The above Section makes it clear that the decision of a water dispute tribunal shall be final and binding on the parties. The sub-Section 2 further makes it clear that decisions of the water dispute tribunal shall have the same force as an order or decree of the Supreme Court. However, the sub-Section also makes clear that the decisions would be equivalent to a decree of the Supreme Court only after its publication in the official gazette by the Central Government. In the case of the award of the Cauvery Water Disputes Tribunal, the same was challenged before the Supreme Court and apparently for this reason the Central Government could not publish the award in the official gazette. The natural consequence was that the award of the tribunal could never get the status of a decree of the Supreme Court within the meaning of Section 6(2) of ISRWD Act. In the event any award of a water dispute tribunal is published in the official gazette and thus acquires the legal status of an order or a decree of the Supreme Court, and in a case where the parties to a dispute are not implementing the award, the aggrieved party can approach the Supreme Court for seeking execution or implementation of the award.

Before concluding this Section, it may be stated that article 131 of the Constitution provides another avenue for states to take legal recourse for settlement of inter-state disputes directly by making an appeal to the Supreme Court. Its provisions are explained subsequently under foot note 120 and some cases under this are also discussed below.

Inter-State Water Disputes (Amendment) Act, 2002 and change of the name to Inter-State River Water Disputes Act (ISRWD Act).

The Sarkaria Commission on centre - state relations examined the ISWD Act in details and recommended time bound periods for Constitution of Tribunal and for giving effect to the awards of the tribunals. Recognizing the critical role of inadequacy of reliable data as a contributory factor in disputes, it recommended that there should be a Data Bank and information system at the national level and adequate machinery should be set up for this purpose at the earliest. Significantly, it also recommended that the Central Government be given power to appoint a Water Disputes Tribunal, *suo – motu* . The Inter-State Council endorsed most of the recommendations of the Sarkaria Commission in November 1997. Based on the recommendations given by the Inter-State Council on Sarkaria Commission's Recommendation, a bill for amending the Inter-state Water Disputes Act 1956 was introduced in Lok Sabha on March 7, 2001. The Bill was passed in Lok Sabha on August 3, 2001 and by Rajya Sabha on March 3, 2002. It received the assent of the President on March 28, 2002 and was brought into effect from August 6, 2002. Some of the salient amendments made vide the Inter-State Water Disputes (Amendment) Act 2002 ("2002 Amendment") were:

(a) Title of the Act was changed from Inter-State Water Disputes Act to Inter-State River Water Disputes Act (Section 1).

(b) Constitution of a Water Disputes Tribunal was made time bound i.e., within one year from the date of the receipt of the request made by the State Government (Section 4 (1)).

(c) Re-opening of any award made prior to the 2002 Amendment was barred (Proviso to Section 4(1)).

(d) Time bound decisions by the Tribunal (Section 5(2)).

(e) The decision of the Tribunal, after its publication in the Official Gazette by the Central Government shall have the same force as an order or decree of the Supreme Court. [Section 6(2)]

(e) Water Disputes Tribunal empowered to requisition any data or any other information (Section 9 (1)(b-a)).

(f) Central Government mandated to maintain data bank and information system for each river basin and State Government required to provide all necessary information for maintaining this data bank and information system. (Section 9-a)

As can be seen from the above, these amendments were made with the intent to make the ISRWD Act more effective and robust.

The various Inter -State Water Disputes Tribunals adjudicate upon water sharing disputes referred to them. In the course of their decisions, these Tribunals have helped in shaping the law relating to the rights between States in inter-State rivers in India. Their judgments regarding allocation of river water among the states give substance to underlying principles of allocation. In the absence of agreements between states, the rights and legitimate interests of States should be ascertained by the principles of equitable apportionment. This has been made clear by the various decisions of the Inter -State Water Disputes Tribunals as for example by the Narmada Water Disputes Tribunal. The Tribunals' Awards sometimes also result in establishment of legal institutions. For Example, the Namada Control Board was established after the award of the Narmada Water Disputes Tribunal. The Cauvery Water Disputes Tribunal, whose award was notified in the gazette on February 19, 2013, has recommended the setting up of a Cauvery Management Board/Authority on the lines of the Bhakra Beas Management Board. Further as explained in detail in section 16.4 of chapter 16, the awards of the Krishna Water Disputes Tribunal(1), the Godavari Water Disputes Tribunal as well as the Namada Water Disputes Tribunal have provided a legal basis to inter basin transfer of water even though there is no law in this respect.

7.3 Inter State Water Disputes looked into directly by the Supreme Court: Some Specific Legal Case Studies

There have been some inter-state water disputes in which the respective states invoked the jurisdiction of the Supreme Court of India under Article 131[109] of the Constitution for resolving them. A good example of how this happens can be seen from the dispute over Ravi-Beas waters between States of Punjab and Haryana. The facts speak for themselves and merits attention. Pursuant to the Punjab Memorandum of Settlement (Rajiv-Longowal Accord) on 24.7.1985 the Inter State River Water Disputes Act 1956 (ISRWD Act) was amended by inserting a new section 14 incorporating the paragraphs 9.1 and 9.2 of Rajiv Longwal Accord and a three-Member Ravi & Beas Waters Tribunal (RBWT) was set up in April 1986, to verify and adjudicate the matters specified in the Accord. The Tribunal gave its report on 30.1.1987, which was forwarded to the States on 20.5.1987. References under Section 5(3) of the ISRWD Act, of Punjab, Haryana, Rajasthan and Central Government seeking some explanation/ guidance on the report were forwarded to the Tribunal on 19.8.1987 and were under their consideration. However, in the meantime, State of Haryana filed a suit against State of Punjab before the Supreme Court seeking *inter-alia* the following relief:

"(a) pass a decree declaring that the order dated march 24, 1976, the Agreement of December 31, 1981 and the Settlement of July 24, 1985 are final and binding inter alia on the State of Punjab casting an obligation on Defendant no. 1 to immediately restart and complete the portion of the Sutlej Yamuna Link Canal Project as also make it usable in all respects,.."

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[109] 131. Original jurisdiction of the Supreme Court: Subject to the provisions of this Constitution, the Supreme Court shall, to the exclusion of any other court, have original jurisdiction in any dispute—

(a) between the Government of India and one or more States; or

(b) between the Government of India and any State or States on one side and one or more other States on the other; or

(c) between two or more States, if and in so far as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends:

Provided that the said jurisdiction shall not extend to a dispute arising out of any treaty, agreement, covenant, engagement, *sanad* or other similar instrument which, having been entered into or executed before the commencement of this Constitution, continues in operation after such commencement, or which provides that the said jurisdiction shall not extend to such a dispute.

The Supreme Court response on the maintainability of the suit was instructive. After considering the definition of "water disputes" as provided under the ISRWD Act, it came to the conclusion that "*howsoever wide meaning the expression "water dispute" in Section 2(c) of the Inter-State Water Disputes Act be given, the construction of the canal which is the subject matter of dispute in the present suit cannot be held to be a "water dispute" within the meaning of Section 2(c) of the Act and as such, such a suit is not barred under Article 262 of the Constitution read with Section 11 of the Inter-State Water Disputes Act.*"

Examples of two ongoing inter-state water disputes looked into directly by the Supreme Court are being discussed in some detail hereunder:

Case Study: The Mulla Periyar Dam Dispute

An agreement dated October 29, 1886 was entered into between the Maharaja of Travancore and the Secretary of State for India in Council whereunder about 8000 acres of land was leased for execution and preservation of irrigation works called 'Periyar Project'. In pursuance of the said agreement, a water reservoir was constructed across Periyar river during 1887-1895.

As per the agreement, the reservoir was filled up to full level of 152 ft. The agreement was modified in the year 1970. The State of Tamil Nadu was allowed to generate electricity from the project and it surrendered fishing rights in the lease hold land in favour of State of Kerala. It also agreed to pay annually a sum specified in the agreement to the State of Kerala. The Government of Kerala was also granted right of fishing over and upon the waters, tanks and ponds in the land and agreed that the principal deed and all the conditions shall remain intact without affecting in any way the irrigation and power right of the Government of Tamil Nadu. Pursuant to some reports that there was leakage in the gallery of the dam which affected its security, the water level was allowed to stop at 136 feet. In view of such a situation, the Central Water Commission ("CWC") inspected the dam, held meetings with representatives of both the States of Kerala and Tamil Nadu for considering ways and means to strengthen the Mulla Periyar Dam. At the meeting, certain decisions were taken for the purpose of ensuring security and safety of the reservoir by taking several necessary measures. The progress of implementation of measures was also reviewed in the meetings held in 1980, 1983, 1996 and 1997. Subsequently, the State of Kerala claimed that the water level cannot be raised from its present level of 136 feet. Several writ petitions were filed in both Kerala and Tamil Nadu High Courts regarding the safety issue of the Dam. Subsequently, all these cases were transferred to the Supreme Court. The Supreme Court heard the matter and vide in

its order dated 28.4.2000 directed that Minister, Water Resources, Government of India may convene a meeting of the Chief Ministers of both the States of Kerala and Tamil Nadu to amicably resolve the issue. Pursuant to the said directive, an expert committee was constituted in June 2000 to address the said issue. In the meantime, another writ petition being Writ Petition (C) No. 386 of 2001 tilted as *Mulla Periyar Environmental Protection Forum v Union of India and Others* was filed before the Supreme Court. The Supreme Court in its judgement dated February 27, 2006[110], permitted the Government of Tamil Nadu to raise the water level of Mulla Periyar Dam from 136 ft. to 142 ft. and take up the remaining strengthening measures. The Supreme Court, while passing the said judgment also considered the report of the expert committee constituted by the Minister, Water Resources, Government of India .

Consequent to the aforesaid orders of the Supreme Court, the State of Kerala passed the Kerala Irrigation and Water Conservation (Amendment) Act 2006 which received the assent of the Governor on March 18, 2006. This prohibited the raising of water level beyond 136 ft. in the Mulla Periyar dam as the same was placed under the Schedule of 'Endangered Dams'. Being aggrieved, the Government of Tamil Nadu filed a Suit No. 3 of 2006 titled as *State of Tamil Nadu v State of Kerala and Union of India* in the Hon'ble Supreme Court on March 31, 2006 seeking following reliefs-

(I) Declaration of Kerala Irrigation and Water Conservation (Amendment) Act 2006 passed by Kerala Legislature as unconstitutional in its application to and effect on Mulla Periyar dam.

(II) Pass a decree of permanent injunction restraining Kerala from application and enforcing impinged legislation aimed at obstructing Tamil Nadu from increasing the water level to 142 feet and from carrying out the repair works as per judgment of Supreme Court dated February 27, 2006.

In the said suit filed by the State of Tamil Nadu, the Supreme Court on 25.09.2007 directed that the two State Governments independently or with the intervention of the Union of India may try to sort out, if possible, the dispute. Despite repeated meetings of all the concerned parties, the issue could not be amicably resolved. Thereafter the Supreme Court on November 10, 2009, after hearing the parties, passed the following order:

> *"As the case involves the resolution of said questions, the suit may be placed before the Hon'ble Chief Justice of India for necessary directions for placing it before a Constitution Bench.*

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[110] *Mulla Periyar Environmental Protection Forum v Union of India and Others* reported as (2006) 3 SCC 643

The contesting parties shall maintain status quo in respect of Mulla Periyar Dam as existing today. However, order of status quo will not be an impediment for the plaintiff (State of Tamil Nadu) to carry out maintenance and repairs for proper upkeep of the said Dam."

Thereafter, the matter was heard by a bench of five judges of the Supreme Court on February18, 2010 and the Court directed[111] the Central Government to constitute an empowered Committee in this regard which would hear the parties to the suit on all issues that will be raised before them, and furnish a report, as far as possible, within six months from their constitution. The said expert committee was constituted on April 30, 2010 and its report was submitted on 25 April, 2012. Thereafter, based on the findings of this report, the Supreme Court gave its order on 23rd July, 2012 permitting Tamil Nadu to carry out the repair and maintenance works in the presence of the Superintending Engineer of Kerala and an independent member nominated by CWC.

Case Study: The Babhali Barrage Dispute

The river Godavari originates from Sahyadris and goes through the States of Maharashtra and Andhra Pradesh. In the Godavari basin, the State of Andhra Pradesh has constructed the Pochampad Dam, which is now known as Shri Ram Sagar project. The water spread area (also known as storage area) is upto a length of 126 kms. About 71 kms. of the water spread area is within the State of Andhra Pradesh and remaining 55 km. Is in Maharashtra. The State of Andhra Pradesh in May, 2005 brought to the notice of the Central Government that, State of Maharashtra was constructing Babhli barrage in the reservoir submergence area of Sri Ram Sagar Project, which is in violation of the Godavari Water Disputes Tribunal Award ("GWDT Award"). In this regard, Member, CWC held two meetings with officers of the States of Andhra Pradesh and Maharashtra in 2005. The Minister of Water Resources, Government of India also convened a meeting of the Chief Ministers of both the States on April 4, 2006 in which following decisions were taken:-

(I) A Technical Committee headed by the Chairman or by a senior officer of Central Water Commission and consisting of representatives of the States shall go into the details of various issues involved in Babhli Barrage Project. The Technical Committee shall submit a report as early as possible but not later than 20 May, 2006

[111] *State of Tamil Nadu v State of Kerala and Another* reported as (2010) 12 SCC 399

(II) Till the Technical Committee submits its report, the status quo in respect of activities of the Babhli barrage project shall be maintained and further construction work will not be done by the State of Maharashtra.

The Technical Committee, However, could not submit the report due to non-submission of detailed proposals by the concerned parties

Thereafter, in July 2006, Government of Andhra Pradesh filed an Original Suit before the Supreme Court under Article 131 of the Constitution against State of Maharashtra and Union of India and Others, being Original Suit No 1 of 2006. In the Suit, the State of Andhra Pradesh prayed to the Court to grant a permanent injunction restraining state of Maharashtra from undertaking or proceeding with the construction of Babhli Barrage within the reservoir water spread area of Sri Ram Sagar Project.

The Supreme Court heard the matter on 26 April, 2007 and passed following interim order.

(I) Though the state of Maharashtra may go-ahead with the construction of the Babhli Barrage, it shall not install the proposed 13 gates until further orders;

(II) As the state of Maharashtra is permitted to proceed with the construction at its own risk, it will not claim any equity by reason of the construction being carried on by it.

The matter is still pending before the Supreme Court.

The above referred disputes clearly reflect that despite being specifically barred by statute, Court's intervention in such disputes may take place. The point has been made above in the discussion on the ISRWD Act that inspite of the provision in that Act barring Courts from reviewing the awards of the tribunal the intervention by the Courts have only increased over the years. Further, on May 7, 2007, the Supreme Court admitted Special Leave Petitions under Article 131 of the Constitution related to review of the final award of the Cauvery Water Disputes Tribunal given earlier in February, 2007. Such a situation questions the effectiveness and feasibility of the current legal regime on inter-state river water disputes.

7.4 Need For Preventive Measures

The ISRWD Act comes into operation after a dispute occurs. But there is no satisfactory legal mechanism to prevent or discourage the occurrence of disputes. Past experience indicated that most of the disputes related to sharing of water arise due to lack of well defined legal principles regarding allocation of water among the concerned states and deficiencies of data. States, therefore, stake their claims on differing principles of allocation and quote different

sets of data with regard to availability of water resources. So long as these two deficiencies continue, even the functioning of basin organisations would not be smooth since wranglings on these would take place within the basin organisation. As regards principles of allocation, the Centre has been trying to evolve a consensus amongst the States for over the last fifteen years. It has prepared a 'Draft National Policy Guidelines for Water Allocation amongst the States' that has been in circulation with States for a long time now but is not getting finalised in the absence of any consensus. The centre must fix a deadline, involve eminent experts including international experts, finalise these guidelines and give them a legal shape. Considerations like population dependent on water, contribution of water by each basin state, availability of alternate water sources and maximum satisfaction of the need of a state without causing substantial injury to other states may be taken into account while finalizing the guidelines.

The need for reliable data was very much emphasized by the Sarkaria Commission. It, therefore, recommended that there should be a Data Bank and Information System at the National Level and adequate machinery should be set up for this purpose at the earliest. But fifteen years are over since this recommendation was made, but there is not much improvement in the situation even though the 2002 Amendment had made some provisions in this respect. Realizing the importance of this matter in inter-state water disputes, and the important role of states in this respect, the Study Team had discussions with the State Governments on the reliability of Data. Only one state claimed the data to be very reliable while the remaining seven admitted that data were only somewhat reliable. Five states were satisfied with coordination with the CWC in this respect, whereas two were not satisfied and one did not respond to this question. The suggestions given by the States for improving the quality and reliability of data are given below. It is suggested that the government of India may have further discussions with all the states and devise an effective mechanism with legal backing for a reliable data system.

Assam: Automatic rain gauge as maintained by IMD. To revive the investigation division for collection of data.

Bihar : More comprehensive mechanism for data collection.

Chhattisgarh : No R & D in the state water resource department

Punjab: Being upgraded under Hydrology project-II. Computerization and digitalization of data needed for reconciliation with data on irrigated area supplied by Revenue/Agriculture Department; Convergence of all data on GPRS system basis.

Andhra Pradesh: One stop responsibility of data collection and transmission should be evolved. It means that one person/organization should be made responsible for the

collection and transmission of data with a specified time frame and it should be monitored by another agency to get reliability in the system.

Maharashtra:
Collection of real time data using Automatic/Electronic/Electromagnetic devices.

Uttar Pradesh and Kerala: No Response

Finally a lasting solution to the inter-state water disputes would take place if management of inter-state rivers comes under the centre by activating Entry No. 56 of the Union List of the Constitution. But, that seems quite difficult for the time being if past experience is any guide.

7.5 Agreements

While it is clear today that no state has an entirely free hand in respect of a common source of water such as an inter-state river, the best way to define the limits of permissible executive or legislative action of a state is where there is a prior agreement on sharing of waters. The agreement for sharing waters between states is a contract that is legally binding upon them and thus needs to be given effect to by the states which are parties to the agreement. Such agreements enjoy legal sanctity to such an extent that according to the ISRWD Act, any dispute or difference between two or more state governments with respect to "the interpretation of the terms of any agreement relating to the use, distribution or control of such waters or the implementation of such agreement" is treated as dispute as per section 2(C) (ii) of the ISRWD Act.

In view of the several issues factors involved in inter-state water disputes, the method of agreement by negotiation is sometimes regarded as the most satisfactory one since judicial pronouncements, notwithstanding their legal force, may not carry the same conviction, nor give the same psychological satisfaction as agreements arising out of negotiation may do. Mutual accommodation and agreement have the potential to go much further in the direction of ensuring equity, of redressing imbalances, and above all motivating willing implementation than judicial decisions is borne out by a number of successful negotiations in India, where compromise, mutual accommodation and a willing sacrifice of interest to help a solution, have led to many settlements. But there are also several examples when negotiations did not succeed due to reasons like irreconciliable interests or policization of the issues. In such cases, a resort to legal measures becomes the only option available. For redressal of their grievances, the aggrieved states may, and quite often do ask for intervention by the Union Government. But political considerations sometimes prevent the union government to respond appropriately thereby forcing the concerned states to seek legal remedies.

7.6 The River Boards Act, 1956

Before concluding, a few words on the legal framework intended for creation of River Boards may be said here. In pursuance of the power vested in the Central Government under the Entry 56 of the Union List, the Parliament enacted the *River Boards Act* in 1956. Under the Act, River Boards were to be constituted by the Central Government in consultation with the States Government. Such River Boards were to advise the State Governments on aspects of integrated development of waters of Inter-State Rivers and River Valleys. The Act has fallen into disuse as, since its enactment, no River Boards have been setup under it. This assumes significance in the context of well meaning suggestion that there is need for forming an organisation for each inter-state river.[112]

Two important inter-state river boards have been constituted through separate legal enactment. One is for river Brahmaputra and the other for river Betwa. These are described below.

7.7 The Brahmaputra Board Act, 1980

The Union Parliament set up and empowered the Brahmaputra Board in 1980 by enacting the Brahmaputra Board Act, 1980. It came into effect on 31st December 1981.Under the Act the functions of the Brahmaputra Board include the following, amongst others:

- To carry out survey and investigations in Brahmaputra Valley and to prepare Master Plan for the control of floods, bank erosion and improvement of drainage in the Brahmaputra Valley and activities connected therewith.
- To prepare the Master Plan in parts with reference to different areas of the Brahmaputra Valley or with reference to different matters relating to such areas and may as often as it considers necessary so to do, revise the Master Plan or any part thereof.
- To prepare Master Plan for development and utilization of water resources of the Brahmaputra Valley for irrigation, hydropower, navigation and other beneficial purposes.
- To submit Master Plan / revised Master Plan to the Central Government, which shall, after consultation with the State Governments concerned, approve the same subject to such modifications as it may deem fit.

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[112] *National Commission for Integrated Water Resources Development Plan;* Supra. The working group also recommended that Inter-States Disputes on river waters should be resolved by mutual agreements may that the river basin level through the creation of River Basin Organisations (RBOs).

- To prepare detailed reports and estimates in respect of the dams and other projects proposed in the Master Plan as approved by the Central Government and indicate in each case the cost attributable to different purposes or uses.
- To draw up standards and specifications for construction, operation and maintenance of such dams and other projects.
- To construct with the approval of the Central Government, multipurpose dams and works connected therewith as proposed in the Master Plan approved by the Central Govt. and maintain and operate such dams and works.
- To prepare in consultation with State Govt. concerned, a phased programme for construction by the State Government of all dams and other projects proposed in the Master Plan as approved by the Central Government other than those referred to above.

The Act, however, lays down that no multipurpose dam shall be constructed unless the state governments concerned make available free of cost the land required for the purpose, undertake to take over its maintenance on and from the expiry of such period after its completion as may be specified by the Board and provide all such assistance as may be required for the purpose.

A look at the above functions shows that the Brahmaputra Board has a wide ranging and ambitious mandate. It has the power to do anything which may be necessary or expedient for the purpose of performing its functions under this Act. However, over the years a range of factors, including persistent inter-state disputes limited its impact, reducing it largely to a master plan-making body, which in turn, never allowed it to be a basin-level river authority. Multi-purpose river valley projects mooted by the Brahmaputra Board were stalled for various reasons.

7.8 The Betwa River Board Act, 1976

In accordance with an inter-state agreement between the states of Uttar Pradesh and Madhya Pradesh in 1973, Betwa River Board was constituted under the Betwa River Board Act, 1976. The Act provides for the establishment of a Board for the creation of a reservoir at Rajghat by construction - on behalf of the Governments of Madhya Pradesh and Uttar Pradesh -of a dam on the Betwa river at Rajghat and for the regulation of such reservoir. The Union Minister of Ministry of Water Resources is the Chairman of the Board and the Union Minister of Power, Union Minister of State for Water Resources, Chief Ministers and Ministers in-charge of Finance, Irrigation and Power of Uttar Pradesh and Madhya Pradesh are its Members. The headquarters of the Betwa River Board is at Jhansi, Uttar Pradesh.

The functions of the Board as specified in section 10 of the Act are:

(a) To carry out surveys and investigations in the Betwa Inter-State river valley and prepare a comprehensive project report for the construction of Rajghat Dam and appurtenant works and for the generation of power at Rajghat Dam, including the construction of a power house (hereinafter referred to as the Rajghat Power House) near the dam and appurtenant works and finalise the same after consulting the Governments of Madhya Pradesh and Uttar Pradesh and taking into account the suggestions if any made by those Governments;

(b) To prepare detailed reports and estimates in respect of the Project and allocate the cost among the Governments of Madhya Pradesh and Uttar Pradesh;

(c) To draw up standards and specifications for implementation of the project and for the maintenance thereof;

(d) To construct the Rajghat Dam and the Rajghat Power House and the common carrier from the dam to irrigate areas in Madhya Pradesh and Uttar Pradesh;

(e) To lay down rules of operation and management of Rajghat Dam;

(f) To perform any other function which is supplemental, incidental, or consequential to all or any of the functions specified in clauses (a) to (e).

The exercise by the Board of the functions specified in section 10 shall be subject to the conditions laid down in section 11, namely:

(i) That the Governments of Madhya Pradesh and Uttar Pradesh shall at all times make, to the satisfaction of the Board, suitable provisions as to the moneys, land facilities and electrical power for construction and all other things required by the Board.

(ii) That the liability for the entire expenditure on the Rajghat Dam and Rajghat Power House including appurtenant works and on the generation of power at Rajghat Dam and all other expenditure incurred by the Board in the discharge of its functions shall be shared by the Governments of Madhya Pradesh and Uttar Pradesh in such proportion as may be specified by the Board; Provided that the Board may specify different proportions for different works or matters having regard to the benefits which may accrue to the States and other relevant factors;

(iii) That the Governments of Madhya Pradesh and Uttar Pradesh shall extend full co-operation to the Board and shall in particular make available to the Board the land and electric power required by it for construction purposes as expeditiously as possible.

According section 12, subject to the provisions of this Act and the rules, the Board shall have the power to do anything which may be necessary or expedient for the purpose of carrying out its functions under this Act.

Without prejudice to the generality of the foregoing provision, such power shall include the powers (a) to acquire, hold and dispose of such properties both movable and immovable as the Board deems necessary; (b) to publish statistics or other information relating to the various aspects of flood control and drainage in the Betwa River valley the regulation of

Rajghat Reservoir and the generation of power at Rajghat Dam; (c) to require the Governments of Uttar Pradesh and Madhya Pradesh to furnish such information as the Board may require in the discharge of its functions.

7.9 Suggestions Given by States for Better Management of Inter-State Water Disputes.

In the replies to the state schedule as well as during the interaction of the Study Team with state level officers, a number of useful suggestions were made from some of the states. These included that the ISRWD Act should be strengthened for preventing non-compliance of the Award of a Tribunal by a state, fixing time limit with respect to implementation of an Award, modifying the Award due to changes in underlying conditions including changes in the legal framework due to enactment of new laws or repeal of the earlier laws, fixing a time limit for clarificatory or supplementary orders, and prohibiting appeal to the Supreme Court on the award of the Tribunals. The composition of the Tribunals should be multidisciplinary headed by a judge. Experts from hydrology, sociology, agriculture and economics etc. may also be included as members. Some non-legal measures were also suggested. These included information dissemination among the affected people about the conditions in the other states, a more active role by the centre, mutual understanding and cooperation between the concerned states, use of water saving devices, etc. The feedback received from the states is provided below.

Assam : Information dissemination about the hardship of the people in the other affected state in the affected areas

Bihar : In the case of multipurpose schemes, the benefit of power may be extended to the upper riparian states which do not derive benefit from irrigation. This may help getting their willing cooperation.

Chhattisgarh :

1. ISRWD Act is silent on non-compliance of the award of Tribunal by a state. Hence need for a new provision in the law.
2. No time limit fixed with respect to implementation of Godavari Award. Hence need for time frame.
3. After sometime, the underlying conditions change. Hence need for consequent changes in Award.
4. Also new Acts come into force. These too suggest need for changes in Award.

Uttar Pradesh : Amicable settlement with concerned states. CWC should intervene in case disputes persist.

Punjab :

1. The distribution of waters amongst states should be based on principles of riparian rights. In no case should inter-basin transfer of water be permitted without fully meeting the needs of a riparian state.
2. CWC should behave in a neutral manner (Chief Engineer, Drainage)
3. Mutual cooperation/consent of neighboring states.
4. Genuine calculation of requirement
5. Recalculation of flow data in the river based on present condition.

Andhra Pradesh:

1. Mutual understanding between different states within limits of award issued by Tribunal from time to time.
2. Adequate gauging at required locations by CWC to quantify water and modernization of existing technology.
3. Conflicts can be managed/reduced by encouraging water saving strategies both "on farm" as well as "off farm" through better water management practices, which also involve required training to the concerned.
4. As there is no general water law in the country, step to be taken to evolve water law on interstate river water sharing.
5. The central government has to play pro-active role in resolving disputes among states in sharing waters of Interstate rivers by creating proper mechanism for negotiations and arbitration if necessary.
6. Permanent Tribunal be constituted to adjudicate water disputes in fixed time frame with a provision for appeal.
7. Apart from judges of the Supreme Court, Technical experts in the fields of Irrigation, Hydrology and Agriculture be included as the members.
8. Water disputes over minor issues may be settled through Arbitrators in a fixed time frame.
9. Union Government already empowered under Section 9(A) of ISRWD Act, 1956 for which necessary institutional arrangement need to be made to enforce the same.

Maharashtra :

1. There should be an apex body at national level to play a greater role in integrating policies and programmes on a continuous basis. This could be done by providing it with a core expert body with an Adviser at its helm, so that executive action on the basis of its recommendations is monitored.
2. A hierarchical but coordinated set of watershed agencies may be set up by joint action of the Center and States and participation of local bodies with Inter-State basin as the focus. The overall responsibility for coordination would be that of the Inter-State River Basin Authority set up by the Central Government under River Boards Act, 1956.

3. Tribunal constituted under the Inter-State River Water Disputes Act, 1956 should be multidisciplinary body, presided over by a judge. It should follow a participatory and conciliatory approach. The statue should prescribe a time limit for clarificatory or supplementary orders. Appeals to the Supreme Court should be proscribed under the statute.
4. Disputes referred to a Tribunal should invariably be linked to constitution of Inter-State River Board, charged with the responsibility for an integrated watershed approach towards Inter-State Rivers.

Kerala : No comments

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CHAPTER – 8

THE LAW RELATING TO PARTICIPATORY IRRIGATION MANAGEMENT

The present chapter provides a review of laws related to participatory irrigation management (PIM) which is an emerging institutional framework for management of canal irrigation in India. Basic legal regime for PIM is explained at the outset. This is followed by relevant details of laws mandating PIM in seven of the eight study states. Such law is yet to be enacted in the eighth selected state of Punjab. After pointing out state variations, the chapter indicates legal limitations and provides a glimpse of the empirical findings on the status of implementation. It ends with a few conclusions and suggestions.

8.1 Introduction: The Need, Basis and Basic Legal Regime for PIM

Participatory Irrigation Management ("**PIM**") refers to the programs that seek to increase direct involvement of farmers as irrigation water users in system management, either as a complement to or as a substitute for the state's role. Beginning in the 1980's, there have been large scale programs to turn over irrigation management from government agencies to organized Water Users Associations in a number of countries such as Philippines, Indonesia, Senegal, Madagascar, Columbia and Mexico.

It was around the same time that the concept of farmers participation in the distribution and management of tertiary system started gaining ground in the Command Area Development Programme of the Ministry of Water Resources in India. The concept was formally incorporated in the National Water Policy adopted in 1987 wherein it was provided that "*Efforts should be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates. Assistance of voluntary agencies should be enlisted in educating the farmers in efficient water-use and water management.*" Further modifications were made in the National Water Policy (2002), according to which "*Management of the water resources for diverse uses should incorporate a participatory approach: by involving not only the various governmental agencies but also the users' and other stakeholders, in an effective and decisive manner, in various aspects of planning, design, development and management of the water resources schemes. Necessary legal and institutional changes should be made at various levels for the purpose, duly ensuring appropriate role for women. Water Users' Association and local bodies such as municipalities and Gram-Panchayats should particularly be involved in the operation, maintenance and management of water infrastructures/facilities at appropriate levels progressively, with a view to eventually transfer the management of such facilities to*

the user groups/ local bodies". The said policy states further that "*Formation of Water Users Association with authority and responsibility should be encouraged to facilitate the management including maintenance of irrigation system in a time bound manner*".

Box: Objectives of Participatory Irrigation Management (PIM)

The objectives of and the rationale for Participatory Irrigation Management are the following:

i. To create a sense of ownership of water resources and the irrigation system among the users, so as to promote economy in water use and preservation of the system.

ii. To improve service deliveries through better operation and maintenance.

iii. To achieve optimum utilization of available resources through sophisticated deliveries, precisely as per crop needs.

iv. To achieve equity in water distribution.

v. To increase production per unit of water, where water is scarce and to increase production per unit of land where water is adequate.

vi. To make best use of natural precipitation and ground water in conjunction with flow irrigation for increasing irrigation and cropping intensity.

vii. To facilitate the users to have a choice of crops, cropping sequence, timing of water supply, period of supply and also frequency of supply, depending on soils, climate and other infrastructure facilities available in the commands such as roads, markets cold storages, etc., so as to maximize the incomes and returns.

viii. To encourage collective and community responsibility on the farmers to collect water charges and payment to Irrigation Agency.

ix. To create healthy atmosphere between the Irrigation Agency personnel and the users.

The need of PIM was powered by the dismal state of irrigation system itself. Non-irrigated fields because of undependable water flows, indiscriminate use of water by head-enders depriving the same to the tail enders, inequitable distribution and resulting conflicts created a situation where farmers participation was beginning to be seen as an answer. The Water Users' Association ("**WUAs**") was seen as a lasting response to such systemic inadequacies. It was thought that where the state had failed, the farmers will not, and that operation and management of irrigation system by the farmers themselves can change things around. The result was that, state after state in India, much like other parts of the world, came up with policies, resolutions and then laws supporting PIM. At present States of Andhra Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Sikkim, Tamil Nadu and Uttar Pradesh have enacted exclusive legislation for involvement of farmers in irrigation management. State of Bihar has issued the Bihar

Irrigation, Water Management Rules, 2000, under the Bihar Irrigation Act, 1997. Further, Punjab, Haryana and Manipur have drafted their PIM bills which are yet to be enacted.

Basic Legal Regime for PIM

As can be seen from the above, several states have come up with specifically created legal regimes that have transferred some responsibilities of irrigation management from government agencies to the Water Users Associations (WUAs). For the present purpose, a close review of all the laws in the study states have been carried out and discussed in subsequent sections. However, the basic legal regime created by these laws may first be noted. Typically, all of these laws empower the 'Project Authority' to delineate every command area under each of the irrigation systems, 'on a hydraulic basis which may be administratively viable' and declare it as Water Users area. Every Water Users' area is to be divided into territorial constituencies. The laws then provide for establishing a democratically elected Water Users' Association (WUA) for every Water Users' area. Every WUA consists of all water users who are land owners in such Water Users' area as members. Above the WUAs at the second tier is the Distributary Committee which would typically comprise of a number of WUAs. All the presidents of WUAs will comprise general body of the distributary committee. Finally, there is Project Committee which is an apex body of the farmers in an irrigation system. Presidents of the Distributary committees in the project area shall constitute general body of this committee. These associations at different levels are expected to be actively involved in: (i) maintenance of irrigation system in their area of operation; (ii) distribution of irrigation water to the beneficiary farmers as per the warabandi schedule; (iii) assisting the irrigation department in the preparation of water demand and collection of water charges; (iv) resolving disputes among the members and WUA; (v) monitoring flow of water in the irrigation system etc.

The Assam Farmers (Group Irrigation) Act, 1978

It is also important to note that there are State laws much before the coming into force of the 'new' paradigm of PIM under which the laws discussed above were passed. The laws mandating farmers participation in irrigation systems existed in a slightly different form than the laws discussed above. One good example of this is *The Assam Farmers (Group Irrigation) Act, 1978* that seeks to provide for creation of irrigation potential by the formation of Groups amongst farmers. Under the Act, any two or more farmers owning or having a right in any agricultural land in compact area may form a group and apply to the Irrigation Officer in the prescribed manner requesting him to frame a scheme for them. (Section 3)The draft scheme is then to be sent by the irrigation officer to the bank to enable

it to consider the feasibility of the scheme, the credit worthiness of the farmers in question and the question whether it is prepared to finance the scheme. Once approved and financed by the Bank "the Irrigation Officer or the group of farmers, as the case may be, shall implement all schemes, framed under this Act in the manner prescribed." (Section 5) There is a penal clause also under the Act that lays down that "Any farmer of group, refusing to adopt the cropping pattern specified in a scheme or obstructing the construction of field channels or other works necessary for the purposes of distribution of irrigation water to every part of the area as required under the scheme, shall be punishable with imprisonment for a term which may extend to three months or with a fine which may extend to five hundred rupees or both" (Section 6).

8.2 Overview of State Laws Mandating PIM

This part of the chapter entails review of the various laws mandating implementation of PIM in the states of Andhra Pradesh, Maharashtra, Uttar Pradesh, Bihar, Assam, Kerala and Chhattisgarh. The laws specifically reviewed in this chapter are:

(a) The Andhra Pradesh Farmers' Management of Irrigation Systems Act, 1997;

(b) Maharashtra Irrigation Systems Management by Farmers Act 2005;

(c) The Uttar Pradesh Participatory Irrigation Management Act, 2009;

(d) The Chhattisgarh Sinchai Prabandhan Me Krishkon Ki Bhagidari Adhiniyam, 2006;

(e) The Bihar Irrigation Water Management Rules, 2000 formulated under The Bihar Irrigation Act, 1997;

(f) The Kerala Irrigation and Water Conservation Act, 2003 and

(g) The Assam Irrigation Water Users Act, 2004

The Andhra Pradesh Farmers' Management of Irrigation Systems Act, 1997 ("AP PIM Act")

The AP PIM Act mandates participation of farmers in the management of irrigation systems in the State of Andhra Pradesh and seeks to provide scientific and systematic development and maintenance of irrigation infrastructure in the best possible way through farmers' organisations. The said Act also provides for giving effective role to the farmers organisations in management and maintenance of the irrigation system for effective and reliable supply and distribution of water.

Water Users' Association under the AP PIM Act-Level, Constitution and Functions

Under the AP PIM Act, water users' organisations are constituted at three levels i.e.,

(i) Water users association at the primary level consisting of all the water users[113];

(ii) Distributory committee at the secondary level which is constituted by delineating every command area of the irrigation system, comprising of two or more water users' associations[114]; and

(iii) Project committee at the project level, which is constituted by delineating every command area or part thereof and declaring it to be a project area as constituted[115]

All the water users who are land holders in a water users' area are members of the water users' association. However, any person who is in lawful possession and enjoyment of the land under a water source, may claim membership notwithstanding whether he is a recorded land holder, subject to such member showing proof of such lawful possession and enjoyment of the same in a crop year. Such person shall be liable to pay the water charges and the fees as may be prescribed as if he is a land holder under a water source.[116]

The AP PIM Act formally recognizes[117] that these farmer organizations are constituted with the objective to:

(i) promote and secure distribution of water among its users,

(ii) undertake adequate maintenance of the irrigation system,

(iii) ensure efficient and economical utilisation of water to optimise agricultural production,

(iv) protect the environment, and ensure ecological balance by involving the farmers, and

(v) inculcate a sense of ownership of the irrigation system in accordance with the water budget and the operational plan.

In furtherance of these stated objectives, each of these organizations at all the three levels has been assigned specific functions. The functions of water users' association, which is at the primary level, is enumerated hereunder, The water users' associations are required to:

(i) prepare and implement a warabandi schedule for each irrigation season, consistent with the operational plan, based upon the entitlement, area, soil and cropping pattern as approved by the distributory committee, or as the case may be, the project committee.

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[113] See Section 3 of the AP PIM ACT
[114] See Section 5 of the AP PIM Act
[115] See Section 7 of the AP PIM Act
[116] See Section 3 (4) of the AP PIM Act
[117] See Section 16 of the AP PIM Act

(ii) prepare a plan for the maintenance of the irrigation system in the area of its operation at the end of each crop season and carry out the maintenance works of both the distributory system and minor and field drains in its area of operation with the funds of the association from time to time.

(iii) regulate use of water among the various pipe outlets under its area of operation according to the warabandi schedule of the system.

(iv) promote economy in the use of water allocated and assist the revenue department in the preparation of demand and collection of water rates.

(v) prepare and maintain an inventory of the irrigation system within the area of operation.

(vi) monitor flow of water for irrigation.

(vii) resolve the disputes, if any, between the members and water users in its area of operation, and

(viii) abide by the decisions of the distributory and project committees.

The functions assigned to the distributory and project committees are very similar, the only prominent distinction being supervisory function performed by these committees with respect to the organization just below them.

Maharashtra Irrigation Systems Management by Farmers Act 2005 ("MISMF Act")

The MISMF Act was enacted with an objective to bridge the gap between the irrigation potential created and its actual utilisation. It also seeks to optimise the benefits by ensuring proper use of surface and ground water by increased efficiency in distribution, delivery, application and drainage of irrigation systems and for achieving this objective it gives statutory recognition to the constitution and operation of Water Users' Associations in order to enable the farmers to Act collectively to improve the productivity of agriculture.

Water Users' Associations under the MMISF Act-Level, Constitution and Functions

Under the MISMF Act, water users' organisations are constituted at three levels i.e.,

(i) Water Users' Association at Minor Level which is the primary level organisation having land holders as its members. [118]

(ii) The second level of water users' organisation is the Distritbutory Level Association where members of the managing committee of the Water users' Association at the Minor Level constitute the general body.[119]

(iii) The third level is the Canal Level Association where heads of the Managing Committees of the Distributary Level Associations constitute the general body. [120]

[118] See Section 2 (w), 2(ak), 2(al) and 3 of the MMISF Act

[119] See Section 10 of the MMISF Act

The MISmF Act provides that Water Users' Association shall be constituted with the objective[121] to:

(i) promote and secure equitable distribution of water amongst its members;

(ii) maintain adequately the irrigation systems; and ensure efficient, economical and equitable distribution and utilisation of water to optimise agricultural production;

(iii) protect the environment;

(iv) ensure ecological balance

(v) actively involve the members inculcating amongst them a sense of ownership of the irrigation system; and

(vi) safeguard and promote the common interests of its members pertaining to irrigation and agriculture in the relevant area of operation.

The Association can also engage into any other activities which are of common interest to its members and related to irrigation and agriculture.

Some of the major/prominent functions which the Water Users' Association at any minor level are required to perform are[122]:-

(i) seeking information from the upper level association or the concerned Canal Officer with regard to

(a) Applicable water use Entitlement of such Association and that of its members;

(b) Number of rotations planned;

(c) Irrigation interval fixed;

(ii) collecting, checking and sanctioning or rejecting partly or fully water applications or water indents of members based on criteria prescribed e.g. unless previous dues are paid, no water shall be supplied to such members:

(iii) seeking information regarding canal operation schedule from upper Level Association or the concerned Canal Officer, preparing detailed water distribution programme or Rotational Water Supply of members before every rotation and ensuring volumetric supply to each member as per his/her entitlement;

(iv) receiving applicable water entitlement from upper Level Association or the Canal Officer and supply it to the members as per their Water Use Entitlement strictly following principle of tail to head;

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[120] See Section 13 of the MMISF Act
[121] See Section 4 of the MMISF Act
[122] See Section 52 of the MMISF Act

(v) maintaining rotation wise or season wise Water Account in the prescribed form to remit the water charges to the Canal Officer within the prescribed period against the bills received from the Canal Officer:

(vi) regulating and monitoring water distribution to the members;

(vii) assessing water charges for the members and sending bills in the prescribed form;

(viii) collecting prescribed service charges for operation and maintenance from the lower level Water Users' Association at minor level and remitting its share to the upper Level Association, or, the concerned Canal Officer, as the case may be;

(ix) carrying out annual maintenance and repairs to canal system falling under its jurisdiction;

(x) ensuring that the members maintain their canal system in good condition and they receive agreed maintenance amount in time;

(xi) enabling the Government to publish the Annual Irrigation Status Report by furnishing the requisite information as prescribed, in time to the Canal Officer,:

(xii) undertaking any other activities required to accomplish the objectives of Water Users' Association.

Further, apart from the functions mentioned above, there are certain other functions which are assigned to the Project Level Associations. Some such functions are:

(i) assisting the Canal Officer in assessment of the water charges for non-irrigation use, which are to be remitted by such users to the Canal Officer;

(ii) preparing water budget or preliminary irrigation programme for project before commencement of each irrigation season and determining Applicable Water Entitlement, number of rotations and irrigation interval in consultation with the concerned Canal Officer; and

(iii) obtaining and using area capacity table or curve of reservoir and discharge tables of head regulators of canals.

There are two aspects in the MISMF Act which are distinctive and noteworthy. First, the definition of the term 'Appropriate Authority' includes Maharashtra Water Resources Regulatory Authority[123]. The said definition reads as under:

> *""Appropriate Authority" means the Appropriate Authority as defined in clause (2) of Section 2 of the Maharashtra Irrigation Act, 1976 and also includes Maharashtra Water Resources Regulatory Authority and Irrigation Development Corporations established by the State Government by Acts of the State Legislature*"

[123] See Section 2(d) of the MMISF Act

The Maharashtra PIM Act does not clearly specify as to which functions of appropriate Authority shall be undertaken by Maharashtra Water Resources Regulatory Authority. However, from a perusal of Maharashtra Water Resources Regulatory Authority Act, 2005, it is evident that the functions of said authority primarily relate to determination of distribution of entitlements of water users and development of a water tariff system.[124] The second noteworthy aspect of the Maharashtra PIM Act is one of formally recognising the concept of minimum water entitlement of water users' association by incorporating the same in the Maharashtra PIM Act. Maharashtra perhaps is the only state in India where the concept of minimum water entitlement has been included in the statute.

Uttar Pradesh Participatory Irrigation Management Act, 2009 ("UP PIM Act")

The UP PIM Act was enacted with the intent to provide an effective role to water users' associations in equitable distribution of water and its efficient and optimum use, operation and maintenance of irrigation and drainage systems. Further, the UP PIM Act also aims at effectively involving water users' associations in promotion of conjunctive use of surface and ground water, command area development, assessment and recovery of water charges and protection of environment and ecology.

Water Users' Associations under the UP PIM Act-Level, Constitution and Functions

Under the UP PIM Act, water users' associations are constituted at various levels, the same being:

(i) Water Users Association constituted at minor level and known as Alpika Samiti[125];

(ii) Water Users Association constituted at distributary level and known as Rajwaha Samiti[126];

(iii) Water Users Association constituted at branch level known as Shakha Samiti[127];

(iv) Water Users Association constituted at outlet level whether of the minor or the distributary or the branch or the main canal known as Kulaba Samiti[128];

(v) Water Users Association constituted at project level known as Pariyojna Samiti[129];

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[124] A detailed discussion on the functions of the Maharashtra Water Regulatory Authority is under the taken the chapter on Water Regulatory Authorities.
[125] See Section 2 (asa) of the UP PIM Act
[126] See Section 2 (az) of the UP PIM Act
[127] See Section 2 (ay) of the UP PIM Act
[128] See Section 2 (abb) of the UP PIM Act
[129] See Section 2 (ax) of the UP PIM Act

The main objective of water users' association is to bring about water users' participation in water management and also to create among the water users a sense of ownership of irrigation system in their area. More specifically, a water users' association shall:—

(i) promote and secure equitable, efficient and timely distribution of water;

(ii) motivate water users for adopting practices of scientific and economic use of water;

(iii) encourage conjunctive use of surface and ground water;

(iv) encourage intensified and diversified agricultural production system; and

(v) protect environment and ecology.[130]

As per the UP PIM Act, a water users' association shall be empowered[131] to:—

(i) enter on any land, remove obstructions, close any channel, and do other things necessary for carrying out its functions;

(ii) cut down or/and clear away any part of any standing crop, fence or bush if it is necessary to carry out its functions;

(iii) enter into any building or water-course for the purpose of inspecting or regulating the use of canal water, or for measuring the lands irrigated thereby and chargeable with a water rate and to do all things necessary for the proper regulation and management of such canals.

(iv) enter, in case of any accident happening or being apprehended to a canal, any lands adjacent to such canal, and may execute all work which may be necessary for the purpose of preventing such accident:

However, if a water users' association proposes to enter into any building or enclosed court or garden attached to a dwelling house which is not supplied with canal water, the water users' association shall give the occupier of such building, court or garden at least seven days' advance notice in writing of its intention to do so.

The functions of water users' associations[132] at various levels have been specifically provided under this Act and some such functions are enumerated hereunder. A water users' association at kulaba, minor or distributary level is required to:

(i) inform members regarding canal statistics and water use status and invite suggestions, if any, for efficient management of the available water, in the general body meeting;

(ii) prepare crop plan as per water budget and soil condition;

(iii) prepare water indent and submit it to immediate upper level water users' association or competent Canal Officer, as the case may be;

[130] See Section 4 of the UP PIM Act
[131] See Section 5 of the UP PIM Act
[132] See Section 5 of the UP PIM Act

(iv) receive water from immediate upper level water users' association or competent Canal Officer, as the case may be, on volumetric basis and to supply it to its immediate lower level water users' associations or landholders in an equitable and transparent manner;

(v) design, implement, regulate and monitor its own water sharing arrangement, in the manner prescribed;

(vi) prepare water budget and maintain water account in such manner as may be prescribed;

(vii) prevent unauthorized irrigation and wastage of water, to ensure timely reporting of offences;

(viii) plan, design and implement activities relating to command area development in its area of operation;

(x) assist and participate in such manner as may be prescribed in the process of recording of irrigation and assessment and recovery of water charges;

(xi) prepare inventory of assets in its charge and maintain it with other records in such manner as may be prescribed;

(xii) resolve disputes or differences among its members or lower level water users' associations;

(xiii) undertake any other activities required for accomplishing the objectives of this Act.

A water users' association at kulaba level is required to:(i) construct and maintain water courses and field drains; and (ii) distribute available water among landholders. A water users' association at minor or distributary level is required to:—(i) carry out annual maintenance and repairs of the irrigation system in its charge before commencement of each irrigation season;(ii) implement special maintenance and repairs of the irrigation system in its charge; and, (iii) monitor and coordinate the activities of the lower level water users' associations. Finally, a Shakha Samiti is required to:(i)give advice to the lower level water users' associations or the competent Canal Officer, as the case may be, regarding annual maintenance and recovery of previous and current water charges etc.;(ii) prepare and issue a public notice of water budget and preliminary irrigation program for the branch before commencement of each irrigation season considering number of rotations and irrigation interval in consultation with the competent Canal Officer; (iii) prepare canal operation schedules in consultation with lower level water users' associations and the competent Canal Officer; and (iv) monitor and coordinate the activities of the lower level water users' associations.

The Pariyojana Samiti is required to give advice to competent Canal Officer and apex committee on problems and issues related to water management within the project area. Then

at the State level, there is an Apex committee called Sheersh Samiti which is responsible for monitoring, evaluation and research on the participatory irrigation management process in the State. Sheersh Samiti is also required to provide necessary feedback to the State Government and advise it on policy matters.

The Bihar Irrigation Act, 1997 and Irrigation Water Management Rules, 2000

The Bihar Irrigation Act, 1997 was passed to consolidate the law relating to irrigation, embankment, drainage, levy and assessment of water rates, betterment contribution and other connected matters. The Act also had a notable enabling clause on transfer of Government distributary, minor or water course to the water users' association(s) formed by the beneficiary farmers as below:

> *"(1) Government may transfer any Government distributary, minor or water course to the water users' association(s) formed by the beneficiaries or to a group of persons who may be considered fit by the Government to be owner of the said channels for their maintenance and operation. These channels, in such a case, will be considered as village channels and will accordingly be governed by the provisions of this chapter.*
>
> *(2). In case the management of distributary, sub-distributary or minor is handed over to the WUA, the WUA shall be supplied with authorised discharge at the head regulator of such channel. The Executive Engineer will ensure that the water so supplied will be in proportion to the area to be irrigated from that channel. In the case of deficient water supply in the parent channel, the shortage shall be equitably distributed to the various channels"*[133]

In addition to the above, the Bihar Irrigation Act had a general enabling provision according to which the State Government may by notification in Official Gazette make rules to carry out the purposes of this Act as per Section 115 of the Act. It is this power that the State Government had decided to use to come up later with the Irrigation Water Management Rules, 2000. Unlike other States, there is no separate law for Participatory Irrigation Management in Bihar .

The year 2000 Rules provide for a two tier structure namely a village level committee consisting of water users in a village and a distributory level committee consisting of representatives from village level committees within its jurisdiction. There is provision for representatives of village level associations to be non-voting members in village Panchayat. There is significant provision according to which government may dissolve PIM and take back management if it finds that a particular committee is inactive or is not functioning well. As noted later, this provision has already been used in several cases. The functions of WUAs are

[133] See Section 46 of the Bihar Irrigation Act, 1997.

(i) to receive water from Irrigation department and distribute the same among the farmer members;
(ii) to undertake maintenance of the canals and receive payment for the same from the concerned office;
(iii) to prepare a cropping pattern for the area under its jurisdiction and draw a water distribution plan accordingly;
(iv) to construct field channels and drainage and maintain them;
(v) to undertake off-farm development (OFD) activities, including tree plantation and environmental preservation;
(vi) to save water and use it economically;
(vii) to collect irrigation rates
(viii) to arrange for soil testing;
(ix) to arrange training for farmer members,

It is also stipulated that 70 percent of the irrigation revenue collected by an association will remain with the association while the remaining 30 percent would be the share of the state government. Provisions for punishment to water users for offences committed also exist.

The Kerala Irrigation and Water Conservation Act, 2003 ("Kerala PIM Act")

The Kerala Act not only provides for better involvement of farmers in water utilization system but also addresses issues relating to construction of irrigation works, conservation and distribution of water for the purpose of irrigation and levy of betterment contribution and water cess on lands benefited by irrigation works in Kerala.

Water Users' Associations under the Kerala PIM Act, Constitution and Functions

Under the Kerala PIM Act, State Government has the power to authorize any officer/ organization/ local authority to form water users' association by farmers within an area of 40 hectares. All farmers who own agricultural fields shall be members of the water users' association.

Water users' associations under the Kerala PIM Act are constituted with objectives to[134]:

(i) promote and secure distribution of water among its users;
(ii) incite awareness for water conservation;
(iii) adequately maintain irrigation system;
(iv) promote efficient and ecological utilization of water to optimize agricultural production
(v) protect the environment and inculcate a sense of ownership of the irrigation system in accordance with the water budget and operation plan.

[134] See Section 50 of the Kerala PIM Act

Notably, there are no multi tier water users' associations under the Kerala PIM Act. Further, under the Kerala PIM Act, water users' associations have been mandated to perform various functions[135], some being:

(i) preparation and implementation of water schedule for each irrigation season;

(ii) preparation of a plan for the maintenance of irrigation system in the area of its operation at the end of each crop season;

(iii) regulating the use of water among the various pipe outlets under area of operation;

(iv) promote economy in use of water that is allocated;

(v) monitor flow of water for irrigation;

(vi) resolve disputes, if any, between the members and water users association in its area of operation;

(vii) raise resources;

In addition to these functions, there exists a general enabling provision that water users' associations have the power to levy and collect the fees as may be prescribed.

Chhattisgarh Sinchai Prabandhan Me Krishkon Ki Bhagidari Adhiniyam, 2006 ("Chhattisgarh PIM Act")

This Chhattisgarh PIM Act provides for farmers participation in management of the irrigation system.

Water Users' Associations under the Chhattisgarh PIM Act, Constitution and Functions

Under the said Act, Water Users' Associations are constituted at three levels; the same being:(i) Water Users' Association at the primary level; (ii) Distributory Committee at the secondary level; and (iii) Project Committee at the project level.[136]The Chhattisgarh PIM Act provides for a broad based membership of WUAs by:

(a) recognizing the tenant of the land as a water user,

(b) considering any person who is in lawful possession and enjoyment of the land under a water source, on proof of such possession and such enjoyment in a crop year as a member irrespective of whether such person is recorded land holder or not; and

[135]See Section 51 of the Kerala PIM Act.
[136]See Section 2 (i) of the Chhattisgarh PIM Act

(c) the wife / wives of such land holder, who do not hold land, shall deemed to be the land holders for the purpose of this Act.[137]

Water users' associations under the Chhattisgarh PIM Act are formed with the objective[138] to:

(i) promote and secure equitable distribution of water among its users

(ii) adequate maintenance of the irrigation system

(iii) efficient and economical utilization of water to optimize agricultural production

(iv) protect the environment and ensure ecological balance by involving farmers inculcating a sense of ownership of the irrigation system in accordance with the water budget and the operation plan.

As per the Chhattisgarh PIM Act, water users' associations at different levels have been assigned various functions. Some of the prominent functions to be performed by water users' associations at various levels are mentioned hereunder:

Water users' association at primary level is required to:

(i) prepare and implement a warabandi schedule for each irrigation season consistent with the operational plan;
(ii) prepare a plan for the maintenance of irrigation system in the area of its operation at the end of each crop season;
(iii) look for information regarding canal operation schedule from the upper level Committee;
(iv) collect prescribed rate of water charges from the members of the Association including arrears that may arise.

The Distributory Committee is required to:

(i) prepare an operational plan based on its entitlement area, soil, cropping pattern, at the beginning of each irrigation season;
(ii) prior to each season, identify the critical maintenance works that are to be carried out, prioritize these works, and make a plan for the maintenance of both distributories and medium drains within area of its operation;
(iii) perform the maintenance works with the fund of the committee, observe the maintenance works being executed and ensure that they conform to prescribed standards;

[137] See Section 4(2) of the Chhattisgarh PIM Act
[138] See Section 24 of the Chhattisgarh PIM Act

(iv) provide funds for the maintenance of staff including such persons who are placed by the State Government with the Distributory Committee for the purpose of regulation and maintenance of irrigation system;

(v) regulate use of water among the various Water Users' Associations;

(vi) monitor flow of water for irrigation under its area of operation.

The Project Committee is required to:

(i) make an operational plan based on its entitlement area, soil and cropping pattern;

(ii) approve a plan for the extension, improvement, renovation, modernization and annual maintenance of irrigation system including the major drains within the area of its operation at the end of each crop season;

(iii) implement the maintenance works with the fund of the committee from time to time;

(iv) make available funds for the maintenance of staff;

(v) keep a list of Distributory Committees and Water users' Associations in its area of operation

(vi) keep an inventory of the distributory and drainage systems in its area of operations.

The Assam Irrigation Water Users Act, 2004

The Assam Irrigation Water Users' Act, 2004 provides for a three tier structure of water users' associations. At the bottom is the Water Users' Association for water users' area at the grass root level, consisting of water users who are land holders including the tenant holders. It also provides that one elected gram Panchayat member or its President would be ex-officio member of the association. Above this is the provision for Distributory Committee for one or more WUAs, consisting of all the presidents of WUAs within its jurisdiction. Finally there is provision for a Project Committee consisting of the presidents of all the Distributory Committees within the project area. The Assam Irrigation Water Users Act, 2004 also provides for recall of Chairman or President of Managing Committee and has prescribed rules for the same. The Act has given powers to the state government to constitute an Apex Committee at the state level under the Chairmanship of Minister Incharge of Irrigation for overall policy and directions.

The objects of the farmers' organization shall be to promote and secure distribution of water among its users, adequate maintenance of the irrigation system, efficient and economical utilization of water to optimize agricultural production, to protect the environment and to ensure ecological balance by involving the farmers to develop a sense of ownership of the irrigation system in accordance with the water budget and the operational plan. Some of the specific functions are:

(a) to prepare and implement a warabandi schedule for each irrigation season consistent with the operational plan, based upon the entitlement area, soil and cropping pattern as approved by the Distributory Committee, or as the case may be, the Project Committee;

(b) to prepare a plan for the maintenance of system in the area of its operation at the end of each crop season and to carry out the maintenance works of its dstributory system and minors and field drains in its area of operation with the funds of the Association from time to time;

(c) to regulate the use of water among the various outlets under its area of operation according to the warabandi schedule of the system;

(d) to promote economy in the use of water allocated;

(e) to assist the Revenue Department in the preparation of demand and collection of water rates;

(f) to monitor flow of water for irrigation;

(g) to resolve the disputes, if any, between the Members and Water Users in its area of operation.

Functions for Distributory and Apex Committees have also been specific in the Act.

The fund of the farmers' organization shall comprise of the following among others.

(i) Grant received from the Government as a share of the water tax collected in the area of operation of the farmers' organisation

(ii) Fees collected by the farmers' organisation for the services rendered in better management of the irrigation system;

Offences of different types have been spelt out and punishment, if convicted, includes imprisonment upto one year or fine upto Rs.5000/- or both. In a significant provision, the

Assam Act lays down that all the amounts payable or due to farmers' organization shall be recovered as arrears of land revenue by Local Land Revenue Officer as per rules.

8.3 State Variations, Legal Limitations and the Way Ahead

A review of the above laws clearly reflects that largely the approach and the structure of the all the laws are on the same lines. However, certain notable deviations exist which are mentioned below. Most of these special features are worthy of emulation by other states also.

(a) Under the Andhra Pradesh Act, the membership of WUA is extended to any person who is in lawful possession and enjoyment of the land under a water source even if he is not a recorded land holder. Under the Chhattisgarh PIM Act, the membership of water users association is not only extended to the tenant holding lawful possession of the land but also includes wife/wives of such landholders who are eligible for membership.

(b) Kerala is one state which under its PIM Act has not provided for creation of multi tier water users association as opposed to Uttar Pradesh where the PIM Act provides for constitution of water users association at five levels. e.g. minor, distributory, branch, outlet and project. Then at the state level there is an Apex Committee called Sheersh Samity. The Assam Act also gives powers to the state government to constitute an Apex Committee at the state level under the Chairmanship Minister Incharge of Irrigation for overall policy and directions.

(c) The Chhattisgarh Act provides for representation of the Gram Panchayat in the Executive Committee of the Water Users Association. The Assam Act has a similar provision. On the other hand, in Bihar Act, there is provision for representatives of village level associations to be non-voting members in village Panchayat.

(d) The MISMF Act has shown some progressive trends by introducing provisions relating to minimum water entitlements in the Act. Further, it has also recognized Maharashtra Water Resources Regulatory Authority as an appropriate authority under the MMISF Act. The functions and powers of the Maharashtra Water Resources Regulatory Authority, which is a body created under a statute, are clearly delineated.

(e) The Assam Act provides for recall of Chairman or President of Managing Committee and has prescribed rules for the same.

(f) The Uttar Pradesh Act empowers a WUA to enter on any land or into building or water course etc, to carry out its functions.

(g) Unlike other states, there is no separate law for PIM in Bihar. It is incorporated in the Bihar Irrigation Act 1997 and rules framed under this Act. The Bihar rules provide for a two tier structure only namely at the village and distributory level.

(h) There is a significant provision in Bihar law according to which government may dissolve PIM and take back management if it finds that a particular committee is inactive or is not functioning well.

(i) The Assam Act lays down a significant provision that all the amounts payable or due to farmers' organization shall be recovered as arrears of land revenue by Local Land Revenue Officer as per rules.

Notwithstanding the range of state laws empowering farmers' participation in management of irrigation systems, it has been observed that a striking aspect of India's PIM programme is the little attention that is given to water rights. It has meant that the governments' rights to water are unchallenged, while its obligations to deliver water to WUAs are rarely legally binding.[139] The point needs a little explanation here. Almost all of these laws do make clear that the Water Users Association has (a) Right to obtain information in time about water availability, opening/ closing of main canal, periods of supply and quantity of supply, closure of canals etc. (b) Right to receive water in bulk from the irrigation department for distribution among the water users on agreed terms of equity and social justice; and also (c) Right to receive water according to an approved time schedule. However, all of these laws also do not make clear that if the right to receive water in bulk from the irrigation department is not honoured what remedies might lay with the WUA. In other words, whilst there is a generally worded right there is no accountability of the department that has been established through these provisions.

An important aspect emerging from the field findings deserve some mention here. When in the course of the household survey respondents were asked as to what is the best way for saving water or better water management in other words, most felt that conservative use of water, penal provision for water wastage or use of drip irrigation may all work, while the least number of people felt that creation of water users associations will help. (See the Table below affirming the point being made here). This is remarkable as the underlying philosophy of PIM is that WUA's are the answer to better water management. In fact, the state level officers from all the eight states in their reply under state schedule had also indicated that the formation of WUAs would be a step to ensure efficient use of water.

[139]Mosse David. (2003) *The Rule of Water; Statecraft, Ecology, and Collective Action in South India* ; Oxford University Press The author adds: The result (of this position on rights) has been that the government may have lost little control over irrigation resources, and arguably, in establishing registered WUAs has retained its rights and also acquired a new mechanism to extend its influence in rural society.

Table 8.1: Households' report about saving of water through various methods.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Conservative use of water	28	25	1	35	28	21	20	44	202
Motivation through SHGs to avoid wastage	6	-	3	3	5	4	5	-	26
penal provision for wastage of water	2	14	-	5	3	8	6	5	43
Drip Irrigation should be adopted	-	-	50	-	7	8	7	2	74
There should be water users cooperative	8	-	-	-	-	-	2	2	12
No Idea	16	21	6	17	17	19	20	7	123
Total	60	60	60	60	60	60	60	60	480

A related field finding seems to throw more light on implementation of the law. When in the course of the field survey, households were asked about the existence of any WUA/Society/Cooperative in the village, except Andhra Pradesh and Chhattisgarh , in all other six study States, the response was that there were no existing WUAs. In Kerala while PIM is yet to be given a shape, in Maharashtra, Uttar Pradesh and Assam, the officials gave the plea that the process of formation of WUA under PIM at the level of GPs is in progress. There are many areas in PIM enacted states where PIM is yet to be made operational. In Bihar , a reverse process has also started since 24 out of the 52 distributory committees formed earlier, have been taken back by the state by April, 2012. These are telling comments on the reach of PIM in the study area in particular and does suggest that there is lot to be done to make PIM operational across the country. See table below in this regard.

Table 8.2: Households' report about existence of water users association / society / cooperative in the village

(No. of Rep. hhs)

Irrigation	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	60	-	-	60	-	120
No	60*	60	60*	-	60*	60	-	60 (a)	360
Total	60	60	60	60	60	60	60	60	480

* Under formation. (a) Water Sharing Samithi

As regards Andhra Pradesh and Chhattisgarh , where the respondents acknowledged the existence of WUAs, the associations were also perceived to be functioning by a majority of farmer respondents of both the states. But about one third of households perceived these associations to be either not functioning or they had no idea. The distribution of households by their responses about functioning of the association is given in table below.

Table 8.3: Households' report about functioning of water user association

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	52	-	-	33	-	85
No	-	-	-	8	-	-	10	-	18
No Idea	-	-	-	-	-	-	17	-	17
Total	-	-	-	60	-	-	60	-	120

The associations formed under PIM performed a number of functions of which the major one was maintenance of canals as stated by a large number of households in the surveyed villages. But to a few members of the association, the exact functions of their association was not known. This shows lack of awareness as well as lack of interest among members. The distribution of households reporting about functions of the associations is given in the table that follows.

Table 8.4: Households' report about functions of water users association (multiple response)

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Water distribution	-	-	-	3	-	-	18	-	21
Maintanance of canal	-	-	-	51	-	-	22	-	73
Coordenation amoung farmer and Dept.	-	-	-	1	-	-	14	-	15
No Idea	-	-	-	8	-	-	13	-	21
Total	-	-	-	60	-	-	60	-	120

A limited number of respondents have given suggestions to make the WUAs more effective and farmers friendly. These include need for proper coordination among members, regular meetings and providing incentives to office bearers of the association. This is brought out in the following table.

Table 8.5: Households' suggestions to make the associations effective and user friendly (multiple response)

(No. of Rep. hhs)

Suggestions	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
proper coordination among members	-	-	-	16	-	-	5	-	21
Meetings at regular intervals	-	-	-	11	-	-	15	-	26
Incentive to office bearer of WUA	-	-	-	16	-	-	8	-	24
Duration should be 2-3 year for WUA instead of 5 Years	-	-	-	1	-	-	4	-	5
Total Response	-	-	-	20	-	-	12	-	32

Another important finding from a rights based perspective on the way PIM is being made operational across the States is that even while the State laws require that the Distributory Committee and the Project Committee need to be constituted as farmer bodies above the WUAs, this has not been constituted in most of the States except Andhra Pradesh. This has meant that the powers that were required to have been vested with these bodies under the law have not been realized. This has led to substantial weakening of the laws on PIM. Another notable point on the laws creating WUAs is that even while these laws have come up one after another, there has been no systematic study on how farmer irrigation rights could have been perhaps better informed and defined under these new laws by learning from the experiences behind efforts at empowering farmers under the earlier policy and legal regimes in the first five decades of Independent India .

Before parting with this chapter, one needs to point out that there are at least two minimum conditions that need to be specifically put down as essential first steps in the laws as the way ahead from here: One is that with the existing water users associations, the irrigation departments across the States need to carry out time bound joint inspection of the irrigation canals followed by identification and execution of priority works for rehabilitation of the existing canal systems. This needs to be put down as an essential non-negotiable right of the water users associations because without these, talking about their water rights is putting the cart before the horse. All the rights are located in a system and for rights to be effective, the system needs to work. Secondly, to ensure that a fully functioning turned over system maintains the water flow in it, the minimum water entitlement of the water users association needs to be built in the laws so that a total volume of water is guaranteed to be supplied to a water users association at agreed points of supply. If this is put down as part of the law, water from the canal system shall be supplied to the water users' association at various levels, from tail to head on bulk basis measured volumetrically as per their water entitlements. In fact, the State of Maharashtra has already taken a lead in this regard in the recently enacted *Maharashtra Irrigation Systems Management by Farmers Act 2005* by building in such water entitlements in the Act.

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CHAPTER-9

LAWS ON WATER RESOURCES REGULATORY AUTHORITIES

The present chapter attempts to review legislations enacted for setting up of independent Water Resources Regulatory Authorities in the study states for management, allocation and utilisation of water resources. While a few states have already gone for establishment of Water Resources Regulatory Authorities, many states are yet to follow the suit. The first Water Resources Regulatory Authority was formed in the state of Maharashtra in 2005. In 2006, Arunachal Pradesh passed a similar law followed by the state of Uttar Pradesh in 2008 and Andhra Pradesh in 2009. A brief account of the laws enacted in this respect in the states of Maharashtra, Uttar Pradesh and Andhra Pradesh is provided as under with suggestions and recommendations on the way ahead.

9.1 The Maharashtra Water Resources Regulatory Authority Act, 2005

The Maharashtra Water Resources Regulatory Authority (MWRRA) Act 2005 came into force on 8 June 2005. Maharashtra became the first state to set up the Water Resources Regulatory Authority with objectives that include judicious, equitable and sustainable management, allocation and utilisation of water resources, in addition to fixing the rates for use of water for agriculture, industrial, drinking and other purposes and several related matters.[140]

The Authority consists of a Chairperson and two other Members. While the Chairperson shall be a person who is or who was of the rank of Chief Secretary or equivalent, the two other members are required to be experts from the field of water resources engineering and water resources economy respectively.[141] The Chairperson and the other Members of the Authority are appointed by the Governor of Maharashtra on the recommendation of a specially constituted Selection Committee under the Act.[142]

[140] See the Preamble and the Statement of Object and Reasons of the Act.
[141] Section 4 of the Act.
[142] The Selection Committee is constituted under Section 5 of the Act.

MWRRA to Evolve and Establish a Water Entitlement Regime

As per the MWRRA, the Authority shall determine distribution of water authorised by the River Basin Agency[143] to be used for different purposes such as for domestic, agricultural, irrigation, agro-based industries, industrial or commercial, environmental, etc[144]. It is required to lay down the criteria and monitor the issue of Entitlements. It shall also lay down the criteria for modification in entitlements for diversion, storage and use of surface and sub-surface waters of the State. Further, the Authority is also to fix the criteria for trading of water Entitlements on the annual or seasonal basis by water Entitlement holder.

MWRRA maintains that it has devised the procedure for *Prescribing, Enforcing, Regulating and Monitoring Entitlements* and the essential steps laying down this procedure is outlined below:

Step 1: Prerequisites

- A WUA should be constituted at the minor level.
- MWRRA, in consultation with the field officer, should identify a WUA at the minor level.
- Measuring devices at the head of the minor should be installed and calibrated.

Step 2:Determination of Entitlements

- MWRRA will work out sanctioned water use entitlements for a normal year and inform RBA. The entitlements for Rabi and the hot weather season along with Kharif season will be worked out separately for each category of use
- For Rabi Season: Once the sanctioned water use entitlements have been fixed by MWRRA, it is the responsibility of the RBA to determine the prescribed unit water use entitlements and the applicable water use entitlements based on the actual water available for a given project in any given irrigation year, starting on the 15th of October every year.
- The RBA informs the WUAs about the applicable water entitlements.

Step 3: Enforcing, Regulating and Monitoring the Entitlements

- The WUA invites applications for irrigation water requirement from its members.
- Based on indents received, and the applicable water entitlement, the WUA informs the irrigation department in a joint meeting about the number of rotations, probable dates and quantum per rotation etc
- The irrigation department is responsible for supplying water to the WUAs at the measuring device as per the rotation programme.
- WUA is responsible for the internal distribution of water to its members.
- Applicable water entitlements will be received by the concerned WUA from the above mentioned measuring devices.

[143] Any authorization by any River Basin Agency to use the water is termed as 'Entitlement'. The "River Basin Agency" means any one of the River Basin Development Corporations specified by the Government operating in the River Basin and includes the Government Authorities

[144] These are "Category of Use" of water for different purposes.

- The Gauge Officer shall take daily readings of the Technical Manual for Fixing, Regulating and Enforcing Entitlements in irrigation projects and record it in the gauge field book of water use.
- The Gauge Register will be given to the concerned WUA and will also be signed by them in token of confirmation of delivery of due supplies as proposed in the Technical Manual.
- The Authority shall also identify one officer in each project, at appropriate level, as a regulator, to test check on the delivery of entitlements in each rotation.
- The irrigation department is also responsible for informing the RBA and MWRRA about the rotation programme and withdrawals.

The Act makes clear that the authority shall also monitor the Bulk Water Entitlements.[145] Permanent transfer of Entitlements will also be made with the approval of the Authority and in compliance with the rules of the Authority declared for this purpose. Further, in the event of water scarcity, the Authority, in compliance with its policy and rules for allocating such scarcity, shall adjust the quantities of water to be made available to all Entitlements and shall permit the temporary transfer of Water Entitlements between users.[146]

The adoption of the above elaborate procedure on Entitlements stem from the mandate under MWRRA Act 2005 that requires the Authority to determine the distribution of Entitlements for various categories of use and the equitable distribution of Entitlements of water within each category of use on such terms and conditions as may be prescribed.[147] In January 2007, the Authority brought out a Technical Manual for fixing, regulating and enforcing the entitlements in irrigation projects on a pilot basis. In October 2007, the Authority brought out another handout on Procedure for Regulation and Enforcement of Entitlements. In June 2011, it published a significant order on Area Based crop wise water tariff for agricultural irrigation and volumetric bulk water tariff rates for industrial, domestic and agriculture irrigation for the period from Rabi 2010-11 to hot weather 2012-13. Despite these activities, the implementation is in initial stage at present and it would take some time before the outcome becomes visible. The MWRRA maintains that in consultation with the Water Resources Department of the State Government, the Authority has taken up, to begin with, 6 irrigation projects in the Krishna basin to introduce the concept of Entitlements for about 2 years. Based on the experience and results of the pilot projects, it is proposed to upscale

[145] "Bulk Water Entitlement" is the volumetric entitlement to a share of the surface water resources produced by a project, river system or storage facility, for specific use, and deliverable within a specific period of time.

[146] The Act also says that the Authority has to strive to make the water available to the drought prone areas of the State. The Authority shall ensure that, the funds made available to a drought prone district are spent preferably in the areas, where irrigation facilities are less than the other areas of that district.

[147] The three main Categories of Use are domestic water supply, industrial water supply and irrigation.

determination of Entitlements first in one basin and thereafter in the whole State in a period of about 6 years.

Other Functions of the MWRRA: Tariff Setting, Project Clearance, Water Use Efficiency and Prioritisation

The MWRRA is also mandated under the Act to establish a water tariff system, and fix the criteria for water charges at sub-basin, river basin and State level after ascertaining the views of the beneficiary public, and based on the principle that the water charges shall reflect the full recovery of the cost of the irrigation management, administration, operation and maintenance of water resources project.[148] The Act also requires that the Authority shall review and revise the water charges after every three years. Interestingly, in a much debated provision, the Act also requires that a person having more than two children shall be required to pay one and half times of the normal rates of water charges fixed to get entitlement of water for the purpose of agriculture.[149]

MWRRA is also mandated under the Act to decide the priority of equitable distribution of water available at the water resource project, river basin and sub-basin (its sub-unit) levels during periods of scarcity. It is also required to administer and manage proportional distribution of interstate water resources on river systems of the State.

The MWRRA also reviews and clears water resource projects to ensure their conformity with Integrated State Water Plan and also with regard to the economic, hydrologic and environmental viability and where relevant, on the State's obligations under Tribunals, Agreements, or Decrees involving interstate entitlements and Governor's directives issued relating to investment priority.

The Authority has to promote efficient use of water and to minimize the wastage of water and to fix reasonable use criteria for each user of water resources. Besides, the Authority shall, in accordance with the State Water Policy, co-ordinate with all relevant State agencies to implement a comprehensive hydro-meteorological data system for the State. It will also help in enhancing water quality in close co-ordination with State agency following the 'polluter-pay's' principle.

The Act makes clear that the MWRRA has to enforce the decisions and orders issued by it. The Authority, while performing its adjudicatory functions under this Act, has all the powers of a civil Court trying a suit in respect of a) summoning, b) requiring the discovery and production of any document c) receiving evidence on affidavits d) requisitioning any public record and e) issuing commissions for the examination of witnesses and documents.[150]

[148] Section 11 (d) of the Act.
[149] Section 12(11) of the Act.
[150] As per Section 13 of the Act.

State Water Board, State Water Council and Integrated State Water Plan

The Act also mandates that the State Government shall by notification in the *Official Gazette*, constitute a 'high powered' Board to be known as the State Water Board. Headed by the Chief Secretary of the State and comprising secretaries of all the relevant Departments, the Board is mandated to prepare a draft Integrated State Water Plan on the basis of basin and sub-basin wise water plans prepared and submitted by the River Basin Agencies. In addition to the Board, the Act also requires the Constitution of the State Water Council with Chief Minister as its President and comprising State level Ministers of all the relevant Departments. The Act further says that "The Council shall approve, with such modifications as deemed necessary, the draft of the Integrated State Water Plan submitted by the Board within a period of six months from the date of submission of draft Integrated State Water Plan keeping in view the directives given by the Governor for removal of regional imbalance. The water plan so approved by the Committee shall become "Integrated State Water Plan", adding further that "The Integrated State Water Plan may be reviewed after every five years from the date of its approval by the Council."[151]

The above review of the legal provisions shows that a serious attempt has been made in Maharashtra to deal with some of the well known shortcoming of the water sector in India through the mechanism of a Water Regulatory regime in the State. The mandates, institutions and other provisions in the MWRRA have inspired other States to follow the regime. In 2008 the state of Uttar Pradesh passed a law for establishment of the independent regulatory authority. Thereafter, state of Andhra Pradesh came up with a similar law in August 2009. These laws are discussed next. During its interaction with state level officers, the Study Team found that other states were also in the process of passing similar legislation as this has been recommended by the XIIIth Finance Commission.

9.2 The Uttar Pradesh Water Management and Regulatory Commission Act, 2008

The above mentioned Act was passed to establish a regulatory commission for regulating water resources within the State. The commission is to facilitate and ensure judicious, equitable and sustainable management, allocation and optimal utilization of water resources for environmentally, economically sustainable development of the State, fix the rates for water use for agriculture, industrial, drinking, power and other purposes and cess on lands benefited by flood protection and drainage works from the owners of lands benefited through appropriate regulatory instruments according to State Water Policy.

The Statement of the Object and Reasons accompanying the Act throws light on what the State Assembly found as the rationale behind the legislation. It is worth extracting here in some detail. It says that *"It is the duty of the State Government to monitor that the*

[151] For details See Section 16 of the Act.

underground aquifers are sustained and the river water is exploited keeping in the view the ecological balance of the river systems. It is also the responsibility of the State to maintain both quantity and quality of the water with suitable measures. It is incumbent on the State to put the limited and scarce water resources in most economical, efficient and sustainable use to promote its optimal use and this Act was made to achieve this purpose... The State is also responsible to establish a water tariff system and fix criteria for water charges with a view to ensuring proper administration, operation and maintenance of water carrier systems for the use and consumption of water. In order to ensure proper utilization of natural water resources of the State, it has been decided to make a law to provide for the establishment of the Uttar Pradesh Water Management and Regulatory Commission to regulate the water resources within the State."

Accordingly, the Uttar Pradesh Water Management and Regulatory Commission Act, 2008 establishes a Commission to be known as the Uttar Pradesh Water Management and Regulatory Commission "to exercise the powers conferred on, and to perform the functions assigned to it under this Act." The Commission shall consist of a Chairperson and other Members (not exceeding four) as may be notified by the State Government.[152]

Powers and Functions of the Uttar Pradesh Water Management and Regulatory Commission

In terms of its objectives, powers and functions, the Uttar Pradesh Water Management and Regulatory Commission Act, 2008 resembles to a great extent the language and the content of the MWRRA Act 2005 of Maharashtra that has already been discussed above in detail. However, for ready reference, the powers and functions vested in the Uttar Pradesh Water Management and Regulatory Commission specifically by the Uttar Pradesh Act may be noted here that are as follows:

a) to approve the Integrated State Water Plan/Basin Plans developed by State Water Resources Agency to ensure sustainable management of water resources within the parameters laid down by State Water Policy as amended from time to time;
b) to determine the allocation and distribution of entitlements for various categories of use of water at utility, project level and also between various water user entity within the parameters laid clown by the State Water policy on such terms and conditions as may be prescribed for such a distribution;
c) to lay down the criteria for modifications in the entitlements for the diversion, storage and use of surface and ground water of the State;
d) to review and accord clearance to new water resources projects proposed at the river basin/sub-basin level by the concerned entity ensuring that the proposal is in conformity with Integrated State Water Plan specially with respect to the water

[152] Section 3 of the Uttar Pradesh Water Management and Regulatory Commission Act, 2008.

allocation of each entity, that is economically, hydro-geologically and environmentally viable;

e) to establish a system of enforcement, monitoring and measurement of the entitlements for the use of water to ensure that the actual use of water, both in quantity and type of use are in compliance with the entitlements as issued by the Commission;

f) to monitor conservation of environment and facilitate the development of a framework for the preservation and protection of the quality of surface and ground water resources as per established norms and standards;

g) to withdraw the entitlement or take any action as deemed necessary in case any water user entity pollutes or causes to pollute any surface or ground water source of water and thereby infringes the maintenance of established norms and standards for water quality;

h) to impose penalty on any organization or agency, whether Government or private; any individual or a group of individuals who changes, alters or cause to change or alter the status of any surface or ground water resources without the specific sanction or approval of the Commission;

i) to periodically review the entitlement as and when considered necessary;

j) to register and monitor bulk water entitlement by the Commission or its duly authorized representatives;

k) to promote competition, efficiency and economy in the activities of the water and waste water sector to minimize wastage of water;

l) to promote better water management techniques;

m) to enforce rain water harvesting to augment ground water recharge;

n) to fix and regulate a water tariff system and charges for the use of water after due consideration to all costs including administration, operation, maintenance, depreciation and subsidies;

o) to review and revise the tariff/water charges periodically;

p) to determine and fix the rate of cess to be charged from owner of lands benefited by flood protection and drainage works implemented under new projects;

q) to enforce the decisions or orders issued under this Act by a suitable agency authorized by the Commission or empower to any existing agency for this purpose;

r) to aid and advise the State Government on any matter referred to the Commission by the State Government.[153]

In addition to the above, much like the MWRRA, the Uttar Pradesh Water Management and Regulatory Commission while performing its adjudicatory functions under this Act, have all the powers of a civil Court trying a suit.[154] Every person to whom a notice may be issued

[153] Section 12 of the Uttar Pradesh Water Management and Regulatory Commission Act, 2008.

[154] This power extends to a) summoning, b) requiring the discovery and production of any document c) receiving evidence on affidavits d) requisitioning any public record and e) issuing commissions for the examination of witnesses and documents.

under this Act by the Commission shall furnish such information, details, books of accounts and other documents, as may be specified in such notice.

The Uttar Pradesh Water Management and Regulatory Commission has also been vested with other substantive legal powers under the Act. The Commission can withdraw the entitlement or take any action as deemed necessary in case any water user entity pollutes or causes to pollute any surface or ground water source of water and thereby infringes the maintenance of established norms and standards for water quality. The Commission can impose penalty on any organization or agency, whether Government or private; who changes, alters any surface or ground water resources without the specific sanction of the Commission.

The Commission may determine such standards of overall performance in respect of water supply services and promotion of the efficient use of water by consumers, as in its opinion, are economical and ought to be achieved by such licensees, and different standards may be determined for different licensees. Every licensee shall furnish to the Commission the level of performance achieved by the licensee for each standard determined by the Commission. It can also recommend action against violations of the quality standards it fixed for efficient management and usage of water resources. It can enforce the decisions or orders issued under this Act by a suitable agency authorized by the Commission or empower any existing agency for this purpose

It is significant to note that much like the MWRRA, the Uttar Pradesh Water Management and Regulatory Commission is also required by the Act to establish a system of enforcement, monitoring and measurement of the entitlements for the use of water to ensure that the actual use of water, both in quantity and type of use are in compliance with the entitlements as issued by the Commission. This would mean that the Commission needs to evolve and establish a comprehensive Water Entitlements regime.

9.3 Andhra Pradesh Water Resources Regulatory Commission, 2009

Introduction: Objectives & Composition of the Regulatory Commission

The Act is made to establish Andhra Pradesh Water Resources Regulatory Commission for regulating water resources within the State. The Commission is to facilitate effective utilization of water resources within the State to ensure its sustainable and scientific management for drinking, agriculture, industrial and other purposes.[155]

[155] Preamble to the Act. At the time of its enactment, the opposition feared that the move would pave the way for introducing water meters for agricultural purposes and demanded that the Bill be referred to a select committee. Though the demand was rejected, the government assured that it will not lead to installation of water meters or increase in water cess and the objective of the Act was to promote efficient use of water resources.

Much like the MWRRA, the Andhra Pradesh Water Resources Regulatory Commission consists of a Chairperson and two other Members. While the Chairperson shall be a person who is or who was of the rank of Chief Secretary or equivalent, the two other members are required to be experts from the field of water resources engineering and water resources economy respectively.[156] The Chairperson and the other Members of the Authority are appointed by the Governor of Andhra Pradesh on the recommendation of a specially constituted Selection Committee under the Act.[157]

Functions and Powers of the AP Regulatory Commission

Some of the significant functions vested in the Andhra Pradesh Water Resources Regulatory Commission may be noted here. The Commission shall determine the water requirement for users[158] on a yearly or seasonal basis. It will also determine the requirement of irrigation water for various levels of Farmers Organizations[159] based on the cropping pattern approved by the project authorities on a yearly or seasonal basis. It will also decide the adequate operation and maintenance cost of irrigation and multi-purpose water projects.

The Commission also has to promote efficient management of irrigation water. It will provide guidelines and procedures for reinvesting of operation and maintenance amount to the farmers organizations for the operation and maintenance of irrigation systems as well as standards of services. It will also monitor the technical standards of operation and maintenance, cyclical repairs and minimum rehabilitation for irrigation projects. It will ensure implementation of 'tail-to head' principle in irrigation projects.

To promote efficient usage and minimise wastage of water, the Commission will fix and monitor the implementation of quality standards for 1) management of water resources by various water users and departments 2) for the services provided by the various water resources service providers 3) for disposal of waste water by various water users and 4) protection of all water resources in the State[160]. It will also help in enhancing water quality in close co-ordination with State agency following the 'polluter-pays' principle.

The Commission will have to devise a suitable mechanism for financial incentives/disincentives to the farmer's organizations and other water users for ensuring delivery of services to their members as per the determination.

The Commission has to ensure publication of an annual report on irrigation status containing all statistical data relating to irrigation including details of the project wise irrigation potential and its actual utilization, water use efficiency and productivity relating to the projects. The

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[156] Section 4 of the Act.
[157] The Selection Committee is constituted under Section 5 of the Act.

[158] The users are categorized such as for irrigation, municipal/rural drinking water, for industry etc.
[159] Farmer Organizations are namely "Water Users Association, "Distributory Committee", and "Project Committee" and means the Committees constituted under the Andhra Pradesh Farmers Management of Irrigation Systems, Act, 1997.
[160] This includes prevention of pollution.

report should benchmark irrigation/multipurpose water projects to identify projects with best management practices for emulation by other projects. It should have information of water audit of irrigation/multipurpose water projects giving a systematic and scientific water account of the projects.

The Andhra Pradesh Water Resources Regulatory Commission has also been vested with substantive powers to enable implementation of the Act. The Commission can oblige the State to ensure provisions for full operations and maintenance requirements of irrigation and multipurpose water projects as determined by the Commission, through an appropriate budgetary support. It can also recommend action against violations of the quality standards it fixed for efficient management and usage of water resources. The Commission shall in case of non-compliance of the specific directions in discharge of the powers, recommend to the Government suitable disciplinary action against such Government officials.

9.4 Pointers for Regulatory Reforms - and for Other States

The legal regime paving the way for water regulatory authority in both Uttar Pradesh and Andhra Pradesh is similar to that in Maharashtra. The objectives and institutional framework too are similar. The water regulatory authorities in all the three states have been endowed wide ranging powers and functions. While Maharashtra has made some progress in implementation, the other two states are in the initial stage. The experience under these laws would be important for other States since many of them are planning to enact a legislation similar to the existing Acts. MWRRA being the first State water regulator coming out of specific water regulatory law, would serve as model for other States. This is also because MWRRA (in Maharashtra) at this point of time seems to be most actively pursuing its mandate.

As the discussion earlier showed, there are attempts being made by MWRRA to push for an elaborate entitlements regime in pilot projects. However, a larger legal point on entitlements deserves to be stated here. According to the Maharashtra Water Resources Regulatory Authority, the term Entitlement means an Authorization either by MWRRA or a RBA to use water. The claim that new legislation like the Maharashtra Water Resources Regulatory Authority Act, 2005 is creating a water entitlement, merits scrutiny. True, the Act creates a high powered State Water Resource Regulatory Authority which is to oversee the issuance and distribution of water entitlements by designated river basin agencies and, among other things, is also responsible *to fix the criteria for trading of water entitlements or quotas on the annual or seasonal basis by a water entitlement holder*. But having thus explicitly equated entitlements with quotas, the Act makes sure that neither the Authority nor the River basin Agencies can ever be questioned on the extent of distribution of these entitlements.

Another significant aspect of the Water Regulatory laws is that none of the Water Regulatory Authority/Commission under it, are bound to follow public consultation process in the procedures and processes conducted by it. In another sector, for example, the Electricity sector, the Regulatory Commissions are required to ensure public participation in the tariff process. The Maharashtra Water Resources Regulatory Authority Act, 2005 contains a somewhat weaker provision requiring '*ascertaining of views of beneficiary public*' before determining tariff (Section 11-D). However no such or similar provision is included in the law in Uttar Pradesh or Andhra Pradesh. Further, Water Regulatory Authorities/Commissions are not statutorily mandated to follow principles of transparency while discharging their powers and functions which again is in stark contrast with Regulatory Commissions under the Electricity sector. One major impact of non-inclusion of such provisions is that accountability of the regulatory bodies gets diluted which in-turn hampers the confidence of stakeholders in the functioning of the authority.

The institution of regulatory authority has the potential to usher in a new era in management of water resources in India. The experience, therefore, needs to be taken care of at the initial stage and appropriate changes are made in the institutional structure.

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CHAPTER-10

LAWS RELATING TO DRINKING WATER

This chapter seeks to lay down the legal regime for drinking water and its management in India. This is done first by reviewing some key cases from the Supreme Court and some of the High Courts especially from the Study States which have helped in granting the right to safe drinking water in India. This is followed by how the Panchayat Raj Institutions and the Municipalities have been sought to be empowered for performing the functions relating to drinking water and its management in both urban and rural areas of the country. Some critical aspects of the legal regime as it operates today, have also been highlighted in the discussion that follows.

10.1 Safe Drinking Water as Fundamental Right: A Review of Key Cases

Article 21 of the Constitution of India reads as under:

> "No person shall be deprived of his life or personal liberty except according to procedure established by law."

The right to 'pollution free water' and the right of access to 'safe drinking water' have been regarded as part of 'Right to Life' under the said Article 21 of the Constitution of India. This has been possible by a liberal and activist interpretation of the fundamental right to life by the Supreme Court and the High Courts of the country in a series of cases before these apex bodies. The paragraphs below briefly explore the judicial creation of a fundamental right to water in India .

After initially talking about right to water in the context of pollution cases, Courts have delivered a growing body of verdicts on the more fundamental concerns of access to drinking water and on the right to safe drinking water as a fundamental right[161]. One noticeable trend

[161] These cases include Wasim Ahmed Khan v. Govt. of AP, 2002 (5) ALT 526 (D.B.); Mukesh Sharma v. Allahabad Nagar Nigam & Ors., 2000 ALL. L.J. 3077; Diwan Singh and another, v. The S.D.M. and other 2000 ALL. L.J. 273; S.K. Garg v. State of U.P. 1999 ALL. L.J. 332; Gautam Uzir & Anr. V. Gauhati Municipal Corpn. 1999 (3) GLT 110

is that this has happened mostly in cases where inadequate water supply to different cities were legally questioned and challenged. The context and right evolved in these cases are discussed below.

In a case relating to the scarcity and impurity of potable water in the city of Guwahati, it was contended that the municipal corporation is responsible to supply sufficient drinking water[162]. The municipal corporation in its counter affidavit said that while it is well aware about its duties with regard to supply of drinking water to the citizen, due to its financial constraints, it could not augment its existing plant[163]. The Court made clear that *"Water, and clean water, is so essential for life. Needless to observe that it attracts the provisions of Article 21 of the Constitution "*[164]. Likewise, in a petition filed by an advocate for suitable directions to ensure regular supply of water to the citizen of Allahabad, the High Court reiterated the fundamental right to drinking water[165]. The Court cited with approval the Supreme Court's decision holding that the need for a decent and civilized life includes the right to food, water and a decent environment[166]. In another case around the same time from Allahabad High Court, the Court observed as follows:

"Article 21 of the Constitution of India has been interpreted by the Courts to include the right to water, food and electricity as they are essential for a life of dignity. In our opinion, therefore, it is duty of the authorities to ensure regular water and electric supply to the citizens, otherwise, their lives become miserable and there may be civil disorders. We are seeing on the T.V. that citizens in large parts of Delhi, M.P., U.P., and other places are facing the problem of shortage of water and electricity and their lives have become hellish. In Allahabad, water is being sold from pots carried on *eccas*, and there have been chakka jams. As per T.V. news, a power contractor has been killed by a mob in Delhi. As per another newspaper report, in Nanpara township of district Bahraich, an angry mob of people, incensed over the lack of electricity, took out a procession, burnt a roadways bus, destroyed 3 transformers, stoned the police station and residences of the power department officials, closed the shops, and they were lathi charged by the police causing several injuries. In another incident, rail traffic on the Kanpur-Delhi Section of Northern Railway was affected after an angry mob, protesting erratic power supply and drinking water shortage blocked movement of trains and damaged the railway tracks. In Sambalpur in Orissa, students protesting against power shortage were fired upon by the police causing several injuries, some of them reportedly critical. Many such incidents all over the country are being reported

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[162] Gautam Uzir & Anr. V. Gauhati Municipal Corp. 1999 (3) GLT 110

[163] Para 6 of the affidavit – in – opposition filed by Gauhati Municipal Corporation and quoted in 1999 (3) GLT 110

[164] At Page No. 112. Para No. 10.

[165] S.K. Garg v. State of U.P. 1999 ALL. L.J. 332

[166] The Supreme Court held in Chameli Singh v. State of U.P. (1996) 2SCC 549: AIR 1996 SC 1051, "That right to live guaranteed in any civilised society implies the right to food, water, decent environment, education, medical care and shelter. These are basic human rights known to any civilised society. All civil, political, social and cultural rights enshrined in the Universal Declaration on Human Rights and convention or under the Constitution of India cannot be exercised without these basic human rights".

by the media every day. On T.V. screens, scenes of parched and cracked agricultural fields in many parts of the country appear daily, and there is danger of famine due to failure of the monsoons. This problem should be tackled on the highest level, otherwise the consequences may be very serious."[167]

In another case, the Supreme Court had observed, "Drinking is the most beneficial use of water and this need is so paramount that it cannot be made subservient to any other use of water, like irrigation so that right to use of water for domestic purpose would prevail over other needs"[168]. In view of these decisions, the Allahabad High Court directed that a high powered committee be setup to look into the problem of access to water and decide on the ways and means to solve it on a war footing[169]. The Andhra Pradesh High Court reiterated this position saying that right to safe drinking water is a fundamental right and "cannot be denied to citizens even on the ground of paucity of funds".[170] In this line of cases in 2006, a public interest litigation was decided by the Kerala High Court ventilating the grievances of the people of West Kochi who have been clamouring for supply of potable drinking water to them, for the last more than three decades. Noting that the petitioners "have approached this Court as a last resort" the Court held that:

"We have no hesitation to hold that failure of the State to provide safe drinking water to the citizens in adequate quantities would amount to violation of the fundamental right to life enshrined in Article 21 of the Constitution of India and would be a violation of human rights. Therefore, every Government, which has its priorities right, should give foremost importance to providing safe drinking water even at the cost of other development programmes. Nothing shall stand in its way whether it is lack of funds or other infrastructure. Ways and means have to be found out at all costs with utmost expediency instead of restricting action in that regard to mere lip service."[171]

Around the same time, Rajasthan High Court also said as below:

"There can be no subject more vital for mankind than water. It is key to survival of life on earth. A well-managed society is one that knows how to treat its water with care, with prudence and with respect, above all, with a sense of its being a universal asset. But this

[167] **Shahendra Misra and Ors. V. State of U.P. and Ors;** 2002(2)ACR1875 at para 7

[168] Delhi Water Supply and Sewage Disposal Undertaking v. State of Haryana, (1996) 2 SCC 572: AIR 1996 SC 2992.

[169] Further the Court said that since the mater involved technical expertise, the committee shall consult experts also in this regards. If any complaints are made by the citizens of any locality that they are not getting water, the committee would look into it and do the needful. See Para 9 in S.K. Garg v. State of U.P. 1999 ALL. L.J. 332

[170] Wasim Ahmed Khan v. Govt. of AP, 2002 (5) ALT 526

[171] Vishala Kochi Kudivella Samrakshana Samithi V. State of Kerala, 2006(1)KLT919, at Para 3

universal asset, once considered as a bounty of the nature, is being fast depleted. Leading experts on water resources have been warning that the world is heading towards 'a water shock'. Scarcity in recent years has turned water from an abundant resource into an expensive commodity. Water is now being referred to as 'BLUE GOLD'. Rivers, forests, minerals and such other resources constitute a nation's natural wealth. These resources being a gift of nature, should be made freely available to everyone. The rural women in Rajasthan "still require to trudge several miles to fetch water of progressively diminishing purity and in smaller quantities to meet the family's need. Their Lordships of the Supreme Court in State of Karnataka v. State of Andhra Pradesh (2000) 9 SCC 572), indicated in Para 178 that under the Constitutional scheme in our country, right to water is a right to life and thus a fundamental right."[172]

In another case while the Andhra Pradesh High Court held "that the right to water, which is substantial ingredient to make 'life', is itself a penumbral right to life" and thus should be seen as part of Article 21 of the constitution. It also went on to clarify that "in an action like the one before us, unless the petitioners plead and prove that deprivation of right to water, for the purpose of irrigation is unreasonable, no action would lie."[173]

Before parting with this section, it is also important to take note of the following observation of the Supreme Court made in the context of an inter State dispute before it:

> "Water under all prevalent systems of law, has been declared to be the property of the public and dedicated to their use, subject to appropriation and limitations as may be prescribed either under law or by settlement or by adjudication. The disputes relating to water management, its development and its distribution are to be considered not from rigid technical or legal angle but from the preeminently important humanitarian point of view as water wealth admittedly forms a focal point and basis for the biological essence and assistance of socio-economic progress and well being of human folk of all the countries. In resolution of the disputes relating to development, management and distribution of the water, reliance has to be placed upon the long usage, customs, prevalent practices, rules, regulation, acts and judicial decisions. There is no dispute that under the Constitutional scheme in our country, right to water is a right to life and thus a fundamental right. In India, the importance of water is recognised under the Constitution as is evident from Article 262, 7th Schedule List II Entry 17, List I, Entry 56, and Statutes like Inter-State Water Disputes Act, 1956 and Rivers Boards Act, 1956."[174]

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[172] **D.M. Singhvi V. Union of India (UOI) and Ors;** AIR2005Raj280

[173] **Pennar Delta Ayacutdars Association and others V. Government of Andhra Pradesh and others;** AIR2000AP317 at Para 86.

[174] **State of Karnataka V. State of Andhra Pradesh & Ors;** AIR2001SC1560 **at para 186**

10.2 Fundamental Right to Drinking Water Needs Explicit Incorporation in the Constitution

There is another good reason as to why explicitly recognized and well defined right to water needs to find a direct entry into the Constitution of India. Judicial response to specific cases on violation of right to water can be ad-hoc. Even in the cases discussed above, a closer look at the verdicts can reveal fault-lines. Take for example the 2002 case in the high Court of Andhra Pradesh. The High Court there, said that right to safe drinking water is a fundamental right and "cannot be denied to citizens even on the ground of paucity of funds'. Then it contradicted itself. The judgment also says that though the state is under an obligation to provide at least drinking water to all its citizens, "the limited availability of water resources as well as financial resources cannot be ignored'. The Court could have categorically declared that the state's failure to provide safe drinking water was unconstitutional but the judge felt that to issue such a direction will be only 'utopian'. The varying judicial responses that may emerge in actual cases also suggest that it will be useful if right to water is explicitly incorporated in the Constitution of India.

Discussion with state level officials with reference to this type of issue as mentioned in question no. 15 of the state schedule indicated that all the eight states were aware of the need for right to water. But none of the states had any explicit legal provision in this respect. All of them, however, responded in affirmative about the need for law on this subject. Since this is an universal issue common to all states, a Constitutional provision would be quite appropriate. The replies to the state schedule indicate that as and when such a proposal is mooted, all the states are expected to support it.

10.3 Empirical Findings

The existence of right to drinking water as a fundamental right is one thing, the realisation of the right by providing access to drinking water to all is quite different. The household data for rural and urban areas presented below in tables 10.1 and 10.2 respectively indicate that all households are not assured of accessibility. The problem is more acute in urban areas where about one-third of households have reported problem regarding accessibility as against 18 percent in rural areas. Table 10.3 also shows that municipalities in urban areas were perceived to be making no arrangement for water by about two-third of urban households. The finding in particular from Bihar shows that access to drinking water is a problem in two thirds households amongst the households surveyed under the present study. The findings also show that most of the households deprived of access to water belong to SC, ST and OBC groups in Bihar and ST in Chhattisgarh and Andhra Pradesh. This can be seen in tables given below.

Table 10.1: Perception of Households about accessibility of adequate drinking water to all in the village.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	60	20	60	48	57	55	40	56	396
No	-	40	-	12	3	5	20	4	84
Total	60	60	60	60	60	60	60	60	480

Table 10.2: Perception of Households about accessibility of drinking water to all in the town

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	26	-	30	25	18	16	15	27	157
No	4	30	-	5	12	14	15	3	83
Total	30	30	30	30	30	30	30	30	240

Table 10.3: Arrangements perceived to be made by the municipalities to overcome the shortage of Water

(No. of Rep. hhs)

Arrangements	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Supplies Thought Tanker	3	-	8	18	11	14	14	13	81
No arrangement/ No Idea	27	30	22	12	19	16	16	17	159
Total	30	30	30	30	30	30	30	30	240

Table 10.4: Perception of Households as to who in the village suffer due to inaccessibility to drinking water.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
SC	-	20	-	1	-	3	-	-	24
ST	-	16	-	9	-	-	8	-	33
OBC	-	4	-	-	-	2	3	1	10
Minority	-	-	-	-	-	-	-	-	-
All Sections in summer	-	-	-	2	3	-	9	-	14
Tail end user	-	-	-	-	-	-	-	3	3
Total	-	40	-	12	3	5	20	4	84

Table 10.5: Perception of Households as to who in the town suffer due to inaccessibility to drinking water.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
ST/SC	-	18	-	2	-	7	1	-	28
OBC	-	6	-	-	3	1	4	-	14
Minority	-	-	-	-	-	-	-	-	-
Tail end user	1	-	-	-	4	-	7	2	14
No Idea	3	6	-	3	5	6	3	1	27
Total	4	30	-	5	12	14	15	3	83

A related finding of the household survey is that amongst all the households surveyed from across the eight states under the present study, only about one-fifth seem to be even aware that they have a right to potable drinking water. This gets further accentuated by the fact that in Bihar none of the respondents were aware of the right. Similar was the status of the

households in Andhra Pradesh. The position in many other states like Chhattisgarh, Punjab and Kerala is no way better than that of Bihar and Andhra Pradesh in this respect. See tables 10.6 and 10.7 below showing the picture on this aspect from all the states under study.

Table 10.6: Awareness of Households about right to potable drinking water

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	21	-	41	9	6	10	-	5	92
No	39	60	19	51	54	50	60	55	388
Total	60	60	60	60	60	60	60	60	480

Table 10.7: Awareness of Households about right to potable drinking water

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	-	-	-	-	-	-
No	30	30	30	30	30	30	30	30	240
Total	30	30	30	30	30	30	30	30	240

It is interesting to note that responses of state level officials to the questions posed in the State Schedule regarding the status of availability of drinking water are in conformity with the above mentioned responses from households. No state has reported the position of water supply in both rural and urban areas as very good. While some states have regarded the position as mere satisfactory, others indicated that they had no information in this respect.

Table 10.8: Position of water supply as reported by state officers

Response	Rural areas	Urban areas	Tribal areas
Very good	-	-	-
Satisfactory	Assam, Bihar , Maharashtra, Kerala	Bihar , Andhra Pradesh, Maharashtra, Kerala	Assam, Maharashtra, Kerala, Uttar Pradesh
Unsatisfactory	-	-	-
No information	Punjab, Chhattisgarh , Uttar Pradesh, Andhra Pradesh	Assam, Punjab, Chhattisgarh , Uttar Pradesh	Punjab, Bihar , Chhattisgarh , Andhra Pradesh

Right to water has to be with respect to the minimum quantum of water required for a healthy living. During discussion, it turned out that none of the state governments had any law specifying the necessary minimum quantity of water to a family in rural, urban and tribal areas. The frequently used norms were the CPHEEO norms available in the Manual of Water Supply and Treatment (1999) of Central Public Health and Environmental Engineering Organisation (CPHEEO), Ministry of Urban Development, Government of India or norms indicated by Government of India or Planning Commission. But these norms were not legal. On the whole, the information base on drinking water was not found satisfactory.

Norms for determining per capita requirement of water supply

Rural

40 LPCD - **Assam, Bihar**

Maharashtra Population below

20000	70LPCD
20000-60000	100LPCD
60000-100000	125 LPCD
Above 100000	150 LPCD

CPHEEO/DDWS norm, **Chhattisgarh, Punjab**

70 LPCD, **Kerala**

Urban

70 LPCD - **Assam**

135 LPCD - **Bihar**

CPHEEO norm - **Kerala, Andhra Pradesh, Chhattisgarh**

Based on population as above - **Maharashtra**

Tribal

40 LPCD, Assam

Based on population as above - **Maharashtra**

10.4 Drinking Water - A Subject with Panchayats and Municipalities

It has been pointed out above in the chapter on Constitution and Water that the 73th amendment to the Constitution of India empowers states to endow Panchayats with such powers and functions to enable them to function as institution of self-government and goes on to list 'Drinking Water', 'Water Management', Minor Irrigation' and Watershed Development' as subjects under the jurisdiction of Panchayats.[175] In a similar vein, the 74th amendment to the Constitution of India obliges the state governments to constitute the urban local bodies ("ULBs").[176] The 74th amendment also requires that "the legislature of a state may, by law, endow the municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-government".[177] The "matters that may be entrusted" to the municipalities include "water supply for domestic, industrial and commercial purposes", amongst others.[178]

The Bihar Panchayat Raj Act, 2006 lays down that the Gram Panchayat shall perform the functions relating to *'Drinking Water'* including: (1) Construction, repair and maintenance of drinking water wells, tanks, ponds and hand pumps; (2) Prevention and control of water pollution; (3) Maintenance of rural water supply schemes. The Gram Panchayats are further required to carry out maintenance and preservation of community assets belonging to the Gram Panchayat.[179]Further, the powers of Panchayat Samiti relating to Drinking Water includes - (i) Establishment, repair and maintenance of rural water supply schemes;(ii) Prevention and control of water pollution; (iii) Implementation of rural sanitation schemes.

After the incorporation of the 73rd Amendment, vesting of similar powers and functions at the level of all the tiers of the Panchayats has been done in other States. Thus, for example, listing of similar functions is done in the *Assam Panchayat Act, 1994,Kerela Panchyati Raj Act, 1994*,Punjab Panchayat Raj Act, 1994,*Andhra Pradesh Panchayat Raj Act, 1994,* amongst others (See Chapter 11 on Water, Panchayats and the Law for more details). However, it is not out of place to mention here that it is under a Government notification

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[175] The list can be seen under the Eleventh Schedule to the Constitution of India .

[176] The 73rd and the 74th constitutional amendments which provide for local elected bodies to "function as institutions of self-government" in rural and urban areas respectively are thus important landmarks in the history of Constitutional law in India.

[177] See Article 243W of the Constitution of India. relating to powers, authority and responsibilities of Municipalities. It adds that such a law may contain provisions for the devolution of powers and responsibilities upon Municipalities with respect to : (i) the preparation of plans for economic development and social justice; (ii) the performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule.

[178] See the Twelfth Schedule of the Constitution of India. Other related matters that may be entrusted to the Municipalities include Urban planning including town planning, Planning for economic and social development; Public health, sanitation conservancy and solid waste management; Safeguarding the interests of weaker Sections of society, including the handicapped and mentally retarded; Slum improvement and up-gradation and Urban poverty alleviation.

[179] Section 22 of the Act

passed under the Assam Panchayat Raj Act, 1994 that a detailed "activity Mapping" and devolution of functions at the various levels of Panchayats on subject of Drinking Water has been carried out. See box below for the detailed activity mapping under the Assam Panchayat Raj Act, 1994:

Detailed Activity Mapping on Drinking Water under the Assam Panchayat Raj Act, 1994 at all the levels of the Panchayats

A Government Notification of 25th June 2007 come up with a detailed "activity mapping" and devolution of functions at the various level of Panchayats on the subject of Drinking Water as below:

At the Level of the Gram Panchayat:

1. Identify water scarcity/problem areas as per G.O.I's norms and Guide Lines.
2. Identify and assess the existing water supply schemes like Tara pumps, Singur hand pumps, M III/M-II deep tube well pumps, ring well, and spring sources etc.
3. Identify the status of single village ongoing PWSS of Assam for their O&M, utilization and extension if sufficient fund is available.
4. Initiate time bound steps for implementation of village water supply schemes after setting all the habitations till date.
5. Formation of agencies to generate revenues for maintaining water supply schemes taken over by the GPs and levy water charges rationally.
6. Avail all opportunities regarding operational, technical and maintenance issues from PHED.
7. Generate awareness on quality of water during and after flood, and make useful contribution on testing of basic water quality parameters with the guideline of PHED with Field Testing Kit.
8. Formulation of W/S projects for providing drinking water facilities to needy areas.
9. Implement Sajal Dhara Projects through Village Water & Sanitation Committee Plus the following activities-

- Take up W/S schemes upto the limit of Rs. 15.00 lakh except in the fluoride, arsenic affected areas with the approval of the Zilla Parishad against NC & PC habitation as per G.O.I's norms and Guide Lines.
- Carry out All IEC activities on safe drinking water and good water use practices etc. including prevention and control of water pollution.
- Establish a monitoring cell to monitor and evaluate the activities taken up by the GPs and taken over by the GPs from PHED.
- Maintain asset requirement.
- Conduct habitation wise survey and assess requirement of materials.
- Set apart sufficient fund for O&M.

At the Level of the Anchalik Panchayat

Coordinate and provide financial support to GPs for taking up activities as detailed

At the Level of the Zilla Panchayat

1. Takeup drinking water supply projects costing below Rs. 15.00 lakh against NC & PC habitation as per G.O.I's norms and Guide Lines.
2. Coordinate all drinking water supply schemes at district level (functioning, monitoring, and management).
3. Fix Water charges in consultation with Gaon Panchayat.

The above exercise of activity mapping gives an operative edge to the legal framework. Such an exercise needs to be carried out by all the States. Moreover, instead of doing this only through a government circular/ notification, the said activity mapping needs to be made in pursuance of the specific provisions, vesting different functions to the Panchayats under various State laws discussed above.

It is also relevant to note here that the Rajiv Gandhi National Drinking Water Mission of the Government of India also suggests that every Gram Panchayat should have a Village Water and Sanitation Committee (VWSC) and that such VWSC should be a standing committee of the GP as per the Panchayat Raj Act/Rules and responsible for planning, implementation, operation, maintenance and management of the water supply system. The Mission also feels that the GPs/VWSCs have to be involved in implementing plans to agreed budgets and time frames, and provide annual reports on progress and performance to the Gram Sabha and to the Block Panchayat. A household survey under the present study comes with remarkable findings in this regard. In all of the sample villages, there were no households/respondents who were aware of any VWSC, existing or being planned, in the village. The table below confirms this finding in clear terms:

Table 10.9: Households' response about existence of Village Water and Sanitation Committee.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	-	-	-	-	-	-
No	60	60	60	60	60	60	60	60	480
Total	60	60	60	60	60	60	60	60	480

If the suggestion to create VWSCs is to be seriously taken by the States, the VWSC needs to be given legal footing and for this, necessary amendments shall have to be made in existing Panchayat laws. Some states provide for "Standing/ Subject Committees" for water supplies with the Panchayats but others don't. There is no reason why there cannot be an uniform approach on this institutional aspect in all State laws. Such a provision may be utilised for this purpose.

It has been pointed out above that the 74th Amendment made clear that the "matters that may be entrusted" to the Municipalities include "Water supply for domestic, industrial and commercial purposes", amongst others.[180] After the incorporation of the 74th Amendment, vesting of powers and functions at the level of Municipalities, has been done in all States through specific enactments and/or amendments in laws. These have been discussed in detail in Chapter 12 on Water, Municipalities and the Law and are not repeated herein for the sake of brevity. For the purposes of the present chapter, a typical yet progressive example from the recently enacted Bihar Municipalities Act, 2007 may be seen. The Act lists out the specific duty of Municipality to supply water as below:

> *Duty of Municipality to supply water.- (1) It shall be the duty of the Municipality to take steps, from time to time, either on its own or through any other agency, -*
>
> *(a) to ascertain the sufficiency and wholesomeness of water supplied within the municipal area,*
>
> *(b) to provide, or to arrange to provide, a supply of wholesome water in pipes to every part of the municipal area in which there are houses, for domestic purposes of the occupants thereof, and for taking the pipes affording that supply to such point or points as will enable the houses to be connected thereto at a reasonable cost, so that the Municipality shall not be required to do anything which is not practicable at a reasonable cost or to provide such supply to any part of the municipal area where such supply is already available at such point or points, and*
>
> *(c) to provide, as far as possible, a supply of wholesome water otherwise than in pipes to every part of the municipal area in which there are houses, for domestic purposes of the occupants thereof, and to which it is not practicable to provide supply in pipes at a reasonable cost, and in which danger to health may arise from the insufficiency or unwholesomeness of the existing supply and a public supply is required and may be provided at a reasonable cost, and to secure that such supply is available within a reasonable distance of every house in that part.*

The Act also recognises that the carrying out the duties specified above is contingent on a range of other things including the works that need to be undertaken for supply of water. The Act says that for the purpose of providing the municipal area with proper and sufficient supply of water for public and private uses, the Municipality, either on its own or through any other agency, (a) shall cause to be constructed or maintained such tanks, reservoirs, engines,

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[180] See the Twelfth Schedule of the Constitution of India. Other related matters that may be entrusted to the Municipalities include Urban planning including town planning, Planning for economic and social development; Public health, sanitation conservancy and solid waste management; Safeguarding the interests of weaker Sections of society, including the handicapped and mentally retarded; Slum improvement and up-gradation and Urban poverty alleviation.

pipes, taps, and other waterworks as may be necessary, within or outside the municipal area, (b) may purchase, or take on lease, any waterworks, or right to store or to take and convey water, within or outside the municipal area, and (c) may enter into any agreement with any person or authority for the supply of water:[181] The Chief Municipal Officer is also charged with to manage waterworks and allied facilities belonging to the Municipality and shall need to maintain the same in good repair and efficient condition and shall cause to be done, from time to time, all such things as shall be necessary or expedient for improving such waterworks and facilities.[182]

A point that emerges from the review of the States laws is that while all the current laws often deal with diverse municipal services and activities with water supply services as one of the many services, they have not detailed out the functions of water supply leaving a lot of room for both discretion and even State apathy. The Bihar Municipalities Act, 2007, the provisions from which are quoted above, seems to be an exception to this trend. Such laws should be made in other states also.

A point that has been made in chapter 12 on Water, Municipalities and the Law is worth reiterating herein. In many states, it is found out that the water supply function is being carried out by parallel agencies and mostly by Public Health Engineering Department and/or State Water Supply and Sewerage Boards. For example, in Ludhiana 'major' water supply and sewerage schemes vest with the Punjab Water Supply and Sewerage Board under the Punjab Water Supply and Sewerage Board Act, 1976 whereas 'minor' O&M projects vest with the Ludhiana Municipal Corporation under the Punjab Municipal Corporation Act, 1976. Likewise, as pointed out above, a good portion of the water supply to the Guwahati city is provided by Assam Urban Water Supply & Sewerage Board (AUWSSB), apart from the Guwahati Municipal Corporation. This suggests that the states have not done well enough to transfer water supply services to the Municipalities. It is suggested that the states should do this through amendment in laws.

Despite its obvious importance and inclusion as a fundamental right, drinking water has not received the priority that it deserves. In order to bring about improvement in the situation, a few useful suggestions were offered by the Urban Water Supply Wing of the Government of Andhra Pradesh. These included the following:

1. For drinking water some budget (in terms of % total budget) has to be apportioned and no authorities should have the power to curtail the budget allocation,

[181] Provided that the Municipality may, with the approval of the State Government, make over to, or take over from, a statutory body any waterworks so as to do anything which may be necessary or expedient for the purpose of carrying out its functions under this Act or under any other law for the time being in force. As per Section 179 of the Act

[182] Section 180 of the Act.

2. For ensuring adequate supply of drinking water in urban areas, there is need for explicit provision for allocation of drinking water from surface water sources,
3. Aspects related to quality of water should be taken into account in water supply schemes,
4. Regulatory authority may be formed at state level to monitor pricing as well as adequacy in the supply of drinking water

A retired Chief Engineer of Public Health Engineering Department, Government of Assam, also suggested that the Department should be legally bound to supply water of BIS standard failing which punitive action should be taken. The Study Team endorses these suggestions.

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CHAPTER – 11

WATER, PANCHAYATS AND THE LAW

This chapter makes a review of legal provisions with respect to role of panchayats in development, management and regulation of water resources at panchayat level. For this purpose, the relevant provisions of the Panchayat laws of all the study states are examined and inferences and conclusions based on their salient features are drawn. The chapter also provides field findings on the role of Panchayats in water resources including community managed water bodies.

11.1 Introduction: 73rd Amendment Inspires Changes in State Laws

Consequent upon the 73rd Amendment in 1992, Article 243G of the Constitution was inserted to provide that the Legislature of a State may, by law, endow the Panchayats with such powers and authority as may be necessary to enable them to function as institutions of self-government with respect to the preparation and implementation of plans for economic development and social justice including for matters listed in the Eleventh Schedule. Thus, the 73rd Amendment of the Constitution had cast a Constitutional imperative on all the State Governments to come up with appropriate Panchayat Raj Act detailing meaningful democratic devolution of functions, functionaries and funds. Specifically, it empowers States to endow Panchayats with such powers and authority to enable them to function as institution of self-government and goes on to list 'Drinking water', 'Water Management', Minor Irrigation' and Watershed Development' as subjects under the jurisdiction of Panchayats.[183]

The 73rd Amendment to the Constitution inspired changes in the then existing State level Panchayats laws so as to bring them in line with the mandate under the Constitutional Amendment. Thus, either new laws were made or old Panchayat laws were amended across the country during the period following the 73rd Amendment. Keeping the study States in mind, the discussion below examines the role of the Panchyats in water management as laid out in the State Panchayat laws which more or less follow similar pattern. The State wise discussion of these laws is presented below.

[183] The full list comprising 29 such matter/'subjects' can be seen under the Eleventh Schedule to the Constitution of India .

11.2 State Panchayat Acts

Bihar

The Bihar Panchayati Raj Act, 2006 lays down that the Gram Sabha shall perform the following functions :–(a) Rendering assistance in the implementation of developmental schemes pertaining to the village; (b) Identification of beneficiaries for the implementation of developmental schemes pertaining to the village. [184] These powers are broad enough to cover any local, village level water project or scheme. Specificallly, the Act goes on to state that "Subject to such condition as may be prescribed by the Government from time to time", the Gram Panchayat shall perform the functions relating to '*Drinking Water*' including: (1) Construction, repair and maintenance of drinking water wells, tanks, ponds and hand pumps; (2) Prevention and control of water pollution; (3) Maintenance of rural water supply schemes. The Gram Panchayats are further required to carry out maintenance and preservation of community assets belonging to the Gram Panchayat.[185] At the Block level, the Act says that the Panchayat Samiti shall undertake activities relating to "Minor Irrigation, Water Management and Watershed Development including assisting the Government and Zilla Parishad in the construction and maintenance of minor irrigation works; and implementation of schemes for community and individual irrigation.[186] Further, the powers of Panchayat Samiti relating to Drinking Water includes - (i) Establishment, repair and maintenance of rural water supply schemes; (ii) Prevention and control of water pollution; (iii) Implementation of rural sanitation schemes. Finally, the functions and powers of the district level Zilla Parishad cover "Irrigation, Ground water resources and Watershed Development" that include: (i) Construction, renovation and maintenance of minor irrigation works and lift irrigation;(ii) Providing for timely and equitable distribution and full use of water under irrigation schemes under the control of the Zilla Parishad;(iii) Development of ground water resources;(iv) Installation of community pump sets;(v) Watershed development programme.[187]

Besides, the Bihar Panchayati Raj Act, 2006 further states that "Subject to such maximum rates as the Government may prescribe", a Gram Panchayat may realize "Water Rate, where arrangement for the supply of water for drinking, irrigation or any other purpose is made by or on behalf of the Gram Panchayat within its jurisdiction"[188] Similarly, Panchayat Samiti and Zilla Parishad may realize a water rate, where arrangement for the supply of water for drinking, irrigation or any other purpose is made by or on behalf of the Panchayat Samiti/ Zilla Parishad within its jurisdiction.[189]

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[184][184] Section 9 of the Bihar PanchayatAct,2006
[185] Section 22 of the Act
[186] Section 47 of the Bihar PanchayatAct,2006.
[187] Section 73 of the Bihar Panchayat Raj Act, 2006.
[188] Section 27 of the Bihar Panchayat Raj Act, 2006.
[189] Section 55 and Section 82 of the Bihar Panchayat Raj Act, 2006

In addition to providing for the functional base and taxation powers, the Bihar Panchayati Raj Act, 2006 also adds that a Panchayat Samiti shall constitute a Production Committee and Public Works Committee by election from among its members for effective discharge of its functions. The Production Committee shall perform functions relating to agriculture, land improvement, *minor irrigation & water management*, animal husbandry, dairy, poultry & fisheries, forestry-related areas, khadi, village & cottage industries and poverty alleviation programmes. Whereas the Public Works Committee shall perform functions relating to all kinds of constructions and maintenance including rural housing, *sources of water supply*, roads & other means of communication, rural electrification and related works.[190]

Finally, the Act says that the Government shall constitute in every district a District Planning Committee to consolidate the plans prepared by the Panchayats and Municipalities in the district and to prepare a draft development plan for the district as a whole. It then adds that while preparing the draft development plan, every District Planning Committee shall have regard to, (i) the matters of common interest between the Zilla Parishad, Panchayat Samitis, Gram Panchayats, Nagar Panchayats, Municipal Councils and the Municipal Corporations in the district including local planning, *sharing of water and other physical and natural resources*, the integrated development of infrastructure and environmental conservation.[191]

Maharashtra

Maharashtra has two Acts one at the district level (Zilla Parishad) and block level (Panchayat Samiti) and the other for Panchayats at village level. Both are old Acts which have been amended several times following the 73rd Constitutional Amendment and subsequently thereafter. *The Maharashtra Zilla Parishad and Panchayat Samities Act, 1961* as modified upto October, 1996 mandates that every *Zilla Parishad* shall appoint a Subjects Committee on Water Conservation & Drinking Water Supply. The said Water Conservation & Drinking Water Supply Committee shall comprise of the President of the Zilla Parishad as *ex-officio* Chairperson, five Councilors to be elected by the *Zilla Parishad* from amongst the Councilors; and the Chief Executive Officer shall be *ex-officio* Member-Secretary, who shall have no right to vote.[192] Further, the Act also says that the *Zilla Parishad* may impose a general water tax if public water taps or stand posts have been installed for the use of the public. The following provisions from the Maharashtra Panchayat Act, 1961 deserve a close look:

> "....where water being supplied by the *Zilla Parishad* from a combined or regional piped water supply scheme managed by the *Zilla Parishad*, subject to any general or special orders which may be made by the State Government in this behalf, the *Zilla Parishad* shall, after observing the preliminary procedure required by Section 159, in lieu of the tax which may be imposed under clause (b) of sub Section (1), impose

[190] Similary the Zilla Panchayat also has a Production and Public Works Standing Committee under Section 78 of the Act.
[191] Section 167 of the Act.
[192] 78 (1)

(i)a general water tax within the limits of a *Panchayat* , where such water is being supplied through public water taps or stand posts installed for the use of the public.
(ii) a special water tax , within the limits of a *Panchayat* , where such water is being supplied through individual house connections:

Provided that, two taxes aforesaid or either of them may be levied as additional taxes on lands or building or in such other form and manner as may be prescribed and the maximum and minimum rates at which the said taxes be imposed in the *Panchayat* and other matters relating to the imposition, collection and exemptions shall be such as may prescribed."[193]

The Act goes on to say further that where a *Zilla Parishad* imposes, a general water tax or a special water tax or both under the provision quoted above within the limits of a *Panchayat*, such taxes shall be collected by the *Panchayat* concerned from those persons who are liable to pay the taxes.[194]

There are significant provisions under the Act for prevention and control of water pollution and damages to water resources that may be caused locally. The Act, thus lays down that the Chief Executive Officer, or any person authorized by him in this behalf, may at any time by written notice require that the owner, or any person who has control over, any well, stream, channel, tank or other source of water supply shall "if the water is used for drinking"-
(*i*) keep and maintain any such source of water supply, other than a stream, in good repair, or
(*ii*) within a reasonable time to be specified in the notice, cleanse any such source of water supply from silt, refuse and decaying vegetation or,
(*iii*) in such manner as the Chief Executive Officer directs, protect any such source of water supply from pollution by surface drainage, or
(*iv*) desist from using and permitting others to use for drinking purposes any such source of water supply which not being a stream in its natural flow, is in the opinion of the Chief Executive Officer, unfit for drinking.[195]

The Act further empowers the Chief Executive Officer as below:

"When any pool, ditch, tank, pond, well, hole or any wasted or stagnant water, or any channel or receptacle of foul water or other offensive or injurious matter, whether it be within a private enclosure or otherwise, shall appear to the Chief Executive Officer to be likely to prove injurious to the health of the inhabitants or offensive to the neighbourhood, the Chief Executive Officer may by written notice require the owner of the same to cleanse, fill up, drain off or remove the same, or to take such measures as shall, in his opinion, be necessary to abate or remove the nuisance."[196]

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[193] Section 157 (2) of the Act.
[194] Section 163 of the Act
[195] Section **192** of the Act
[196] Section 196 of the Act

The Bombay Village Panchayats Act, 1958 as modified upto September 2006, has provided a village list in schedule 1, containing a list of activities which the village Panchayat may undertake. This list includes cleaning of tanks and wells (other than tanks and wells used for irrigation), excavation, cleansing and maintenance of ponds for supply of water to animals, management and control of bathing or washing of Ghats which are not managed by any authority and minor irrigation. But this is not mandatory since it is subject to availability of funds. The Act also provides that "it shall also be the duty of a Panchayat, when the Zilla Parishad or the State Government undertakes and completes, through its agencies, any piped water supply schemes (including works), at the request of the Panchayat, to take over and maintain such water supply schemes"[197]. Since this is mandatory, the Act also provides for allocation of separate funds for this by constituting a separate Village Water Supply Fund where the panchyat has taken over any water supply schemes as referred to earlier. The sources from which money will flow into this fund are also specified in the Act[198]. Among others, the sources include the proceeds of the general water rate and the special water rate as specified under clauses (viii) and (ix) of sub Section 1 of Section 124. The Panchayat is empowered to impose a general water rate in the form of a rate assessed on building and lands or in any other form as may be best adopted to the circumstances of any class of cases. It can also impose any other tax as the state government may empower it to do so[199]

Uttar Pradesh

Uttar Pradesh, like Maharashtra, has two Acts dealing with Panchayati Raj Institutions, one at the village level called the Uttar Pradesh Panchayat Raj Act, 1947 as amended from time to time upto 2004 and another at the block and district level known as Uttar Pradesh Kshettra Panchayat and Zilla Panchayat Act, 1961 as amended upto 2001. The Uttar Pradesh Panchayat Raj Act, 1947 has several provisions with power to take up activities in the water sector. But these are mostly enabling clauses and these also demonstrate the supremacy of irrigation department and Northern India Canal and Drainage Act 1873. According to the Uttar Pradesh Panchayat Raj Act, subject to such conditions as may be specified by the State Government from time to time, a Gram Panchayat shall perform several functions as listed in Section 15 of the Act which includes minor irrigation, water management and watershed development. This also includes managing and assisting in water distribution from minor irrigation projects, construction, repair and maintenance of minor irrigation projects, regulation of supply of water for irrigation purpose, construction, repair and maintenance of public wells, tanks and ponds for supply of water for drinking, washing, bathing purposes and regulation of sources of water supply for drinking purposes.

A gram Panchayat shall have control of water ways, other than canals as defined in sub-Section (1) of Section 3 of the Northern India Canal and Drainage Act, 1873 situated within its jurisdiction not being a private water ways and not being under the control of the State Government or the [Zilla Panchayat] or any other authority specified by the State Government and may do all things necessary for the maintenance and repair thereof, and may (a) deepen or otherwise improve water ways: (b) with the sanction of the prescribed authority

[197] Sec. 45 (1)
[198] Sec. 132(B)
[199] Se. 124 (1) (viii) and (ix)

and where a canal exists, under the Northern India Canal and Drainage Act 1873; with the sanction also of such officer of the Irrigation Department as the State Government may prescribe, undertake small irrigation projects in addition to those specified above under Section 15; (c) notify the setting apart of any public water course for drinking or culinary purposes, and prohibit bathing, washing of clothes and animals or doing other acts likely to pollute the course so set apart. Provided that nothing shall be done under this which may effect a canal governed by the Northern India Canal and Drainage Act, 1873 without the prior permission of the authority prescribed by the State Government in this behalf. (Section 17)

The Uttar Pradesh Kshettra and Zilla Panchayat Act-1961, has given power to block Panchayat to control pollution of private water courses. According to the Section 193 of this Act, the Kshettra Panchayat may, and when so required by the Zilla Panchayat shall, by notice, require the owner of, or the person having control over a private water course spring tank, well or other place, the water of which is used for drinking, to keep and maintain the same in good repair and to clean the same, from time to time of silt, refuse or decaying vegetation, and may also require him to protect the same from pollution in such manner as the Kshettra Panchayat may think fit. And further, when the water of any such water course, spring, tank, well or other place is proved to the satisfaction of the Zilla Panchayat or the Kshettra Panchayat to unfit for drinking, the Zilla Panchayat or the Kshettra Panchayat may, by notice, require the owner or person having control thereof to desist from so using such water or permitting others to so use it, and if, after such Kshettra Panchayat, as the case may be, may by notice, require the owner or person having control thereof to close such well, either temporarily or permanently or to enclose or fence such water course, spring, tank, well or other place in such manner as it may direct so that the water thereof may not be so used.

And Section 194 of the Act gives, emergent powers on outbreaks of epidemics. As the Act says, in the event of the rural area of the district, or any part thereof, being visited with an outbreak of cholera or other infectious disease notified in this behalf by the State Government, the Adhyaksha of the Zilla Panchayat or the pramukh of the Kshettra Panchayat, or any person authorized by any of them in this behalf, may, during the continuance of the epidemic, without notice and at any time, inspect and disinfect any well, tank or other place from which water is, or is likely to be,, taken for the purpose of drinking, and may further take such steps as he deems for to prevent the removal of water there from.

According to Section 195, the Zilla Panchayat or the Kshettra Panchayat may, by notice, require an owner or occupier on whose land a drain, privy, latrine, urinal, cesspool or other receptacle for filth or refuse exists within fifty feet of a spring, well, tank, reservoir or other source from which water is or may be derived for public use, to remove or close the same within one week from the service of such notice. And Section 196 authorizes the Zilla Panchayat or the Kshettra Panchayat as the case may be to get removed or itself remove any unauthorized construction and plantation over a water work vested in it after giving prior notice.

Assam

In the State of Assam, on the subject of Minor Irrigation, Water Management, Watershed Development, the *Assam Panchayati Raj Act, 1994* provides that Anchalik Panchyata shall be responsible for assisting the Government and the Zilla Parishad in construction and

maintenance of minor irrigation works, implementation of individual irrigation works, assisting the Government and the Zilla Parishad in the implementation of schemes on development of ground water resources, and watershed development programmes;[200] whereas on the subject of irrigation, ground water resources and watershed development, Zilla Panchayats's functions include: Construction, renovation, maintenance of minor irrigation works and lift irrigation; Providing for the timely and equitable distribution and full use of water under irrigation schemes under the control of the Zilla Parishad.; Development of ground water resources; Installation of pump sets; and Watershed development programme.[201]

Significantly there is no detailing of functions of the Gram Panchayat though the subject itself of Minor Irrigation, Water Management, watershed Development has been vested with it. When it comes to Drinking Water, the Gram Panchayats are mandated to be responsible for construction and maintenance of drinking water wells, tanks and ponds and tubewells, prevention and control of pollution, maintenance of rural water supply scheme.[202] Anchalik Panchyats have been vested with functions of, *establishment, maintenance and repair of rural water supply schemes*, prevention and control of pollution and implementation of rural sanitation schemes[203]

Box: ACTIVITY MAPPING OF FUNCTIONS OF WATER MANAGEMENT WITH PANCHAYATS IN ASSAM

A Government Notification of 25th June 2007 came up with a detailed "activity mapping" and devolution of functions at various levels of Panchayats on three different subject of Drinking Water; Development of minor irrigation system including drainage, water harvesting structure and water management; as below: Items related to drinking water have been mentioned in chapter 9. But these are included here also to provide the comprehensive picture.

A. On Drinking Water

At the Level of the Gram Panchayat:

1. Identify water scarcity/problem areas as per G.O.I's norms and Guide Lines.
2. Identify and assess the existing water supply schemes like Tara pumps, Singur hand pumps, M-III/M-II deep tube well pumps, ring well and spring sources etc.
3. Identify the status of single village ongoing PWSS of Assam for their O&M, utilization and extension if sufficient fund is available.
4. Initiate time bound steps for village water supply schemes after setting all the habitations till date.
5. Generate revenues for maintaining water supply schemes taken over by the GPs and levy water charges rationally.
6. Avail all opportunities regarding operational, technical and maintenance issues from PHED.

[200] Section 49(4) of the Assam Gram Panchayat Act, 1994
[201] Section 90(2) of the Assam Gram Panchayat Act, 1994
[202] Section 19 of the Assam Gram Panchayat Act, 1994
[203] Section 49(10) of the Assam Gram Panchayat Act, 1994

7. Generate awareness on quality of water during and after flood, and make useful contribution on testing of basic water quality parameters with the guidelines of PHED with Field Testing Kit.
8. Formulate W/S projects for providing drinking water facilities to needy areas.
9. Implement Sajal Dhara Projects through Village Water & Sanitation Committee Plus the following activities-

- Take up W/S schemes upto the limit of Rs. 15.00 lakh except in the fluoride, arsenic affected areas with the approval of the Zilla Parishad against NC & PC habitation as per G.O.I's norms and Guide Lines.
- Undertake all IECactivities on safe drinking water and good water use practices etc. prevent and control water pollution.
- Establish a monitoring cell to monitor and evaluate the activities taken up by the GPs.
- Maintain asset requirement.
- Conduct habitation wise survey and assess requirement of materials.
- Set apart sufficient fund for O&M.

At the Level of the Anchalik Panchayat

To coordinate and provide financial support to GPs for taking up activities as detailed

At the Level of the Zilla Panchayat

1. Take up drinking water supply projects costing below Rs. 15.00 lakh against NC & PC habitation as per G.O.I's norms and Guide Lines.
2. Coordinate all drinking water supply schemes at district level (functioning, monitoring, and management).
3. Fixation of water charges in consultation with Gram Panchayat.

B. ***Development of minor irrigation system including drainage, water harvesting structures and water management***

At the Level of Gram Panchayat:

1. Formulate minor irrigation projects in consultation with Gram Sabha and execute them in identified locations.
2. Execute projects assigned by ZP. and AP.
3. Identify beneficiaries for the project through Gram Sabha.

At the Level of Anchalik Panchayat:

1. Formulate, appraise and execute minor irrigation projects included in AP's plans and also execute projects assigned by ZPs.
2. Supervise, monitor the projects with the help of subject committee in coordination with concerned departments and agencies.

At the Level of Zilla Panchayat:

1. Formulate and appraise minor irrigation projects.
2. Assign projects to APs and GPs.
3. Execute minor irrigation projects outside the purview of APs and GPs plans.
4. Supervise and monitor the progress of the projects with the help of subject committees in coordination with various concerned departments and agencies.
5. Sanction technical projects.
6. Develop drainage system after proper identification of waterlog areas.
7. Prepare a plan for expansion of irrigation in the district and devise mechanism to bring more areas under its coverage

C. **Water Management**

At the Level of *Gram Panchayat*:
1. Identify beneficiaries in Gram Sabha for subsidized schemes.
2. Organise farmers for coordinated implementation of irrigation facilities.
3. Encourage farmers to develop field channels and such other system for proper utilization of water

At the Level of *Anchalik Panchayat*
1. Guide farmers to adopt improved methods of irrigation through proper demonstration in the field.
2. Select beneficiaries for subsidized equipments and delivery system.
3. Facilitate providing technical guidance to the beneficiaries.

At the Level of Zilla Panchayat:
1. Propagate modern water management / delivery methods including improved irrigation facilities suitable for the district

Kerala

There are remarkable and wide ranging functions vested with the *Kerala Panchyati Raj Act, 1994*. To begin with, the Act makes clear that all public water courses (other than river passing through more areas, than the panchayat area) the beds and banks of river streams, irrigation and drainage channels, canals, lakes, back waters and water courses and all standing and flowing water, springs, reservoirs, tanks, cisterns, fountains, wells, kappus, chals, stand pipes and other water works shall stand transferred to and vest absolutely in the village panchayat. The relevant Section is worth extracting in full and is presented below:

Section 218: "*Vesting of watercourse, springs, reservoirs, etc., in Village Panchayats.* - (1) Notwithstanding anything contained in the Kerala Land Conservancy Act 1957 (8 of 1958) or in any other law for the time being in force, all public water courses (other than river passing through more areas, than the panchayat area which the Government may, by notification in the gazette, specify), the beds and banks of river streams, irrigation and drainage channels, canals, lakes, back waters and water courses and all standing and flowing water, springs, reservoirs, tanks, cisterns, fountains, wells, kappus, chals, stand pipes and other water works including those used by the public to such an extent as to give a prescriptive right to their use whether existing at the commencement of this Act or afterwards made, laid or erected and whether made, laid or erected at the cost of the panchayat or otherwise, and also any adjacent land, not being private property appertaining thereto shall stand transferred to and vest absolutely in the village panchayat: Provided that nothing contained in this sub-Section shall apply to any work which is or is connected with a work or irrigation or to any adjacent land appertaining of any such work. (2) Subject to the provisions of this Act, all rights and liabilities of the Government in relation to the water courses, springs, reservoirs, tanks, cisterns, fountains, wells, kappus, chals, stand pipes and other water works vested in the village panchayat under sub-Section (1) shall from the date of such vesting be the rights and

liabilities of the village panchayat. (3) Notwithstanding anything contained in sub-Section (1) or sub-Section (2), the government may, by notifications in the Gazette, assume the administration of any public source of water supply and public land adjacent and appertaining thereto after consulting the village panchayat and giving due regard to its objection, if any.

> Section 234A; *Vesting of the existing water supply and sewerage services under the water authority with the Panchayat;* (1) Notwithstanding anything contained in the Kerala Water Supply and Sewerage Act, 1986 (14 of 1986) or in any other law from such date, the Government may by notification in the gazette appoint, in respect of the Water Authority before such date and intended for the benefit of the panchayat at any level and situated within its area,
>
> (a) all plants, machinery, water works, pumping station and all buildings and land thereto and all works, implements, stores, goods, implementation of works, management of water supply, distribution, levy and collection of water charge in connection therewith and is situated upon any public street, or through it or over or under it, as the case may be, within the area of the panchayat at any level including all assets and other facilities shall vest in the panchayat specified in the notification and shall stand transferred to that panchayat ; and
>
> (b) the collection of arrears of sewage charge, water charge and meter charge and arrears of any expense or fees in connection with water supply and sewerage, and all rights, liabilities and obligations of the water authority even if arisen from any contract or otherwise related to the said authority shall be the rights, liabilities and obligations, as the case may be, of the panchayat specified in the notification."

In another significant provision, the Kerala Panchyati Raj Act, 1994 says that no person shall, without the permission of the village panchayat "and except in accordance with the conditions specified in such permission, construct or establish any factory, workshop or workplace in which it is proposed to employ steam power, water power or other mechanical power, or electrical power."[204] The Act goes on to add that panchayat shall have the right and power to prepare and implement water supply or sewerage scheme within the area of a panchayat and on this aspect this provision shall override anything to the contrary that may exist under the Kerala Water supply and Sewerage Act, 1986. However, when the water supply schemes and sewerage schemes are prepared and if it is beneficial to the residents of more than one village panchayat area, it shall be prepared and implemented by the concerned Block Panchayat and if it is beneficial to the residents of more than one block panchayats such schemes shall be prepared and implemented by the district panchayat concerned. Further, the Act clarifies that in preparing and implementing the water supply and sewerage schemes, the panchayats may collect water charges and sewerage service charges from the beneficiaries in the manner prescribed.[205]

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[204] Section 233 of the Act.
[205] Section

On aspects of preventing pollution of water sources, the Act adds that a Panchayat may prohibit the use of the water of any stream, well, pond or any other excavation believed to be dangerous to public health. Further, a wide liberal and residual power is vested in the Panchayats to do all acts necessary for and incidental to, carrying out the functions entrusted or delegated to it. [206]

On the functional base of the Village Panchayat, the Act says that it shall be the duty of the village panchayat to meet the requirements of the village panchayat area in respect of the matters enumerated in the Third Schedule. Following this, Third Schedule goes on to list the following functions as "mandatory functions":

1. Regulating building construction.
2. Protection of public lands against encroachment
3. Maintenance of traditional drinking water sources.
4. Preservation of ponds and other water tanks
5. Maintenance of waterways and canals under the control of Village Panchayats.
6. Collection and disposal of solid waste and regulation of liquid waste disposal.
7. Storm water drainage.
8. Maintenance of environmental hygiene.[207]

Punjab

Much like the other enactments discussed above, the Punjab Panchayati Raj Act, 1994 lays down that functions of the Gram Panchayat include construction, repair and maintenance of community assets in any public place including its sanitation and drains; wells, water pumps, baolies, springs, ponds and tanks for the supply of water for drinking, washing and bathing and supply of water for domestic use and for cattle.[208] Further, a Gram Panchayat may by general order to be published in the manner prescribed, prohibit the use of water of a well, pond or other excavation suspected to be dangerous to the public health; regulate or prohibit the watering of cattle or bathing or washing at or near wells, ponds, or other excavations, reserved for drinking water; and regulate the maintenance of water courses meant for irrigation purposes[209]

The Punjab Panchayati Raj Act, 1994 adds that other than property maintained by the Central Government or the State Government or a local authority, all property within the local limits of the jurisdiction of Gram Panchayat may become vested in the Gram Panchayat and be under its direction, management and control. Such properties include:

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[206] Section 239 (1) of the of the Kerala Panchayat Act, 1994.
[207] Section 166 (1) read with the Third Schedule of the Kerala Panchayat Act, 1994.
[208] Section 30 of the Punjab Panchayat Raj Act, 1994
[209] Section 35 of the Act.

(a) All common properties;
(b) All public streets, including the soil, stones and other materials thereof and all drains, bridges, culverts, street, erections, materials, implements and other things provided for such streets;
(c) All public channels, water courses, springs, tanks, ghats, reservoirs, cisterns, wells, aqueducts, conduits, tunnels, pipes, pumps and other water works whether made, laid or erected at the cost of the Gram Panchayat or otherwise.

Further, on the taxation base, the Act says that Gram Panchayat may levy a water rate, where arrangement for the supply of water for drinking, irrigation or any other purpose is made by the Gram Panchayat within its jurisdiction.

The Act vests the function of Minor Irrigation, Water Management and Watershed Development with the Panchyat Samiti and lists the following that needs to be performed by the Panchayat Samiti:
(i) assisting the State Government and the Zilla Parishad in the construction and maintenance of minor irrigation works; and (ii) implementation of community and individual irrigation works. On the subject of "Drinking Water", the functions with the Panchyat Samiti include: (i) establishment, repair and maintenance of rural water supply schemes; (ii) prevention and control of water pollution; (iii) implementation of rural sanitation schemes.[210] Further, the Act also provides that there shall be a General Standing Committee of Panchayat Samiti and that the said General Standing Committee shall perform functions relating to the establishment matters, communications, building, rural housing, village extension, relief against natural calamities, water supply and all miscellaneous residuary matters.[211]

Andhra Pradesh

The Andhra Pradesh Panchayati Raj Act, 1994 empowers the Gram Panchayat to carry out the function of sinking and repairing of wells , the excavation repair and maintenance of ponds or tanks and the construction and maintenance of water works, for the supply of water for washing and bathing purposes and for protecting water for drinking purposes.[212] However, where such water works extend beyond the boundaries of one Gram Panchayat then two or more concerned Gram Panchayat may either jointly decide to manage such

[210] Section 119 of the Act.

[211] Section 135 of the Act.
[212] Section 41(1) (viii) of the AP Panchayat Raj Act, 1994

works or entrust the same to the Block level Mandal Parishad.[213] The Act also says that the Government "may transfer to any Gram Panchayat the protection and maintenance of any village irrigation work, the regulation of turns of irrigation, or of distribution of water from any such irrigation work to the field depending on it." The Act further makes clear that subject to 'prescribed restriction and control, the fishery rights in minor irrigation tanks and the right to auction weeds and reeds in such tanks and the right to plant trees on the bunds of such tanks and enjoy usufruct from it shall vest in the Gram Panchayat.[214]

The Act lays down that all public water courses, springs, reservoirs, tanks, cisterns, fountains, wells, stand pipes and other water works whether made or laid at the cost of the Gram Panchayat or otherwise for the use or benefit of the public, shall vest in the gram panchyat and will be subject to its control.[215] However, the Government may define or limit or assume control of any public source of water supply after giving "due regard" to the objections of the gram Panchayat, if any.[216]

The Andhra Pradesh Panchayati Raj Act, 1994 also empowers the Zilla Parishad to constitute Standing Committees for various purposes and a mandatory provision provides that there *shall* be a Standing Committee for Works vested with specific functions of rural water supply, power and irrigation. The District Collector has a right to participate in all the meetings of the Standing Committee but without voting rights.[217]

Chhattisgarh

The Chhattisgarh Pnachayat Raj Adhiniyam 1993 as amended in 2008 provides for a three tier Panchayati Raj Institutions i.e. a Gram Panchayat at the village level, a Janapad Panchayat at the block level and a Zilla Panchayat at the district level. Powers and functions related to management of water resources have been assigned at all the three levels, more particularly at the Gram Panchayat level. According to clause 49 of the Act, it shall be the duty of Gram Panchayat to perform certain functions. But the performance of this duty is dependent on the availability of funds about which there is no commitment. The functions enumerated therein include, (i) construction, repair and maintenance of public wells, ponds and tanks and supply of water for domestic use and (ii) construction and maintenance of sources of water for bathing and washing and supply of water for domestic animal. Additional subjects are added as per clause 49 A according to which it shall be the duty of Gram Panchayat (i) to plan, own and manage minor water bodies upto a specified water area situated within its territorial jurisdiction, (ii) to lease out any minor water body upto a specified area for the purpose of fishing and other commercial purposes, and (iii) to regulate the use of water of rivers, streams, minor water bodies for irrigation purposes. Clause 54 provides further powers to Gram Panchayat, according to which a Gram Panchayat shall have powers (i) to maintain the sanitation, conservancy, drainage, water works, sources of water supply; and (ii) to regulate the use of water.

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[213] Section 162 of the AP Panchayat Raj Act, 1994

[214] Section 56 (1) and (20 of the Act.

[215] Section 80(1) of the Act.

[216] Section 80(3) of the Act

[217] Section 187(1) and (3) of the Act.

Clause 47 of the Act provides for constitution of standing committees at both Janapad and Zilla Panchayat levels, consisting of some of their elected members. One such committee is for subjects including minor irrigation, rural water supply and drainage among others. But powers and functions of such committees are not specified. These are left vague in the sense that these may be as prescribed. The functions of the Janapad Panchayat also include provision of emergency relief in case of disasters among which flood is specifically mentioned (Clause 50 b). But this too is not mandatory.

The assignment of the powers and functions to Panchayati Raj Institutions as enumerated above is somewhat illusory since there is no legal mandate to provide the funds required for the purpose. The stated powers and functions are to be exercised as per directions given or rules framed or funds provided by the state government. In their absence, the powers and functions have remained on paper only.

11.3 Overview of State Laws

The Panchayat laws of all the eight study states reviewed above indicate several common features with respect to their powers and functions on matters related to management of water resources. These Acts contain a number of provisions which may enable Panchayats to play a role in development and management of water resources at local level. But this would depend upon directions issued and funds provided by the State Government. And there is no legal mandate to provide the funds required for the purpose. Baring a few exceptions, the functions are not mandatory. Hence, these have mostly remained on paper. Thus, while the 73rd Amendment provided the needed policy and legislative framework for devolving responsibility for rural water supply to the Panchyats and the States responded through new/amended Panchyat laws, the devolution of physical and financial management responsibility to the Panchayats has been at best half-hearted.

In Maharashtra, however, there is one mandatory provision which requires Panchayats to take over and maintain any piped water supply schemes undertaken by the state government at the request of the Panchayat. The Act also provides for allocation of separate funds for this.

Many of the State Panchayat Acts, though not all, also provide several regulatory powers to Panchayat over local water resources specially to control water pollution. One may refer to the provisions given under the Act for the states of Uttar Pradesh, Punjab and Kerala. But exercising regulatory power in the sense of putting restrictions is not convenient under the prevailing political scenario when even the governments at the state and central levels are not able to exercise such powers despite their enjoying much more power along with a police force. This power, therefore, has also been only notional.

It is remarkable that panchayat Acts in some states such as Kerala, Andhra Pradesh and Punjab have vested all local water courses including irrigation and drainage channels, lakes etc. in the village Panchayat. It is suggested that other states should incorporate similar measures to vest local water resources in the Panchayats, thereby, giving Panchayats the status of local government in the true sense.

The review of the legal provisions above attest to the point made in the chapter on the Constitutional aspects that the State Panchayati Raj Acts have largely retained the style of listing out broad functions, instead of formulating relevant rules and guidelines detailing functional responsibilities of each tier of Panchayats for each of the subjects. The style of drafting and incorporation of specific amendments after the Constitutional amendment tend to fall in a pattern. It has also been pointed out in the chapter on the Constitutional aspects that for genuine devolution in the present Constitutional framework, the Ministry of Panchayati Raj (MoPR), Government of India had supported the States in carrying out 'activity mapping', i.e. delineating clearly the functions to be performed at different levels (State Govt., 3 tiers of Panchayats, ULBs etc.), following the principle of subsidiarity (i.e. devolving functions to the lowest possible level where it can be performed), to be followed by appropriate devolutions of funds and functionaries. An example of the result of the exercise of such activity mapping can be seen in the case of Assam (see the Box above). While this gives an operative edge to the legal framework, such an exercise needs to be carried out by all the States with respect to the specific provisions vesting different functions to the Panchayats under various State laws that have been discussed in detail above.

It follows from the review of the state laws that the supremacy of the state bureaucracy over the Panchayats has remained intact despite the constitutional amendment. While it is implicit in several states since operationalisation of the enabling powers to Panchayats is dependent on the sweet will of the state government, it has been made explicit in Uttar Pradesh, where a Panchayat can exercise power over water related matters in canal irrigated areas only with the sanction of such officer of the Irrigation Department as the State Government may prescribe. In sharp contrast to this is the case of Kerala (the only case amongst the study states) where the Kerala Panchayati Raj Act, 1994 clearly states that panchayat shall have the right and power to prepare and implement water supply and sewerage scheme within the area of its jurisdiction and that this provision shall override anything to the contrary that may exist under the Kerala Water Supply and Sewerage Act, 1986. In Kerala, as stated earlier, a similar stand regarding supremacy of the Panchayat law over ownership of local water resources prevails vis-à-vis the pre-existing Kerala Land Conservancy Act, 1957, or any other law for the time being in force. It is suggested that, other states should also enact laws like Kerala and make it explicit that the powers given to Panchayats for management and development of local water supply would override provisions of any other law.

11.4 Some Field Findings on Role of Panchayats in Water Resources

An analysis of the replies to the state schedule by state governments indicates that the states of Bihar, Chhattisgarh, Uttar Pradesh, Andhra Pradesh and Kerala have indicated some role for Panchayati Raj Institutions in management of water resources whereas the remaining three states of Assam, Maharashtra and Punjab did not acknowledge such role. On further analysis, it was found that the role of PRIs was primarily in respect to drinking water as the following table indicates. However, in Chhattisgarh and Uttar Pradesh, a Panchayat

representative is a member of PIM committee and in Chhattisgarh , panchayats have a role in minor irrigation upto a command upto 40 hectares. In Kerala, panchayats have a role in desilting of tanks and from 2011-12, panchayats will be involved in repair of canals also. But panchayats have no role in ground water management even in Kerala. In this state,Executive Engineer of district Panchayat, being the convener of district level technical advisory group, plays some part in planning local water supply schemes.

Types of Roles Played by Panchayati Raj Institutions

- Planning – **Chhattisgarh , Uttar Pradesh, Kerala, Andhra Pradesh**
- Deciding allocation of money for drinking water schemes – **Chhattisgarh , Uttar Pradesh, Kerala, Andhra Pradesh**
- Selection of site for new installation – **Bihar , Chhattisgarh , Uttar Pradesh, Kerala**
- Awareness generation - **Chhattisgarh , Kerala**
- Permission for installation of new drinking water structures, **Chhattisgarh , Uttar Pradesh, Kerala, Andhra Pradesh**
- Equitable distribution of drinking water - **Chhattisgarh , Uttar Pradesh, Kerala, Andhra Pradesh**
- Collection of beneficiary's share of cost in drinking water, **Kerala, Andhra Pradesh**
- Collection of monthly O & M Charges for drinking water, **Kerala, Andhra Pradesh**
- Formation of water users association for drinking water - **Chhattisgarh , Uttar Pradesh, Kerala**
- Grievance redressal among water users for drinking water – **Kerala,**
- Member of PIM-**Uttar Pradesh , Chhattisgarh**

Source: Reply to state schedule

As is well known, there are three tiers of Panchayati Raj Institutions, at the village, block and district levels. Some of the above mentioned functions are performed at one or two levels baring the role in respect of permission for new installations which is granted at all the three levels. The details can be seen from the table given below..

Role played by Panchayati Raj Institutions (Andhra Pradesh)

Sl No.	Type of role	Gram Panchayat Level	Mandal Praja Parishad Level	Zilla Praja Parishad Level
1.	Planning	No	Yes	Yes
2.	Deciding allocation of money for water schemes	No	Yes	Yes
3.	Selection of site for new Installation	No	No	No
4.	Awareness generation	No	No	No
5.	Permission for new Installation	Yes	Yes	Yes
6.	Equitable distribution of water	Yes	No	No
7.	Collection of beneficiary's share of costs	Yes	No	No
8.	Collection of monthly O & M Charges	Yes	No	No
9.	Formation of Water Users Associations	No	No	No
10.	Grievance redressal among water users	No	No	No

Summing up, one can point out that in sharp contrast to the spirit of the 73rd Constitutional amendment in 1992 as well as the subsequent state laws on panchayati raj institutions, the actual involvement of such institutions is only marginal mainly due to states apathy and lack of funds as was indicated by district level functionaries in some of the States. Steps, therefore, need to be taken for implementation of the state laws in this respects by providing adequate functions, funds and functionaries.

11.5 Some Field Findings on Community 'managed' water bodies

In the Schedule V areas i.e, tribal areas of the States of Chhattisgarh, Orissa, Maharashtra, Andhra Pradesh and Bihar amongst the Study States, the *Provisions of Panchayat (Extension to Schedule Areas) Act, 1996* is applicable. The Act mandates that the Gram Sabha and Panchayats at appropriate level shall be vested with the power of Planning and Management of minor water bodies. This provision is premised on the fact that the village community needs to be empowered as a community to plan and manage the water bodies at the local level.

Community water bodies such as tank, pond etc. in the past, used to be one of the important sources of water for domestic need. This was more prevalent in areas dominated by tribal population. But with the advancement of technology and availability of sophisticated options, rise in the level of income and living standards followed by upsurge in the level of education and literacy, the use of such sources has become minimal. However, farmers in Maharashtra are still using these sources for irrigating their vegetable and horticultural crops through adoption of micro-irrigation systems. A few tanks/ponds in the sample villages of Bihar are reportedly being used for fishing and raising aquacultural crops.

Some field findings in respect of the community owned or managed water bodies are instructive. To the specific query at the household level as to whether there exists any law ensuring equitable distribution of water from community owned water bodies, the answer was that no such law exists from across all the study states. This is clear from the table below:

Table 11.1: Households' report about existence of law ensuring equitable distribution of water from community owned water bodies.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	-	-	-	-	-	-
No	20	30	50	60	60	30	40	10	300
Total	20	30	50	60	60	30	40	10	300

Another related finding is that except form the State of Maharashtra, there were no households informing about any customary practices for sharing of water from community owned water bodies specially between poor and affordable households. This is clear from the table below:

Table 11.2: Households' report about customary practices for sharing of water from community owned water bodies specially between poor and affordable.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	50	-	-	-	-	-	50
No	20	30	-	60	60	30	40	10	250
Total	20	30	50	60	60	30	40	10	300

It has been pointed out above that the management of minor water bodies is sought to be vested entirely with the Gram Sabha and the Panchayats at appropriate level. In this regard, it is useful to note that findings from the study States show that while at the village level excavation work has been carried out in ponds and water bodies, the same interest is not shown for maintaining cleanliness for the same water bodies except by a few households in Chhattisgarh who use the sources for domestic purposes including bathing. This is clear from the table below:

Table 11.3: Types of additions/improvements carried out in the community water bodies

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Excavation/renovation	20	-	50	46	60	21	40	-	237
Providing boundary around the water bodies	-	-	-	-	-	-	-	-	-
Maintaining cleanliness	-	-	-	14	-	-	-	-	14
None	-	30	-	-	-	9	-	10	49
Total	20	30	50	60	60	30	40	10	300

There are restrictions on use of water from community owned tanks, ponds etc. as reported by almost a half the size of sample i.e. 29 households out of 60 in only Chhattisgarh. The restrictions are in the form of demarcation of ponds for use by human beings and animals. It is instructive to recall here that the information for Chhattisgarh pertains to a tribal district,

the only tribal district in the sample. The details of the distribution of households by their views are given in the table below.

Table 11.4: Households' report about restrictions on use of water from these sources for bathing, washing of clothes/utensils, bathing of animals etc

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	29	-	-	-	-	29
No	20	30	50	31	60	30	40	10	271
Total	20	30	50	60	60	30	40	10	300

Table 11.5: Households' report about types of restrictions on use of water from community water bodies

(No. of Rep. hhs)

Restrictions	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Separate pond for taking bath for men &women	-	-	-	16	-	-	-	-	16
Separate pond for animal bath etc	-	-	-	13	-	-	-	-	13
Total	20	-	-	29	60	30	40	-	29

All the 29 households who are using the community water bodies for domestic and other related purposes in Chhattisgarh, were in favour of having associations among users of these sources which can help in maintenance as also management of these sources. The details of the views thus, given by the households in this respect is given in the table below.

Table 11.6: Households' views about having an association among users of community water bodies

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	-	29	-	-	-	-	29
No	20	30	50	31	60	30	40	10	271
Total	20	30	50	60	60	30	40	10	300

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CHAPTER-12

WATER, MUNICIPALITIES AND THE LAW

This chapter examines Constitutional and legal provisions with respect to role of municipalities in providing water for domestic purposes. After going through the land mark 74th Amendment to the Constitution of India, it explains the legal provisions in the study states. Taken together, these provisions provide an adequate glimpse of all India picture. The chapter then makes a critical review of the state laws. Finally it reviews the ground level scenario based on the findings of the survey conducted in the sample districts of the selected states as a part of this study.

12.1 Introduction -The 74th Amendment to the Constitution of India

For due appreciation of both the legal status and the functional domain of Municipalities/ Municipal Corporations with respect to water supply and water management in urban areas, it is useful to note the mandate under the 74th Amendment to the Constitution of India. The said Amendment, which came into force in 1993, recognizes local self governance as an enforceable ideal and obliges the State Governments to constitute the urban local bodies ("ULBs").[218] The Constitution, through the 74th Amendment, also requires that "the Legislature of a State may, by law, endow the Municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-government" [219] The "matters that may be entrusted" to the Municipalities include "Water supply for domestic, industrial and commercial purposes", amongst others.[220] From these Constitutional provisions, it should be clear that an important aspect of the 74th Amendment to the

[218] The 73rd and the 74th constitutional amendments which provide for local elected bodies to "function as institutions of self-government" in rural and urban areas respectively are important landmarks in the history of Constitutional law in India .

[219] See Article 243W of the Constitution of India . relating to powers, authority and responsibilities of Municipalities. It adds that such a law may contain provisions for the devolution of powers and responsibilities upon Municipalities with respect to : (i) the preparation of plans for economic development and social justice; (ii) the performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule.

[220] See the Twelfth Schedule of the Constitution of India . Other related matters that may be entrusted to the Municipalities include urban planning including town planning, planning for economic and social development; public health, sanitation conservancy and solid waste management; safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded; slum improvement and up-gradation and urban poverty alleviation.

Constitution is that while the establishment of the ULBs is mandatory, the exact scope and extent of powers to be devolved to the ULBs is left to the discretion of the state governments.

The 74th Amendment has cast a Constitutional mandate on all the state governments to come up with appropriate municipal legislations and reforms detailing meaningful democratic devolution of functions, functionaries and funds. Following this mandate, relevant amendments have been carried out in the Municipal laws across all the states of the country to bring them in line with the said Constitutional Amendment. These State laws with special reference to the study States are discussed below.

12.2 Legal Framework for Municipal Water Supply in States

Amendments duly carried out in the Hyderabad Municipal Corporation Act, 1955 the law that governs the functioning of not only Municipal Corporation in Hyderabad and Secundrabad but also Municipal Corporation of other large cities in Andhra Pradesh like Vijayawada to bring the said Act in conformity with the mandate under the 74th Constitutional Amendment. Thus, recognising the Constitutional mandate to entrust the Municipalities with the functions of "Water supply for domestic, industrial and commercial purposes" the provisions of the Hyderabad Municipal Corporation Act, 1955 provides that "The Corporation shall make adequate provision for the management and maintenance of all municipal water works and the construction and acquisition of new works necessary for a sufficient supply of water for public and private purposes"[221]

It is important to make note of the fact that the above provision under the Hyderabad Municipal Corporation Act, 1955 "for a sufficient supply of water for public and private purposes" is under the head titled *"Matters to be provided by the Corporation"* as distinguished from *"Matters which may be provided by Corporation at its discretion"* (Section 115 of the Hyderabad Municipal Corporation Act, 1955) and thus it is an 'obligatory duty' of the Corporation. Interpreting this obligatory duty of a Municipal Corporation in a similarly worded 'parallel Section' in the Bombay Provincial Municipal Corporation Act, 1949, the Gujarat High Court had said:

> "It is, therefore, clear that it is an obligatory duty of the Corporation to take adequate steps for sufficient supply of water for public and private purposes within the municipal area. In other words, the Corporation cannot deny the citizen the basic amenity of supply of water which is provided to all other inhabitants according to its plans. The obligatory duty is directed towards the management, maintenance and acquisition of water works to ensure a sufficient supply of water."[222]

The HMC Act lays down that *"for the purposes of providing the city with the supply of water, proper and sufficient for public and private purposes, the Commissioner, when authorized by*

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[221] See Section 112 (17) of the Hyderabad Municipal Corporation Act, 1955.

[222] See Gujarat High Court's decision in National Consum Protection Samiti and Anr v. State of Gujarat & Ors. 1994 (2) GLR 1043.

the Corporation, may (a) construct and maintain water works either within or without the city and do any other necessary acts; (b) purchase or take on lease any water work or any water or right to store or take and convey water, either within or without the city; (c) enter into an agreement with any person for a supply of water."[223] It is also relevant to note that any contract for the purposes of the Act covering water supply and sewerage services shall be made on behalf of the Corporation by the Commissioner.[224]

Following the 74th Amendment to the Constitution of India and the mandate in it for Municipal Corporation to establish Wards and Ward Committees, the necessary amendments have been carried out in the HMC Act, 1955. According to the HMC Act "the City is divided into single member wards on the basis of the population" as for the purpose of election of members to the Corporation, each ward shall return only one member.[225] However, the State Government "shall constitute such number of Ward Committees to the Corporation as may be determined by it". The only requirement here is that "each Ward Committee shall consist of not less than ten wards."[226] In pursuance of the legal provisions above, the Vijayawada city, for example, is divided into 59 wards. There are five wards committees that have been constituted and these are endowed with the functions of maintenance of sanitation, *water supply and drainage*, street lighting, roads, markets, parks and playgrounds and school buildings.[227] An elected body headed by the Mayor performs the administration of the Corporation. The Commissioner acts as the executive head, and oversees the day to day functioning of the local body.

The Municipal Corporation under the Act also has a Standing Committee consisting of the Chairpersons of all the Ward Committees in the Corporation.[228] The Standing Committee by a specific resolution may delegate any of its powers and duties to *sub-committees*.

The Hyderabad Municipal Corporation (HMC) may also appoint from time to time *Special Committees* "by specific resolution carried by a vote of at least two-thirds of the members of the Corporation present at the meeting" for this purpose. By a similar resolution, the HMC may also define the sphere of business of each Special Committee so appointed "and direct that all matters and questions included in any such sphere shall, in the first instance, be placed before the appropriate committee and shall be submitted to the Corporation with such committee's recommendations."[229] The HMC may also appoint from amongst its members *Ad-hoc Committees* and may refer to such committee any special subject for inquiry and report or for opinion. The HMC may then direct that the report of such *Ad-hoc* Committee shall be submitted to the Corporation through the Standing Committee or a Special

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[223] Section 342, HMC Act, 1955
[224] Section 124 (a) HMC Act,1955
[225] Section 8(1)&(2), HMC Act,1955
[226] Section 8-A, HMC Act,1955
[227] They also review the revenue collection, prepare draft annual budget, and send it to the council for incorporation in the city's annual budget.
[228] Section 93, HMC Act,1955 As per the HMC Act, the Standing Committee shall meet once a week and "at such other times as shall be found necessary" and also that every question in the Standing Committee shall be decided by majority of the members present and voting.
[229] Section 98, HMC Act,1955

Committee. The information thus far available shows that there are eleven committees of the HMC including a Water Supply Committee.

As per the HMC Act *"All existing public drinking fountains, tanks, reservoirs, cisterns, pumps, wells, ducts and works for the gratuitous use of the inhabitants of the City"* vests in the Vijayawada Municipal Corporation and is under the control of the Commissioner and the Commissioner may maintain the said water works and regulate the use of any water of such work"[230]. The provision vesting water works/sources in the HMC deserves a close interpretation. The provision restricts vesting with the HMC of (a) only *existing* water works/sources and (b) only for the *gratuitous use* of the inhabitants of the City.

Assam: The Guwahati Municipal Corporation Act

The Guwahati Municipal Corporation Act lays down that for the efficient performance of the functions of the Corporation, there shall be (a) The Standing Committee; and (b) The Commissioner. The Act then lays down the mandatory functions of the Corporation showing under the head "Matters to be provided by Corporation" (as opposed to "Matters which may be taken by Corporation at its discretion") that "It shall be incumbent on the Corporation to make adequate provision by any means or measures which it is lawfully competent to use or take for each of the following matters, namely, (1) The construction, maintenance and cleaning of drains and drainage works and public latrines urinals and similar conveniences;(2) The construction and maintenance of works and means for providing supply of water for public and private purposes;..."[231] The Act also makes it clear that there shall be Standing Committee dealing with "Public Health, Conservancy and Water Supply"[232] Further, it is made clear that the property tax shall be levied on lands and buildings in each holding and shall consist of a water tax of such percentage of the rateable value of lands and buildings as the Corporation may deem reasonable for providing water supply in the city. The water tax shall be levied only in respect of lands and buildings: (a) To which water supply is made or which are connected by means of pipes from municipal water works; or (b) Which are situated in any portion of the city in which the Commissioner has given public notice that sufficient water is available from municipal water works for a reasonable supply to all the lands and buildings in the said portion. However, a good portion of the water supply to the city is provided by another organization viz. Assam Urban Water Supply & Sewerage Board (AUWSSB), apart from the Guwahati Municipal Corporation.

Punjab: The Punjab Municipalities Act,

The working of the municipalities in Punjab is based on a foundation of the committee system under which various committees are formed to carry out the work. One such

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[230] Section 350, HMC Act,1955. Thus, the Commissioner is enjoined with the duty to maintain and regulate the sources of water supply and the municipal water works of the City which are to statutorily vest in the Corporation. See Section 343-349, HMC Act,1955

[231] Section 7 of the Guwahati Municipal Corporation Act

[232] Section 20 of the Act.

Committee is the Water Supply and Sewerage Committee that has been constituted. The Punjab Municipalities Act, 1911 as amended from time to time lays down that:

(1) The committee may, and when the State Government so directs shall, provide the area under its control or any part thereof with a supply of wholesome water sufficient for public and domestic purposes.

(2) For the purpose of providing such supply within the municipality, the committee shall cause such tanks, reservoirs, engines, pipes, taps and other works as may be necessary to be constructed or maintained, whether within or without the municipality; and shall erect sufficient stand pipes or other conveniences for the gratuitous supply of water to the public.

(3) When required by the Medical Officer of Health, the committee shall arrange for the examination of water supplied for human consumption for the purpose of determining whether the water is wholesome. [233]

The committee may supply water for any purpose, on receiving a written application specifying the purpose for which such supply is required and the quantity likely to be consumed. Besides, the committee may withdraw such supply at any time if it should appear necessary to do so in order to maintain a sufficient supply of water for domestic purpose. The Act also specifies that where an application has been received, all necessary communication pipes and fittings shall be supplied by the committee and the work of laying and applying such communication pipes and fittings shall be executed by municipal agency under the committee's order but the cost of making any such connection and of all communication pipes and fittings so supplied and of all works so executed, shall be paid by the owner or the person making such application.[234] The Act empowers the committee to cut off the supply of water from the premises where any person whose premises are supplied with water, neglects to pay the water tax or any sum payable, or willfully or negligently misuses or causes waste of water.[235]

On another note, the specific section detailing with 'powers and authorities of municipalities' of the Punjab Municipalities Act, 1911 is worth noting. The provision says that "...the State Government may, by notification endow the Municipalities with such powers and authorities as may be necessary to enable them to function as institutions of self-government, subject to such conditions as may be specified therein, with respect to, (i) the preparation of plans for economic development and social justice; (ii) the performance of functions and implementation of the schemes which may be entrusted to them including the following, namely: (1) Urban planning including town planning. (2) Regulation of land-use and construction of building; (3) Planning for economic and social development; (4) Roads and bridges; (5) Water supply for domestic, industrial and commercial purposes....."[236] As can

[233] Section 96 of the Punjab Municipalities Act, 1911.
[234] Section 99 of the Act
[235] Section 101 of the Act
[236] Section 50-B of the Act

be seen from the above, the provision is almost a replica of the provisions as contained under the 74th Amendment to the Constitution of India

Bihar: The Bihar Municipalities Act

The provisions of the Bihar Municipalities Act, 2007, being a recent extensive law, are especially remarkable. First, the Act lists out "Core Municipal Functions" for every municipality in the State and says that "Every Municipality shall provide on its own or arrange to provide through any agency the core municipal service of (i) water supply for domestic, industrial, and commercial purposes,(ii) drainage and sewerage, (iii) solid waste management,(iv) preparation of plans for development and social justice, amongst a range of other functions. However, it is also notable that "maintenance of all public tanks and regulating the re-excavation, repair and up-keep of all private tanks, wells and other sources of water supply on such terms and conditions as the Municipality may deem proper" is listed under other functions.

The Bihar Municipalities Act, 2007 makes it clear that "all public tanks, streams, reservoirs, and wells" within the limits of a municipal area, not belonging to any Government department or statutory body (excluding Zilla Parishad or corporation), shall vest in the Municipality.[237] This is amplified by another Section that says "all public tanks, reservoirs, cisterns, wells, tube wells, aqueducts, conduits, tunnels, pipes, taps and other water works, whether made, laid or erected at the cost met from the Municipal Fund or otherwise, and all bridges, buildings, engines, works, materials and things connected therewith, or appertaining thereto, and any adjacent land, not being private property, appertaining to any such water source, which are situated within the municipal area, shall vest in the Municipality." Besides, the Act also specifies that all rights over the sub-soil water resources within the municipal area shall vest in the Municipality.[238] Further, all public drains, all drains alongside or under any public street, and all sewage disposal works," constructed or acquired out of the Municipal Fund or otherwise, and all works, materials and things appertaining thereto", which are situated within or outside the municipal area, shall be vested in the Municipality.[239]

The Act also empowers the Municipalities in the States to separately levy water tax and user charges for provision of water supply, drainage and sewerage.[240] In another separate Section, the Act lists out the specific duty of Municipality to supply water as below:

> *70. Duty of Municipality to supply water. (1) It shall be the duty of the Municipality to take steps, from time to time, either on its own or through any other agency, -*
> *(a) to ascertain the sufficiency and wholesomeness of water supplied within the municipal area,*

[237] Section 100 of the Act
[238] Section 177 and 178 of the Act
[239] Section 195 of the Act.
[240] Section 127 and 128 of the Act

(b) to provide, or to arrange to provide, a supply of wholesome water in pipes to every part of the municipal area in which there are houses, for domestic purposes of the occupants thereof, and for taking the pipes affording that supply to such point or points as will enable the houses to be connected thereto at a reasonable cost, so that the Municipality shall not be required to do anything which is not practicable at a reasonable cost or to provide such supply to any part of the municipal area where such supply is already available at such point or points, and

(c) to provide, as far as possible, a supply of wholesome water otherwise than in pipes to every part of the municipal area in which there are houses, for domestic purposes of the occupants thereof, and to which it is not practicable to provide supply in pipes at a reasonable cost, and in which danger to health may arise from the insufficiency or unwholesomeness of the existing supply and a public supply is required and may be provided at a reasonable cost, and to secure that such supply is available within a reasonable distance of every house in that part.

The Act also recognises that the carrying out of the duties specified above is contingent on a range of other things including the works that need to be undertaken for supply of water. The Act says that for the purpose of providing the municipal area with proper and sufficient supply of water for public and private uses, the Municipality, either on its own or through any other agency, (a) shall cause to be constructed or maintained such tanks, reservoirs, engines, pipes, taps, and other water works as may be necessary, within or outside the municipal area, (b) may purchase, or take on lease, any water works, or right to store or to take and convey water, within or outside the municipal area, and (c) may enter into any agreement with any person or authority for the supply of water.[241] The Chief Municipal Officer is also charged with the responsibility to manage water works and allied facilities belonging to the Municipality and shall need to maintain the same in good repair and efficient condition and shall cause to be done, from time to time, all such things as shall be necessary or expedient for improving such water works and facilities.[242]

The Bihar Municipalities Act, 2007 also empowers the Chief Municipal Officer on an application by the owner, lessee or occupier of any building, either on his own or through any other agency, to arrange for supply of water from the nearest main to such building for domestic purposes in such quantity as may be deemed to be reasonable. Besides, the Chief Municipal Officer on receiving an application, in writing, specifying the purpose for which the supply of water is required and the quantity which is likely to be consumed, supply for

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[241] Provided that the Municipality may, with the approval of the State Government, make over to, or take over from, a statutory body any waterworks so as to do anything which may be necessary or expedient for the purpose of carrying out its functions under this Act or under any other law for the time being in force. This clause, which seems quite innocuous provides a escape route for the state level agencies to continue their dominance in the urban water sector..

[242] Section 180 of the Act.

any purpose other than domestic purpose, on such terms and conditions, including the condition of withdrawal of water, as may be determined by regulations.[243]

In a significant Section, the Act says that any building plan submitted to the Chief Municipal Officer for sanction shall confirm to such rules or regulations relating to water supply, drainage, privy, urinal accommodation within the premises, and sewerage as may be made in this behalf, and no building plan shall be sanctioned by the Chief Municipal Officer unless it so confirms.[244] Finally, the Act mandates that every Municipality shall prepare and maintain a Code to be called the *Municipal Water supply, Drainage and Sewerage Code* which shall include "such regulations as may be made from time to time relating to the construction, maintenance, repair and alteration of water works, water supply mains, supply pipes, drains, sewers, privies and urinals, cesspools, and appurtenances thereof and other matters."[245]

12.3 An Overview of the State Municipal Laws for Water Supply

One needs to make a clear distinction in terms of how states have adopted the 74th Amendment in their laws on one hand and how adoption of the laws have changed ULBs actual work given their set up, powers and functions, on the other. While the content of 74th Amendment has been incorporated by amendments to the relevant laws in States, the results of such amendments are yet to become visible. Enquiries by the study team in the states revealed that these amendments have not become effective in devolution of additional power to the Municipal Corporations and Municipalities. The pre-amendment status quo more or less continues. It is the state department responsible for drinking water known by Public Health Engineering Department in most states that mainly looks after water supply. In Municipal areas, Ward committees etc. have been constituted in some states but their main work is to put up demand for water. But the decision is taken by the local office of the concerned state agency which is provided with requisite funds and functionaries by the State Government.

The state Acts have largely retained the 'Constitutional style' of listing out broad functions, instead of formulating relevant rules and guidelines detailing functional responsibilities of each tier of the municipalities for each of the subjects. If the letter and spirit of the 74th Amendment are to be realized through the respective state Acts then the states must supplement the stated eighteen functions in the 12th Schedule of the Constitution with detailed functional responsibilities, and identification of functionaries and funds for these. It is here that the provisions like the one in Bihar municipalities Act, 2007 mandating that

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[243] Section 171 and 172 of the Act; The Act also says that "the Municipality may, subject to the satisfaction of the reasonable requirements of water within the municipal area, supply water to a local authority or any person outside the municipal area, either by itself of through any other agency." (Section 176)

[244] Section 207

[245] Section 219 of the Act.

every Municipality shall prepare and maintain a Code to be called the *Municipal Water-supply, Drainage and Sewerage Code* (discussed above) needs to be made full use of. But how long will it take before this becomes effective is uncertain since it requires a change in decades old established administrative system and culture and strong political will.

Another point that emerges from the review of the States laws is that while all the current laws often deal with diverse municipal services and activities with water supply services as one of the many services, they have not detailed out the functions of water supply leaving a lot of room for both discretion and even State apathy. The Bihar Municipalities Act, 2007, a recently enacted law, seems to have broken this trend as the extensive review of its provisions above have shown. But its effects have yet to percolate on the ground.

In many States, it is found out that the water supply function is being carried out by government agencies like State Public Health Engineering Department and/or State Water Supply and Sewerage Boards. For example, in Ludhiana 'major' water supply and sewerage schemes vest with the Punjab Water Supply and Sewerage Board under the Punjab Water Supply and Sewerage Board Act, 1976, whereas 'minor' O&M projects vest with the Ludhiana Municipal Corporation under the Punjab Municipal Corporation Act, 1976. Likewise, as pointed out above, a good portion of the water supply to the Guwahati city is provided by Assam Urban Water Supply & Sewerage Board (AUWSSB), apart from the Guwahati Municipal Corporation. This also suggests that the States have not done much to transfer Water Supply services to the Municipalities.

12.4 The Ground Reality

At the time of state level discussion, the municipal functionaries highlighted several functions that they perform relating to providing potable drinking water to residents under their respective jurisdiction, among others. Beside distribution aspects, these agencies also undertake repair and maintenance of distribution lines. Apart from providing house connection in larger settlements, the municipal bodies provide public stand posts in town areas for benefit of those who cannot afford house connections. They are involved in selection of sites for new installations (Bihar, Andhra Pradesh, Maharashtra, Punjab). In some states (Bihar, Maharashtra and Punjab) they undertake construction of new water structures. In Bihar, Punjab and Andhra Pradesh, they give permission for new installations. The regulation of time of supply of water, fixation of water cess, collection of water tariff thereof etc. are some of the other activities being performed by these municipal officials in-charge of providing water for domestic use in most states. The other important activities overseen by these agencies relate to planning and deciding allocation of funds for various ongoing as also new water schemes. As reported in Andhra Pradesh, out sourcing of water service delivery to private entities is also provisioned in some of the municipal areas. But the extent to which the above mentioned services are performed are usually not adequate enough to meet the full demand for water resulting in varying amounts of deficits in different towns/cities.

Maintenance grant from government is a problem as reported by almost all the municipal authorities. The grant is not only inadequate to sustain the maintenance activities but also not regular due to which desired results are not achieved. Fund crunch also affects new schemes to a large extent. As a result, new schemes are either not started, or if started, not completed in time. Hence, authorities at the state level should ensure release of adequate grant in time to municipalities so as to help them in providing better services.

As per field findings, drinking water as made available by municipalities was not accessible to over a third of the households. Many of such households were from Bihar, Uttar Pradesh, Punjab and Andhra Pradesh. However, in Maharashtra, all the selected households reported to have access to municipal drinking water against no one in Bihar. Breakup of households reporting access to government sources of supply of water for domestic purposes in municipal areas where field survey was conducted is shown in the table given below. Providing potable water is a basic responsibility of the municipalities. Hence, authorities should ensure that adequate fund and needed help is provided to the municipalities in time.

Table 12.1: Perception of Households about accessibility of drinking water to all in the towns

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	26	-	30	25	18	16	15	27	157
No	4	30	-	5	12	14	15	3	83
Total	30	30	30	30	30	30	30	30	240

Further enquiry revealed that those who suffered most due to inaccessibility to municipal supply of drinking water, were the socially weaker section households mostly scheduled castes/tribes in Bihar followed by other backward castes. The distribution of households not getting access to municipal supply of water for domestic use is given in the table below.

Table 12.2: Perception of households as to who suffered due to inaccessibility to drinking water.

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
ST/SC	-	18	-	5	5	7	4	-	39
OBC	-	12	-	-	3	1	4	-	20
Minority	-	-	-	-	-	-	-	-	-
Tail end user	4	-	-	-	4	6	7	3	24
Total	4	30	-	5	12	14	15	3	83

In almost all the surveyed states, wastage of water due to overflow/leakage in the municipal pipe lines was reported by about 40 percent of the households. This information was not available for Bihar, where none of the towns including the one covered at the district headquarter level, had water supply arrangement through pipes. This reflects badly on the performance of municipalities. This type of wastage, if not checked in time, would add to the water woos because of increasing demand for water. Hence, it is required that the authorities should take note of the situation arising out of wastage of potable water and do the needful in this respect. The classification of households by their perception about the wastage of water is given in the table below.

Table 12.3: Households' observation regarding wastage of water due to overflow/leakage in the pipelines.

(No. of Rep. hhs)

Response	Assam	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	17	18	19	12	15	26	21	128
No	13	12	11	18	15	4	9	82
Total	30	30	30	30	30	30	30	210

Note:- Bihar is not included in this table because this aspect is not applicable there since there was no piped water supply in the towns surveyed.

Of the households who reported wastage of water due to overflow/leakage in the pipe lines, over 80 percent knew whom to report for repair. Here, Maharashtra is the only state where all the respondents were reported to have knowledge about whom to report for repair. The distribution of households by their awareness to report for repair is given in the table below.

Table 12.4: Urban Households' knowledge about whom to report for repair in case of overflow/leakage in pipeline

(No. of Rep. hhs)

Response	Assam	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	15	18	9	10	11	22	19	104
No	2	-	10	2	4	4	2	24
Total	17	18	19	12	15	26	21	128

Note:- Bihar is not included for the reason mentioned in Table 12.3

Over a third of the sample urban households were also aware that, through judicious use, a considerable quantity of water can be conserved which can be used by them in emergencies or diverted to new users. Such of the households who were aware of saving water through conservative use of water are spread in all the states with the exception of Bihar. The distribution of households by their awareness about conservation of water through judicious use is given in the table that follows.

Table 12.5: Awareness of Households about conservation of water through judicious uses

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	26	-	30	23	22	19	20	24	164
No/No Idea	4	30	-	7	8	11	10	6	76
Total	30	30	30	30	30	30	30	30	240

Quality of drinking water in urban areas as assessed by households by feel/ taste, was reported to be good in a majority of states such as Assam, Maharashtra, Chhattisgarh , Uttar Pradesh and Andhra Pradesh. But in Bihar and Punjab this was not so as reported by 50

percent and 37 percent of urban households in these states respectively. In Bihar as noted earlier, there was no piped water supply in the towns covered in survey. Hence, supply of water was mostly from hand pumps and shallow tubewell. Water quality monitoring/checking system in municipal areas, as reported by sample households was available in most of the states except Assam. The distribution of households reporting about quality of water for domestic use as also a system to check water quality is given in the following tables.

Table 12.6: Households' experience about quality of water for domestic use in urban areas

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Good	30	15	30	30	29	19	29	23	205
Bad	-	15	-	-	1	11	1	7	35
Total	30	30	30	30	30	30	30	30	240

Table 12.7: Awareness of Households about checking of water quality

(No. of Rep. hhs)

Response	Assam	Bihar	Maharashtra	Chhattisgarh	Uttar Pradesh	Punjab	Andhra Pradesh	Kerala	All India
Yes	-	-	18	30	10	20	21	9	108
No	30	30	12	-	20	10	9	21	132
Total	30	30	30	30	30	30	30	30	240

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CHAPTER-13

PUBLIC PRIVATE PARTNERSHIP IN WATER AND THE LAW

The term public private partnership known as PPP has been in news in recent years. Government of India has been advocating for the adoption of this mode of governance in several sectors of the economy. Need for introducing the model in the water resources sector has been stressed by several authoritative bodies. It is in this context that this chapter tries to find out the legal aspects of this model in the water sector. It indicates the legal provisions which already exist specially for urban water supply. A few inferences are drawn at the end. Thereafter, the chapter reviews the status of implementation and views of the selected state governments.

Introduction: Conceptual & Contractual Underpinnings of Public Private Partnership (PPP)

A public private partnership (PPP) project denotes a 'project based on a contract or concession agreement, between a Government or a statutory entity on the one side and a private sector company on the other side, for delivering an infrastructure service on payment of user charges'.[246] Another useful definition of the PPP says that it is "a cooperative venture between the public and private sectors, built on the expertise of each partner, that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards".[247] In other words, a PPP is a partnership between a public organisation and a private company that is encouraged and supported by government policy. In such a partnership, partners work in closely agreed arrangements for the sharing of (a) risks; (b) benefits and rewards; and (c) utilisation of multi-sector skills, expertise and finance.[248]

The balance between private and public sector involvement in PPP transactions in India has been vigorously debated. A part of the problem lies in inadequate understanding of the nature and scope of public-private partnerships across different sectors. The UN Human Development Report 2006 makes an insightful comment in this context. It says, "...the diversity of public-private partnerships cautions against lumping of all private sector involvement under the general heading of 'privatization'..." PPPs are implemented through associations with private sector on a *project-to-project* basis. Though private sector

[246] As defined in the scheme of the India Infrastructure Finance Company Limited and available at http://www.iifcl.org/schemes.html

[247] Downloaded from the Canadians Council for Public Private Partnerships Website, Source URL - http://www.pppcouncil.ca/aboutPPP_definition.asp.

[248] It is also useful to take note of the fact that the legal definition of partnership, according to the Indian Partnership Act, 1932: "Partnership" is the relation between persons who have agreed to share the profits of a business carried on by all or any of them Acting for all .

participation is necessary, a critical factor that must exist for success, includes existence of optimal legal-policy-regulatory *frameworks* backed by government commitment.

13.2 PPPs, Local Self Governments and the Water Sector

It is important to understand the interface of PPPs with local self government institutions such as panchayats and municipalities with reference to specific projects. A report of the Planning Commission has pointed out that "PPP is a suitable method of delivering services commonly provided by local governments and is generally applicable to most components of service delivery."[249] The report also points out that the types of services that could be provided through PPPs will, however, vary from one local government to the other based on their needs and priorities. It (the report) lays down circumstances under which local governments may consider partnerships with the private sector. These circumstances are listed out in Box 1:

Box: 1 Circumstances conducive to Private Sector Partnerships with Local Self Governments

Local governments may consider partnerships with the private sector when any of the following circumstances exist:

(i) if there are opportunities to foster economic development.; (ii) if the involvement of a private partner would allow the service or project to be implemented sooner than if only the local government were involved; (iii) if the project or service provides an opportunity for innovation; (iv) if a private partner would enhance the quality or level of service from that which the local government could provide on its own;(v) if there is an opportunity for competition among prospective private partners;(vi) if there is support from the users of the service for the involvement of a private partner; (vii) if the output of the service can be measured and priced easily;(viii) if the cost of the service or project can be recovered through the implementation of user fees; (ix) if there is a track record of partnerships between local government and the private sector; (x) it the service or project cannot be provided with the available financial resources or expertise of the local government.

Source: Report of the PPP Sub-Group on Social Sector, Planning Commission, Government of India , November 2004

Government of India Guidelines for Sector Reform and Successful Public Private Partnerships of January 2004 are significant for they bring in to light some of the official and mainstream discourses on private sector participation in the water sector. These guidelines state, "Water and sanitation are local issues with predominantly local solutions, but failure to

[249] *Report of the PPP Sub-Group on Social Sector*, Planning Commission, Government of India , November 2004

tackle them successfully can have regional and national implications. Reforms must be properly sequenced and managed, applying key lessons from reforms in other sectors. The private sector has a positive role to play in this process." Building on this premise on the legal and regulatory frameworks, the guidelines had a definitive view which is stated in the Box as below:

Box 2: Key Elements of the Legal and Regulatory Framework for Private Sector Participation

- A crucial element of success in sector reform involving the private sector is an appropriate legal framework. Ideally encapsulated within a single Urban Water Supply and Sanitation Law and supported by the State Municipal Act, the legal framework would underpin State sector policy and the envisaged institutional framework.

- The regulatory framework should clearly delineate state and local-level regulatory roles, and remain sensitive to authorities vested in the ULB under the 74th Constitutional Amendment. Because independent regulators are costly to set up and have limited success in reforming or regulating public sector operators, a **Reform Facilitation Team** at the state-level, empowered to influence fiscal and other support flows to ULBs, could initially drive the reform agenda and create the platform for effective regulation. A State-level regulatory body would be better placed (than ULBs) to benchmark performance of different service providers, provide methodological support, and develop the competence and reputation to resolve disputes between service providers and consumers. ULBs could also opt to delegate tariff-setting authority to the State regulator (if permissible under state law). Drawing from experience in the power sector, if a State regulator is envisaged, State policy should clearly define the reasons for setting it up and the instruments available for effective regulation. One option might be to place WSS regulatory responsibilities within an existing reputable regulatory body such as the electricity or telecommunications regulator.

- As a ULB proceeds to private provision of WSS services, it will be in a position to allow contracts between itself and its private partner to regulate economic and other relationships between "owner" (the ULB), operator (private partner) and customers. Of course, these contracts would need to be consistent with prevailing policy and regulatory frameworks.

Source: Government of India Guidelines for Sector Reform and Successful Public Private Partnerships, January 2004

Government Guidelines stressing the need for developing a Regulatory Framework to enable Private Sector Participation

Government of India Guidelines for Sector Reforms and Successful Public Private Partnerships published in January 2004, stressed upon the need for developing a Regulatory Framework to enable Private Sector Participation. The Guidelines stipulate that the legal framework would establish mechanisms for implementing the state's water supply and sanitation sector policy vision and establish fair and predictable rules. This framework would regulate the relationships between the various state bodies responsible for the sector, economic entities within the sector, and consumers. The Guidelines go on to add that "Ideally, there would be a single UWSS law covering at least all economic aspects of the sector, supported by a suitable Municipal Act. This law would:

- Identify the governing bodies responsible for the sector (for policy-formulation, regulation, asset ownership, contract enforcement, arbitration and dispute resolution) and the scope of the jurisdiction of each;
- Seek to separate (institutionally) operational functions from policy-making and regulation;
- Delineate regulatory roles of state and local authorities;
- Define the structure of the state regulatory body (to ensure competence and independence) and the transition path to its establishment;
- Define the envisaged industry structure under which various aspects of water supply and waste water disposal would operate for bulk water supply, water/waste water treatment, distribution, engineering and capital construction, etc., and mechanisms to enhance competition;
- Require 'ring-fencing' or 'corporatization' of network service providers within governance structures which enhance transparency, accountability and professionalism;
- Require policy-makers to set public service obligations which must be met by service providers, covering water, waste water and service quality, and financial targets;
- Enable several ULBs to consolidate assets, resources and customer bases to exploit economies of scale and scope, for example, by forming regional utilities or other special purpose entities;
- Define the accounting and reporting requirements for regulatory purposes for economic entities governed by this law;
- Define the principles, procedures and authority for setting tariffs;
- Establish the legal basis under which the State or local regulatory authorities will be able to periodically set and update public service and other performance obligations and tariffs, and exercise regulatory control over performance;

- Establish rules and procedures for abstraction or use of ground and surface water resources by the water utility and other users (possibly under a separate law);
- Make the theft of network water a criminal offence;
- Establish appeal mechanisms for customers and regulated economic entities;
- Identify activities eligible for private participation and possibly the forms of public-private partnership envisaged, allowing flexibility for the forms of PPP to evolve to suit the particular needs of the ULBs; and
- Define procedures to be followed for high-cost or high-value contracting, including PPP contracting , and designate governing bodies authorized to design, execute and approve PPP transactions.

Legal Foundation for Reform in Private Sector Participation under Urban Water & Sanitation Services

All of the above suggest that there is need to build a legal foundation for private sector participation through devising appropriate legal framework. Thus, the Government of India Guidelines for Sector Reform and Successful Public Private Partnerships also pointed out that "the present legal structure is built around state ownership of water assets" and added that "In many States, the legal framework lacks provisions for: (i) ULBs or service providers to enter into public-private partnerships or delegate responsibility for operations, management, investment, etc. to private entities; (ii) Clear assignation of powers for fixing, levying and collecting tariffs based on economic principles such as cost-to-serve, return on investment, etc.; (iii) Dealing effectively with sub-standard service, default in payment, theft, wilful damage, or other actions which can adversely affect service providers or customers."

13.3 Legal Power of Municipalities to enter into PPP

The assertion under the Guidelines that the "legal framework lacks provisions for ULBs or service providers to enter into public-private partnerships or delegate responsibility for operations, management, investment, etc. to private entities" merits a close legal scrutiny for the present purpose. The power and the ability of the Municipal Corporations to enter into PPPs may be examined first. Take for example the Hyderabad Municipal Corporation Act, 1955. There is nothing in the Hyderabad Municipal Corporation Act, 1955 or another legislation in the same state the Vijayawada Municipal Corporation Act, 1981 which prohibits Municipal Corporation to enter into contract with a private company. The two legislations lay down a permissive regime where, unless any particular Act or event is specifically prohibited, it should be deemed to be permitted under the laws. Even otherwise, after the 74th Amendment to the Constitution of India, the Municipal Corporations as Constitutional bodies are to be empowered as institutions of self government, whereby the thrust has to be in the direction of vesting as much autonomy and power to the Municipal Corporation as is possible.

Pointers from the Tripartite MoA under JNNURM: The Tripartite Agreement between the Government of India through the Ministry of Urban Development, the State Governments and the Municipal Corporation under the JNNURM, envisages a resolution by the State Government expressing commitment to transferring responsibility of the delivery of municipal services to the ULBs. The MoA, however, itself makes it clear that this can be done by way of unbundling of services as for example "parastatals or others may operate, maintain, even own and collect user charges for the production and distribution facilities for these municipal services, so long as they are accountable to ULBs." The MoA adds in this context that the "Service levels should be fixed by ULBs. The ULBs shall ensure the delivery of services at the defined level by the service providers through the mechanism of contractual arrangement.

It has been noted above that in pursuance of the Constitutional mandate, the Municipal Corporation is empowered to 'unbundle' its services so as to enable 'others to operate, maintain, even own and collect user charges for the production and distribution facilities for the municipal services.' This aspect has been further made clear under the provisions of the Hyderabad Municipal Corporation Act, 1955. The Act lays down that *"for the purposes of providing the city with the supply of water, proper and sufficient for public and private purposes, the Commissioner, when authorized by the Corporation, may... (a) construct and maintain water works either within or without the city and do any other necessary acts; (b) purchase or take on lease any water work or any water or right to store or take and convey water, either within or without the city (c) enter into an agreement with any person for a supply of water."*[250]

An important aspect form the above quoted provision may be noted. The Municipal Corporation through the Commissioner is empowered to "enter into an agreement with any person for a supply of water". The reference to any person here includes any legal person and thus a private entity having a legal status is included in it. Thus, this provision also provides a clear space for private sector participation for all functions for supply of water envisaged under the Act. Besides the above, any contract for the purposes of the Act including for water supply and sewerage services, shall be made on behalf of the Corporation by the Commissioner.[251] However, where a project is framed for execution of any work, the estimated cost of which exceeds rupees fifty lakhs, the Commissioner shall cause a detailed report to be prepared and the Standing Committee shall lay the same before the Corporation. The Corporation may approve, or reject, or approve with modifications and upon such approval the project shall be submitted to the State Government. The Government may then sanction the project with such modifications as it deems fit.[252]

Further it is notable that as per the Hyderabad Municipal Corporation Act, 1955 *"All existing public drinking fountains, tanks, reservoirs, cisterns, pumps, wells, ducts and works for the*

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[250] Section 342, HMC Act, 1955
[251] Section 124 (a) HMC Act,1955
[252] Section 129, HMC Act,1955

gratuitous use of the inhabitants of the City" vests in the Municipal Corporation and is under the control of the Commissioner and the Commissioner may maintain the said water works and regulate the use of any water of such work"[253]. The provision vesting water works/sources in the Corporation deserves a close interpretation. The provision restricts vesting with the Municipal Corporation of (a) only *existing* water works/sources and (b) only for the *gratuitous use* of the inhabitants of the City. This means that all the new water works and even the existing water works which are not serving any gratuitous use and instead are being used for water supply in the municipal area against payment of water charges can be vested, by law, to anybody outside the Municipal Corporation. This may include a private entity including a limited Company.

The legal spaces for PPPs exist in other laws also. The Provisions of the Bihar Municipalities Act, 2007 are especially notable in this regard. The Act says that:

> *The Chief Municipal Officer may, on an application by the owner, lessee or occupier of any building, either on his own or through any other agency, arrange for supply of water from the nearest main to such building for domestic purposes in such quantity as may be deemed to be reasonable and may, at any time, limit the quantity of water to be supplied whenever considered necessary:*
> *Provided that the Chief Municipal Officer may, by order in writing, delegate the responsibility of receiving the application to any other agency.*[254]

The Act adds further that *a municip*ality may, in the discharge of its functions (a) promote the undertaking of any project for supply of urban environmental infrastructure or services by participation of a company, firm, society, trust or anybody corporate or any institution, or government agency or any agency under any other law for the time being in force, in financing, construction, maintenance and operation of such project of a Municipality irrespective of its cost[255] This is further made clear by the Act that in the discharge of its obligations for providing urban environmental infrastructure on services in relation to water supply, drainage and sewerage, solid waste management, communication systems and agencies, commercial infrastructure, the Municipality may, wherever considered appropriate in the public interest (a) discharge any of its obligations on its own, or (b) enter into any private sector participation agreement.[256]

Amongst all the Municipal Laws across States, the Bihar Municipalities Act, 2007 is the only law that specifically lists out the various types of Private Sector Participation Agreements. It says as below:

> *167. Types of Private Sector Participation Agreements.*
> *(1) Private sector participation agreements shall be such as may be prescribed.*
> *(2) Without prejudice to the generality of the foregoing provisions of this Section, such agreements include the following:*

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[253] Section 350, HMC Act,1955. Thus, the Commissioner is enjoined with the duty to maintain and regulate the sources of water supply and the municipal water works of the City which are to statutorily vest in the Corporation. See Section 343-349, HMC Act,1955

[254] Section 171 of the Act

[255] Section 166

[256] Section 168 of the Act.

(a) Build-Own-Operate- Transfer Agreement,
(b) Build-Own-Operate-Maintain Agreement,
(c) Build and Transfer Agreement,
(d) Build-Lease-Transfer Agreement,
(e) Build- Transfer-Operate Agreement,
(f) Lease and Management Agreement,
(g) Management Agreement,
(h) Rehabilitate-Operate- Transfer Agreement,
(i) Rehabilitate-Own-Operate-Maintain Agreement,
(j) Service Contract Agreement, and
(k) Supply-Operate- Transfer Agreement.

Once there is a mandate under the laws, a Concession agreement between Municipal Corporation and the private entity would be the most important legal document where rights and obligation of each of the parties would be brought out with clearly binding timelines and schedules to be followed by the private entity in the implementation of a project. Given the nature of the project and the proposed transaction, the essential provisions that need to be built in the Concession Agreement can then be decided.

13.4 Some Inferences

A close analysis of the laws and the regulatory framework applicable to the PPPs suggests the following inferences:

- In pursuance of the Constitutional mandate, the Municipal Corporation is empowered to 'unbundle' its services so as to enable 'others to operate, maintain, even own and collect user charges for the production and distribution facilities for the municipal services' and this is consistent with the reform being required under the 74th Amendment to the Constitution of India .
- The Municipal Corporation through the Commissioner, is empowered to "enter into an agreement with *any person* for a supply of water". The reference to any person here includes any legal person including a private entity having a legal status. This opens a clear space for private sector participation for all functions for supply of water.
- All the new water works and even the existing water works which are not serving any 'gratuitous use' and instead are being used for water supply in the municipal area against payment of water charges can be vested, by law, to anybody outside the MC. This may include a private entity including a limited Company.

- There is nothing in legislations like the Hyderabad Municipal Corporation Act, 1955 which prohibits Municipal Corporation to enter into contract with a private company. These legislations lay down a permissive regime where unless any particular Act or event is specifically prohibited, it should be deemed to be permitted under the laws.
- Notwithstanding the legal spaces that exist for PPPs, there is need to build a strong legal foundation for private sector participation through devising appropriate legal framework in the water sector. Laws like Bihar Municipalities Acts, 2007 have more defined legal provisions on some of the aspects that may be worth emulating in other States.

Feedback from the States

It is interesting to note that none of the eight state governments had any example of Public-Private Partnership (PPP) in water resources projects (mainly Canal) despite the Planning Commission's persistent recommendation in its favour for more than a decade. A question was asked whether the state government would recommend it for future. The opinion was divided. Only four states were in its favour while the other four were opposed to it. All the states including even those which were in favour, acknowledged that there were no legal measures in their state. Only one state opined in favour of formulating some laws in this connection. It may be said that the state governments in the water resources department are not favourably inclined towards the PPP model.

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CHAPTER-14

WATER POLLUTION AND THE LAW

The chapter here deals with legal issues related to preserving water quality or preventing its deterioration caused through pollution. This is emerging as an important issue facing the water sector today. Apart from explaining the main provisions of the law, the chapter also provides a review of several court cases in this respect.

14.1 Introduction

The Water (Prevention and Control of Pollution) Act, 1974 lays down a regulatory framework under which the authorities created lay down specific standards and ensure their compliance. The legal regime envisaged by the Act includes a) the establishment of Pollution Control Boards, b) the setting up of standards specifying permissible levels of pollution, and c) the enforcement of the said standards through penal provisions. This approach results in 'licensing type controls' whereby a permission is required before a potentially polluting activity may be carried on. Additionally, any on-going activity is also required to comply with the terms of the permission granted by a Pollution Control Board. The Act achieves this objective by authorizing the Board to issue consent orders upon conditions deemed necessary for the abatement of the pollution. Non compliance with the conditions leads to cancellation of the consent. Some of the essential features and aspects of this legal regime on water pollution are discussed in detail below. The discussion is followed by a review of significant verdicts and orders of the Supreme Court and the High Courts from across the country mandating the creation of a fundamental right to pollution free water, evolving key environmental principles and coming up with a series of operative directions in cases from different States and cities.

Objective and Definitions under the Water Act, 1974

The objective of the Water (Prevention and Control of Pollution) Act, 1974, [hereinafter Water Act] as stated in the preamble, is to provide for the prevention and control of water pollution and for the maintenance or restoration of wholesomeness of water through the establishment of Pollution Control Boards.

Some important definitions under the Act may be noted for ready reference here. Section 2(e) defines **'pollution'** to mean, "such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any liquid, gaseous or solid substance into water (directly or indirectly) as may or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organism." **'Trade effluent'** includes "any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any industry, operation or process or treatment and disposal system other than domestic sewage"[257], while **'Sewage effluent'** means "effluents from any sewerage system or sewage disposal works and includes sullage from open drains".[258] **'Stream'**, for the purposes of the Act, includes "river, water course (whether flowing or for the time being dry), inland water (whether natural or artificial), sub- terranean waters, sea or tidal waters to such extent or to such point as the state government may, by notification in the Official Gazette specify".

14.2 Central and State Pollution Control Board: Constitution and Functions

The primary authorities under the Act are the 'Central and State Board for Prevention and Control of Water Pollution', though certain powers have also been vested with the Central and State Government.

At the centre, there is a Central Pollution Control Board (CPCB), which is constituted by the Central Government[259], while at the level of the individual states, there are State Pollution Control Board(s) (SPCB) constituted by the State Governments[260]. So far as the Union Territories are concerned, the CPCB exercises the powers and performs the functions of the State Board[261]. The Central Board, in all matters, is bound by any direction given by the Central Government while the directions given by Central Board or State Government bind the State Board. However, in case of an inconsistency between directions given by either the State Government or the Central Board, the matter is to be referred to Central Government[262]. The Board (Central and State) also has the power to constitute committees or associate itself with persons for certain specific purposes under Section 9 and 10.

The main function of the CPCB is to 'promote cleanliness of streams and wells in the different areas of the states. Specifically, the functions of the Central Board range from advising the Central Government on matters concerning the prevention and control of water pollution, assisting and coordinating the activities of state boards, resolving disputes among

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[257] Section 2(k)
[258] Section 2(g)
[259] Section 3
[260] Section 4
[261] Section 4(4)
[262] Section 18

state boards, planning and organizing training and research programs to laying down standards for streams or wells etc[263].

Besides, the Central Board also has the power to make application to Court for restraining apprehended pollution of water in streams or wells[264] and to give directions to any person, officer or authority[265].

The functions of the State Board include planning and executing programs for prevention, control or abatement of pollution of streams and wells in the state, advising State Government, collaborating with central board in training programs, inspecting sewage trade effluents, works and plants, laying down standards for such effluents and for quality of receiving waters (not being water in an inter water stream)[266], classifying waters of the state, evolving methods of sewage and trade effluents and their utilization and disposal, laying down standards of treatment of sewage and trade effluents to be discharged into any stream, passing order for discharge of waste and for construction of new systems for disposal of sewage and trade effluents[267].

Particularly, the State Board has the power to obtain information and take samples of effluents[268]. For this purpose, any person empowered by the state board has the power of entry and inspection in any place[269].

The samples taken by the Board have to be in strict compliance with the provisions of Section 21 to be admissible as evidence. In the case of Delhi Bottling Company C.B.P.C.P[270], the Central Board took a sample of trade effluent from a Bottling Company's discharge stream, that was found not to conform with the consent requirements. The Board got injunction issued under Section 33 of the Act requiring company to establish a treatment plant. The company pleaded that the samples taken by the Board were not taken in compliance with Section 21 of the Act. Based on this, the Court ruled in favour of the company, holding that consent order was not violated as samples not taken in strict compliance with Section 21 are inadmissible as evidence. Further, order for closure passed without considering reply submitted by petitioner to show cause notice, is liable to be set aside[271].

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[263] Section 16
[264] Section 33
[265] Section 33 A
[266] In Dr. Z. Kotasek V. State of Bihar, the Court held that the term 'inter water stream' relates to water exclusively belonging to the inter-water stream. The flow of water of Ganga being continuous and pollution being alleged for a particular spot, the jurisdiction of State Board cannot be ousted.
[267] Section 17
[268] Section 21
[269] Section 23
[270] AIR 1986 DEL152
[271] S.I.V. Industrial Ltd. V. Tamilnadu P.C.B ; (1996) 2 MLJ 51 Mad

Any person establishing any industry, etc. or altering or introducing new sewage discharge system has to obtain consent from the State Board. For obtaining consent, the conditions specified by the board have to be fulfilled[272]. In case such consent is not obtained, the Board can serve notice on the person imposing conditions on establishment, outlet or discharge of effluents. [273]. The Board also has to maintain a register containing particulars of conditions imposed, relevant parts of which are to be made available for inspection to interested persons. In m/s Narula Dyeing & Printing Works V. Union of India [274], the Gujarat High Court held that a mere consent order issued by the State Board does not entitle the applicant to discharge trade effluents into a stream and it is incumbent upon the applicant to comply with the conditions mentioned in the consent order. If the applicant fails to do so, the Board can under Section 25 of the Water Act withdraw the consent order.

Further, if the conditions laid down by the Board relating to execution of some work are not fulfilled, the Board, in such circumstances may itself execute such work, the expenses of which can be charged to the industry.

Section 31 imposes a duty upon persons in-charge of factory, operation or process to intimate occurrence of any accident or unforeseen act that has or is likely to pollute any stream, well, sewer or land. If it appears to the Board that any stream, well or sewer has been polluted and if the situation calls for immediate action, then, the board can take measures to remove the pollutant, remedy or mitigate the pollution and issue orders to prohibit persons from discharging pollutants. Besides, the Board can also make an application to court for restraining such apprehended pollution and issue directions that include closure, prohibition, regulation of industry, stoppage or regulation of supply of any service etc[275].

14.3 Dealing with Penalties and Offences Under the Water Act

Section 41(1) of the Water Act lays down that violation of directions given in Section 20(2)[276] and 20(3)[277] is punishable with imprisonment for a term that may extend to three months or with fine of upto Rs. 10,000 or with both and in case failure continues, with an additional fine of upto Rs. 5000 for every day during which such failure continues. Punishment for violation of directions issued under Section 33[278] and 33a[279] is provided for in

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[272] Section 25
[273] Section 30
[274] AIR 1995 Guj 185
[275] Section 33
[276] Section 20(2) provides that State Board can give directions to any person to provide information regarding extraction of water or discharge of effluent from a stream if such extraction or discharge is substantial in relation to flow of stream or well.
[277] Section 20(3) empowers the Board to give directions to any person requiring him to provide information relating to construction, installation, operation or disposal system of establishment
[278] Under Section 33, the Board can approach the Court for restraining apprehended pollution of water in streams or wells.
[279] Section 33A confers power on the Board to give directions in performance of its functions under the Act.

clause 2 of Section 41. Offences under this Section are punishable with imprisonment for a term ranging from 18 months to 72 months and with fine[280].

The statutory provisions of the Act apart, the Higher Courts (Supreme Court and High Courts) have taken a strict approach while dealing with offences under the Act. Attempts to evade the law have been thwarted by the courts. Judgments that illustrate the efforts of the courts are discussed below. [281]. In the case of *Uttar Pradesh Pollution Control Board V. Modi Distillery* [282], the State Board initiated proceedings against a company and its corporate officials under Section 47 of the Water Act. The Board's complaint erroneously designated corporate officials as officials of Modi Distilliey, instead of Modi Industries Ltd. The corporate officials sought to quash the prosecution on the ground that under Section 47, corporate officials could not be prosecuted if the company was not prosecuted. The apex court reversed the order quashing prosecution and held "it would be travesty of justice if the big business house…is allowed to defeat the prosecution launched and avoid facing the trial on a technical flaw which is not incurable for their alleged deliberate and willful breach of the provisions".

In, *U.P. Pollution Control Board V. Mohan Meakins Ltd.* [283], the Supreme Court revived prosecution against the company and its directors and held that" those who discharge noxious polluting effluents into the stream may be unconcerned about the enormity of the injury which it inflicts on the public at large, the irreparable impairment it causes on the aquatic organisms, the deleteriousness it imposes on the life and health of animals…the Courts should not deal with the prosecution for offences under the Act in a casual or routine manner."

Discussing the liability of a manager, the Calcutta High Court in *K.K.Nandi V. Amitabha Bannerjee* [284] held that a person designated as manager of a company is prima facie liable under Section 47. The Court observed that whether or not the person designated 'manager' was in fact overall in-charge of the affairs of the factory and whether or not he had any knowledge of the violations of the Act are questions of fact to be determined at the stage of trial. In this case, the complaint initiating prosecution against manager of company did not enumerate how he was responsible and how he had violated the Act.

In, *Mahmud Ali V. State of Bihar*[285], the Court impleaded the managing director of a company charged with violation of Water Act though his name was not mentioned in the original

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[280] The amount of fine that can be imposed has not been specified.
[281] Section 47
[282] AIR 1988 SCC 1128
[283] 2000(2)SCALE 532
[284] 1983 CR.L.J.1479

[285] AIR 1986 PAT 133

complaint. In *J.S.Huja V. State* [286], the Allahabad High Court rejected the contention of the managers that they were not responsible to the conduct of the business and that they had retired, on the ground that there was a clear allegation that the applicants were responsible for the work of the company when the offence was committed. In *Z. Kotasek Vs. Bihar* ,[287] the company tried to evade prosecution on the ground that since the Board had not sanctioned the complaint, the manager was not liable and that the report was premature since the Board had not considered the analysis report. Further, it was alleged that the State Board had no jurisdiction since Ganga was an inter-state river. However, the High Court, rejecting the sub missions of the company, held that the Board had jurisdiction to regulate polluters discharging effluents at a point within the state. In *Trans Asia Carpets Ltd. V. State of U.P*[288], the company claimed exemption from prosecution on the ground that it was a sick industry. Rejecting the contention of the company, the High Court held that protection to sick industries does not extend to prosecution under the Water Act. In, *Haryana State Board V. Jai Bharat Woollen Finishing Works* [289], the High Court held that 'discharge of a trade effluent without the consent of Board amounts to an offence under the Water Act and it is immaterial whether the water was discharged into a municipal drain or flowed directly onto land.'

Further, in *Vineet Kumar Mathur v. Union of India*[290], the Court initiated contempt proceedings against the Board officials for permitting Mohan Meakins brewery to discharge untreated effluents into Gomti beyond deadline imposed by the Supreme Court. The Court found the officials to be guilty of violation of the Court's order and reprimanded them. In *Industrial Chemical Works V.Dayabhai.K.Solanki* [291], the Court held that prosecution cannot be thwarted on the ground of procedural infirmities such as non-production of sanction at the time of filing of complaint.

14.4 The Water Cess Act, 1977 and Industrial Liability

Parliament adopted the Water Cess (Prevention and Control of Pollution) Act of 1977 to provide funds for the Central and State Pollution Control Boards. The Act empowers the Central Government to impose a cess on water consumed by industries listed in Schedule I of the Act. Specified industries and local authorities are subject to the cess if they use water

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[286] 1990 ALL .LJ 41

[287] **1984 CR LJ 683**
[288] 1992 All. LJ. 357
[289] 1993 FOR L.T. 101
[290] 1996 (1) SCC 119

[291] 1993 GUJ.L.R.1318

for purposes listed in Schedule II of the Act, which includes : (1) industrial cooling, spraying in mine pits, or 'boiler feed'; (2) domestic purposes; (3) processing which results in water pollution by biodegradable water pollutants; or (4) processing which results in water pollution by water pollutants which are not easily biodegradable or are toxic. A rebate of twenty – five per cent of the cess is given to complying industries and authorities.[292]

After the implementation of the Water Cess Act, 1977 many industries have challenged the imposition of the cess. These challenges required the Courts to go into various issues, namely, interpretation of the Act, nature of industry, nature of end product, and so on. The Patna High Court in the famous *TISCO* case titled, *TISCO Vs. State of Bihar , 1991,* held that a cess imposed under the Water Cess Act is by way of compulsory exaction of money by a public authority for a public purpose. The Court further stated that a cess is to be imposed for the purpose of treating the effluent of the factory and other sewage so that the common public may not have to use contaminated water or polluted water. The issue of interpreting the Water Cess Act also came up before the Kerala High Court in the *Kerala SPCB* Vs. *Gwalior Rayon Silk Manufacturing (Weaving) Co., 1986,* case. The Hon'ble Court stated that rules that sought to ensure regulation of the release of effluents into rivers are in the interest of the public and are therefore valid.

Regarding the imposition of cess, it is quite settled that this would depend on the nature of the industry. In *Tata Engineering and Locomotive Company Ltd. Vs. State,* the Patna High Court stated that while identifying the nature of an industry, the totality of its activities and its dominant primary purpose should be the guiding factor and not the mere presence of some incidental processes. This test of "dominant purpose" is now the test that is followed to ascertain whether the industry attracts the provisions of the Water Cess Act.

14.5 Right to Pollution Free Water and Key Environmental Principles Evolved/Laid down by the Supreme Court and High Courts

To start with, a number of High Courts came up with direct and specific pronouncements on citizens fundamental right to pollution free environment. The Andhra Pradesh High Court ruled in 1987 that "Article 21 of the Constitution embraces the protection and reservation of nature's gifts without which life cannot be enjoyed.... The slow poisoning by the polluted atmosphere caused by environmental pollution and spoilation should also be regarded as

[292] See Divan S. and Rosencranz A;2001; Environmental Law and Policy in India ; Second Ed.; Oxford University Press

amounting to violation of Article 21 of the Constitution"[293]. On the same lines, the Karnataka High Court pointed out that "Entitlement to clear environment is one of the recognised basic human rights" and further held that "right to life inherent in Article 21 of the Constitution of India does not fall short the requirement of quality of life which is possible only in an environment of quality"[294]. The Kerala High Court reiterated the position by holding that the "right to sweet water and the right to free air, are attributes of the right to life, for, these are the basic elements which sustain life itself. Following these pronouncements, the Supreme Court also recognised and asserted the fundamental right to clean environment under Article 21 of the Constitution in very categorical terms. Thus, it was held by the Apex Court in *Subhash Kumar v State of Bihar* [295] that "Right to live includes the right to enjoyment of pollution free water and air for full enjoyment of life".

The clear enunciation of the fundamental right to environment, including right to clean air and water under the Constitution has drawn support from some important principles laid down by the Apex Court.[296] The Polluter Pays Principle[297] and 'The Precautionary Principle' are two of the most important principles. In the landmark case of *Vellore Citizen's Welfare Forum v Union of India and others*[298] the Supreme Court explained that the "Precautionary Principle" means:

i) Environmental measures by the State Government and the Statutory Authorities must anticipate, prevent and attack the causes of environmental degradation
ii) Where there are threats of serious and irreversible damages, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The "onus of proof" is on the actor or the developer / industrialist to show that his action is environmentally benign. In view of the above, the Court affirmed that "the precautionary principle and the polluter pays principle are part of the environmental law of this country".

In addition to the above, there is also the principle of ecological restoration i.e., the polluter will not only pay for the damage done but also for restoration of the ecology destroyed by him in an area. A closer look shows that this is just the extension of the Polluter Pays Principle. Another important principle adopted by the Supreme Court is the Principle of Inter-generational equity.[299] In the case of Mathew Lokuse V. Karnataka S.P.C.B[300], explaining the principle of inter generational equity, the Court held: "the world belongs to us in usufruct but we owe a duty to the posterity, to the unborn to leave this world at least as beautiful as we

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[293] Damodhar Rao v S O Municipal Corporation, Hyderabad, AIR 1987 AP 170
[294] V. Lakshimipathy v State, AIR 1992 Kant. 57
[295] AIR 1991 SC 420
[296] For a brief, but useful overview of these principles also see Mahajan.K..
[297] The Principle is explained in the Section on market based instruments as it provides the foundation for use of economic tools for preventing pollution.
[298] JT1996 (7) SC 375
[299] See for example *Andhra Pradesh Pollution Control Board v. M.V. Nayudu, 1999(2) SCC 718: 1999 AIR (SC) 812*
[300] 1990 (2) KER.L.T. 686

found it".[301] The Apex Court observed in the case of *Andhra Pradesh Pollution Control Board v. M. V. Nayadu* that "Several international conventions and treaties have recognised the above principles and in fact several imaginative proposals have been submitted including the locus standi of individuals or groups to take out actions as representatives of future generations, or appointing Ombudsman to take care of the rights of the future against the present."[302]

Apart from adopting some settled principles, the Supreme Court has also evolved new strategies to deal with pollution cases. One of the single biggest contribution of Indian Courts to Jurisprudence is the rule laid down in Bhopal Gas Leak case of *M.C. Mehta v Union of India* [303] where the Supreme Court went beyond the settled common law principle of the 'Strict liability', and evolved the principle of absolute liability. The principle, in the words of the Court was:

> *"Where an enterprise is engaged in a hazardous and inherently dangerous activity and harm results to any one on account of an accident in the operation of such hazardous and inherently dangerous activity, for example, in escape of toxic gas, the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident and such liability is not subject to any of the exceptions which operates vis-à-vis the tortious principles of strict liability".*

This rule has profound implications for all kinds of hazardous activities as it makes causation of harm rather than fault behind it as the factor responsible of the liability.

14.6 Important Directions of the Court on Water and Environment with Special Reference to Study States

The creation of the rights and principles discussed above has provided the basis for the higher Courts to come up with some decisive operative directions in specific contexts and cases. Before closing the present chapter, some of these cases are discussed below with special reference to the study states.

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[301] The origins of the principle can be seen in the principles 1 and 2 of the 1972 the stockhome declaration. These principles lay down the solemn responsibility of man to safeguard the natural resources of the earth for the benefit present and future generation through careful planning and management.

[302] 1992(2) SCC 718.
[303] AIR 1987 SC 1086

A writ petition was filed in the year 1992, alleging therein that the supply of drinking water in Agra city was extremely polluted, the water being contaminated, filthy and totally unhealthy for human consumption. It was also averred in the said petition that notwithstanding several legislations conferring power and duty on different agencies like the Nagar Mahapalika, the State of Uttar Pradesh, the U.P. Pollution Control Board, those authorities had not exercised their power as a result of which the common man and the citizens of Agra had been suffering.[304] The Supreme Court directed the State Government to appoint a Monitoring Committee to be headed by the Commissioner of Agra which can look into the effective functioning of the several public authorities, who are responsible for the supply of drinking water, providing sewerage and providing adequate measures for disposal of solid waste.

In another writ petition, filed before the Allahabad High Court, it was alleged that during the last several years, the town of Allahabad had been witnessing acute water shortgage, and it was indeed lamentable that a city, which is situated at the confluence of two major rivers of the country, the Ganga and the Yamuna, was reeling under agony of shortage of water supply. It had been alleged that several localities in the city were having no water supply for days together, while in other places the water hydrants remained unattended and uncapped and consequently gallons of water, which is so basic and vital for human life, went waste. The High Court directed that a Committee (to be called the Allahabad Water Committee) be set up immediately to look into this problem and decide on ways and means to solve it.[305]

A petition was filed before the Gauhati High Court highlighting the problem relating to potable water, its scarcity and impurity, both. It was alleged that it is the responsibility of the Gauhati Municipal Corporation to supply sufficient drinking water, which should also be clean and drinkable. Ultimately, the State has also to be concerned about this primary and essential need of the public. The Gauhati High Court observed that "*Water, and clean water, is so essential for life. Needless to observe that it attracts the provisions of Article 21 of the Constitution. Hence, heavy responsibility is also laid on the State Government in this regard, apart from the Municipal Corporation.*" After discussing the issue at length and recoding the contentions raised by the Gauhati Municipal Corporation, the High Court issued following directions:

"*We feel that it may not be possible for us to believe that the respondents are helpless and shall continue to supply 1/3rd of the water required and that too, not very clean. Concrete,*

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[304] *Writ Petition (C) No. 426 of 1992 titled as D.K. Joshi v. Chief Secy., State of U.P.* reported as *(1999) 9 SCC 578, decided on November 19, 1999*

[305] S.K. Garg vs State Of U.P. and Others decided on 28 May, 1998 reported as (1998) 2 UPLBEC 1211

workable, practical and affordable schemes have to be framed by them, which may be placed before the Court within a period of three months.[306]

Another writ petition was filed before the Andhra Pradesh High Court seeking a declaration that the action (rather failure) of the State Government in not providing safe drinking water and also for not preventing the outbreak of cholera and gastro-enteritis diseases in the State of Andhra Pradesh, as illegal and unconstitutional and consequently it should be directed to replace all the damaged and leaking drinking water pipes, replace the drainage system to prevent leakage and overflowing and to provide clean drinking water to all the citizens in the State. The High Court directed that "periodical checkups of the water supplied to the people be made in each ward of the Hyderabad and Secunderabad cities at least once in six months." And the Court went on to direct further saying that "It is also desirable that the twin cities are divided into certain zones so that a few grievance cells are put up at different locations where people can make complaints atleast during the working hours. During the hearing of the case, it was revealed that the water pipes in most of the areas in the twin cities have been laid before independence. Therefore, we direct that within a period of six months, the Government shall devise a mechanism for either repairing or replacing the pipes. This project shall be completed as soon as possible keeping in view the financial and other technical constraints, but the scheme shall be formulated within a period of six months."[307]

In 2006, a public interest litigation was decided by the Kerala High Court ventilating the grievances of the people of West Kochi who had been clamouring for supply of potable drinking water to them, for the last more than three decades. Noting that the petitioners "have approached this Court as a last resort" the Court held that:

"We have no hesitation to hold that failure of the State to provide safe drinking water to the citizens in adequate quantities would amount to violation of the fundamental right to life enshrined in Article 21 of the Constitution of India and would be a violation of human rights. Therefore, every Government, which has its priorities right, should give foremost importance to providing safe drinking water even at the cost of other development programmes. Nothing shall stand in its way whether it is lack of funds or other infrastructure. Ways and means have to be found out at all costs with utmost expediency instead of restricting action in that regard to mere lip service." The High Court directed the State Government to take and complete all steps necessary for supplying drinking water to the people of West Kochi within six months. It was also directed that within completion of six months from the date of

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[306] Civil Rule (PIL) No. 12 of 1998 and PIL No. 9 of 1999, Gautam Uzir and others Vs Gauhati Municipal Corporation and Others, Decided on 10.08.1999 reported as 1999 (3) GLT 110

[307] Wasim Ahmed Khan vs Government of A.P. decided on 10 December, 2001 reported as 2002 (2) ALD 264, 2002 (5) ALT 526

judgment of order, the people should be getting potable water in sufficient quantities through an efficient water supply system without fail.[308]

14.7 Some Findings from the States

Environment being a subject in concurrent list under the Constitution of India, all states covered in the survey were found to be following the laws and rules framed by the Union Government. This was mainly the Water (Prevention and Control of Pollution) Act, 1974 and the rules framed thereunder. The agency for control was the State Pollution Control Board established under this Act. Assam, Bihar and Kerala, however, also mentioned about Environment (Protection) Act, 1986. The states have not made any law on their own with regard to water pollution.

A question was asked as to how effective was the role of State Pollution Control Boards in ensuring water quality standards. The response was mixed as seen below.

Very effective - **Assam**
Effective - **Bihar, Uttar Pradesh, Andhra Pradesh, Kerala**
Just effective - **Maharashtra**

Further enquiries in different states revealed that effectiveness was much less than that reported officially by the respective State Pollution Control Boards as evidenced by gradual deterioration in the quality of water. In this context, the Legal Adviser of Pollution Control Board of one state drew attention to a basic inadequacy of the system. According to it, a real problem is that the State Pollution Control Board is a Government organization. Hence, its officers are usually hesitant to take action against senior government officers in charge of municipalities or public sector undertakings etc. which may be polluting water specially as sewage system is the main contributor to pollution. In many cases the officers in the polluting units are much senior in rank to those in State Pollution Control Boards. In the case of private sector, action is taken without any fear or favour specially as law gives adequate power to the Pollution Control Boards. But the legal process is so cumbersome that trial runs over several years. Hence, he suggested the need for special court or special magistrate along with provision for time bound judgment. This will also help judges to specialize in pollution control aspects.

The states of Assam, Bihar, Maharashtra, Chhattisgarh, Punjab, Andhra Pradesh and Kerala indicated that there was a system to check quality of ground water for drinking purpose. But it was considered reliable only upto some extent. Checking was reported at different levels in different states as noted below.

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[308] O.P. Nos. 11038 and 32205 of 2000 Vishala Kochi Kudivella Samrakshana Samithi V. State of Kerala, decided on: 20.02.2006, reported as 2006(1) KLT919

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State	- **Assam, Bihar, Punjab, Andhra Pradesh, Maharashtra**
District	- **Assam, Bihar, Chhattisgarh, Punjab, Maharashtra, Kerala**
Block/Taluka	- **Assam, Punjab, Maharashtra**
Panchayat	- **Assam, Chhattisgarh, Punjab**
Village	- **Chhattisgarh**

The checking of water quality for drinking purpose was done with manual methods in Assam, Chhattisgarh, Punjab and Andhra Pradesh and with mechanical method in Bihar, Maharashtra and Kerala. As regards frequency of the tests, it was reported as half yearly by Bihar, yearly by Kerala and as and when required by Chhattisgarh and Punjab.

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CHAPTER-15

OWNERSHIP OF WATER IN INDIAN LAWS

The chapter here reviews the legal position on ownership of water and water sources under Indian laws. The chapter is in two parts. The first part discusses some of the water laws passed prior to independence and which continue to be relevant even today in understanding the legal position on the subject including some critical case laws that help explain the position in the Statutes. The second part explores the legal position following India's independence and raises some questions and concerns on the relevance of ownership of water and water sources in today's context.

15.1 State's "Use and Control over Water" in Respect of Water Legislations before Independence

In the history of human civilization, water was treated as an open access resource with free access for all without any notion of property rights over it. Halsbury's Laws of England and English cases have also historically attested to this understanding. Earlier legislation in India , such as in the Limitation Acts (1859-71), the Northern India Canal and Drainage Act 1873, the Bengal Irrigation Act, 1876, and also the Specific Relief Act, I of 1877 (Section 52-57) including the preamble of these legislations also showed this understanding.[309] Thus one of the early legislations in the area of water resource management in modern India namely, Northern India Canal and Drainage Act 1873 in its preamble says that:

> *"The Provincial Government is entitled to use and control for public purposes the water of all rivers and streams flowing in natural channels, and of all lakes and other natural collections of still water."*

Likewise, the Bombay Irrigation Act, 1879 lays down that:

[309] See Chhatrapati S. 1990; *Water Law and Policy in India* ; Indian Law Institute at Page.26

> *"whenever it appears expedient to the State Government that the water of any river or stream flowing in a natural channel, or any lake or any other natural collection of still water, should be applied or used by the state government the State Government may, by notification declare that the said water will be so applied* (Section 5) "[310].

It is noteworthy that these laws, without talking about ownership, asserted right of state to use and control water.

It is also useful to note that around the same time in colonial India, the natural riparian right to water also found a statutory footing under the Indian Easement Act 1882. The notion of 'riparian rights' (arising out of the ownership of the land) over water resources came to be recognized by the 1882 Act. The main principle of the notion is that a riparian owner has a natural right to use the water of the stream which flows past his land equally with other riparian owners, and also has the right to have the water come to him undiminished in flow, quantity or quality and to go beyond his land without obstruction [311]. Besides, the Easement Act also legitimized customary rights of the people, and provides two rules for their recognition: by long use or prescription (Section 15) and by local customs. (Section 18). However, under the 1882 Act all these rights are subject to the overriding provision of "any right of the Government to regulate the collection, retention and distribution of the water of rivers and streams flowing in natural channels, and of natural lakes and ponds, or of the water flowing, collected, retained or distributed in or by any channel."

As can be seen from the above, under the provisions of the Easement Act, 1882, the Government had the power to regulate, in public interest, the collection, retention and distribution of water of rivers and streams flowing in natural channels or in manually constructed works, provided that they do not thereby inflict injury on any other riparian owners and diminish the supply that they have traditionally utilized.

The above discussion makes it amply clear that while the power to "use and control water" and "to regulate, in public interest, the collection, retention and distribution of water of rivers and streams" vested in the government of the day under the various laws, there was no question of State "owning" the water. It is logical to infer that given the nature of the water resource, the question of its ownership never arose and was thus not envisaged under the

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[310] The Bengal Irrigation Act 1876 was also similarly worded.

[311] While laying down the exclusive right of the owner of an immovable property to enjoy his property, the Indian Easements Act 1882 explains through illustration (j) appended to Section 7 that this would include: The right of every owner of land abutting on a natural stream, lake or pond to use and consume its water for drinking, household purpose and watering its cattle and sheep: and the right of every such owner to use and consume the water for irrigating such land, and for the purpose of any manufactory situate thereon , provided that he does not thereby cause material injury to other like owners.

laws. Having said that, there was interest and intent of the state in the colonial era for asserting proprietary rights over water. Take for example the Kumaoan Water Rules 1917 that laid down that *"The beds and water of all rivers and natural streams and all lakes, natural ponds, and other collection of still water within the hill tracts of the Kumaoan division are the property and subject to the control of the state"*[312] These Rules also made clear that no water mill or irrigation channel shall be constructed or worked without the sanction of the Collector.[313]

A similar assertion of State proprietary rights over water in the first half of the twentieth century was found in other legislations too. The Madhya Pradesh Irrigation Act, 1931 also enacted around the time of Kumaon Water Rules explicitly laid down that *"All rights in the water of any river, natural stream or natural drainage channel, natural lake or other natural collection of water shall vest in the Government..."* In the same vein, the Bihar Irrigation Act vested "all rights in the water of any river, natural stream or natural drainage channel, natural lake or other natural collection of water" in the State and added that similarly every irrigation work shall also vest in the State.[314]

Early Case Law on States' Sovereign, Non- Proprietary Right Over Water

The declaration by the State that rivers and water bodies "are the property and subject to the control of the state" does not, however, make the state the absolute owner of water. Court judgments before India's independence also establish that the rights exercised by the state over water are in fact not proprietary in nature but sovereign in character. In the most well known and clear judicial pronouncement in the colonial era by the Madras High Court settling the nature of the state interest in water, the Court held that "the right of the government to control the supply and distribution of irrigation water is not a proprietary but a sovereign right" while adding in the context of the facts of the case that "a right by prescription can be acquired as against the proprietary right of another but not as against the sovereign right which under the Indian law, the state possesses to regulate the supply of water in public streams so as to utilize it to the best advantage[315]. In another case, where it was contended that 'in common law where a river was non-tidal, though navigable, its bed belonged to the riparian proprietor', the argument was rejected and it was held that the bed of

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[312] Note to Rule 1 Kumoan Water Rules 1917

[313] Further, the Rules said that when the construction and working of a water mill is sanctioned, the collector shall assess it for such rent as he may think fit. The Kumaoan Water Rules of 1930 modified the 1917 Rules and importantly the first of these Rules laid down that government will have no objection to the construction of new irrigation channels by any landholder but such channels must not reduce or otherwise be injurious to an existing right of the user of water belonging to any other party.

[314] See Section 3 and Section 4 of the Bihar Irrigation Act.

[315] Secretary of State V. Nageswara Iyer, AIR (1936) Mad. 923 at Page 926.

a navigable river in any part of India, whether tidal or not, is vested in the government unless it has been granted to private individuals.[316]

Cases in this era itself also showed that inspite of the situation that the government's right to regulate irrigation in natural waters was paramount and sovereign in character, the same could not be exercised arbitrarily. This right was subject to the riparian's right to get the quantity of water to which he is entitled by custom. Besides, the right of the government to regulate the distribution of water of tank could be exercised in a way as not to violate the proprietary rights of others.[317] The paramount right of the government to regulate irrigation is subject to the rule that "in the process of such control and regulation, the government should not inflict injury on other riparian owners or diminish the supply which the irrigators have hitherto utilized.[318] The government's right, thus, did not include the power to disturb the existing arrangements to the prejudice of any tenant during the continuance of tenancy.[319] On these principles, in a case where a dam had been in existence across a river for more than 280 years and all through the years two villages had received equal supply of water from separate sluices in the dam, the action of the government, (in deciding that one village required less water than the other and thus reducing the size of the sluice supplying water to the former), was held not to have power arbitrarily to curtail or interfere with the rights of irrigators to the enjoyment of water.[320]

15.2 The Ownership Question Today: the Legal Position and Some Concerns

Following independence, as part of larger land reform efforts, Zamindari Abolition legislations were passed across the country. This development also had a direct bearing on the legal question of ownership on water and water resources. To pick up the position from Kumaon Water Rules (enacted prior to independence) and to appreciate how the legal position on water and water resources ownership begin to change post independence, note the example of Kumaoan and Uttarakhand Zamindari Abolition Act 1950. The 1950 Act in the State confirmed that ownership of a private well i.e. a pond, *naula* or *nauli* vested in the owner of the land in which it was located. Rules framed under the Act established this by giving the right of transfer of the pond to the owner of the land "who will not be liable to be ejected and shall have the right to use the (site of the pond) for any purpose." This was clear vesting of water rights for the land owners and in respect of water sources and water bodies falling within their lands. The Rules also made clear that "tanks, ponds, ferries, water

316 Maharaja of Pittapuram v. Province of Madras AIR 1909 Privy Council 3. The case was cited with approval in Raja Srinath Roy And Others V/S Dinabandhu And Others AIR 1914 Privy Council 48

317 See Secretary of State V. Palaniyappa Pillai, 41 Indian Cases 24 (1917)

318 See Robert V. Secretary of State, 2 Indian Cases 325 (1909).

319 See Ramachandra V. Narayanasami I.L.R. (1893) 16 Mad. 333 and Krishna Ayyar V. Venkatachala Mudali 7 M.H.C.R. 60. Further, it has also been observed that the government can not abdicate its duty of seeing to the equitable distribution of the supply of water between the ryotwari tenants under each channel source. See Madras V. Mohammad Ghani A.I.R. 1959 Mad. 464.

320 Collector of Nasik V. Shamji, I.L.R. (Indian Law Reports) (1883) 7 Bombay 209

channels belonging to the state shall be managed by the Gram Sabha or any other local authority." Thus, the Act affirmed the ownership of a water source within one's land and also provided modalities for managing any state owned water channel or pond through local authority.[321]

It was the Kumaon and Garhwal Water (Collection Retention and Distribution) Act 1975 that sought to redefine the water law framework for the State. The Act was passed to regulate and control in public interest the water resources in the mountain tracts of the Kumaon and Garhwal divisions and for this purpose "empowered the State government to regulate and control, by rules under the Act, the collection, retention and distribution of water and water resources." While doing so quite astonishingly, the Act also declared that "*all the existing rights (whether customary or otherwise and whether vested in any individual or in village communities) of use of water, if any in the areas to which this Act extends, shall stand abolished.*"[322]

Similar statements in the laws from other States establish that State Governments control the water and the water sources. Take the following examples:

- The Bihar Irrigation Act, 1997 vests "all rights in the water of any river, natural stream or natural drainage channel, natural lake or other natural collection of water" in the State government.[323]

- Andhra Pradesh Water Resources Development Corporation Act, 1997 makes it clear in its preamble that it is "An Act to create the Andhra Pradesh Water Resources Development Corporation for promotion and operation of irrigation projects, command area development and schemes for drinking water and industrial water supply to harness the water of rivers of the state of Andhra Pradesh and for matters connected therewith or incidental thereto including flood control." As can be seen, there are formulations here like "the water of rivers of the state of Andhra Pradesh". The vesting of the water resources should be seen separately from the vesting of water and irrigation assets and projects. Thus, another Section of the Andhra Pradesh Water Resources Development Corporation Act, 1997 lays down that :

  "The properties and assets comprising movables and immovables including Irrigation Projects, works under construction and management of completed schemes specified in that behalf, situated in the area of operation of the

[321] For a useful discussion on these aspects also see *Dying Wisdom*, Centre for Science and Environment, 1997
[322] Section 3 of the Kumaon and Garhwal Water (Collection Retention and Distribution) Act 1975.
[323] Section 3 of the Act.

Corporation, which immediately before the appointed date vested in the State Government and were under the control of the Irrigation and Command Area Development Department, shall vest in and stand transferred to the Corporation.."[324]

- The Kerala State Water Policy, 2008 states that "Ownership of water resides with the State as a publicly owned resource with entitlements for individuals, communities and service providers to use the water without owning it."

- As per the Orissa Irrigation Act, 1959 the impounded Dam water is a "government water source" and "is the property of the Government". The Act further empowers the State government to regulate the use diversion, collection or consumption of water from government water source for industrial and commercial purposes in public interest. The regulation is done by a licensing regime wherein industries are required to procure a license which may be given on terms and conditions to be decided by the state government. The ultimate use of water by the industry is then formalized by an Agreement.

There could be some natural questions that may arise regarding the legal formulations and provisions as above. For example, given the legal framework that sees dam waters as "government water source" and "the property of the Government" should the people and civil society be concerned that they are not the owners of water sources? One feels a more pertinent concern with the people is that they have access to water and that water resources is being used for their own greater common good. The regulatory framework needs to take care of this requirement. Given the existing legal regimes, such a framework can still be built on the grant of full user rights to the people over water and to the State enabling it 'to regulate water and water sources in public interest'. This needs to be tempered with the realization that such a power of the State arises not because it owns water but because it holds the water and water sources in 'public trust'.[325] With this understanding in the context of possible conflict over say water stored in a dam, if the state government internalizes that it is trustee of water resources in the state, it would be easy for it to use the space created by the licensing regime and the Agreement for drawl of water under the Irrigation Act *to ensure that* :

(a) any drawl of water by any industry does not affect the rights of the riparian owners, and

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[324] Section 15 of the Andhra Pradesh Water Resources Development Corporation Act, 1997.

[325] It is useful to know here that the Supreme Court of India also adopted the 'Public Trust doctrine' in relation to natural resources through a landmark verdict in 1997. *See MC Mehta v. Kamal Nath* (1997) 1 SCC 388

(b) such drawl is not at the expense of water need for irrigation by the farmers.

If only the State government can ensure the two conditions in (a) and (b) above, the mere formal assertion in the Act that dam water is "the property of the Government" would not be of any adverse consequence for the people of the particular State. The Kerala State Water Policy, 2008 and the statement contained therein that "Ownership of water resides with the State as a publicly owned resource with entitlements for individuals, communities and service providers to use the water without owning it" seems to be founded on the same basis.

15.3 Ownership of Ground water and of local water sources with Panchayats

When it comes to ground water, traditionally, the owner of land had an unrestricted right to use the ground water beneath it.[326] Since ground water has a direct link to the land above, a link was established between land ownership and control, if not outright ownership, of the water found underneath the plot. Many legal observers believed that the Indian Easement Act, 1882 supported this position. Under the Easements Act, 1882 landowners have easementary rights to collect and dispose of all water found under their land. There is thus "an in dissociable link between land ownership and control over ground water. This implies that ground water is mostly controlled by individuals or legal entities that own or occupy land."[327] It was also felt that "where the common law principle is strictly applied, land owners are not restricted in the amount of percolating water they can appropriate." [328]

Irrespective of the question as to whether Indian Easement Act, 1882 gave an absolute right to the owner of land to use the ground water beneath it (a legal enquiry that need not be further discussed here) the fact is that today that traditionally held position has changed substantially. In fact, the Andhra High Court has made expressly clear in 2002 that 'Deep Underground Water' is the property of the State under the doctrine of Public Trust.[329] The holder of land has only a user right towards the drawing of water in tube wells. Thus, neither his action nor his activity can in any way harm his neighbours and any 'such act would violate Article 21 of the Constitution.' This legal premise can be seen as the implicit basis for

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[326] Groundwater has usually been treated separately from surface water. Historically, this can be ascribed in part to a lack of understanding of the connections between surface and groundwater and of the relationship between groundwater abstraction in different places.

[327] See Philippe Cullet, *Groundwater Regulation-Need for Further Reforms*, 2010; paper made personally available by the author.

[328] M. Moench, *'Approaches to Groundwater Management: To Control or Enable?'*, 29/39 *EPW* A135 (1994).

[329] *M.P. Rambabu v. District Forest Officer*, AIR 2002 A.P. 256

all the recent state ground water laws setting up institutions that can regulate ground water use. Thus notwithstanding the failure of the new laws to explicitly make clear the legal status of ground water, the nature of these laws itself seems to make it clear that 'Deep Underground Water is the property of the State under the doctrine of Public Trust'.

Apart from the above special provisions made for the Schedule V areas (predominantly tribal areas) under *The provision of Panchayats (Extension to Schedule Areas) Act, 1996* [PESA] wherein Gram Sabha and 'Panchayats at appropriate level' have been given special powers in respect of minor water bodies, may also be noted for the purpose of the present chapter. While in principle, most agree that it is critical for the village people to have a *sense of ownership* also in the local water bodies if realistic efforts are to be made to revive and maintain them, it is worth noting that PESA only talks about "planning and management of Minor Water Bodies" with the Panchayats and not their ownership some states seem to be vesting ownership of the water bodies to the Panchayats but even there, the provisions tend to take away more from the people than what they seek to give them. Take the example of the Jharkhand Panchayati Raj Act, 2001. The Act apparently goes beyond the mandate by PESA vesting the right of ownership over minor water bodies in Panchayat Samitis and Zilla Parishads in Scheduled areas. However, it is left to the State Government to prescribe the area within which this right can be exercised. The Act thus talks about "planning, management and ownership of minor water bodies located within the area as prescribed by the State" The Act also adds that the powers of the Panchayats in both (scheduled and non-scheduled areas) shall not effect the existing Acts and Rules framed by the present government which incidentally include vesting "all rights in the water of any river, natural stream or natural drainage channel, natural lake or other natural collection of water" in the State government![330]

The discussion above on laws on Panchayats when it comes to planning and management of water bodies shows that the legal provisions are not clear and categorical on the question of vesting rights with people including right of ownership over local water sources and structures. The legal regime needs to respond to a growing feeling that without a sense of ownership, villagers including farmers will not participate in the maintenance of the structures. This 'sense of ownership' should not be an illusion but grounded on people's right to water and their ownership over local water harvesting structures.

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[330] See Section 3 Jharkhand Irrigation Act, 1997.

CHAPTER-16

OVERALL ASPECTS

Each of the chapters from 3 to 15 has analyzed some specific aspect of constitutional and legal position related to water. But there are a few cross cutting issues common to several aspects or legal provisions. Besides, there are a few gaps in the existing legal framework which need to be plugged in for a more satisfactory governance of the water sector. The present chapter deals with such issues e. g. coordination, industrial and commercial use of water, equity, awareness etc.

16.1 Coordination in the water sector

When the early irrigation laws were enacted more than a century ago, government activities related to water were confined mainly to canal irrigation which used to be handled by one department of the government. Hence, the problem of coordination did not arise. But, with the passage of time, specially during the last fifty years, ground water emerged as an equally important source of water resulting in creation of an administrative machinery somewhere within but often outside the department dealing with canal irrigation. At the same time, drinking water issues started demanding greater attention of the government. Moreover, local agencies like the Panchayati Raj institutions also got involved in local level uses of water specially for drinking purpose. In recent years, issues related to water quality and pollution have become more important and have necessitated creation of new institutions like Central and State Pollution Control Boards. Thus, activities of several departments and agencies impinge on the management of water resources. Hence, the question of coordination between agencies dealing with different sources and uses of water is becoming important. At the world level also, integrated water resources management, (IWRM) has emerged as the critical issue after the Rio conference and an international institution known as Global Water Partnership with its headquarter in Stockholm (Sweden) has come into being in 1996. Thus, coordination between different sources and uses of water is an emergent issue in the water sector and requires a suitable legal framework.

Till recently, the department dealing with drinking water like the PHED used to rely mainly on its own ground water sources for supplying drinking water. But, of late, the need for greater reliance on surface water is being felt. Thus, during our survey, authorities of Assam pointed out that because of the poor quality of ground water, Assam is now searching for surface water for drinking purpose. Bihar also felt that coordination between PHED and WRD would be needed for using surface water for drinking water supply schemes. Andhra Pradesh pointed out the need for adequate and explicit provision for allocating drinking water from surface water resources to ensure supply of drinking water in urban areas. This would necessitate coordination between PHED and WRD. Kerala too pointed out the need for better coordination between ground water department and other wings of water. Punjab also indicated need for convergence of activities of various departments dealing with water.

It was, however, ascertained during field survey that none of the eight states had any legal mechanism ensuring inter departmental coordination between surface and ground water and between different types of uses like irrigation, drinking water and domestic use, industrial and commercial use and coordination of all of these with the agencies dealing with water pollution. Some states had evolved some ad hoc administrative mechanism, the details of which are given below:

Chhattisgarh

1. State level water resource utilization committee has been constituted under the chairmanship of the chief Secretary, Government of Chhattisgarh, which deals with both surface and ground water management at state level.
2. Divisional water utilization committees are also in existence dealing with the use of surface and ground water for irrigation purpose

Uttar Pradesh

Administrative mechanism is used to facilitate inter departmental coordination. There is SWARA as well as sub-basin boards which provide some coordination. A committee with chief Secretary as Chairperson and Department Secretaries as members also exists.

Punjab :

Both surface and ground water management are under the Department of Irrigation, Further there is a committee under Financial Commissioner (Development) for effective utilization of canal water. Other bodies include Punjab State TAC headed by Chief Engineer, Punjab State Water Resources Council headed Chief Minister and another body headed by Chief Secretary. Even then, only issue based coordination is being practiced. The need for more effective coordination was felt.

Andhra Pradesh

1. Hydrology Users groups at state and districts levels for data only. Biannual meetings
2. Committees under WALTA, Members are similar at Mandal, Division, District and state levels
3. Ground Water Department is funded by CADA to encourage conjunctive use of surface and ground water in the command areas of irrigation projects.
4. Single Window clearance for industries to tap ground water
5. Clearance from ground water department needed by any other department or agency for rain water harvesting structures, artificial recharge structures like percolation tanks, check dams etc. sand mining, selection of well sites etc.
6. Coordination between Municipal Administration, Irrigation and Ground Water department of Andhra Pradesh for allocation of water as and when required. There is no formal mechanism. Such a mechanism is not required.

Maharashtra

Both surface and ground water is under one umbrella of government of Maharashtra. Maharashtra water Sector Regulatory Authority Act 2005 covers ground water also.

During the discussion with the state government officers it was found that none of the state governments were satisfied with the existing mechanism of coordination at state, district and below levels. Even bringing the different departments under one head has not been useful in many states. All of them were aware of the need for better coordination in view of the increasing scarcity of water and emergence of newer institutions due to a more complex system coming into existence. The suggestions of four states given in this respect are mentioned below.

Punjab

1. Data available with WRD should be shared with all departments.
2. A properly empowered nodal legal and administrative body should be formed and responsibilities of different agencies well defined.

Andhra Pradesh

1. There should be some legalized mechanism for inter departmental coordination
2. There should be a state level inter departmental committee.

Maharashtra :

Recommendations of Maharashtra Water and Irrigation Commission need to be considered. This Commission had suggested that all the subjects related to water should be under one department.

Kerala :

1. Need for Basin Authority
2. A cell consisting of representatives of all the three water related departments headed by a technical person should be created.

It is, therefore, suggested that, there should be some legal mechanism for effective inter departmental/agency coordination related to different sources and uses of water and including environmental aspects. For this, a state level inter departmental committee consisting of officers of very high level may be created with provision for meetings at frequent intervals. This should be assisted by a technical cell headed by a senior technical person. Similar committees at district and block levels are also needed.

16.2 Legal Provision for Regulation of Industrial and Commercial Use of Surface and Ground Water

Decades ago when water laws were initially formulated, water was abundant and only an insignificant proportion of water was used for industrial and commercial purposes. But, water is now becoming scarce in several parts of the country. At the same time, the use of water for industrial and commercial purposes is increasing at a fast rate, much faster than that for irrigation as per estimates made by several official agencies. However, while the legal position with respect to laws on use of water for irrigation is more or less well defined and well understood, that on use of water for industrial (including energy) and commercial purposes is quite vague and nebulous as was revealed during interaction with officers of all the eight sample states. In some states, the legal position could not be identified precisely. In

others, it took some time to identify the same. In one state (Kerala), three sources were mentioned. The legal status as available from states in given below.

1. Single window clearance for industries requiring ground water, **Andhra Pradesh**
2. APWALTA prohibits drilling of borewells in over exploited areas except for drinking water, **Andhra Pradesh**
3. Maharashtra Water Resources Regulatory Authority Act, 2007, **Maharashtra**
4. Kerala Irrigation and Water Conservation Act, 2003, **Kerala**
5. Kerala Ground Water Control and Regulation Act 2002, **Kerala**
6. Water Cess Act/Rules under Pollution Control Board, **Kerala**
7. Mainly through State Pollution Control Board, **Bihar**
8. Registration under Central Ground Water Authority, **Bihar**
9. Administrative order through Water Resource Utilization Committee headed by Chief Secretary, **Chhattisgarh**
10. In case of surface water, as per Northern India Canal and Drainage Act, 1873 **Uttar Pradesh**
11. In case of ground water, there is no legal provision made by state but the central rules for over exploited blocks applies, **Uttar Pradesh**

The above information can be treated as piecemeal. Even much less information was available on details of the legal provisions related to requirement of registration of industrial users of water and procedure for registration. Only three states could provide this information which is given below.

1. Industrial units are covered under section 25/26 of the Water (Prevention and Control of Pollution) Act of 1974. The units submit the water consumption return and pay water cess after assessment by the State Pollution Control Board, **Bihar**
2. State level single window clearance committee, **Andhra Pradesh**
3. As per Kerala Irrigation and water consumption rules and the Kerala Ground Water Control and Regulation Act, 2002, permission from State Ground Water Authority is needed. Besides, industries are liable to submit water consumption returns to State Pollution Control Board and remit cess as per Water Cess Act, **Kerala**

User charges for use of water for industrial and commercial purposes cover full costs in Bihar, Uttar Pradesh, Punjab, Andhra Pradesh and Kerala and only O & M costs in Maharashtra. Prior permission was necessary to install ground water structures for these purposes in a majority of reporting states but not in all. As regards punitive action to be taken against those violating the rules, the following information is instructive.

1. Fine failing which imprisonment, **Kerala (Not Implemented)**
2. Disconnection of electricity, **Punjab, Andhra Pradesh**
3. Acquisition of pumpsets/motors, **Andhra Pradesh**
4. Cancellation of permit, **Andhra Pradesh**

In view of the expected fast growth of energy, industrial and commercial sectors in future and increasing stress on water resources, it is necessary that the legal framework for allocating water to these sectors is put on a sound footing. A task force having membership from the water law, canal and ground water and industry, commerce and energy disciplines, may be appointed for this purpose.

16.3 Equity

Equity has always been an important objective of national policy. Equity is also one of three declared objectives of Integrated Water Resource Management (IWRM). Equity has two dimensions; inter personal and inter area. Interpersonal equity is quite general and relevant to both surface and ground water irrigation and other uses of water. Inter area equity is particularly relevant to canal irrigation in terms of equity between head end and tail end farmers. The study revealed that despite its importance, equity has yet to percolate in the framework of water laws. This is not surprising since about hundred and forty years ago when the foundations of modern water laws were laid, equity was not an issue at all. It was not a policy objective during the colonial rule. Profitability was the declared objective of irrigation development. Moreover, abundant supply of water as compared to limited need helped to ensure supply of water to all the concerned farmers in the canal command. Those entitled to receive water could get water. But with the emergence of gradual scarcity of water which is becoming scarcer day by day, those hey days are over. Now many farmers entitled to get water do not get it specially in states where field to field irrigation system is followed. In the ensuing struggle for water, it is the rich and the politically influential farmers who gain at the cost of the poor and the weak. And it is those at the head-end who gain at the cost of those at the tail-end.

A detailed enquiry on the equity aspect during the field survey by the Study Team indicated that there was a gap in the canal irrigation law regime with respect to equity. One got the impression that most officers were not even much aware of or concerned with this aspect which was probably an hang over of the past tradition as mentioned earlier. When probed further, they had difficulty in grasping the true meaning of equity. The idea that it implied giving some preferential treatment to small and marginal farmers as well as to those in the tail end was not easily understood. With respect to legal position, only two states of Maharashtra and Andhra Pradesh responded that the existing laws have provision for ensuring equity between poor and well to do households whereas the remaining six reported no such provisions or at least the officers were not aware of these. Maharashtra drew attention to Para 4(1), 26, 52d of Maharashtra Irrigation Systems Management by Farmers Act, 2005, according to which the objectives of Water Users Associations (WUAs) formed under the Act include "equitable distribution of water amongst its members". Further, water is to be supplied "from tail to head on bulk basis". But WUAs constitute a small fraction of water users in Maharashtra. Andhra Pradesh provision on equity is related to urban drinking water only. Here, house service connections to BPL families are provided at concessional rates. In addition, telescopic tariff is charged for water consumption. BPL families paid Rs. 1200 per tap connection which was much less than the full cost paid by others. In addition, they paid only 50% of the tariff every month. However, only about half of the BPL families were covered. As regards irrigation, which is the bulk user of water, there was no preferential treatment to the weaker section with regard to any of the several dimensions like supply of water or sharing of costs even in Andhra Pradesh.

As regards management of ground water, the existing laws, whether under the purview of newly enacted state ground water laws or the guidelines of Central Ground Water Authority, are tilted against equity. These laws put no restriction on the owners of existing tubewells who generally belong to the better off category in rural areas. Restrictions are put only on new comers who are relatively less well off farmers.

Thus, there is a serious gap in the legal system with respect to equity. A number of water laws need to be reviewed and amended to subserve the objective of equity. This may be a major legal challenge of the future.

16.4 Inter Basin Transfer of Water

For the past few years, inter basin transfer of water has become a hot issue in our country. It has been a part of government policy though the Government of India has become somewhat lukewarm ever since the UPA government came to power. Notwithstanding the ups and downs that this policy initiative has witnessed, there is little information whether the inter basin transfer of water is permitted under the Indian Laws. Being a new subject, there is no explicit reference to it in the water laws at central or state levels. Thus, there is no specific provision either in the Constitution or in the laws permitting or prohibiting transfer of water from one basin to another. This gives the impression to some persons as if there is a disjoint between the policy and law, suggesting the need for a mandatory legal regime for diversion of surplus water of one river to water deficit areas within another river basin. On the other hand, it is also true that a few inter basin transfers of water have already taken place though the quantum of diversion has been small. This suggests that the existing laws do not prohibit inter basin transfer of water provided the concerned states agree.

This issue had been raised before the Krishna Water Disputes Tribunal (1) which was also considering the question of transfer of water from Godavari basin to Krishna basin. The Tribunal decided that the diversion of water outside the river basin was legally valid. Meanwhile, an agreement was reached among concerned states of Andhra Pradesh, Maharashtra and Karnataka that each state would be at liberty to divert its allocated share of Godavari water to any other basin. This issue was also considered by the Godavari Water Dispute Tribunal which in effect approved the specific proposal of inter-basin transfer which was such as to avoid any subsidiary dispute on the account. The Narmada Water Dispute Tribunal considered the question of allocating water to Rajasthan, which is a non-riparian state. Initially M.P. and Maharashtra were opposing allocation for Rajasthan, but subsequently they agreed to allow a share of 0.5 MAF of Narmada water for Rajasthan. The Tribunal stated that the right to Rajasthan was based on above agreement and not on a general law.

Be that as it may be, given the importance of the subject and given the fierce controversy generated by it in India, it would be in national interest if the legal aspects are well articulated by the Government of India and the legal position is clarified through an explicit amendment to existing laws or enactement of a new law. This will reduce the scope for litigation.

16.5 Consolidation and Unification of the Laws

At the time of independence, there were one or a few laws related to management of water resources in every state. But with the passage of time, new laws, rules and regulations have been added in almost every state. Thus, there is a plethora of laws dealing with the same issue. A glance at many of the earlier chapters would provide several examples of this aspect. As is quite natural under such conditions, some of the provisions are overlapping and some inconsistent. In some states and in some cases, it has been laid that in case of

conflict between two laws, a particular law would apply. This is not a healthy situation. It is specially difficult for executing officers down below who do not have the time and capacity to muster the knitty gritty of several laws. Problem is more acute for users of water, many of whom are not even educated. There is need for codification of the different laws and formulation of one water code in every state.

16.6 Awareness of the Laws Among Executing Officers

Laws have no significance if these are not implemented properly. One of the essential requirements for this is that the officers entrusted with the implementation of the laws should not only be aware of but also familiar with these. Field studies indicated that this condition was not fulfilled in most of the states studied. Even officers at the state level were found to be not fully conversant with the laws that they were supposed to administer and were not even aware of the laws related to aspects of water resources other than what they were currently dealing with. The situation was more grave at the district level where the district officers taken together were not even aware of many the water laws of their own state as the table given in Annexure 16.1 would show. Some of the officers at the headquarter in some of the states were aware of this and suggested the need for refresher courses on water laws to officers at frequent intervals. We strongly support this suggestion.

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Annexure 16.1
Awareness of State Water Laws at the district level

State: Assam

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Assam Embankment and Drainage Act, 1953	No
2.	Assam Land (Requisition and Acquisition) Act, 1964	No
3.	Assam Irrigation Act, 1983	Yes
4.	Assam Irrigation Rules, 1997	No
5.	Assam Irrigation Water Users Act, 2004	Yes
6.	Brahmaputra Flood Control Board Act	No

State: Bihar

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Bihar Irrigation Act, 1997	Yes
2.	Bihar Irrigation, Flood Management and Drainage Rules, 2003	No
3.	Irrigation Water Management Rules, 2000	No
4.	Bihar, Ground Water (Regulation and Control of Development and Management) Act, 2006 (notified in April, 2012)	No

State: Maharashtra

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Maharashtra Irrigation Act, 1976	No
2.	Maharashtra Ground Water (Regulation for drinking Water purposes) Act, 1993	No
3.	Maharashtra Irrigation Systems Management by Farmers Act, 2005	Yes
4.	Maharashtra Water Resources Regulatory Authority Act, 2007	No
5.	Maharashtra Irrigation System Management by Farmers Rules, 2006	No

State: Chhattisgarh

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Madhya Pradesh/Chhattisgarh Irrigation Act, 1931 as amended in 2000	Yes
2.	Chhattisgarh Sinchai Prabandhan Me Krishakon Ki Bhagidari Adhiniyam, 2006	Yes
3.	Madhya Pradesh Peyajal Parirakshan Adhiniyam, 1986	No
4.	Madhya Pradesh Act No. 3 of 1986 (Drinking Water)	No

State: Uttar Pradesh

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Northern India Canal and Drainage Act, 1873	Yes
2.	Uttar Pradesh Water Management and Regulatory Commission Act, 2008	No
3.	Uttar Pradesh Participatory Irrigation Management Act, 2009	No

State: Punjab

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Northern India Canal and Drainage Act, 1873	Yes
2.	Punjab Minor Canal Act, 1905	No
3.	Punjab State Tubewell Act, 1954	No

State: Andhra Pradesh

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Andhra Pradesh Irrigation Utilization and CAD Act, 1984	Yes
2.	Andhra Pradesh Farmer's Management of Irrigation Systems Act, 1997	Yes
3.	Andhra Pradesh Water Tax Act, 1988	No
4.	Andhra Pradesh Water, Land and Trees Act, 2002	Yes
5.	Andhra Pradesh Water, Land and Tree Rules, 2004	No

State: Kerala

Sr. no.	Name of the Act/Law	Aware Yes/No
1.	Kerala Ground Water (Control and Regulation) Act, 2002	No
2.	Kerala Irrigation and Water Conservation Act, 2003	Yes
3.	Kerala Irrigation and Water Conservation Rules, 2005	Yes
4.	Kerala Irrigation and Water Conservation (Amendment) Act, 2006	No

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CHAPTER-17

THE WAY AHEAD -CONCLUSIONS AND SUGGESTIONS FOR STRENGTHENING OF WATER LAWS IN INDIA

This chapter provides a recapitulation of some of the major conclusions and suggestions emerging from the present study which have already been presented in different chapters. These conclusions and suggestions also show the path ahead for strengthening of water laws in India. The context and rationale of the suggestions and conclusions have already been laid out in the respective chapters. These are, therefore, not detailed out here for the sake of brevity and in order to avoid repetition as far as possible. However, these suggestions and conclusions are encapsulated and presented below point wise for ease of use and reference. Only the more important aspects are taken up here.

17.1 Water Laws and the Three Es

- Efficiency, Equity and Environmental sustainability (the three Es) are now regarded as the basic objectives of water resource management. But the legal system for water resources in India is weak in facilitating attainment of these three objectives.

- Efficiency in canal irrigation is marred by lack of accountability of the canal irrigation bureaucracy for its inability to provide adequate and timely supply of water because of the protection provided to canal officers in the laws. Even the enactment of PIM legislation has not made much change in this respect. This deficiency is aggravated further by the legal provision whereby determination of water rates is left to the complete discretion of the government which, guided by political considerations, has made canal irrigation highly subsidised or even free in some states. As a result, farmers too have little incentive to save water and to be demanding for a more efficient delivery system. Provision for assured supply of water to farmers at least during years when rainfall is normal or above normal should be made in the law. In case of dispute, failure to supply water should be looked into by an independent legal authority.
- Proper maintenance and upkeep of canals, which is necessary for their efficient operation, requires finances and this inevitably raises the question of water charges. Even the existing water charges, which are not paid in many circumstances, are far less than the expenditure needed for proper operation and maintenance of the system. In this context, the fact that the Irrigation Acts themselves do not lay down any criteria or rationale for determination of these rates represents a glaring omission in these laws. Maharashtra seems to have taken some lead on this aspect by putting a regulatory mechanism in place that other States could use to their advantage.
- Suitable legal measures are needed to break the vicious circle of low water rates, low recovery, inadequate funds for maintenance, poor maintenance, poor delivery system, little accountability, low recovery and so on. For this, it is necessary to provide for

accountability of the Irrigation Department and ensure its compliance by instituting an independent, transparent and speedy dispute resolution and grievance redressal machinery on the one hand and specifying principles for fixation of water rates on the other or assigning this responsibility to an independent agency as envisaged in the new law on water regulatory authority as in Maharashtra.

- A significant aspect of the water regulatory laws is that none of the Water Regulatory Authorities/Commissions under it are bound to follow a public consultation process in the procedures and processes to be adopted by it. One major effect of non-inclusion of such provisions is that accountability of the regulatory bodies gets diluted which, in turn, hampers the confidence of stakeholders in the functioning of the authority. In another sector, for example the Electricity sector, the Regulatory Commissions are required to ensure public participation in the tariff process. This is an area where requisite legal amendments in existing regulatory laws are needed.
- In order to improve efficiency, water laws should be amended to provide a machinery for effective coordination among different departments and agencies of the government concerned with management of water resources at different administrative levels including Panchayati Raj Institutions and Municipalities.
- As explained in chapter 16, equity had received little attention in the old established irrigation laws. The recent enactments of ground water laws and rules too are not geared towards equity, since these allow existing (usually better off) tubewell owners to withdraw water without any restriction while imposing restrictions on those (usually the less well off) who join the race later. In drinking water also, it is the less well off sections which suffer more. New laws are needed to promote the cause of equity if government is really serious about this objective. Such laws have to be carefully drafted after much debate and discussion since these would have considerable social implications.
- Laws are weak with regard to environmental sustainability also while implementation is still weaker as can be seen from the gradual deterioration in quality of both surface and ground water. Only a few states in India have enacted specific ground water legislation. These laws do not address the real problem of over exploitation by the existing tube well owners. This deficiency needs to be removed by specifying some principles of reasonable use of water by the existing tube well owners and involving Panchayats in implementation.
- Water pollution continues unabated because of near absence of Polluter Pays Principle and weak machinery deployed for enforcing standards. State Pollution Control Boards require a complete revamp with adequate personnel and powers specially those for dealing effectively with pollution by municipalities, public sector undertakings and big industrial units.

17.2 Water Rights

- The Right to 'pollution free water' and the right of access to 'safe drinking water' have been included as part of 'Right to Life' under Article 21 of the Constitution of India through a liberal and activist interpretation of the fundamental right to life both the by the Supreme Court and the High Courts of the country in a series of cases.
- Mere right to water is not enough if people do not have water, which is safe to drink. In India, there are no legislated standards to define clean water, unlike other parts of the world. The right to water should inspire a simultaneous movement towards laying down a framework of laws/regulations that would support such a right e.g. the minimum quantum of water needed per person and the quality of water defined in easily measurable terms.
- The water rights regime needs to evolve conditions under which a group entity can also become a right holder so that an entity like a legally constituted Village Water and Sanitation Committee (VWSC) or a Water Users Association (WUA) can exercise such rights to its advantage.
- The VWSC needs to be given legal footing and for this necessary amendments should be made in existing Panchayat laws. Some States provide for "Standing/ Subject Committees" for water supplies with the Panchayats but others don't. There is no reason why there cannot be a uniform approach on this institutional aspect in all State laws.
- When it comes to planning and management of rural water bodies, a review of the legal provisions show that they are not clear and categorical on the question of vesting rights with people including right of ownership over local water sources and structures. The legal regime needs to respond to a growing feeling that without a sense of ownership, villagers including farmers will not participate in the maintenance of the structures. This 'sense of ownership' should not be an illusion but grounded on people's right to water and their ownership over local water harvesting structures.

17.3 Water Rights and PIM

- A striking aspect of India's Participatory Irrigation Management (PIM) programme is the little attention that is given to water rights. It has meant that the governments' rights to water are unchallenged, while its obligations to deliver water to WUAs are rarely legally binding.
- The laws giving effect to PIM do not make it clear that if the right to receive water in bulk from the irrigation department is not honoured what remedies might lay with the WUA. (An exception can be made for the years when rainfall is much below normal). In other words, whilst there is a generally worded right, there is no accountability of the department.
- A problem from a rights based perspective of the State laws is that even while these laws require that the Distributary Committee and the Project Committee need to be

constituted as farmer bodies, they have not been constituted in most of the States. This has meant that the powers that were required to have been vested with these bodies under the law have not been realized. These bodies should be established by making it mandatory for the states to do so within a specified period of time.

- At least two minimum conditions need to be specifically put down as essential first steps in the laws giving effect to PIM's right to water. One is that with the existing water users associations, the irrigation departments across the States need to carry out time bound joint inspection of the irrigation canals followed by identification and execution of priority works for rehabilitation of the existing canal systems, so that water can be delivered smoothly to WUAs. Secondly, to ensure that a fully functioning turned over system maintains the water flow in it, the minimum water entitlement of the water users association needs to be built in the laws so that a total volume of water is guaranteed to be supplied to a water users association at agreed points of supply.

17.4 Water Laws and Decentralisation

- The vision of the 73rd Constitutional amendment promosing powers to panchayats is yet to be realised with regard to management of water resources. Several activities listed to be undertaken by Panchayats in the Panchayati Raj Acts of the States are merely of an enabling type and not mandatory. In the absence of mandatory provision of funds and functionaries, these have remained on paper only. And no amendment empowering Panchayats has taken place in the Acts dealing with canal or ground water or flood management. The new Acts on management of ground water, based on the Model Bill of the Central Government, though formulated after the 73rd Constitutional amendment, completely bypass the Panchayati Raj Institutions. Hence, there is need to amend several laws to empower Panchayats at all the three levels to take care of management of sources and uses of water resources at local levels. Similar considerations apply for municipalities. These local bodies should be provided adequate space in local works including rain water harvesting, watershed development etc. and managing local water resources including ground water. Provision of adequate funds to Panchayats and municipalities should be a part of the proposed amendment.
- A point that emerges from the review of the States laws is that while all the current laws often deal with diverse municipal services and activities with water supply services as one of the many services, they have not detailed out the functions of water supply leaving a lot of room for both discretion and even State apathy. The Bihar Municipalities Act, 2007, the provisions from which are quoted in chapter 12 seems to be an exception to this trend.
- In many States it is found out that the water supply function for drinking and domestic purpose is being carried out mostly by Public Health Engineering Department (PHED) or State Water Supply and Sewerage Boards. The States have not done well enough to transfer water supply services to the municipalities. In keeping with the

mandate under the 74th Amendment to the Constitution of India, the States need to amend the legal regime to ensure that the water supply function is effectively and fully transferred to the municipalities.

- In addition to strengthening the formulation of law, there is an imperative need to augment capacity building of the local community for better planning and management of water bodies.
- Absence of mandatory legal provisions regarding community participation in flood disaster management with respect to certain activities (specified in chapter 6) which can be handled better by the local community, is a major gap. Hence, laws may be strengthened by removing this gap through establishing local level Flood Management Committee under Panchayati Raj Institutions and allocating the needed funds for the same.

17.5 Water Laws and Inter-State Water Disputes

- Laws related to inter-state water disputes should be improved to remove several anomalies pointed out in chapter 7. Focus should be on speedy decision and effective compliance. In the light of the past experience, the scope for the intervention of the Supreme Court under Article 131 of the Constitution needs a serious review.
- Law should also provide for establishing a system for reliable and acceptable data on water resources and for specifying principles for allocation of water of inter-state rivers among different states so as to reduce the scope for emergence of disputes in future and to facilitate speedy disposal of cases pertaining to disputes by the Tribunals.
- There is need for forming an organisation for each inter-state river for effective river basin planning which is the right way ahead. A legal basis for this is needed. If necessary, use of entry 56 of the Union list of the Constitution can be made.
- There is need for a clearly formulated and explicit legal regime on inter-basin transfer of water. This may be done by amendments to the existing Acts or by enactment of a new legislation as the government may decide.

17.6 Water Laws and PPP

- When it comes to Public Private Partnerships (PPPs) in the Water Sector, a point to be noted is that there is nothing in legislations like the Municipal Corporation Acts across the States that prohibits a Municipal Corporation to enter into contract with a private company. These legislations lay down a permissive regime where unless any particular act or event is specifically prohibited, it should be deemed to be permitted under the laws.
- Notwithstanding the legal spaces that exist for PPPs there is need to build a stronger legal foundation for PPP through devising appropriate legal framework in the water sector. Laws like Bihar Municipalities Act, 2007 have more defined legal provisions on some of the aspects that may be worth emulating in other States.

17.7 Implementation Aspects

- Implementation has turned out to be a real problem with respect to most of the laws in the water sector. Neither people nor even officers dealing with water resources at grass root levels are fully aware of the laws. Even copies of the publications containing water laws are difficult to find in offices at local levels and quite often even at higher levels. Very few people know that drinking water is now a part of fundamental rights. Very few people including officers dealing with ground water are aware that ground water is no longer regarded as private property but is a subject under public domain. Very few officers are aware about entry no 56 of the Union List of the Constitution providing sufficient space to the Centre in the management of inter-state rives in case the Union Parliament decides to use this space.
- Implementation is also weak because the administrative implications of laws are not taken into account while creating the needed institutions and providing administrative support to these. Posts specially at the bottom level, which is the cutting edge level, remain vacant for years. Support facilities required for efficient functioning are not provided. Hence, laws should provide adequate safeguards to remove such deficiencies by fixing responsibilities at appropriate levels in case lapses persist. Attending refresher courses on water laws for the relevant officers should be made mandatory.
- Implementation would be much better if there is one comprehensive Act dealing with all the relevant aspects of management of both surface and ground water, flood management, drinking water, in rural and urban areas and water pollution etc. Hence, there should be consolidation and unification of laws hitherto scattered in different legal documents in each state and as understood/modified in the light of a number of court judgments over a period of time. This exercise should be done state wise.
- Laws become outdated with the passage of time specially those portions of the law which contain monetary figures like fines. Social, political and administrative conditions are also changing rapidly. A number of new laws are getting introduced from time to time. In the light of these, there is need for updating of laws at required intervals. The administrative machinery at the state level should be authorised by law to update the monetary figures with respect to changes in the price level and any other relevant factor like change in ideology or judicial pronouncements.

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