CHAPTER 2

REVIEW OF IRRIGATION-RELATED LAWS
IN TAMIL NADU

2.1 GENERAL

India is an agrarian country, where irrigation consumes more than 70 percent of the total water requirement. Water conflicts are increasing, as water is becoming a scarcer commodity. It is irrigation that makes heavy demands on available water, and difficulties and conflicts arise largely in relation to water for irrigation (Iyer 2003). Hence the use and management of this finite, common natural resource needs to be regulated. Irrigation laws in tune with the changing needs of the society should be kept in place to regulate and manage the supply of both surface water and groundwater.

Law regulates the actions of an individual, a group or a State and if needed, enforces penalties for the defaulters. In India, water laws are an integral part of religion and ethics. ‘Dharma Sutra’, an authority on civil and criminal laws, states that one who has taken the property of another intentionally shall be reprimanded, if the property were, among other things, water. ‘Vishnu Sutra’ provides that a king should give capital punishment to the one who destroys the embankments of water sources.

During the 19th century, as the British Government found it almost impossible by itself to manage thousands of tanks all over the Madras Presidency, it developed large-scale river irrigation systems, which permitted
controlled supply and distribution of water. The storage and diversion of the natural flowing water by the British Government had infringed upon the natural rights enjoyed by the riparian owners and created conflicts. The British wanted to safeguard their position and tried to legitimize their authority and to recover the expenditure spent on the construction of irrigation systems. As an initial step for the enactment of an irrigation Act, various irrigation Bills were formulated and placed before Parliament for approval. Some of the important initiatives taken in this direction are discussed here.

The first attempt at irrigation legislation was made as early as in 1855. In that year, Forbes, the Collector of Thanjavur, at the instance of the Chief Engineer, prepared an Irrigation Bill, the sole objective of which was “to protect from willful injury to the heads and banks of irrigation, navigable or draining rivers, and channels and to prevent obstruction to all such irrigation sources”. Irrigation storage structures such as reservoirs and tanks were also included in it.

In 1856 another Bill was formulated with the objective of providing compulsory labour for the purpose of irrigation and drainage. In the year 1858 the Compulsory Labour Act was enacted. Section 6 of this Act provided that kudimaramath (customary labour) be enforced only in districts where local custom could be clearly shown.

In 1870 it was reported by the Minor Irrigation Works Commission that in respect of minor repairs in small tanks kudimaramath had died out, and in respect of channels it was fast dying. The Famine Commission in the year 1880 recommended that every zamindar should be bound to keep every tank on his estate in good condition and insisted on the necessity for a revised law for kudimaramath.
The Irrigation Bill of 1882 was prepared by the Committee appointed in 1881. The Bill was revised by the Board of Revenue and was approved by the Government of India. This was based on the Northern India Canal and Drainage Act, 1873, and also got the concurrence of the Legislative Council and was called the Madras Irrigation Bill of 1884. But this Bill was dropped later.

The Irrigation Bill of 1903, prepared by Butterworth, had its preamble in line with the Indian Easements Act, 1882, which had codified the customs and practices existed in India. The Indian Irrigation Commission of 1901-1903 observed that “Even though Section 2 of the Indian Easements Act, 1882, safeguards the rights of the State, in the absence of a statutory declaration of any such right, this Section appear to have little value in Madras”. A large number of suits had been filed between zamindars / landholders and the Government. The courts began to apply the riparian rights to the greater disadvantage of the Government. Landowners claimed rights over the beds of rivers and streams. The courts stood by their side, and faulted the Government’s position on the regulation. This has been well reflected in the judicial pronouncements which have imposed several limitations on the exercise of the rights by the Government. What was required by the British was a substantive provision clearly defining the powers and schemes that may be formulated in the exercise of those powers.

The Irrigation Commission report of 1903 gave a thought for involving the people in the collection of levy. Further Bills were prepared in the later years, 1911, 1914, 1922 and 1924. Water sources, which were in the Estates, were also brought under the sole control of the Government, but this failed to take shape. Yet another Bill was proposed in the year 1930 and was dropped. In subsequent years investigations and discussions were dropped due to the World Wars and it was again revived in the year 1946. Between 1930 and
1946, only some special Acts relating to irrigation were passed (Baliga 1961). The initiatives taken towards the formulation of a comprehensive Act have not yet produced results.

Later in the 20th century, under the leadership of B.R. Ambedkar, the seeds for an all-India policy on water were sown in 1942-43. He was responsible for the introduction of Article 262 of the Constitution of India for the adjudication of any dispute or complaint with respect to the use, distribution or control of waters of, or in, any inter-State river or river valley.

When water was available in plenty it was considered an ‘open resource’ and it was not much cared for. When it became scarce, the international and national organizations have thought about it seriously and tried to settle the conflicts or manage the situation. This piecemeal approach paved the way for further conflicts. According to the Conflict Prevention and Resolution Center (2008) of the U.S. Environmental Protection Agency, “water conflict is a manifestation of the lack of norms to build consensus for the sustained use of water as a common property resource.” This is true in the Indian context too.

In India, the irrigation projects are mainly managed by the State Governments. The laws and policies applicable to water in general and irrigation in particular are contained in:

(i) the Acts enacted by the Union Government and the rules framed in that connection;

(ii) the Acts and Ordinances enacted by the State Legislative Assembly and the rules framed in that connection; and

(iii) the administrative orders, notifications and rules issued by the State Governments from time to time to suit the changing scenario.
Before presenting a review of irrigation-related Acts in Tamil Nadu, a brief insight into the rights on water has been given in this chapter because this forms the core issue of most of the irrigation-related cases. The constitutional provisions on water are also dealt with to get an understanding about how the Constitution of India views these rights, and what rights and obligations the State and the people have towards water. Acts have been enacted by the Union and State Governments to exercise the rights.

This chapter deals with the review of the irrigation-related laws of Tamil Nadu. The list of laws has been prepared based on the Tamil Nadu Code, 1984. The original Acts have been collected from the Gazette notifications preserved in the Tamil Nadu Archives, the Manual of Tamil Nadu Acts and Rules, 2006, and from books on bare Acts. Attempts have been made to go through the material on Assembly Debates and Proceedings, the books dealing with the commentaries of the Acts, Government Orders (G.O.s), the journal articles as well as the newspapers to interpret the Acts in a proper perspective. Among these laws, the ones that have direct relevance to irrigation have been reviewed in depth.

2.2 NATURE OF RIGHTS

In an agrarian country like India, the productivity of crops depends mainly on irrigation. Due to the uneven spatial and temporal rainfall distribution, many conflicts regarding water rights may arise.

The colonial Government left most natural resources with poorly defined property rights (Sengupta 1998). Water was one among such resources and the same condition prevails even today. According to Iyer (2005), in India “water is divergently perceived as a life-support, basic right, common pool resource, economic good, property of the State, and so on, leading to divergent
prescriptions such as community-management, declaration of property rights, water markets, State control, etc.” According to Upadhyay (2005), “if India had an entitlement regime then its citizens should be able to enforce access to a basic minimum quantity of drinking water, but they could not. If India had such regime then irrigation waters – where they are inescapable for livelihood security needs - could have been seen differently by law makers, but this isn’t the case either.”

With these unsettled complexities, there exists lack of clarity regarding the rights issue. Claiming water rights forms the core of most of the irrigation-related cases. So an understanding about water rights is needed while looking into the irrigation laws. Rights are claimed based on specific principles / doctrines.

A river has a natural course. Civilizations have emerged along river courses. Looking into the rights over surface waters, individuals / communities who were abutting the river enjoy a right which is natural and time immemorial. Such a right is said to be the riparian right. Any interruption made to such a natural flow gives rise to a lot of issues related to water rights. The obstruction constructed across the direction of natural flow collects the water coming from upstream and reallocates the stored water to a different area, which was not originally the riparian ones. Such construction of a storage structure not only has an impact on the surface water availability but also in the groundwater situation. The alteration of groundwater table affects people’s rights to access water. More than 3,000 large and small dams have been built in India so far without giving enough thought over these questions related to water rights. This calls for a systematic planning at the basin level, as indicated in the National Water Policy, 2002, and a water accounting kept for each of the basins, which is the basic hydrologic unit taken up for development.
Whenever a new irrigation project is planned, the rights of the State over surface water against the customary rights of the groups / individuals are being questioned. With regard to the water of artificial channels constructed by the State Government for public purposes, the State has the undoubted right to regulate the distribution of water as provided by the Indian Easements Act, 1882, and the statutes. The river water, which was once available freely, was regulated by the State and hence was priced. Table 2.1 illustrates the rights the people and the State have towards different sources of water in India.

Table 2.1 Rights of People and the State towards Different Sources of Water

<table>
<thead>
<tr>
<th>Source</th>
<th>Rights of Individual</th>
<th>Rights of the State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivers and Streams</td>
<td>Customary, riparian and other rights recognized by courts and under the Indian Easements Act, 1882</td>
<td>Absolute rights under irrigation and other laws</td>
</tr>
<tr>
<td>Canals</td>
<td>No rights. Permission to use on payment of fees under certain irrigation laws</td>
<td>Absolute rights of ownership</td>
</tr>
<tr>
<td>Lakes, Tanks (Natural)</td>
<td>Customary rights recognized by courts and under the Indian Easements Act, 1882</td>
<td>Absolute rights of ownership and use</td>
</tr>
<tr>
<td>Lakes, Tanks (Artificial)</td>
<td>Rights to landowners. Customary usufruct rights of the people</td>
<td>No rights if tank is on private land. Rights vested in the Panchayats or Municipalities, if tank is on public land</td>
</tr>
<tr>
<td>Wells (Private)</td>
<td>Absolute rights to land owners</td>
<td>No rights</td>
</tr>
<tr>
<td>Tube-wells</td>
<td>Unlimited right to draw water from tube-wells on private land</td>
<td>Rights to regulate use of water of public tube wells</td>
</tr>
</tbody>
</table>

(Source: Singh, 1992)
In law, if absolute ownership of waters is granted to the State, the moment one accepts that the State is the owner, he / she will have to concede that like any other true owner it is free to regulate the resource. Recent laws passed by many State Governments seeking to involve farmers in irrigation management have not clearly separated water rights from other ties; there is absolutely nothing available to individual farmers or to their legally mandated group entities like water users’ associations (WUAs). It is meant that while the Government’s rights to water are unchallenged, its obligation to deliver water to WUAs in canal systems is rarely legally binding (Briscoe, 2007). Instead water entitlements need to be usufructuary. The Supreme Court has adopted the applicability of ‘public trust doctrine’ in India in a landmark 1997 ruling (1997-1-SCC-388).

In common law, the natural right of a riparian owner is recognized in Illustration (j) to Section 7 of the Indian Easements Act, 1882. According to Section 7, every riparian owner is entitled to use the continued water flow of a natural stream in its natural condition, without any obstruction or pollution and undiminished in quantity and quality. Every landowner has a natural right to water of natural surface streams, which pass his / her lands in defined channels, and to transmit the water to the land of other persons in its accustomed course. This right belongs to the proprietor of the adjoining lands as a natural incident to the right to the soil itself. Section 7, Synopsis 82 reads as: *riparian owners are entitled to use and consume water of the stream for drinking and household purposes, for watering their cattle, for irrigating their land, and for the purpose of manufacture subject to conditions that: (a) the use is reasonable; (b) it does not destroy or render useless or materially diminish, or affect the application of the water by riparian owners below the stream in the exercise of natural right or their right of easement if any.*
Under Indian law, as interpreted by the courts, the right to water is part of the right to life. The failure to ensure that right to all citizens is a serious reflection on the State (Iyer 2007). The farmers have to depend on the mercy of the irrigation department, which is the regulatory body, for getting water to their crops. In Tamil Nadu the concept of ‘localization’ is practiced in the irrigation systems. Under localization, the irrigation system managers authorize the area to be cultivated before the beginning of the season based on the storage available in the reservoir and the anticipated inflows during the crop season. Once the area is authorized, the manager is expected to supply water to the crop till its maturity. Therefore the system mangers are legally bound to supply water to the crops as assigned to them. But canal supply remains highly undependable and water is normally not available at the appropriate time or in the required quantities. The tail-ender is mostly deprived of his rights.

2.2.1 Riparian Rights

Illustrations (f), (g), (h), (i) and (j) to Section 7 deals elaborately about the riparian water rights: rights that can be exercised in natural and artificial watercourses, rights of upper and lower riparian, rights in time of floods, limitations of rights etc. Some of the explanations are discussed here. The details of riparian rights, as established by the courts, are as follows: A riparian owner has a right to use the water of the stream which flows past his land equally with other riparian owners and to have the water come to him undiminished in flow, quantity or quality and to go beyond his land without obstruction. With regard to the rights of the upper and lower riparian, the courts recognize the custom that the upper riparian has the right to use as much water as convenient for irrigation, without materially diminishing the existing use by the lower riparian.
As per Section 133 of the Code of Criminal Procedure, 1973, no riparian owner is entitled to obstruct a public river with a dam. Riparian owners are permitted to obstruct the water only in extraordinary emergency conditions, such as to protect themselves from flood, but no riparian is permitted to turn the floodwater into his neighbour’s property.

Although riparian owners have certain rights to use water, they do not actually own the water. The right of the riparian owner is limited to a simple usufruct in the water as it passes along and does not include its proprietorship. Literally riparian lands are lands bordering a stream. How far from the stream this right could be exercised is not yet defined. The American courts settled that lands lying in another watershed, though forming a portion of the same tract with riparian lands are not riparian in respect of the same stream (Long 1902). But this basin-wise concept is not well defined in the laws in India.

All riparian owners have equal rights, and no one owner can unreasonably interfere with the reasonable uses of others. Reasonable use is that each riparian owner can use and discharge the surface water as long as that use does not excessively diminish the quality or quantity of water that flows to other riparian owners. Defining and applying ‘reasonable use’ to specific situation is difficult (Matthews 1987). How much water the upper riparian can use without affecting the lower riparian is another question, which is yet to be answered because of the complexities involved – both technical and social. It depends on factors such as the dimensions of the stream, the slope, the distance from the stream, the velocity of flow, extent of area to be irrigated, properties of the soil, nature of crops to be raised and the customs. In the case of diversions from the storages, the conveyance losses in addition to the other losses like the evaporation and seepage should be taken care of while regulating the flow.
A riparian owner, who uses much water that impairs the reasonable use of other owners can be sued by the adversely affected owners for damages and injunction, and sought to prohibit the infringing use. Most riparian use issues are concerned with the effects on downstream owners. But damage can also be done to the upstream riparian owners by obstructing the natural water flow so that flooding occurs on upstream land.

No riparian rights can be claimed in the water flowing in an artificial channel. Similarly, no rights are given to the landowner if the Government provides water through canals for irrigation. Under irrigation laws, sharing of water is based on maintaining equity. In Tamil Nadu, the irrigation systems are supply-based systems. Schedules, which specify the day, time and person(s) whose turn is to get water from canals, are formulated by the irrigation officials. This ‘turn system’ of water sharing is based on the available storage and area to be irrigated. The farmer has to pay the fee for the irrigation services rendered by the State Government. Such use of water by payment of fees does not create water rights, however long the use may have been and, is also not tradable.

In India riparian right is a natural right from time immemorial and the Indian Easements Act, 1882, has codified the common law doctrine of riparian rights in India.

2.2.2 Customary Rights

In India, rights over water have existed in all ancient and modern legal systems, including traditional religious laws, and they still continue as customary rights in contemporary societies. Such customs acquired the force of law when they became the undisputed rule by which certain rights or
obligations were regulated between members of a community. The act that was accepted by the people as a right is called as the customary law.

2.2.3 Positive / Negative Rights

Is water a positive kind of right for which the State and other people (on whom the corresponding duty falls) can be compelled to ensure that the right holders (individuals) are provided with water such as in the case with right to health or is it a negative kind of right for which the State and the authorities merely need to be kept away so that the right holders can enjoy free access to water such as in the case of right to life. Positive rights have a legal obligation on others to do something and negative rights have an obligation to refrain from doing something (Singh 1992). This makes a major difference on whether anyone can be legally compelled to do something or not to do it.

During the pre-Independent period, the restricted negative rights of individuals were recognized by the courts, which derived its principle from the previous cases and customary laws. The fact that the right was perceived as negative is evident from the court orders, which concerned themselves mainly with restraining others from violating the rights. The Acts also provide compensation for violation or acquisition of rights, which had already existed.

The coming of the Indian Easements Act, 1882, made the first shift in the history of natural resources laws in India in both recognizing and not recognizing water rights as negative natural right. The Indian Easements Act, 1882, reveals complexities and contradictions (Singh 1992). Section 2(b) of the Act gives full recognition to negative customary rights, both for individuals and groups. Also, Sections 15 and 18 give provisions to natural customary rights. On the contrary, the same Act gives absolute rights over
rivers and lakes to the Government. Section 4 of the Act states that easements and customs affect the rights of the State.

No water supply Act shows any evidence of the correlated duty, which is binding on the Government and makes it accountable for providing water to the people. The Irrigation Acts have interpreted the Government’s rights to that of an absolute power so that no question of responsibility or accountability arises.

Hence in terms of law, it is not settled whether water right is a positive or negative right in India. It can be interpreted either way, in so far as the existing laws are concerned. The statutes wish to make it into a positive right and the courts as a negative right.

2.2.4 Individual / Group Rights

In India, villagers had been managing the water resources for centuries even before the enactment of the formal Acts. Traditionally in India there have been both individual and group rights over water. Groups, defined in terms of ethnic communities, castes or tribes, have had rights over ponds, wells and riverbanks. As a part of the process of decentralization of power, the 73rd and 74th amendments to the Constitution of India were passed in 1992, which gave powers to the Panchayati Raj institutions to make decisions on water supply, treatment and disposal. The 73rd amendment deals with rural local bodies like the Panchayat Unions and Gram Panchayats. Rural local governments have been vested with independent power and resources. Power has been given to the local governments to control all natural resources including water within their jurisdiction. Group rights of the village communities also arise from statutory provisions especially from the
Panchayat Acts. The actual control over the water resources has moved away from the village level to the external agencies.

As per the Panchayat Acts, the financial gains from the village resources do not go to the Village Panchayats, instead they go to the Panchayat Union or straight to the exchequer. The investments to maintain or develop the village common resources also do not directly come to the Village Panchayats, but they go to the Block Development Officers or various Government Departments as in Social Forestry and Soil Conservation Departments (Singh 1992). Having ownership rights over common resources but without benefiting from them or without possessing the financial power to maintain them, the system cannot function successfully because responsibilities always go together with rights.

Entitlement means right: right to demand and receive. But in India this is not well defined. The irrigation laws provide absolute ownership to the State in the regulation of river waters. On the contrary, the Indian Easements Act, 1882, tries to protect the customary rights. The principles on which the rights are based are not very clear. Once absolute ownership of water is granted, it also means that there is no liability of discharging duties. If the State considers water as a common resource, which is in line with the Article 39(b) of the Constitution, then the rights of the State will go with the responsibilities. The Supreme Court adopted the applicability of the ‘public trust doctrine’ in India in a landmark 1997 ruling (M.C. Mehta v. the Union of India), where water is considered as a common good and the State as a trustee has the responsibility to protect and regulate it for the benefit of the public. This changed approach would bring in some sort of rationalization in the formulation of the State Government’s public schemes.
2.3 CONSTITUTIONAL PROVISIONS

India is a union of States. The system of water management in the country is largely based on the topography, availability of water in the rivers and the agro-climatic factors, exhibiting diversity. The Constitution of India came into force on January 26, 1950. It is the bulkiest Constitution in the world. It contains 395 Articles and 12 Schedules. The Constitution of India, which is the apex of all laws, has provisions for water in general and irrigation in particular.

Articles 14 and 21 of the Indian Constitution deal with the Fundamental Rights of the citizens, and enshrine equality and right to life respectively. Article 14 reads as: “The State shall not deny to any person equality before the law or the equal protection of laws within the territory of India” and Article 21 reads as: “No person shall be deprived of his life or personal liberty except according to procedure established by law”. Right to life guaranteed in any society implies the right to food, decent environment, education and shelter, apart from water (Basu 2006).

Apart from protecting the rights, the Constitution of India imposes Fundamental Duties on citizens for the protection and improvement of natural environment. Articles 48A and 51A(g) of the Constitution have laid down a strong foundation pertaining to environment. Great concern has been expressed towards protection and improvement of forests, lakes, rivers and wildlife. According to the Constitution of India, all citizens of the country have the bounden duty of protecting the natural environment.

Article 246 of the Constitution talks about the distribution of legislative powers i.e. the laws that can be enacted by Parliament and those that can be enacted by the State Legislature and areas in which laws can be
enacted both by Parliament and the State Legislature. The constitutional provisions in respect of allocation of responsibilities between the State and the Union fall under three categories: The Union List (List - I), the State List (List - II) and the Concurrent List (List - III – areas on which both Parliament and State Legislatures can make laws). Various laws have been enacted in the field of water resources both by the Union and State Governments.

The Constitution makes water mainly a ‘State subject’ and irrigation is a field included in Entry 17 under List - II of Seventh Schedule which reads as follows: “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”. The functions include water management, minor irrigation, and watershed development.

Entry 56 of List I of 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 are declared by Parliament by law to be expedient in the public interest”.

Some of the constitutional provisions related to water resources are listed below:

**Union List (List I)**

<table>
<thead>
<tr>
<th>Entry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Maritime shipping</td>
</tr>
<tr>
<td>56</td>
<td>Inter-State rivers</td>
</tr>
<tr>
<td>57</td>
<td>Fishing and fisheries</td>
</tr>
<tr>
<td>58</td>
<td>Manufacturing of salt</td>
</tr>
<tr>
<td>97</td>
<td>Flood control</td>
</tr>
</tbody>
</table>
State List (List II)

Entry 5 : Local self-government
6 : Public health and sanitation
13 : Ferries not specified on List I
14 : Agriculture
17 : Water
18 : Land
21 : Fisheries

Concurrent List (List III)

Entry 20 : Economic and social planning
30 : Shipping and navigation on inland waterways

Apart from this, Part IV (Articles 36 to 51) of the Constitution of India, which is said to be the Directive Principles of State Policy also has provisions relating to water. It provides the guidelines to the Union and State Governments in carrying out their administration and framing their policy and it aims at establishing social-economic democracy. The Directive Principles are positive instructions to the Government to do certain things. The related Articles are:

Article 40 : Establishing Panchayats
Article 48A and 51A(g) : Protecting and improving the environment

The right to have water for irrigation purposes cannot be stretched to the extent of bringing it within the ambit of Article 21 of the Constitution. The right to have sub-soil water for irrigation may utmost amount to a right
conferred under Article 300A (Bhat 2004). So, one who is deprived of the right can invoke only Article 226, since it is not a Fundamental right but only a constitutional right.

In the absence of legally genuine rights and duty structures in water laws in India, the recent public interest litigations rally around Articles 14 and 21 of the Constitution of India and can be invoked under Articles 32 and 226.

2.4 UNION ENACTMENTS

Although water is basically a State subject, Union laws and policies also have an influence in the formulation of the State legislature. Apart from the State Acts, Union Acts also exist in the State of Tamil Nadu. Parliament derives the power to make any law for the whole or part of the country. Some of the Union Acts are given in Table 2.2.

**Table 2.2 Union Enactments Related to Water Resources**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of Enactment</th>
<th>Year of Enactment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Inter-State Water Disputes Act, 1956 (amended in 1957, 1968 and 1980)</td>
<td>1956</td>
</tr>
<tr>
<td>2</td>
<td>The River Boards Act</td>
<td>1956</td>
</tr>
<tr>
<td>3</td>
<td>The Water (Prevention and Control of Pollution) Act (amended in 1988)</td>
<td>1974</td>
</tr>
<tr>
<td>4</td>
<td>The Water (Prevention and Control of Pollution) Cess Act</td>
<td>1977</td>
</tr>
<tr>
<td>5</td>
<td>The Environment (Protection) Act (amended in 1991)</td>
<td>1986</td>
</tr>
</tbody>
</table>
In addition to the Acts, some of the national level Policies will also influence the State Policies and regulations. The salient features of the National Water Policy and the National Environmental Policy which are related to irrigation are discussed below.

The National Water Policy, 2002, as per Section 1(1) defines water as a prime natural resource, a basic human need and a precious national asset and makes water a part of a larger ecological system as per Section 1(3). Section 1(6) states that the development and overexploitation of groundwater resources in certain parts of the country have raised the concern and need for judicious and scientific resource management and conservation. Section 2(2) says that special efforts should be made to develop and continuously upgrade technological capability to collect, process and disseminate reliable data in the desired time frame. Section 3 stresses the importance of non-conventional methods of using water, traditional water conservation practices, making of drainage basin as the hydrological unit for planning, watershed management and inter-basin transfer. Section 4 deals with the establishment of appropriate river basin organizations.

Section 5 of the National Water Policy, 2002, prioritizes water allocation in the following order: drinking water, irrigation, hydropower, ecological needs, industrial, navigation and other uses. Section 6 emphasizes the integrated and multi-disciplinary approaches to the planning, formulation and implementation of projects. Section 7, which deals with groundwater, highlights the need for a periodical reassessment of the groundwater potential on a scientific basis, considering the quality of the water available and economic viability of its extraction and calls for regulation of overexploitation of groundwater which is in line with Section 1(3). It also encourages the conjunctive use of surface and groundwater.
Irrigation is dealt with in Section 9. Section 9(3) provides that water allocation in an irrigation system should be done with due regard to equity and social justice as stated in Section 1(6) too. It suggests that disparities in the availability of water between head-reach and tail-end farms and between large and small farms should be obviated by adoption of a rotational water distribution system and supply of water on a volumetric basis. It promotes adaptation of new scientific water management, farm practices and advance irrigation methods wherever feasible.

Section 12 deals with a participatory approach to water resources management. It says that WUAs and the local bodies should be involved in the operation, maintenance and management, with a view to eventually transferring the management of such facilities to the user groups / local bodies. Section 16 deals with conservation of water. Measures such as selective lining in the conveyance system, modernization and rehabilitation of existing systems, recycling and reuse of treated effluents and adoption of both traditional and new techniques wherever feasible are also suggested. Section 25 deals with science and technology and calls for carrying out research in multi-disciplines.

In short, the National Water Policy, 2002, recognizes the drainage basin as the unit for planning, encourages scientific management of surface water and groundwater, and emphasizes the importance of a participatory approach in irrigation management.

The increasing stress on groundwater is also spelt out in the National Environment Policy, 2006. The National Environment Policy aims to take explicit account of the impact on groundwater tables, electricity tariffs and pricing of diesel, promote efficient water use techniques such as sprinkler or drip irrigation among farmers, ensure availability of groundwater potential
maps, support practices of rainwater harvesting and artificial recharge and revival of traditional methods for enhancing groundwater recharge through community participation, prepare and implement a comprehensive strategy for regulating use of groundwater by large industrial and commercial establishments on the basis of a careful evaluation of aquifer capacity and annual recharge.

2.5 STATE-LEVEL ENACTMENTS

When India became independent in 1947, Madras Presidency became Madras State, comprising the present day Tamil Nadu, southern Andhra Pradesh, northern Karnataka and parts of Kerala. The Madras State was split up based on the linguistic division in the year 1968 and the State of Tamil Nadu was formed.

Since water is mostly a ‘State subject’, States have been vested with the power to enact their legislation, strategies and policies relating to water in accordance with the constitutional provisions and the national policies, taking into consideration the regional needs.

In the beginning, irrigation legislation sought only a few simple objectives. Legislation was enacted in the British period for the following: irrigation cess; construction, repair and improvement of irrigation works; and improvement of irrigation tanks. But as years rolled on and irrigation began to assume more and more importance, those objectives necessarily became varied and complex. After 1950, a few pieces of legislation have been enacted relating to the construction of field channels, irrigation management and groundwater. Amendments have been brought about to the already existing parent Acts to cater to the difficulties emerging out of the various
interpretations of the existing Acts by the Supreme Court and High Court judgments.

The policies and laws applicable to irrigation in Tamil Nadu are contained in:

(i) Administrative Orders and instructions as issued by the State Governments from time to time;

(ii) Standing Orders of the Board of Revenue (even though the Revenue Standing Orders are not enforceable in the court of law, they help the judges to interpret the statutes and to understand the policy and responsibilities of the Government); and

(iii) Acts and Ordinances passed by the State Legislative Assembly and rules framed thereunder.

In the State the authority of law-making process is vested with the Legislature. Legislation is the process of formulating a general rule of conduct without reference to particular cases and usually operating in future (Policy Note Relating to Law Department: 2007 - 2008).

Where there is an urgent need to make laws when the Legislative Assembly is not in session, an ordinance can be promulgated by the Governor under Article 213 of the Constitution. The ordinance will have validity for only six months.

Administration is the process of issuing particular orders or of making decisions which apply general rules to particular cases. A Government Order (G.O.) is normally made and executed in the name of the Governor of a State. G.O.s are mainly of four types: (i) a notification signed by a Secretary ‘by
order of the Governor’, (ii) an order signed by the Chief Secretary on behalf of the Government which has been held to be in substantial compliance with Article 166(1), though it is not expressed to have been made in the name of the Governor (iii) an order made in the name of the Governor and signed by an Assistant Secretary or an Under Secretary and (iv) an order signed by the officer empowered for the purpose under the business rule. As soon as an Order is validly made and expressed under Article 166 (Conduct of Government Business), it is deemed to be signed by the Governor. The Government becomes responsible for it, whether the order originated from the Governor personally or not. The Government is bound to communicate the G.O. to the people affected by it (Basu 2006).

The Governor shall make rules for the more convenient transaction of the business of the State Government under Article 166(3) of the Constitution of India. The Minister-in-charge is empowered to make standing orders regarding the disposal of the cases under his charge.

In Tamil Nadu, there is a wide variety of irrigation-related laws available on a piecemeal basis. The irrigation-related laws are grouped in this study under the following headings: land-related legislation, irrigation tanks, groundwater, irrigation management, irrigation cess, protection of water sources and irrigation offences. A review of the various irrigation-related laws of Tamil Nadu has been made to understand the current status, after making the grouping of the Acts according to the purpose for which they have been enacted. The Water Policy of Tamil Nadu, 1994, was also reviewed. Appendix 1 gives the list of irrigation-related Acts existing in Tamil Nadu.
2.5.1 The Indian Easements Act

The Indian Easements Act, 1882, has codified the customs and practices existed in India. It comprises of five Chapters and 51 Sections. The rights of the people in which there are only rights but no duties to be performed are called easements. This Act covers various aspects of both surface water and groundwater issues which have direct relationship to irrigation. Some of the salient provisions are given here.

The Indian Easements Act, 1882, recognizes the customary easements of the individual/s in natural flows as per Section 2(a). On the contrary, the same Act gives absolute rights over rivers and lakes to the State as per Section 2(b). Illustration (g) to Section 7 and Section 17 of the Act still has its say in the sharing of groundwater from a common well. Section 15 deals with the acquisition of prescription, which is required for claiming an easement.

Since the customs are dynamic, according to the facts and evidences available, the courts decide upon the cases and so case laws have been appended to the Indian Easements Act, 1882. An insight into the provisions of the Indian Easements Act, 1882, would reveal that this Act needs to be modified to accommodate the advances that are taking place in the field of irrigated agriculture.

2.5.2 Land-Related Legislation

Water is closely associated with land. During the British period, under the Madras Presidency, three categories of land tenures existed. They were (i) *ryotwari* system, (ii) *zamindary* system, and (iii) *inamdar* system. The common law of the land recognizes the land rights of both the Government and the individuals. Among the various forms of revenue generated by the British,
the land revenue had occupied an important place. The Government has the right to demand revenue in the shape of a share of the produce from all cultivable lands from the *ryots*. Subject to the payment of the share, the Government has no right to the possession of lands. This system was said to be the *ryotwari system* and was introduced in India in 1792 by Col. Read. The *ryotwari* owner was not the owner of the bed of the river adjacent to his / her land; the bed belongs to the Government. Each *ryot* was entitled to the right to water and to irrigate his fields. But he / she has no right to claim that water should be supplied to him / her through a particular source. The British faced several problems in the administration of land since they did not have trained officials and were not acquainted with the local customs. By trial and error process they tried to overcome the problems (Chandrasekaran 2005).

By providing irrigation facilities to lands, the produce from lands increased. The British Government had thought of regulating the land revenue system by introducing some legislative measures and having a better control over land administration.

*The Madras Permanent Settlement Regulation, 1802*

This regulation was an introduced to regulate the land revenue system in Madras. According to this regulation, an assessment was fixed on all lands liable to pay revenue to the British Government. This regulated the proprietary right of lands to be vested in individual persons, and for defining the rights of such persons, under a permanent assessment of the land revenue. According to Section 2 of the regulation, proprietary right of the soil was vested in *zamindars* or other proprietors of the land, and in their heirs and their lawful successor forever. Section 6 of the regulation provided that the landholders should pay regularly in all seasons, the permanent assessment fixed on their lands by the Government. The duty of maintaining the existing...
tanks and the construction of new ones, which were formerly undertaken by the Government, was transferred to the zamindars.

*The Madras Land Revenue Assessment Act, 1876*

This Act was aimed at making a better provision for the separate assessment of land revenue for alienated portions of permanently-settled estates. The Collector was authorized to register the lands after making inquiries.

*The Estate Land Act, 1908*

The Madras Permanent Settlement Regulation, 1802, had conferred proprietary rights of the soil on zamindars. This has interfered with the rights of the ryots and led to frequent disputes. The Estate Land Act, 1908, was aimed at settling the disputes that had arisen between the ryots and the zamindars.

*The Madras Estates (Abolition and Conversion into Ryotwari) Act, 1948*

Under the permanent settlement, the liability of maintaining the irrigation works was vested with zamindars. One of the reasons quoted for the introduction of this Act was that the irrigation works were not maintained by zamindars and this resulted in a reduction in the revenue collection. So the British Government introduced the above said Act, which provided for the acquisition of the rights of the landholders in permanently settled estates in the Madras Presidency and the introduction of ryotwari settlement in such estates. This Act had an indirect linkage with irrigation. The rights and privileges conferred on the estate owners, by the Madras Irrigation Cess Act, 1865, were taken away and their lands were also treated at par with the
ryotwari areas. This Act has repealed the Madras Estates Land Act, 1908. But problems continued regarding unsettled inam villages (villages granted by the Government as gift for the services rendered by them).

The Tamil Nadu Inam Estates (Abolition and Conversion into Ryotwari) Act, 1963, and the Tamil Nadu Minor Inams (Abolition and Conversion into Ryotwari) Act, 1963

These Acts have abolished the concept of inam villages and minor inams in the State of Tamil Nadu and introduced the ryotwari settlement. The inamdars were compensated accordingly.

The Land Acquisition Act, 1894

This is an old enactment that holds good even today in irrigation-related issues. Since irrigation projects are meant for public purposes, the authorities who plan irrigation projects should know the relevant provisions of the Act, which will have a binding on acquisition of land for irrigation projects.

This Act facilitates the Government to acquire private land for public purposes, and to determine the amount of compensation to be made on account of such acquisition. According to Section 3(a) of this Act, the expression ‘land’ includes benefits that arise out of lands and things attached to the earth or permanently fastened to anything attached to the earth. Benefits arising out of land include revenue from agriculture. The definition of the expression ‘public purpose’ includes lands planned for development from public funds in pursuance of any scheme or policy of the Government and subsequent disposal by the Government with the object of securing further development as planned, which is provided under Section 3(f). Section 4(1)
provides that if a land is needed by the Government for any public purpose, in the preliminary investigation stage itself public notification shall be published in the Official Gazette and the Collector shall cause public notice of the substance of such a notification to be given at convenient places in the said locality. Section 5A gives provision for raising objection by a person who is interested in that land, as per the amendment made in 1923. As per Section 6(1), the declaration of the intended acquisition shall be made under the signature of the Secretary of the Government or by any officer who is authorized by the Government to do so and should be published in the Official Gazette. Apart from this, public notices need to be given. Section 11 deals with the enquiry and award made by the Collector. Sections 23 and 24 authorize the Collector to determine the amount of compensation to be given to the affected parties from whom the lands were acquired.

The Land Encroachment Act, 1905

This is an Act to provide measures for checking the unauthorized occupation of lands which are the property of the Government. According to Section 2 of the Act, “… streams, lakes and tanks, canals and watercourses and all standing and flowing water wherever situated” are declared to be the property of the Government. Section 5 deals with the liability of a person illegally occupying the Government land and sub-Section 5B deals with the proceedings to be followed by the authorized authority, before issuing the notice for eviction. Thus surface water is declared the property of the Government, which is in line with Section 2(a) of the Indian Easements Act, 1882.
The Madras Survey and Boundaries Act, 1923

This Act is to amend the law relating to survey of Government lands and estates, and settlement of boundary disputes. Resurvey was done in Tamil Nadu in 1958. This Act has directed the survey of lands for the convenient assessment of levy of water cess.

The Tamil Nadu Requisitioning and Acquisition of Immovable Property Act, 1956

This Act allows the Government to acquire necessary property for construction of irrigation structures.

Water and land are the two inseparable natural resources. From the review it was found that the land-related Acts enacted both by the Union and State Governments will have a barrier in the irrigation Acts too. According to the Madras Permanent Settlement Regulation, 1802, an assessment was fixed on lands based on the productive powers of the soil. The productivity of the soil among other aspects includes irrigation. This settlement later aided in the formulation of the Madras Irrigation Cess Act, 1865.

The zamindari and inamdari systems were introduced by the British Government during the initial periods of their governance as a trial to understand the local customs. The systems were carried on though they posed a lot of difficulties. The Madras Irrigation Cess Act, 1865, has exempted the estates and the inams from paying irrigation cess. Many cases appeared in the court regarding the levy of water cess in the zamindari and inamdari villages and those claiming their water rights against the right of the State. When India became independent those two systems were withdrawn by the enactment of the Madras Estates (Abolition and Conversion into Ryotwari) Act, 1948, and
the Tamil Nadu Inam Estates (Abolition and Conversion into Ryotwari) Abolition, 1963. These two Acts were introduced with the aim to convert all estate and inam lands into ryotwari lands, so that the Government can have a better command and control over the land and land revenue.

All irrigation projects are meant for public purposes. Hence the Land Acquisition Act, 1894, which was amended in 1996 by the Tamil Nadu Government, is an important Act which has a bearing on the acquisition of land for such purposes. The provisions of this Act should be carefully looked into before formulating the irrigation Acts. This study has realized the difficulties that were faced in the implementation of the Tamil Nadu Irrigation Works (Construction of Field Bothies) Act, 1959, regarding the expression ‘public purpose’, which is defined under Section 3(f) of the Land Acquisition Act, 1894.

2.5.3 Irrigation Tanks

Many Acts had been enacted to ensure that irrigation tanks were maintained in good condition and to improve their efficiency. These Acts are discussed below.

The Periyar Irrigation Tanks (Preservation) Act, 1934

This was an Act to provide for preservation of efficient condition of tanks belonging to landholders which were used as part of the Periyar irrigation system, which is one of oldest irrigation systems of the State. Section 5 of the Act authorized the Collector to pass a preliminary order specifying the measures necessary for the repair and restoration of these tanks and Section 6, provided for raising objections before the Collector. This shows that though some tanks were owned by private parties, the Government
had a control over the tanks. Though tanks remain as one of the vital sources of irrigation in Tamil Nadu no efforts were taken by the British towards the maintenance and preservation of these water storing structures except through this piecemeal legislation.

*The Tamil Nadu Irrigation Tanks (Improvement) Act, 1949*

Due to the transfer of responsibilities towards the maintenance of the tanks, from the State to the *zamindars* and back, many irrigation tanks in the State were in a state of despair and unable to irrigate satisfactorily the whole of the *ayacut* area under them. So recognizing the importance of preserving the tanks, it was decided to increase the capacity and efficiency of all irrigation tanks in this State, wherever they may be situated. Section 3(1) of this Act empowers the State to take measures like raising the full tank level to achieve the objective. It allowed compensation to be paid to any person whose lands may be submerged or whose property or right in or over any property might be affected. Section 5 prescribes conditions under which compensation can be granted. The compensation to be paid will be determined by the District Collector in accordance with the rules made for that purpose. Section 3(3) provides that the cost of carrying out these works may be recovered by the District Collector from the owners of the beneficiary lands. Section 4 bars the courts from entertaining any suit or application towards the issue of injunction to restrain the exercise of any powers conferred on the Government. Section 6 provides that the aggrieved person may appeal against the order of recovery in the Sub-ordinate Judge’s court. Section 7(1) provides that the Government may by notification, make rules to carry out the purposes of the Act, and such rules may provide for the inspection of the irrigation tank.
In Tamil Nadu the customary right of maintaining the tank by local people was slowly taken over by the State. The Tamil Nadu Irrigation Tanks (Improvement) Act, 1949, which caters to the whole State, vests absolute powers in the State regarding the regulation of water from a tank receding the customary rights and easements enjoyed by the farmers. The customary right of the ryots has also undergone a change after the enactment of the Tamil Nadu Irrigation Tanks (Improvement) Act, 1949 (Gurunathan and Shanmugham 2006).

This Act on tank improvement was enacted to improve the irrigation efficiency of the tank and to ensure equity in distribution of irrigation supply. To make the equitable distribution acceptable to the farmers, the decision should be based on proper rationalization. Provisions are available in this Act to compensate those who have lost their customary rights in accordance with the extent of diminution of supply of water. For claiming the compensation one has to prefer an application to the Collector setting forth the grounds of his / her claim within three years. This means that those who are affected should be aware of the provisions available in the Act. Difficulty is also faced in setting forth the grounds for compensation.

2.5.4 Groundwater

Precipitation remains as the main source of groundwater. The awareness about the concept of groundwater development and management are evolving slowly among the commons. The geological conditions determine the path by which the water percolates through the zone of aeration (vadose zone) and reaches the zone of saturation. Groundwater is not an infinite source of water and the amount of groundwater that can be obtained in any area depends on the characteristics of the underlying aquifer like permeability, hydraulic
conductivity and the frequency of recharge. Groundwater is drawn from the aquifer storage through wells.

In Tamil Nadu there are around three million wells and it contributes to more than half of the total net area irrigated and hence use and management of groundwater becomes vital. To regulate this scarce resource an understanding about the existing rights is needed. According to the Indian Easements Act, 1882, a person, cannot acquire a prescription for the underground water collected in a well or passing through springs or flowing in undefined courses and so the easement right can be claimed. Any diminution to such water by neighbours hence gives no ground for action under the Act as provided by illustration (g) to Section 7 of the Indian Easements Act, 1882. The groundwater rights are attached with the land rights. It does not provide any limitation on the quantity of water that can be drawn by an individual. There is no provision limiting the depth up to which one can go in a certain aquifer. Also the norms are not fixed with respect to the power of the pumps that could be used and the timing of pumping. The landowners can only claim rights over groundwater but the landless are left without any rights.

The Standing Orders of the Board of Revenue (RSO) 6(2) reads as: “The Government has abolished all restrictions on the sinking of wells in the proximity of Government irrigation works provided only that they are sunk in land which belong to the person sinking the well.” This again makes sure that water rights go with land rights, and practically there is no regulation available to restrict the number or quantity of water to be drawn from the land abutting the channel. The order is good if more wells are dug in the upper reaches of the channel where there is a water logging problem, but in areas where the groundwater level is not high the mushrooming growth of the wells in the lower reaches will have a detrimental effect.
In common law countries, every real property owner (in civil law countries it is known as immovable property), has the exclusive right to enjoy and dispose of all the products. As real property chiefly denominates land, groundwater is legally seen as a naturally inherent part of land, and as such groundwater must hence be termed as real property – and not as a chattel (Report of the Expert Group 2007). Chattel is a movable property right (Hodgson 2004).

Groundwater regulation will be effective if it is looked at a small level. Area of jurisdiction plays an important role in enacting and enforcing a law (Falkemark 1996). An Expert group was instituted as per No.17 (2)/05-WR, Planning Commission (Water Resources Division), Government of India, dated October 21, 2005, to review the issue of groundwater ownership in India. The Expert group felt that, “as such it can be argued that the State Governments have the jurisdiction and the authority to control and regulate the development of groundwater within the territorial jurisdiction of the State concerned. But these need to be governed by the national perspectives in pursuance of the provisions of the Environment (Protection) Act, 1986, acting through the Ministry of Water Resources” (Report of the Expert Group 2007). Efforts have been made in Tamil Nadu in piecemeal to deal with the groundwater issues. The State laws and policies related to groundwater are discussed below.

The Chennai Metropolitan Area Groundwater Regulation Act, 1987

Apart from the Indian Easements Act, 1882, some States like Tamil Nadu, Maharashtra and Gujarat have enacted separate groundwater legislation in accordance with the Model Groundwater Bill of 1970 circulated by the Union Government. The first Act regarding the regulation of groundwater, the Chennai Metropolitan Area Groundwater Regulation Act, was enacted in
This Act covers the whole of Chennai city and 243 revenue villages around it. Under this Act, the Chennai Metro Water Supply and Sewerage Board (CMWSSB) is vested with the power to issue licences for digging wells and to adopt regulations to prevent sea water intrusion. Regarding the villages, the authority is vested with the Collector or an officer not below the rank of the *Tahsildar*. Some of the aspects covered under this Act are given below:

- new wells meant for agriculture must obtain permit from the authority for digging well;
- prescribing a licence fee for extraction of groundwater for other than domestic purpose ranging from Rs. 500 to Rs. 5,000 for different pump capacities.
- competent authority has powers to refuse the permit for the extraction of groundwater citing reasons and has powers to break open and enter the property, seal the well and recover the cost of such action from the violator; and
- Granting permission lies with the authority and no restrictions were mentioned regarding the quantity of water to be drawn.

An amendment has been made to the Chennai Metropolitan Area Groundwater (Regulation) Act, 1987, which is called *the Chennai Metropolitan Area Groundwater (Regulation) Act, 2002*, for development of groundwater without any counter-productive effects of overexploitation and for regulating excessive groundwater use in some notified areas of the State. Section 5A of this Act prohibits the extraction of groundwater from scheduled areas and Section 12A deals with the seizure and confiscation of property in case of over extraction.
The Tamil Nadu Groundwater (Development and Management) Act, 2003

The Tamil Nadu Groundwater (Development and Management) Act, 2003, has been formulated based on the Model Groundwater Bill of 1970. The Tamil Nadu Groundwater (Development and Management) Act, 2003, extends to the whole State of Tamil Nadu except the areas covered under the Chennai Metropolitan Area Groundwater (Regulation) Act 1987 and is to be implemented by the Tamil Nadu Groundwater Authority. Section 7 of the Act dealing with the establishment of the Authority does not give room to the participation of different departments considering the multidisciplinary approach. Like the Chennai Metropolitan Area Groundwater (Regulation) Act, 1987, this Act is generally prohibitive in nature and relies heavily on permit system. The Act makes it mandatory that all wells sunk in the State on or after the date of commencement of this Act (including notified and non-notified areas) have to be registered with the authority. This is not yet being enforced as the rules are yet to be framed. The restrictions suggested on the notified area include:

- every groundwater user has to obtain a certificate of registration from authority for recognizing their existing groundwater use;
- sinking of wells without a licence from the authority is prohibited; and
- transport of groundwater without the permit from authority is prohibited.

The salient features of this Act are listed below:

- exempts wells used for domestic purposes (using extracting devices up to 1 HP), wells sunk by State and Union
Governments for scientific purposes and wells of small and marginal farmers;

- the Groundwater Authority has powers to notify areas for development; control and regulation of groundwater extraction; monitor the groundwater regime in the mining area; and to alter, amend or cancel terms of certificate of registration, permit or licence; enter upon any premises to inspect; take specimen and copies of relevant records; serve notice and seize and take possession of wells;

- flexibility to amend or cancel the terms of certificate of registration or licence;

- does not allow the supply of electrical energy from the Tamil Nadu Electricity Board (TNEB) for energizing wells sunk in contravention of the provisions of this Act;

- provides for groundwater management by identifying and notifying suitable areas for conjunctive use of surface and groundwater;

- aggrieved person by the order or decision of the authority may appeal to Government; and

- penalty for failing to comply with the Act is a fine of Rs.1,000 for first offence, for second or subsequent offences Rs.2,000 and for continuous contravention of the provisions the fine is Rs.500 a day in accordance with the times of violation.

The Government of Tamil Nadu in its Policy Note on Building and Irrigation for 2006-07 has given the procedure for drawing water from Government sources. As per this, the District Collector can accord permission
for drawing water of less than 1 mgd in consultation with PWD / WRD subject to clearance from the State Pollution Control Board and availability of water. For industrial use, necessary G.O. has to be obtained through the Regional Chief Engineer concerned.

The power to accord permission to draw water of 1 mgd and above from Government sources rests only with the State Government. Before issuing the G.O. for any project, the water supply schemes should be placed before the Technical Sub-Committee as well as the Water Utilization Committee for their consideration and clearance as stipulated in G.O. Ms. Nos.700 and 701 Public Works (WR2) Department, dated October 18, 1996. The project report demanding water for industrial use should contain details like location of the industry, proposed source of supply and its need, point of tapping, average daily consumption of water with norms for various purposes, distance from source to point of delivery and lift of water required, capacity of pumps to be installed, proposed mode of conveyance from source to the factory / industry, clearance from the State Pollution Control Board, consent for payment of charges and the index plan with layout for installation of water supply.

The State Government can thereafter issue a G.O. permitting the agency to draw water. Based on the permission granted by the District Collector or on the issue of the G.O., the Superintending Engineer of the PWD concerned will draw an agreement with the party concerned as per the Revenue Standing Orders (RSO) 11A for allowing it to draw the required quantity of water at a specified point. The industry requiring water should agree to pay the water rates as per G.O. Ms. No. 890 PWD dated May 9, 1991 and as revised by the State Government from time to time in advance for one year on or before April 10 each year.
A separate electricity connection for drawing of water should be obtained from the Tamil Nadu Electricity Board (TNEB), as per G.O. Ms. No. 557, Public Works (W2) Department, dated September 15, 1998. Unauthorized drawing of water is liable for legal action.

Sinking of new wells and deepening of existing wells will be permitted beyond a distance of 50 m from the toe of the bund of main canals and branch canals and 25 m from the bund of distributaries. Pumping should be done from the new wells for irrigating the ayacut lands only. Pumping will be permitted during the off-season only to raise any crop with the well water. Each farmer requiring supply of electricity should enter into an agreement with TNEB for cutting off supply of power during irrigation seasons. The restriction on the capacity of pumpsets to be installed is given below:

i) In the case of main canals and branch canals: not exceeding 10 HP (beyond 50 m); and

ii) In the case of distributaries: not exceeding 5 HP (between 25 and 50 m) and not exceeding 10 HP (beyond 50 m).

The Policy Note on Building and Irrigation for 2006-07 has given thrust by way of defining the distances that need to be maintained between the canals and the well and power of the pumps to be installed. The restrictions on the industrial use are made stringent. But this should also be reflected in the Tamil Nadu Groundwater (Development and Management) Act, 2003. Apart from regulating the groundwater use, the State also makes efforts to develop and conserve groundwater. One such initiative is the artificial recharge of groundwater.
2.5.4.1 Artificial Recharge of Groundwater

Groundwater is a dynamic resource and is replenished from natural precipitation, seepage from surface waterbodies and conveyance systems, return flow from irrigation etc. To maintain the equilibrium, the drawing of water should be within the safe yield of the aquifer. Artificial recharging is a technique adopted for improving the groundwater table so that the sustainability is maintained. It helps in storage of excess surface runoff which may otherwise go as a waste during monsoon season.

When the State experienced water scarcity, recognizing the spatial and temporal variation of the rainfall and the fact that the rainy days are limited in a year and that too for a few hours, the Tamil Nadu Government has revived the old tradition of rainwater harvesting and popularized it among the people. Installation of rainwater harvesting structures was made mandatory for procuring new water or sewer connections. Section 255A of the Tamil Nadu Municipal Laws (Second Amendment) Ordinance, 2003, which is an amendment to the Chennai City Municipal Corporation Act, 1919, deals with the provision of rainwater harvesting structure. In the same way amendments have been made to the Tamil Nadu Panchayats Act, 1994, also to make it mandatory in village panchayats. It was decided that if the owner or occupier of the building failed to provide rainwater harvesting structure on or before the date to be specified in the rules, the water supply connection provided to such a building would be disconnected.

Traditionally, rainwater has been harvested and stored in ponds, tanks and lakes, and of late, such conservation measures have lost their importance. Ponds and ditches harvest rainwater rather than allowing it to go to rivers and then pump it back to the field. Increased surface runoff in urban areas due to man-made activities reduces infiltration and hence the
groundwater recharge. With enough rainfall and groundwater recharge, the rainfed agriculture may be sustained, which serves as the livelihood of marginal and landless people.

Rainwater harvesting offers solution not only to the problem of drinking water but also for irrigation in water scarce areas. Some of the water conservation structures are check dams (small obstructions put across streams) and farm ponds (small ditches dug at the farm to harvest the water where it falls). The Union Government has promoted the Watershed Conservation Programmes. To involve the Panchayat Raj institutions in the planning, implementation and management of economic development activities of the rural areas, the Haryali Guidelines are issued by the Department of Land Resources, Ministry of Rural Development with effect from April 1, 2003. The Tamil Nadu Government has also formulated conservation schemes under the same guidelines. This watershed approach for water and soil conservation is a welcome move.

2.5.4.2 Initiatives from Other States

The initiatives taken by other States regarding the development, use and conservation of groundwater resources are discussed below:

The Bihar Lift Irrigation Act, 1956, which defines the ‘lift irrigation work’ as all tube-wells and river pumping sets operated by electricity or oil and strictly prohibits the transfer of rights without the permission of the lift irrigation official. The official is also empowered to restrict and control the supply as he / she shall deem proper (Bihar Irrigation Laws, 1995).

The Karnataka Groundwater Bill, 2002, which grants permission to the State of Karnataka to close down permanently tubewells used for
agricultural purposes, if they are affecting drinking water wells in rural areas. The Government has banned drilling of any groundwater wells in areas declared dark blocks, where groundwater extraction is more than 85 percent of its potential. Such a strict restriction imposed on the overexploited blocks is a good initiative. In the command area, the canal water flows through the network and recharges the groundwater, but the groundwater users in the command areas resist paying a canal water fee, since they are paying for groundwater pumping (Raju and Sarma 2004).

The Kerala Groundwater (Control and Regulation) Act, 2002, defines ‘pumping well’ as a well fitted with a pump driven by an electric motor or oil engine for pumping water but does not include open wells fitted with pumps driven by engine or motor up to 1.5 HP and tube wells, borewells and dug-cum borewells fitted with pumps driven by engine or motor up to 3 HP. Section 10 provides for protection of public drinking water sources and Section 21 deals with penalties. According to Section 7(1), any person desiring to dig a well or to convert the existing well into pumping well, for his own / social purpose in the notified area, shall submit an application before the authority for the grant of a permit. According to Section 8(5), the authority shall consider the following matters before granting or rejecting the application for registration of the well namely:

- purpose for which water is used;
- other existing users of that locality;
- rate of recharge of the area of influence of the well;
- quality of groundwater in the location;
- long-term nature of water level of well; and
- other relevant factors.
These restrictions put forth for the regulation of the groundwater is almost similar to the ones provided in the Tamil Nadu Groundwater (Development and Management) Act, 2003.

The Andhra Pradesh Water, Land and Trees Act, 2002, is a holistic Act enacted to promote water conservation and tree cover, to regulate the exploitation of groundwater and use of surface water, protect and conserve water sources and to deal with land and environment related matters. It has provisions to strengthen public participation in conservation of natural resources. Kumar (2002) reported that the Andhra Pradesh State has enacted the comprehensive piece of legislation, aimed to regulate the exploitation of ground and surface water resources enforcing punishment to those violating the guidelines.

Section 3 of the Act deals with the constitution of the Water, Land and Trees Authority comprising representatives from all related departments and research institutions. Section 3(5) of the Act provides that the Government may, in consultation with the State Authority, constitute by notification, authorities at district and village levels with such composition and perform functions in such a manner as may be prescribed there by establishing a proper institution.

Section 9(1) provides that the period of prohibition of water pumping initially should not be more than six months, which after review may be extended for a further period of not more than six months at a time. Section 10(2) provides that in respect of sinking a well for the purpose of irrigation or drinking or for any other purpose, and if such source is intended to be used with a power-driven pump, the person shall also obtain prior permission of the Transmission Corporation of Andhra Pradesh constituted under Section 13 of the Andhra Pradesh Electricity Reform Act, 1998.
Section 11(1) provides that the Authority may on the advice of the technical expert declare a particular groundwater basin as overexploited for a period of not more than six months which, after review, may be extended for a further period of not more than six months at a time. Section 11(2) says that before declaration, the technical officer shall take into consideration the quantum and pattern of rainfall, degree of extraction of groundwater and any other relevant factors.

Section 12 deals with protection of public drinking water sources. While prioritizing drinking water, irrigation well with standing crops are also considered. Water sale is also prohibited under this same Section. Section 13 provides that to curb unhealthy competition to tap water from deeper layers of groundwater and to maintain groundwater table, the Authority may issue directions specifying the distance for sinking of wells from the existing well and depth for such sinking. Section 15 deals with closure of wells and Section 16 with compensation that needs to be paid for closed wells. Compensation for the well situated in a land acquired shall apply the provisions of the Land Acquisition Act, 1894, in determining the market value of the well. Section 17 deals with the provision of rainwater harvesting structures. Section 18 says that the Authority may formulate guidelines including suitable incentives for recycling and reuse of wastewater by industrial / commercial users and local bodies. Section 19 deals with prohibition of water contamination.

Section 21(1) of the Act aims to ensure that land and water use in the watersheds shall be conducive for efficient use of these resources as well as for groundwater recharge and the measures to be adopted by the watershed committees. Section 22 provides that in irrigation command areas, WUAs shall ensure optimum use of surface and groundwater, thus ensuring the participatory approach. Section 23 deals with protection of lakes, ponds and tanks. Section 24(1) empowers the designated officer to prescribe ceiling on
water usage per unit of production by any industry or commercial unit. Section 27 provides that the Authority may frame guidelines for sand mining from waterbodies wherever such sand mining is environmentally harmful both in private and Government lands.

The National Environmental Policy, 2006, insists that the increase in tree cover is effective in enhancing soil moisture retention and preventing soil erosion. Section 28 of the Andhra Pradesh Water, Land and Trees Act, 2002, deals with tree plantation in urban areas both in private and public premises. It says that the Authority may also direct the Municipal Corporation or Municipality or the other Local Authorities, to designate an officer to be in-charge of tree plantations in their respective areas. Section 29 deals with protection of trees. Section 30(3) provides that all agricultural landowners except small and marginal farmers and wetland owners as determined by the Government shall plant trees in their land holdings as prescribed by the Authority up to 5 percent of their total landholding. Permission for felling of trees shall be given only when the landowner plants trees in equal extent of land. This Act has repealed the Andhra Pradesh Groundwater (Regulation for Drinking Water Purposes) Act, 1996.

Thus the Andhra Pradesh Water, Land and Trees Act, 2002, can be considered as a comprehensive Act, which embodies with it strict rules for the regulation of groundwater, protection of waterbodies and environment. It follows the integrated development of water resources and encourages the farmers’ participation. Proper institutional linkages are also provided which is very much essential for the effective implementation of the Act.

The Andhra Pradesh Irrigation Development Corporation in collaboration with Government of Netherlands under the guidance of FAO has implemented the Andhra Pradesh Farmer Managed Groundwater
Systems’ Project with community-based usage and management of groundwater in 2003 (http://www.apfamgs.org). The project is based on the assumption that access to scientific data and knowledge will enable farmers to make appropriate choices and decisions regarding the use of groundwater resources for agricultural practices. Some of the salient features of this project are as listed below:

- an alternative model of demand-side groundwater management concept;
- operational framework is the hydrological unit or micro-basin;
- area to be irrigated is decided based on the yield of the well and soil type;
- season-related data collection and crop water budgeting done by farmers;
- preparation of resource inventory through Participatory Rural Appraisal;
- preparation of well statistics after studying the lithology of the area and type of aquifer;
- accounting of pumping devices;
- development of hydrological database using geographical information system (GIS) platform by farmers themselves;
- formation of Farmers’ Water School to train farmers to collect all data to understand local water resources availability;
- encouraging low-cost alternative energy pumps;
- incentives in the form of providing equipments and importing skills to farmers and not by giving subsidies; and
- changed perception of groundwater from private property to that of a common good.
To summarize, groundwater rights are attached with the land rights. There is hardly any norm enforced to regulate the extraction of groundwater which is available under the land of an individual landowner. If a water company buys a land close to an ayacut area, it can draw water beyond the safe yield since they have also bought the right to the water below that small piece of land. The advancements that have taken place in the groundwater development and extraction techniques are not reflected in the age old Indian Easements Act, 1882, which still has its say in the sharing of groundwater from a common well. So this paves the way for more irrigation-related conflicts among the farmers.

The top-down approach is dictated in the Groundwater Acts and the provision for the participation of the stakeholders / community is missing. The local village Panchayats’ role is also not taken into account. The Tamil Nadu Groundwater (Development and Management) Act, 2003, has provisions for limiting the number of permits to be issued; thereby restricting the number of wells, but regulation needs to be done on the depth of wells, power of pumps to be used and the time of pumping, based on the aquifer characteristics. Regulations should be framed relating to the use of well water in canal / tank ayacut. The Policy Note on Building and Irrigation, 2006-07, has considered some of these aspects. These initiatives should be carried forward by amending the existing law. Keeping in mind the process of maintaining the balance between discharge and recharge, rainwater harvesting has been made mandatory.

Since the rules for the enforcement of the Tamil Nadu Groundwater (Development and Management) Act, 2003, are under formulation, the salient points found in the Andhra Pradesh Water, Land and Trees Act, 2002, related to groundwater regulation could be considered for filling the existing gaps in a more amenable way.
2.5.5 Irrigation Management

It is impossible to manage the large irrigation schemes costing huge sums of money without defining the rights and responsibilities of the Government. The State has reached the limits of irrigation from natural sources or through artificial canals. So stress is laid on the duties of the State to use every drop of water which could be used for irrigation. The State has gone in for irrigation by storing water in reservoirs and diverting it from the storage works through the network of canals to the interior lands not abutting the natural rivers. There must be some authority for the purpose of allocation and distribution so as not to create a breach of peace. The following Acts indicate the ways with which the State tries to manage the irrigation systems.

The Indian Easements Act, 1882

The Indian Easements Act, 1882, provides certain rights that could be exercised by the State and the farmers in natural streams and artificial channels. The rights of the people in which there are only rights but no duties to be performed are called easements. Also, no special profits are to be gained by the exercise of such rights; it is a matter of gaining certain conveniences. The easements are acquired restrictions of the complete rights of property. The acquired rights are abstracted from the ownership of one man and added to the ownership of another. Natural rights are themselves part of the complete rights of ownership, and they belong to the ordinary incidents of property (Row 2006).

The Indian Easements Act, 1882, introduced the English Doctrine of riparian ownership and legitimizes rights of the people and provides two rules for recognition: (i) by prescription (Section 15) and (ii) by local customs (Section 18). Prescription may be defined as the effect of lapse of time in
creating and destroying rights. There are two kinds of prescription. The title of right exercising customary right over the prescribed period is said to be the positive prescription. Prescription of title by adverse possession and limitation is the negative prescription. A prescriptive right to commit nuisance may be acquired if a person has continued with an activity on the land of another person for 20 years or more. The Limitation Act of 1963, in Section 25(1), provided 20 years as the period of uninterrupted enjoyment to establish the easement. This presupposition is made explicit as easements in irrigation water as per Section 25(4).

The rule that no prescriptive rights of easement can be claimed against the Government in waters of rivers, streams, etc., is found in Section 2(a) of the Indian Easements Act, 1882. This Section provides that the law of easements contained in the Act will not derogate any right of the Government to regulate the collection, retention and distribution of water of the rivers and streams flowing in natural channels, and of natural lakes and ponds or of the water flowing, collected, retained and distributed in or by any channel or other work constructed at the public expense for irrigation.

On the contrary Section 2(b) of the Act laid down the riparian rights to the usufruct of water and recognizes customary rights in or over immovable property which any person, the public or even the Government may claim by custom in which some people are entitled to take water from another’s land.

The rights and obligations as between the State and the irrigators in India in the matter of irrigation rest largely on unrecorded customs and practices. Though the Government’s right to regulate irrigation in natural waters is paramount and sovereign in character, it cannot be exercised arbitrarily. The Government’s right is subject to the riparian getting the same
quantity to which he is entitled by the custom. The court, in a judgment reported as AIR-1936-Madras-923, held that Government officials have no right to deny to a ryotwari holder arbitrarily, water which for years he has been accustomed to receive for second crop cultivation on his lands. This would mean that the power of the State to interfere with the customary supply of water to irrigators ought to be decided with reference to the accustomed user and with reference to the registry of lands.

Apart from the Indian Easements Act, 1882, Acts have been enacted by the State to uphold the right of the State regarding the control and regulation of surface waters. Some of such Acts enacted are given below:

The Madras Compulsory Labour Act, 1858

This is an Act to make compulsory labour lawful for the prevention of mischief causing inundation and to provide for enforcement of customary labour on certain irrigation works in the Madras Presidency.

It was the custom that prevailed among the local village communities, that at time when the safety of a person or property is endangered by inundations caused by sudden breaches of water sources like tanks and canals, the village communities furnished the labour required for the execution of repair works. By the enactment of this Act, legal provision is made for the enforcement of this duty. Section 1 of the Act provided that the officer in charge of the irrigation work was allowed to require the head of the village to call upon able-bodied male persons, not less than 18 years and not more than 45 years, to work in a cooperative manner. In the absence of an irrigation officer, the Tahsildar was allowed to make the requisition. In the case of emergency, if both of them were not in the spot, the village head could take up this responsibility. Section 3 provided that those who contribute
labour be paid on a daily basis at the highest rate paid in the neighbourhood; and if they worked at night they received double wages. Section 2 said that refusing or neglecting to comply with the responsibilities would be punished with heavy fine and imprisonment. Section 5 provided that it should be lawful for the heads of the villages to make requisitions upon the inhabitants for the supply of materials for stopping the breach in the embankments of tanks, rivers and canals, and did not provide for with the power to requisition of materials before the occurrence of breach.

*The Madras Compulsory Labour (Amendment Act), 1935*

The Act of 1935, provided for the amendment to Section 5 of the Madras Compulsory Labour Act of 1858, to include materials like gunny bags, earth and stone among other materials and the power to make requisition for the purpose of preventing the breaches.

The customary labour though made compulsory had certain advantages like creating a sense of belonging among the local people and leading to speedy completion of works.

*The Tamil Nadu Irrigation Works (Repairs, Improvements and Construction) Act, 1943*

This Act was enacted to increase the production of food crops by maintaining all irrigation sources in the zamindari areas at maximum efficiency, which were governed by the Estate Land Act of 1908. This Act provided for the repair or improvement of private irrigation works, the construction of new irrigation works on private lands and the supply of water from the Government to private irrigation works. Section 2 of this Act authorized the Government to carry on the above mentioned works.
Section 2(c) provided that the land should be acquired in accordance with the Land Acquisition Act, 1894. Section 8 of this Act barred the jurisdiction of the courts to call in question any action or thing done under the Act or to issue any injunction in respect of proceedings to be taken. Section 9 of this Act also barred civil and criminal proceedings against Government servants for anything done in good faith in the course of the execution of their duties. This Act provided the ryots with the right to apply to the Collector for compelling the landowners to perform the irrigation repair works. But the ryots did not take sufficient advantage of these provisions owing to their ignorance and partly to their fear of offending the landlord.

*The Irrigation Works (Repairs, Improvement and Construction) Amendment Act, 1945*

In cases where an irrigation work was intended to serve partly lands in the estate, it was thought that the Government should have power to acquire the land necessary for the construction of the work, to construct the work themselves and to charge a fee for the water supplied from the irrigation work. Section 3(1) of the 1943 Act, entitled the Government to recover from the landholder of an estate the entire cost of an irrigation work constructed by the Government on the estate, even though the work served lands not only in the estate but also the ryotwari lands. In this Act there was a provision for sharing the cost of maintenance of such irrigation works between the landholder and the Government in proportion to the cost of construction shared by them.

*Tamil Nadu Irrigation Works (Construction of Field Bothies) Act, 1959*

This Act provides for the construction or digging of field bothies by the Government and by owners of lands entitled to irrigation under certain
irrigation works in the State. According to Section 2(3) ‘field bothies’ are defined as small channels which run from outlets in the Government channels and which convey and distribute water to individual fields. Section 3 empowers the Collector to issue notice for construction of field bothies. Section 5 provides for the appeal to be made by aggrieved persons. Section 6(1) authorizes the Government to construct field bothies on any land belonging to the State or acquired by them, for utilizing the water for the purpose of irrigation. Section 6(2) provides that the cost of construction or digging of field bothies may be recovered by the Collector from the owners of the lands. Since construction of field bothies is for the public good, this should comply with the definition of the ‘public purpose’ as mentioned in the Land Acquisition Act, 1894.

The Tamil Nadu Construction of Field Bothies Act, 1959, grants powers to the Collector for the construction of field bothies. Instead, by imparting technical training to the farmers, they themselves can be empowered for the construction activities too with assistance from WUAs. To transfer the responsibilities, the Tamil Nadu Farmers’ Irrigation Management Systems Act, 2000, has vested the responsibility of the maintenance of field bothies with the beneficiaries. This would avoid the problems cropping up due to the involvement of middlemen.

Tamil Nadu does not have any comprehensive Act formulated for the regulation and management of surface water resources except some piecemeal Acts enacted as discussed above. Maharashtra was the first State to set up the Water Resources Regulatory Authority under the Maharashtra Water Resources Regulatory Authority Act, 2005. It was enacted to regulate water resources, facilitate and ensure judicious, equitable and sustainable management, allocation and use of water resources, and to fix rates for use of water for agriculture, industrial, drinking and other purposes. It also provides
for imprisonment, which may extend up to six months and a fine that may extend to ten fold of annual water charges, for non-compliance of any order or direction given under the Act. The Act makes it mandatory for farmers to use drip irrigation, sprinkle irrigation or other techniques of saving water. Although it was a pioneering attempt, there were criticisms with respect to certain provisions of the Act.

Muralidhar (2006) comments that, the Maharashtra Water Resources Regulatory Act, 2005, places an unconscionable restriction on the availability of affordable water by linking the payment for water to the size of the family.

Dharmadhikary (2007) expresses the opinion that ensuring every farmer that he / she gets water in proportion to his / her landholding is what is meant by equitable distribution. Equity here is being talked about only in the context of water stored in irrigation dams. Rest of water resources including groundwater are out of the ambit. He also comments that the most controversial function of the Authority is to develop a framework for trading in water entitlements, which makes for good economics for the farmer to sell his right to water to grow jowar, to the golf course company.

Selling of water rights is an important issue to be taken note of in the Tamil Nadu context too. In Tamil Nadu, the migration of people from the rural to the urban areas imposes a lot of stress on the water resources in the peri-urban areas. At times of water scarcity water markets are proliferating in these areas: the water table goes down and the agricultural activities dwindle. If this scenario continues then the self-sustenance of food would be in jeopardy. National Water Policy, 2002, describes water as a ‘prime natural resource, a basic human need and a precious national asset’. Hence rules and regulations formed / to be formed should aim to balance growth with sustainable development.
Realizing the importance of updating the old laws, the Punjab Irrigation Department has taken a step in the right direction by amending the North India Canal and Drainage Act, 1873, approving 17 amendments to be included to the parent Act. Some of the recommended amendments are: abolition of forced labour existing as per Section 63, division of water crime into major and minor, compensation appeals to be heard by the irrigation engineers instead of the revenue officials, under Section 35, empowerment of farmers’ associations to hear rotation (warabandi) grievances that were earlier heard by sub-divisional officials.

The Northern India Canal and Drainage Act, 1873, is a comprehensive legislation which has provisions to empower the State to construct works for the use of surface water from the rivers, streams and lakes for irrigation; to regulate the supplies of water from canals; to construct watercourses and field channels; to levy and to collect water rates; to settle the disputes; and to provide proper drainage of land. There is no such comprehensive irrigation Act existing in the State of Tamil Nadu. As seen in this chapter, each such provision is separately dealt by a piece of legislation, and this makes the understanding and coordination difficult.

2.5.5.1 Role of Local Institutions

In Tamil Nadu, 69 percent of the population lives in villages and the rest lives in towns and cities. Under Article 243 B(1) of the Constitution of India, the three-tier local institutions were constituted in Tamil Nadu. Article 243(G) endows the Panchayat with such powers and authority as may be necessary to enable them to function as institutions of self-governance. Under the various responsibilities listed in the 11th Schedule of the Constitution of India, minor irrigation, water management and watershed development appear as Entry 3 and maintenance of community assets as Entry 29. So the management of irrigation at local level is vested in the Panchayats.
Traditionally, activities of local institutions in Tamil Nadu were centred on the common property rights. But in most times the local participation is excluded. The MLAs and MPs are ex-officio members in the Panchayat Union Council and District Panchayats. This brings in political biases. Local institutions at three levels are in complete isolation from each other. In the process of operationalization, the institutions have found out that their interests are conflicting (Gandhigram Rural Institute, 1998). The Tamil Nadu State Government also expresses the opinion that the State favours the two-tier system introduced by the Tamil Nadu Panchayat Act, 1958, since the linkage between the levels are better (Policy Note for Rural Development and Panchayat Raj Department, 2008-09). The institutional set up and the linkages between them are vital for effective implementation of the programmes. Hence the missing institutional links with the Panchayat system and also the linkages between the Panchayats and the WUAs should be strengthened.

The Madras Village Panchayats Act, 1920

One of the Directive Principles of State Policy contained in Article 40 of the Constitution of India reads: “The State shall take steps to organize village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government and endow them with such powers and authority.” The involvement of statutory village Panchayats in irrigation occurred only with the enactment of this Act.

The Tamil Nadu Panchayats Act, 1958

This was the landmark legislation that introduced the two-tier system of local governance in the State. Regarding irrigation though the transfer of functions from Panchayats to Panchayat Union has taken place, no significant development has been noticed. Some of the relevant Sections
related to irrigation are: Section 85(i) provides that the Panchayat or Panchayat Union Council is given the duty of protection and maintenance of the irrigation work, the management of turns of irrigation, the regulation of distribution of water from irrigation works to the fields depending on it for an ayacut below 40 ha (100 acres). Section 85(ii) provides that the maintenance of all irrigation works transferred to the Panchayats Union Council was to be under the control and supervision of the Revenue Union Officer. The PWD / WRD provides with the technical support. The Highways and Rural Works Department had retained all works relating to irrigation, which had not been executed as kudimaramath works. Through Section 117, the Government has been empowered to make necessary rules for the implementation of this Act.

_The Tamil Nadu Panchayats Act, 1994_

This Act seeks to establish a three-tier system in the State with elected bodies for greater participation of the people which consists of the village Panchayat, Panchayat Union and district Panchayat. This brought about decentralization and it complies with the Preamble of the Constitution of India.

Some of the relevant provisions of the Panchayat Act, 1994, which are relevant to irrigation, are listed below:

Section 110 corresponds to Section 63 of Tamil Nadu Panchayats Act, 1958. Section 110 says that, “subject to the provisions of this Act and the rules made, it shall be the duty of the village Panchayat, within the limits of the funds, to make reasonable provision for carrying out the requirements of the village Panchayat. Section 110(g) deals with the sinking and repairing of wells, the excavation, repair and maintenance of ponds or tanks. Section 133 (Section 85 of 1958 Act) provides for the maintenance of irrigation works,
execution of *kudimaramath*, etc. It says that Government may transfer to any village Panchayat or Panchayat Union Council the protection and maintenance of any irrigation work, the management of turn of irrigation, or the regulation of distribution of water from any irrigation work to the fields depending on it, and, the village Panchayat or the village Panchayat Council shall have power to execute *kudimaramath* in respect of any irrigation source in the village and to levy such fee and on such basis for the purposes as may be prescribed. Provided that nothing contained in this Section shall be deemed to relieve the village community or any of its members from the liability under the Madras Compulsory Labour Act, 1858, in respect of any irrigation source. The village Panchayat makes it a default duty to execute the *kudimaramath* in respect of that irrigation source.

Section 236 (Section 83 of 1958 Act) provides that the roads, markets, wells, tanks, reservoirs and waterways vested in or maintained by a Panchayat shall be open to the use and enjoyment of all persons, irrespective of their caste or creed, which goes with the Preamble of the Constitution of India.

Decentralization policy has imposed lot of responsibilities on the village Panchayats. They should be empowered with finance and workforce to carry on the works effectively.

### 2.5.5.2 Participatory Irrigation Management

Each irrigation system is unique. Irrigation systems have their own rules and regulations regarding their operation. In a multi-purpose reservoir, the Government in consultation with the WRD and the Revenue officials decides the date of opening of the sluice gates for irrigation. Of the main irrigation system, water allocation is regulated as per the rules and agreements
already formulated by the State Government, depending on the storage availability. At the micro level the irrigation management rests with the end-users. As issues related to sharing of the irrigation water increases, decision makers should incorporate an integrated approach to solve them. This includes managing the people as well as the resources.

The Irrigation Enquiry Committee, 1938, also known as Visvesvaraya Committee, had recommended entrusting of irrigation to a village or group of villages if the farmers were willing to take up cooperative irrigation. The Command Area Development Programme started in 1974 envisaged the participation of farmer organizations to run the micro irrigation system. The Sixth Plan (1980-85) emphasized the need for participation of farmers in the scientific management of water resources. The Seventh Plan (1985-90) reiterated the need for participation of farmers in the management of irrigation. The Committee on Pricing of Irrigation Water (1992) also recommended farmers’ participation in the management of irrigation systems. The National Water Policy, 2002, stressed the involvement of farmers in various aspects of management of the irrigation system particularly in water distribution and collection of water rates. The State Government has enacted an Act to implement this participatory approach, which is discussed below. Section 50 of the Tamil Nadu Farmers’ Irrigation Management Systems Act, 2000, deals with the power to make rules for the effective enforcement of the above said Act. Under this Section, two rules have been formulated. They are: (i) Tamil Nadu Farmers’ Management of Irrigation Systems Rules, 2002, and (ii) Tamil Nadu Farmers’ Management of Irrigation Systems - Election Rules, 2003. Hence this Act has been enforced.

In some channels, ayacutdars may indulge in drawing more water by tampering the outlets and preventing the officials from discharging their duties. Creating awareness and imparting the sense of ownership among the
beneficiaries may help to reduce this problem to a certain extent. This can be achieved by strengthening the farmers’ organizations.

The Tamil Nadu Farmers’ Irrigation Management Systems Act, 2000

Without the active support and participation of the people in the administration at the village level, implementation of developmental activities might not be effective. This Act provides for the participation of farmers in the management of irrigation systems. It comprises seven Chapters and 50 Sections and extends to the whole State of Tamil Nadu. The Preamble emphasizes the equitable distribution of water among the farmers. It creates a sense of ownership and belonging among the farmers and provides that the scientific and systematic development and maintenance of irrigation infrastructure are considered best through farmers’ organization.

The main thrusts of Tamil Nadu Farmers’ Irrigation Management Systems Act, 2000, are: the distribution of water for irrigation among cultivators, allowing farmers to take up maintenance works according to their priority, assisting in collection of water cess, maintaining registers, settlement of irrigation disputes, protection of irrigation works from encroachment, providing training and empowerment etc. Section 3 deals with the delineation of the WUA area. The command area under each irrigation system is delineated on a hydraulic basis (the basis for identifying a viable irrigated area served by one or more hydraulic structures such as head works, main canal, branches, distributaries, sluices and the like). The minimum area of operation under tank systems may be up to 20 ha and in canal irrigation systems it may be between 150 ha and 200 ha. The Presidents of the lower level institutions will be the ex-officio members of the higher level committees, providing proper linkage. The WUA is entrusted with the responsibility of carrying out
the maintenance works of the distributary system, the watercourses and the field channels.

The State of Andhra Pradesh too has enacted the Andhra Pradesh Farmers’ Management of Irrigation Systems Act, 1997, after holding several consultations with farmers, District Magistrates, the media, universities, legislators and Parliamentarians. The State approximately tripled the water fee in 1997, with the farmers’ cooperation owing to improvement in service delivery. The Principal Act of 1997 and its later amendments have brought water rights and water allocation responsibilities into the domain of users’ organization, a clear shift from the Government (Raju and Sarma 2004).

Some of the critiques made in lieu of the participatory approach are given below:

Participation is initiated at a later stage in projects that are planned and implemented in a wholly non-participatory manner (Iyer 2003).

Recent laws passed by many State Governments seeking to involve farmers in irrigation management have not clearly separated water rights from other ties; there is absolutely nothing available to individual farmers or to their legally mandated group entities like WUAs. It means that while the Government’s rights to water are unchallenged, its obligation to deliver water to WUAs (in canal systems) is rarely legally binding (Upadhyay 2005).

The traditional water managers at the village level find themselves marginalized with the recent slew of legislation by the States failing to provide any role for them (Muralidhar 2006).
The inability of the State to operate the large projects properly and provide satisfactory service leads to reforms such as participatory irrigation management, but these have had only limited success so far (Iyer 2007).

Some of the success stories where the community initiative helped in solving the disputes and maintaining equity in distribution are discussed below:

In the Parambur tank irrigation system in Pudukottai district of Tamil Nadu for the past three centuries, the farmers have authorized the tank irrigation committee to decide on the operation and maintenance of their tank system. The slab system based on landholdings is practised in water allocation. Farmers owning lands up to 0.4 ha (one acre) in the command area are permitted to cultivate the full extent of area with tank water. Over and above that, the extent of cultivation depends on the availability of water in the tank. Whenever the tank storage improves significantly, the committee meets immediately to take fresh decisions for expanding the nursery area to cover the balance area of the command (Venkataswamy 1989).

The community irrigation management system of water sharing was found to be successful in the State of Maharashtra, in the Tapi river basin, where the whole command area is divided into Phads and rotational schedule of water delivery was introduced. Phads are divided into two categories: assured and non-assured (Patil 1997).

Two hundred farmers have formed the Shriram Water Users’ Cooperative Society Ltd., Pimpalnare, in April 1995, to harness water and irrigate their fields in the State of Maharashtra. The Government in 1983 initiated a minor irrigation scheme to construct a small dam. But it was found that the catchment was unable to fill even 25 percent of the reservoir capacity and the canal was ineffective in carrying even the little water accumulated in
the reservoir. The users made plans to convey water from the reservoir to their fields through PVC pipelines, thereby reducing water loss. During the monsoons the electric pumps were placed along the pipeline where rainwater from the small streams was collected. After the monsoons, the same pumps were dismantled and installed at the reservoir to draw water for the fields. The total cost of the project was shared by the members of the society (Surekha 2004).

In Alwar district of drought-prone Rajasthan State, a non-governmental organization (NGO), Tarun Bharat Sangh (TBS) was formed in June 20, 2001. The village community has harvested the rainwater by constructing *johads* (check dams) along the Arvani river. The Rajasthan Irrigation and Drainage Act, 1954, says that water in any river or stream is the property of the Government and hence altering the flow is a punishable offence under Section 55(3) and the offender can be arrested by the official in charge of the irrigation work under 58(2). So the NGO was served with a notice by the Rajasthan Irrigation Department stating that the earthen groundwater recharge structure was technically unsafe and illegal and a case was filed against them under the said Act.

Since the State was reluctant to discharge its duties, the community took the initiative of reviving the traditional check dams to recharge groundwater aquifers. These community efforts should be given legal support.

Sea, air, water, and forests are some of the natural resources. The command and control approach of regulating the static resources like forests may not be suitable for a dynamic resource like water. It is apparent that the farmers are in a better position than anybody else to take preventive measures and tackle the consequences of water stress in a more amenable way. Hence participatory approach will help achieve an effective management of the common resource.
2.5.6  **Irrigation Cess**

Irrigation water cess is not a tax; but a fee charged for use of water from a Government irrigation source. The various irrigation cess Acts implemented in Tamil Nadu are given in Table 2.3 in the chronological order.

**Table 2.3 Irrigation Cess Acts of Tamil Nadu**

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<td>1949</td>
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<td>1952</td>
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<td>1953</td>
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<td>1953</td>
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<tr>
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<td>Mettur Canal Irrigation Cess Act</td>
<td>1953</td>
<td>17</td>
<td>1953</td>
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<tr>
<td>20</td>
<td>Madras Irrigation (Levy of Betterment Contribution) Act</td>
<td>1955</td>
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<td>21</td>
<td>Madras Irrigation (Levy of Betterment Contribution) Act</td>
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<td>22</td>
<td>Madras Additional Assessment and Additional Water Cess Act</td>
<td>1963</td>
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<td>23</td>
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<td>1963</td>
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<td>Madras Irrigation (Levy of Betterment Contribution) (Amendment) Act</td>
<td>1964</td>
<td>30</td>
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<td>25</td>
<td>Madras Land Revenue and Water Cess (Surcharge) Act</td>
<td>1965</td>
<td>34</td>
<td>1965</td>
</tr>
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<td>26</td>
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<td>1966</td>
<td>13</td>
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<td>27</td>
<td>Tamil Nadu Land Revenue and Water Cess (Surcharge) (Repeal) Act</td>
<td>1967</td>
<td>12</td>
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</tr>
<tr>
<td>29</td>
<td>Tamil Nadu Additional Assessment and Additional Water Cess (Amendment) Act</td>
<td>1972</td>
<td>32</td>
<td>1972</td>
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<td>30</td>
<td>Tamil Nadu Additional Assessment and Additional Water Cess (Second Amendment) Act</td>
<td>1972</td>
<td>33</td>
<td>1972</td>
</tr>
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<td>31</td>
<td>Tamil Nadu Additional Assessment and Additional Water Cess (Amendment) Act</td>
<td>1976</td>
<td>President Act No.4</td>
<td>1976</td>
</tr>
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<td>32</td>
<td>Tamil Nadu Additional Assessment, Additional Water Cess, Special Assessment and Special Water Cess (Amendment) Act</td>
<td>1977</td>
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Note: ‘Tamil Nadu' has been substituted for ‘Madras’ (both for Madras Presidency and later Tamil Nadu State) by the adoption of the Tamil Nadu Adaptation of Laws (Second Amendment) Order of 1969.
Among the above listed Acts, the principal Act and the amendments that have brought salient improvements are discussed below.

*The Madras Irrigation Cess Act, 1865*

Attempts of the British Government to centrally-manage the indigenous irrigation system in South India proved to be a failure since it was impossible to manage thousands of tanks all over the region, by itself. So the Government had developed large-scale river irrigation systems, which permitted a controlled supply and distribution of water.

In several districts of the Madras Presidency, large amount out of Government funds were spent on irrigation and drainage works, to the great advantage of the country and to the occupants of land. So the Government decided that it was proper that a fit return should be made from it on account of the increased profits derived from lands irrigated by such works.

During those days, only a consolidated assessment had been fixed on all lands permanently irrigated from Government sources and located in Government districts (unlike in zamindari districts). It would have been at the option of the ryot to occupy or throw up such land by paying a consolidated rate for it. The Government felt that the land should be classified in terms of grains, productive power and soil, and then a water rate could be separately added against the mere classification of land as irrigated or non-irrigated.

Under the instructions from the Government, it had been deemed advisable to keep a separate and distinct rate for water; and to charge a fixed sum for the quantity supposed to be necessary for irrigating 0.4 ha. (an acre) of land. It was felt that the two basic elements of taxation (basic land
revenue and water cess) be kept distinct [Vide G.O. 1656 (Revenue) dated 7.12.1859, p.32].

The Madras Irrigation Cess Act, 1865, was the principal water cess Act which enabled the Government to secure payment for water supplied to proprietors, tenants and cultivators of every class, from sources of irrigation constructed, improved and kept in order by Government officers with the aid of public funds.

Section 1 authorized the Revenue Department to levy and collect from the cultivator a water cess whenever water was supplied for the purposes of irrigation from sources belonging to or constructed by the Government. The rates were established by rules adopted by the Department, unless the lands were excluded by the Collector. This water cess could be charged against the landowner or the ryot.

Section 2 declared that if the dues remain unpaid, it should be treated as an arrear of revenue assessment. Section 3 gave clear indication that no action could be taken against any officer relating to the levy of water cess. Section 4 provided that if the zamindars had some engagements with the Government they have been given irrigation free of charge.

No doubts had arisen as to the right of the Government to demand and realize, within the limits of the ryotwari districts, the cess that had been regarded as fairly representing the cost of water supplied; but in the zamindari and inam lands, which were liable to pay a fixed rate, some difficulties arose.
The Madras Irrigation Cess (Amendment) Act, 1900

The Madras Irrigation Cess (Amendment) Act, 1900, was enacted to provide for the levy of charges for indirect flow or percolation or drainage from irrigation sources. It was lawful for the Government to prescribe rules under which such a charge for water should be levied as per the Revenue Board’s Standing Order Nos. 4 and 5.

The Madras Irrigation Cess (Amendment) Act, 1913

The Madras Irrigation Cess Act, 1865, had not clearly defined from whom the arrears should be collected, and hence is the need for the Madras Irrigation Cess (Amendment) Act, 1913. This amendment was made to legalize the existing practice, empower the Government to recover the cess either from the landholder or from the ryot or tenant, as if it were an arrear of land revenue.

The Bhavani Reservoir Irrigation Cess Act, 1933

Under the Madras Irrigation Cess Act, 1865, the Government has the power to levy water cess only when water from a Government source or work is supplied or used for the purpose of irrigation. In the event of an appreciable number of the landholders served by the project failing to use the water supplied from the reservoir, there would be no legal obligation to pay. This Act provided for the levy of water cess on lands irrigable from the Bhavani reservoir. It suggested that permits should be issued in respect of all lands which are irrigated from the reservoir so that the landowners become the registered holders. If some ryots object to the inclusion of their lands in the ayacut then those lands would be excluded and another area further down could be included in the ayacut.
The Madras Irrigation Cess (Amendment) Act, 1940

The need for bringing forth the Madras Irrigation Cess (Amendment) Act, 1940, arose because of lack of a separate set of statutory rules applicable throughout the Madras Presidency to regulate the charge for irregular irrigation. Vide G.O. 251 (Revenue) dated 17.3.1890, p.19 Rule V, Collectors were empowered to implement ‘prohibitory rates’ whenever water was taken without permission from an authorized source or from a prohibited source.

Under the second proviso to Section 1 of the Madras Irrigation Cess Act, 1865, as amended, the ryotwari landholders were not liable to pay water cess except when it was voluntary on his or her part to do so. The law did not prevent the holder of the baling wetland from using power pumps to lift more water which would suck more water than the conventional one. No clear provision was made to distinguish between the single crop wetland consuming water for the second crop and the double crop wetland. It was found necessary to amend this Act to make the levy of penalty legal on all kinds of lands which were benefited by irregular irrigation. This amendment provided for the levy of an enhanced water cess in case of irregular irrigation of wetlands irrigated voluntarily or involuntarily since the net produce of wetlands were likely to be generally higher than the net produce of irrigated dry lands.

The Tamil Nadu Irrigation (Voluntary Cess) Act, 1942

Since the local custom of kudimaramath had been neglected by the ryots, the maintenance of irrigation works had been affected to the disadvantage of both the ryot and the Government. The Tamil Nadu Irrigation (Voluntary Cess) Act, 1942, authorized the substitution of a voluntary cess for
"kudimaramath. As the cess is voluntary, a defaulter would be in a better position than the ryot who actually paid the cess.

*The Mettur Canal Irrigation Cess Act, 1953*

Because the conditions of this irrigation system were similar to those of the lands irrigated by the Bhavani reservoir, the provisions of the Bhavani Reservoir Irrigation Cess Act, 1933, had been extended to the lands which might be irrigated from the Mettur Canal through the *Mettur Canal Irrigation Cess Act, 1953.*

*The Tamil Nadu Additional Assessment and Additional Water Cess Act, 1963*

The existing rates of land revenue assessment which were settled years ago had become obsolete and they bore little relation to the productivity of the land and the price which the landowners were getting for their produce at the introduction of this Act. So it was decided to increase the existing rates of wetland assessment.

*The Tamil Nadu Panchayats Act, 1994*

At the local level, the Panchayats are responsible for the levy of local cess and local cess surcharge, which includes water cess as one of components of land revenue. The local cess and local cess surcharge were introduced first through the enactment of the Tamil Nadu Panchayats Act, 1958. Some of the provisions available for the levy of cess and local cess surcharge under the Tamil Nadu Panchayats Act, 1994 are:

Section 167 provides for the levy of local cess. This is levied in every Panchayat development block, at the rate of one rupee on every rupee
of land revenue payable to the Government in respect of any land for every fasli and deemed to be public revenue. Section 168 deals with the levy of local cess surcharge. Every Panchayat Union Council may levy the local cess surcharge in addition to the local cess, which shall not be less than five rupees and not more than ten rupees on every rupee of land revenue. Section 170 reads as: “The Government shall pay to each Panchayat Union Council, a sum representing one rupee for each individual of the population of the Panchayat Development Block concerned from out of the total land revenue (including water cess) collected in the State during that year. The sum thus credited to the Panchayat Union Council shall be referred to as the land revenue assignment of that Block.”

In Tamil Nadu, the Revenue authorities fix water rates as per the rules subject to the Board of Revenue, at the time of contemplating new irrigation projects. Collection of these rates is also vested with the Revenue authorities. The Village Administrative Officers are supposed to inspect the field and record the cropped area (area under Government sources of irrigation such as canal and tank) and the crop conditions. A sample check is supposed to be done by higher officials like Revenue Inspectors and Deputy Tahsildars. At the end of the fasli year, the accounts are prepared and water charges are collected along with land revenue. The actual settlement of accounts under different heads is done at the time of annual Jamabandi meeting. The local bodies (Panchayat Unions) fix the local cess and surcharges for the water rates, based on the water rates plus the basic land revenue. Apart from this, a levy for getting the benefit of irrigation called ‘betterment levy’ is charged.

Although the Water Resources Department is responsible for the supply of water, the Revenue Department is authorized to levy and collect water cess from the cultivator in addition to the basic assessment on land. The
The ratio of revenue collection to assessment is better in States where the assessment is done by the Irrigation Department and the collection is by the Revenue Department (Palanisami 1999). The Vaidyanathan Committee in 1992 also recommended that the assessment function be entrusted to the Irrigation Department.

The Madras Irrigation Cess Act, 1865, the principal Act relating to the levy of water cess had been amended 12 times (in the years 1900, 1901, 1913, 1914, 1916, 1920, 1936, 1937, 1938, 1940, 1945 and 1949) to overcome the difficulties that had arisen because of the various interpretations emerging out of the judgments pronounced in the Supreme Court and the Madras High Court from time to time. In the parent Act of 1865, the term ‘irrigation source’ was not defined. But in the existing amended Act, irrigation sources are defined clearly to include the river, stream, tank, direct flow or percolation, or indirect flow and percolation from or through the adjoining land. So the ambiguities existed regarding the definition of the irrigation source had been removed.

The fixing of irrigation cess is subjected to the guidelines of the Standing Orders of the Board of Revenue and the notifications brought about from time to time by the State Government. According to the Revenue Standing Order (RSO) 6(4), no water cess will be charged on dry lands irrigated solely from private wells situated on land which is a private property. This leads to unhealthy competition of deepening and extracting more groundwater.

2.5.7 Protection of Water Sources

Water is a finite resource. So water resources need to be protected to cope with the stress exerted by the escalating demand for water. Legislation has
been made both by the Union and State Governments in this direction, but the implementation part is lacking due to varying political interests.

*The Madras River Conservancy Act, 1884*

This was an Act enacted to give the officials of the Government (named as conservators of rivers) full power to prevent and prohibit the damage caused by the unauthorized action of individuals, in forming constructions within river-beds. Section 3 of the Act authorizes the State to provide for the conduct of survey of the river for the purpose of determining the limits within which the Act shall be applied. The surveyors need to fix the boundary stones, maintain a register which shall show details like the extent of cultivation, plantations and all constructions or obstructions. Section 6 authorizes the State to appoint conservators of rivers who are answerable to the Collectors. Sections 11 and 13 provide for the prohibition of new cultivation in the bed of notified rivers and the construction activities within riverbed respectively. Section 12 deals with the power to prohibit cultivation given to the conservator of rivers and provides for penalty on failing to comply with the provisions. Section 16 deals with the compensation to be granted to the owner, in case the crops or constructions are removed under specified conditions. No steps have been taken to enforce this Act.

*The River Boards Act, 1956*

This Act was enacted by the Union Government and declares that the Union Government may exercise control over the regulation and development of inter-State rivers and river valleys to an extent necessary to protect the public interest. The Union Government can establish a river board to advise for the development and regulation of water resources, coordination...
of its activities, allocation of costs and purposes of development. But it remains only on paper.

*The Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007*

A tank, which is a surface water body will have an influence on the surrounding watertable and hence will influence the neighbouring wells. These tanks are not preserved properly. Urbanization has a deteriorating effect on the life of the tank. Most of the south Indian tanks are in cascade. If the upper tank is encroached then the surplus from the upper tank, which is the inflow to the lower one, is cut off. If this is the situation, the terminology of ‘tank’ itself is questionable since one of the components of tank is cutoff and the free catchment of the tank is also reduced because of rapid urbanization. Slowly the tanks, which are the traditional water harvesting structures in the State, are dying.

Some of the other reasons that may be contributed to the dying of tanks are siltation, poor maintenance, lack of involvement of farmers, breakdown of local institutions, etc. Encroachment is also one among them. Encroachment is the illegal and unauthorized occupation of tanks (*foreshore*, tank bund and tank bed, blockage of inflow channels). Foreshore of a tank is defined as the area between the full tank level and the top bund level of the tank. Full Tank Level is the top of the surplus weir of the tank (Murthy, 2002). Both the Government and the public may indulge themselves in encroachment activities.

Encroachers could be identified under the provisions of the Tamil Nadu Encroachment Act, 1905. But the private and public encroachments are so proliferated in and around the waterbodies that it makes it close to impossible to implement certain provisions of this Act.
The Tamil Nadu Water Policy, 1994, under Section 7(b) talks about the removal and prevention of encroachment in watercourses and waterbodies. This has been brought into practice by the implementation of *the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007* published in Part IV-Section 2 of the Tamil Nadu Government Gazette Extraordinary (Issue No.132) dated 23.5.2007. Understanding the necessity of protecting the tanks from the cancerous expansion of encroachment, Tamil Nadu Protection of Tanks and Eviction of Encroachment Rules, 2007, was published in G.O. (Ms.) 320, PWD (W2) dated September 28, 2007 and enforced immediately.

Section 3 deals with the power to survey the tanks by the Survey Officer appointed under Section 4 of this Act, with reference to the records available with the Revenue Department. The Survey Report indicates the boundaries of the tanks to be handed over to a PWD official. Section 7 provides for the eviction of encroachment found (including crops) within the boundaries of the tank after the issuance of notice. If the encroacher does not comply, the PWD official is empowered to remove the encroachment, by taking assistance from the Police Department, if needed. This is a landmark law, aimed at identifying the original boundaries of the lakes and also stipulates penal action against encroachers of the PWD tanks.

Awareness among the people and a strong political commitment are necessary for the effective implementation of *the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007*. This is a sensitive issue from the socio-political point of view. But this Act is based on the command and control approach. The eviction process will succeed only if alternative sites are
provided for the encroachers. This Act does not provide for anything of this sort.

When the Poondi lake (once an irrigation tank), which is one among four surface waterbodies supplying water to Chennai, the capital city of Tamil Nadu, was taken up by the State for supplying drinking water to city, the State Government had bought water rights from the farmers. But of late due to urban sprawl, land rates have gone up and farmers who are getting only meagre income out of their hard labour from agriculture are forced to sell their cultivable land for the construction purposes. So, waterbodies are being converted into concrete paved surfaces, increasing the runoff and allowing the groundwater levels to lower. Rules should be framed to curb this issue.

Community management of waterbodies was in vogue during pre-Independent era. Rules formed should encourage community participation and establish proper linkages towards strengthening the local institutions.

2.5.8 Irrigation Offences

For proving an injury caused to ones’ water right, the affected person must first and foremost establish the existence of a legal right, which has been violated and second, a breach of legal duty by the person against whom damages are claimed. Regulation and control of water by the State create rights and obligations between the State and subjects as also between States. Any violation of such rights gives rise to a variety of litigation both civil and criminal (Batra 2000).

The remedies against violation of water rights are available both in statutes as well as in common law. The statutory remedies are found under the
Indian Penal Code, 1860, and the Criminal Procedure Code, 1973. A writ petition can also be filed under Article 32 in the Supreme Court or under Article 226 in the High Court for seeking remedy against violation of water rights. Details of relevant Sections of the Acts which deal with irrigation offences are furnished below.

The Indian Penal Code, 1860

Certain Sections of IPC can be invoked to deal with offences relevant to irrigation management. The major anti-social activities and Sections dealing with them are listed below:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>290</td>
<td>Public nuisance</td>
</tr>
<tr>
<td>291</td>
<td>Continuance of public nuisance</td>
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<tr>
<td>378</td>
<td>Theft</td>
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<tr>
<td>425</td>
<td>Mischief</td>
</tr>
<tr>
<td>430</td>
<td>Mischief by injury to works of irrigation</td>
</tr>
<tr>
<td>431</td>
<td>Mischief by injury to public road, bridge, canal or rivers</td>
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In the common law, nuisance is of two kinds: private and public. Private nuisance affecting water right includes acts leading to wrongful disturbance of elements, e.g. disturbance of a right to use water from a particular water channel or tank, wrongful escape of water into another’s property and so on. A public nuisance can be defined as an unreasonable interference with the general right of the public. It is common for a plaintiff to seek an injunctive relief to stop the defendant from continuing his activity. The defendant on the other hand will be willing to pay for the damages rather than give up the activity. Whether an individual would prefer to seek an
injunctive relief or pecuniary relief or both in the case of a public nuisance depends on the facts and circumstances of each case (Batra 2000).

*The Code of Civil Procedure, 1908*

The Constitution of India gives relaxation to *locus standi* by stating that “lack of access to the court on account of poverty, disability, social and economic disadvantage, or any other reason has been remedied by widening the scope of *locus standi* in civil petitions.” Order 1 Rule 8 states that if numerous persons have common interests, in a matter, one or more persons can file a suit. Temporary injunction to be granted is regulated by Order 39.

*The Tamil Nadu Probation of Offenders Act, 1958*

Sections 3, 4 and 5 of this Act empower the court to require the released offender to pay compensation and costs to the injured party.

*The Specific Relief Act, 1963*

This Act defines that custom must be ancient, immemorial, continued, reasonable, certain, definite, undoubted, invariable and uninterrupted and should be construed strictly. To prove a local custom, the evidence must be precise and conclusive. Perpetual injunctions are regulated by Sections 37 to 42 of the Specific Relief Act, 1963.

*The Criminal Procedure Code, 1973*

‘Crime’ may take the form of failure to perform the required action, rather than the doing of a prohibited action. A private nuisance is a civil wrong but a public nuisance is a criminal offence. Sections 133 to 143 of the Criminal Procedure Code (CrPC), 1973, deal with the public nuisance.
Section 145 and 147 deals with the dispute concerning right of use of land and water. Section 18(2) of the Tamil Nadu Groundwater (Development and Management) Act, 2003, says that that the provisions of Section 94 of CrPC shall apply to any search or seizure made under the groundwater authority.

None of the irrigation Acts which empower the State towards the regulation and management of water supply like the Madras Irrigation Works (Repairs, Improvement and Construction) Act, 1943, the Madras Irrigation Tanks (Improvement) Act, 1949, or the Madras Irrigation Works (Construction of Field Bothies) Act, 1959, deal specifically with irrigation offences or penalties. The irrigation offences are now being dealt with by some of the general provisions of above mentioned Acts and codes and the Standing Orders of the Board of Revenue issued under the authority of the Madras Irrigation Cess, Act, 1865.

2.6 WATER POLICY OF TAMIL NADU

Some of the salient points of the Water Policy of Tamil Nadu, 1994 are:

The Preamble emphasizes on the development, conservation, use and management of water resource in an integrated manner to meet the growing needs of water. It also highlights the importance of effective water management. Conjunctive use of surface and groundwater and timely control of groundwater levels also find a place in the Preamble. Promoting equity and social justice among users of water for irrigation is listed as one of the objectives. In water allocation, irrigation gets the second priority below the drinking water, complying with the National Water Policy, 2002. The Policy has three chapters.
Chapter III of the Policy, which is the action plan, has 14 Sections. The river basin is stated as the unit for water planning. Section 6 reads as: “Regulation and control of ground and surface water will be put on sound legal footing. Legislation may be enacted dealing with ground and surface water and their conjunctive use.” Section 7 talks about the modernization of physical systems like lining the conveyance systems and providing pipelines, adopting modern methods of irrigation application, etc. Section 7(b) deals with the removal and prevention of encroachments in watercourses and waterbodies. Section 8 deals with the augmentation of water resources which includes the rainwater harvesting techniques. Section 11(b) suggests the adaptation of rotational supply as one of the methods of drought management in irrigated areas.

The explanatory version of Tamil Nadu Water Policy considers water as an indivisible resource. The thrust areas listed include: water conservation, water management, water augmentation and diversion of trans-basin resources, rainwater harvesting and water saving practices and restoration and maintenance of tanks. These should be an integral part of development and management of water resources at the basin level.

Water allocation priorities comply with the National Water Policy, 2002. Hence irrigation gets the second priority next to drinking water. Water allocation in an irrigation system should be done with due regard to equity and social justice, which calls for a basin-wise approach. Apart from improving the network of field channels, it has to look into the disparities existing in the availability of water between the head-end and tail-end farms by adaptation of the rotational water distribution system. Economy in the use of water could be practically ensured by introducing a rotational water supply, apart from ensuring an equitable water supply. It suggests for the confinement of two crops to the upper reaches of the canal systems or to the command of specific branches or distributaries depending on availability of suitable soils,
on a rotational basis, to minimize the water loss and the problems of canal maintenance.

The cultivators could be permitted to extract groundwater from the command area of an irrigation project or tank during the period of peak demand and also when supplies from the required surface water sources are delayed or denied. Since groundwater is replenishable and dynamic in nature, the Policy necessitates its continuous monitoring and assessment on a scientific basis. It encourages the use of advance irrigation application methods like the sprinkler and drip. The importance of farmers’ participation is also highlighted and said that the management of irrigation systems by farmers should also cover water rights and the need for establishing and regulating them.

Keeping in view the escalating costs incurred in the operation and maintenance of the irrigation system, water pricing on a volumetric basis subject to certain ceilings has been suggested in the Policy. To levy water rate, the water supply should be assured and on time. The rates should be rationalized with due regard to the small and marginal farmers. It has accepted the crop-based water rates. The creation and updating of the management information system is also insisted upon. The Institute of Water Studies, Chennai, which is one of the six functional units of WRD, is being entrusted with the task of revising the Water Policy of 1994.

Water is becoming a scarce natural resource in Tamil Nadu. Water management in general and regulation in particular are gaining importance. Most of the existing irrigation laws in Tamil Nadu have been formulated during the colonial period based on old customs. So a comprehensive irrigation Act should be formulated taking into account the changing needs of the society, keeping the Water Policy of Tamil Nadu, 1994, as the basic framework, and building on the lessons learnt from the conflicts arisen and the solutions got.