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**State in perplexity: The politics of water rights and  
system turnover in Tamil Nadu**

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## **Abstract**

The motivation for this paper is to trace historically the evolution of water rights and water laws in Tamil Nadu and their relevance for water resource management in the State. The paper discusses the traditional/customary water rights enjoyed by user communities for many centuries, the strengths weaknesses of these customary rights, methods by which the State appropriated these rights, the problems associated with management of water by the State, recent attempts and to transfer water rights to user communities as a part of a "System Turnover Programme" by the World Bank and its policy implications. The paper, in particular, makes a critical analysis of the Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000 in the context of turning over of rights to user communities under the above programme. The paper also presents two case studies with a view to discussing the appropriation of water rights by the State and the process of bureaucratization of water management. The case studies presented are Palar Anicut System (an age old irrigation system in the erstwhile North Arcot district) and Parambikulam Aliyar Project (a new irrigation project in Coimbatore district).

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## 1. Introduction

The right over any resource is unwarranted and even superfluous when it is abundant and freely available. This applies to water also. However, certain control mechanisms were found necessary due to certain extreme conditions experienced by people. On the one hand, there were floods and the problem of heavy water logging and drainage; community participation was found necessary to save society from such natural disasters. On the other hand, there were droughts and water scarcity and so there was the need for certain rules and regulations to enable the use of available water more effectively, equitably and efficiently. Thus, in the process of development of the society, water has emerged as one of the most important natural resources to deal with for a better life. Indeed, in recent times, the increasing gap between demand and supply has resulted in several managerial problems such as the allocation, maintenance and prioritizing use of water and the need to resolve conflicts that may crop up in the process of sharing.

Conferring water rights is an important measure and also an institutionalized principle, which regulates water use and conflicts. All laws relating to water and other natural resources became necessary because of the progress attained by human societies, which in turn gave rise to a demand for resources and scarcity conditions. In the process of development, the problem of 'free riders' was also growing; precisely because of these reasons, there was a need for informal rules and regulations, which these have evolved over a long period time. These informal rules and regulations, reflect the socio-economic and political structure of society at any given point of time. These rules were not static but were subject to quite a number of changes. These changes were influenced by factors such as geo-physical and climatic conditions, socio-economic and political conditions and the level of technological development.

Therefore, water rights are basically a certain kind of institutional arrangement, which have emerged over a long period of time in the history of human settlement, in order to enable a society or a user-community to act, interact and to manage a system. This is not to glorify the irrigation institutions that existed in the past. Indeed, the kind of irrigation institutions that were controlled by kings or local chieftains was nothing but hydraulic despotism and reflected very much the local power structure and production

relations at any given point of time. Nevertheless, there existed some organized and codified rules and regulations, customs, roles and mores, legislations, notifications etc., which not only defined access to water for a community, but also subsumed all critical functions of water management. And, given that the local power structure led to an unequal access to the means of production, these institutions performed well in protecting the water rights of 'user communities'. In the Indian context, the emergence of colonialism and the formation of the welfare state not only altered the power relations but also contributed to the disintegration of these rights over natural resources in particular, water. At the same time, it is not to deny the wisdom that the State has a key role in facilitating water use and in protecting the rights of user communities. Further, in the context of the present water rights debate, it is necessary to distinguish between rights acquired over time (riparian rights), and rights gained due to access to resources. Urban industrialists controlling water resources in rural areas by sinking deep tube wells (much deeper than the existing ones in a village) is a classic case of rights gained due to control over resources.

What are the rights that user communities enjoyed in the past? What is the process by which, these rights have been appropriated by the State? (Chatrapathi Singh calls it, rightly so, 'the right of a welfare-state', Sing, 1991). To what extent could the State follow the principle of equity in making water available to all users? Since the prevalence of corruption is one of the biggest problems of a democratically elected welfare State, to what extent are the rights exercised by it efficient and delivering goods to the user-community? The State, given its right to extend cities and towns and to extend irrigation systems in order to bring more and more area under their command, takes away the existing rights of the people. To what extent is it justified? Water rights can also be looked at from the angle of the human rights issue: this is more relevant in a situation in which marginalized people, whose rights have been appropriated, are defenseless and cannot seek justice in a court of law. In this context it is necessary to distinguish between the rights gathered by people over time and rights claimed or seized due to access to resources and due to the nexus with the State (e.g., urban industrialists buying a piece of land in a village, installing deep bore-wells and extracting unlimited groundwater for their industrial use, thereby contributing to the drying up of groundwater in many adjacent wells or urban industries polluting existing water bodies by discharging industrial effluent and thereby depriving farmers of their rights over

water which they have enjoyed for many centuries). What is the role of the civil society in all these?

This paper makes an attempt to examine the traditional or customary water rights enjoyed by user communities for many centuries, the strengths and weaknesses of these customary rights, methods by which the State appropriated these rights, problems associated with the management of water by the State, the recent 'turn-over' programme of the transfer of water rights to user communities by the State and its policy implications.

## **2. Traditional or customary water rights**

Two types of customary water rights prevailed in India. They were, (a) riparian rights and (b) prior appropriation rights.

The riparian right is a right vested in the owner of a land that is situated near a river, stream or watercourse. The right to use water on an adjacent or upper land was considered as a natural right. Under this system, the right of a lower riparian is protected to the extent of the customary flow of water to them. It was also laid down that interference with such flow is wrong and no riparian owner is entitled to obstruct a public river with a dam. However they are given such right of obstruction only in emergency times like a flood, without creating problems for neighbours. Also it was recognized that an upper riparian has the right to use as much water as possible without diminishing the quantum enjoyed by a lower riparian. If a lower riparian feels that there is a reduction in water availability or flow, he can seek remedial measures in a Court of law. Similarly, a lower riparian does not have right to flood the lands of the upper riparian by building a dam on a river. As regards drainage, an upper riparian has the right to drain excess water through channels without affecting the lower riparian's lands. It is to be noted that all riparian rights are applicable to only natural water sources and not to artificial canal or watercourses. Riparian rights continue to have relevance even today. They have not been lost in the process of development of the society.

The limitation of the doctrine of riparian rights began to be felt when there was an expansion of the original (initial) command area. To solve the problems arising out

of such an expansion, the government resorted to certain administrative measures on the basis of the prior appropriation doctrine. Thus, the State modified the riparian rights doctrine and gave more importance to prior appropriation doctrine in India. Accordingly, the rule of 'first in time, first in use' was adopted which later became law. Thus the concept of 'time of appropriation' became the basis for the determination of water rights in a system. Under this doctrine, individual States developed administrative regulations, as mentioned earlier, for appropriating water under major water distribution systems. However, some States recognized both riparian and prior appropriation rights, which have resulted in complications in the allocation of water and the interpretation of water rights.

Water rights go hand in hand with the degree of access over resources, cultural practices, customs, formal and informal rules over access to use of water by individuals/groups/ communities /states and nations. They are not theoretical abstractions but refer to concrete procedures and certain formalities. These rights also reflect the relative power of individuals and groups to use water or transfer rights over water in any given situation.

The rights over water, which evolved over a long period of time, are called customary or traditional water rights. Such water rights are considered important not only in India, but also in many other parts of the world (FAO, 1979, Vol.1). In England for instance, the right to use water belongs to the occupier of the land (i.e) riparian rights. In Belgium, water rights are vested with landowners, which can be inherited; whereas in France, Israel and Italy, water rights can be vested with individuals by a license. In Africa, there are limited rights to the use of water without state intervention. In Benin and Burundi water rights are generally conferred by customs. Mauritius and Kenya provide for access to water for domestic use without administrative sanction (FAO 1979 Vol.II). According to Singh, the right over water has existed in ancient laws in many countries and they still continue to exist as customary laws. Generally customary law is based on the community principle that land and water belong to the local community and therefore cannot be subject to individual rights of ownership or use except by virtue of membership in the community. Thus, in many countries water rights are based upon customary rights.

## 2.1 Practice of traditional or customary water rights in India

The technology of water use for agriculture has developed over a period of many centuries and its history has run parallel with the patterns of human settlement and formation of village societies (Steward, J.H. 1955). Water rights, therefore, are not something, which were given to water users but were gained or acquired by them over a very long period of time. These are called customary rights, which were recognized by Hindu laws and later by English laws. Though customary laws varied from state to state, they had some common ground such as community rights and informal arrangements. These customary laws, according to Singh, had many advantages compared to statutory rights. "Customary law has been dynamic more in tune with the needs of the people than dogmatic about certain fixed notions of territory or ownership right.... Limitless to space and quality, they are broader in approach than the legal systems" (Singh 1991: pp.67).

In India, the Easement Act 1832 specifically recognized the customary rights of people. Thus, as per the custom and convention, people were entitled to tap water, which (due to gravity) flows through an upper plot or another person's land (Singh, 1991). However, this Act was not applicable to ground water. In the context of Tamil Nadu, in particular tank and traditional canal irrigated areas, the customary rights over water were well codified much before the British period. The British Government approved these codified laws (which were locally called *mamulnamas*), and printed them as a document as early as 1813.

## 2.2 Customary water rights in Tamil Nadu

Historically, a community of water users undertook all the critical functions of water management including the construction of small diversion weirs and canal networks. Such water user communities were called '*samudhayam*' in the case of canal irrigated villages and '*Nadu*' for tank and dry villages. The water rights enjoyed by a community were indeed gained by it due to its hard work in construction as well as in maintenance. The organizational structure for carrying out the responsibilities of traditional water institutions operated at two levels: the first was of a supervisory nature, called *kavaimaniyam* or *nattamai* or *karaikarar*, who performed the role of an enforcing authority of rules and regulations concerning water management. The second one,

namely, *neerkatti* or *neerpaichi* or *kambakkaran* or *kammukkutti*, was more of a menial nature, which involved hard labour. While the former is an honorary position, the community at the end of every season or year paid the latter category in kind. In many parts of the country, these positions were held on a hereditary basis.

The traditional irrigation systems, which prevailed in Tamil Nadu and in other parts of India as well, reflected very well the rights enjoyed by village societies over water and other natural resources. The community had complete control and access over water resources within their jurisdiction. The system was functioning well and there existed well laid out rules and regulations to undertake all critical functions of water management such as system maintenance, water sharing in particular, during times of scarcity, conflict resolution, collection of penalty for non-participation in the maintenance work and so forth. There existed a hierarchy of functionaries to undertake all these activities. The caste structure played a crucial role in preserving and in allocating responsibilities among various functionaries. For instance, a farmer from a high caste invariably held the position of a canal manager and the position of irrigation workers (menials) was held only by people from scheduled castes. Nevertheless, the traditional irrigation institution had an enforcement mechanism, which facilitated a smooth functioning of water control systems.

### **3. Decline of *Kudimaramath* and attempts to revive it under British rule**

The voluntary community labour or what was called the *kudimaramath* system began to slacken from around the middle of the 19<sup>th</sup> century. The Colonial Government was quick in recognizing all the local customs and conventions and the acquired water rights of people. Indeed, they tried to protect the customary rights of people through appropriate legal provisions. The village settlements carried out by the British administration in different parts of the country in the second half of the 19<sup>th</sup> century had, in particular, recognized the *Kudimaramath* system (system of community labour for maintenance) and its associated rules and regulations for water management. However, the *Kudimaramath* system, which worked well until the beginning of the British rule, started declining from around the middle of the 19<sup>th</sup> century. The Report of the Public Works Commission of 1852 stated that there was not much of voluntary community labour and it reported that in all districts labour was more or less forced (Sarada Raju,

1942). The main reason attributed to the decline was the disintegration of village society itself and a certain repressive imposition of land tax. The Irrigation Commission 1901 pointed out factions, absentee landlordism and the decline in the power of the village headman as reasons for the decline of the *Kudimaramath* system.

Realizing the importance of maintaining the *Kudimaramath* system, the British took a number of steps for its revival; otherwise, the administration feared a heavy financial burden with the maintenance of irrigation systems. Therefore, the Colonial Government resorted to certain legal measures with a view to reviving the community labour system in the Madras Presidency. The first attempt in this regard was made in 1855, when the then collector of Thanjavur prepared an Irrigation Bill. The purpose of the Bill was to prevent willful damage to irrigation structures. However, on the grounds that the Bill was not comprehensive, the Board of Revenue rejected it. The next attempt was in 1858, when an act called the Madras Compulsory Labour Act was passed. This Act legalized compulsory labour for certain aspects of maintenance, and also provided provision for penalizing those who did not participate in the community labour. However, this also did not result in any betterment of the *Kudimaramath* system. Further, the very essence of the principles underlying the voluntary community labour was lost in this legislation. Hence, the traditional irrigation systems were in a process of decay. At the same time the Government failed to provide the required relief measures during the successive famines witnessed in the later part of the 19th century. The main reason attributed for the non-working of this Act was the migration of labour to countries such as Sri Lanka, Burma, Malaysia, Singapore and Africa due to severe famine conditions.

Therefore, fresh legislations were recommended by the Famine Commission of 1878, and the Irrigation Commission of 1901 (Baliga, 1960). Subsequently, the Government appointed a committee on *Kudimaramath* and Irrigation. The Committee in its report recommended a number of steps for the revival of the *Kudimaramath* system and also prepared a draft bill on *Kudimaramath*. The Bill was approved by the Government of India but came under serious criticism. The Bill was also strongly opposed by the public on the grounds that it was very stringent and gave a lot of powers to canal officers. Finally, the Bill was dropped.

#### 4. Appropriation of people's rights by the Government

The need for legislation on irrigation and water rights, however, was soon felt. There were a number of court cases against the government relating to irrigation and most of them were decided in favour of farmers. "The land holders began to claim not only the beds of rivers and streams but also rights to the usufruct of water and courts conceded these rights making it impossible for the government to regulate irrigation" (Baliga, 1960: p.72). The need for irrigation legislation became more vibrant after the first Irrigation Commission (1903), which recommended for a comprehensive legislation; this has resulted in the preparation of an Irrigation Bill, 1906. This bill sought to define clearly the rights of the Government 'to regulate the collection, retention and distribution of water'. Since the Government of India felt that the Bill was not comprehensive enough, it was further revised in 1911 and subsequently in 1914. The Government of India's objection was mainly with regard to the elaborate procedure of inviting objections from ryots before the construction of an irrigation system. In other words, the Government did not want to take a serious view of people's acquired rights. The government was also against the compensation payable for the failure of crops. This Bill was also opposed by the public (Madras Land Holder's Association) on the grounds that the Bill interfered with the rights of landowners/water users. Subsequently, the Bill was revised and came up for discussion in 1922 and 1924. In particular, the 1924 Bill was prepared mainly to take care of problems created by the new judgments and also to deal with new subjects such as water rates, Kudimaramath and irrigation Panchayats. Though the Bill was said to be "comprehensive", it was rejected by legislature on the grounds that the Bill interfered with the rights of Zamindars and Ryots, and felt that large powers were given to irrigation officers. However, the Government appointed another Committee to prepare the Bill of 1927, which was introduced in the Legislative Council. This Bill was also passed. However, the Government of India suggested some amendments especially with regard to the fixing of water rates. Fearing a fall in public revenue, the Government suggested an increase in water rates. However, the Legislative Council did not accept the amendments and subsequently the Bill lapsed as council was dissolved. In 1930 another Bill was prepared by the Government mainly to frame laws relating to irrigation and the levy of water cess, which was called the Madras Irrigation Cess Act. This Bill was not introduced in the Legislative Council as it was felt that the

Bill was not comprehensive enough. Further, it was felt that the Bill did not specify the rights of the landholders in unambiguous terms.

### 5. Other attempts to introduce irrigation legislation

Since all the previous attempts had failed, the Government tried other methods to introduce legal measures. A number of Government Orders (G.Os) were issued for this purpose. One such important GO was on the formation of an Irrigation *Panchayat* at channel/tank levels. These Irrigation *Panchayats* had different degrees of success depending upon places: in some places they worked well and in some others not (Rajagopal 1991). Subsequent attempts made by the British Government for passing an Act also did not materialize due to World War II. Though comprehensive irrigation Bills were not passed, some special Acts relating to irrigation were passed between 1930 to 1946. They were, (1) the Madras Compulsory Labour (Amendment) Act 1935, (2) the Madras Irrigation Cess (Amendment) Acts of 1901 and 1945, (3) the Madras Irrigation (Voluntary Cess) Act of 1942 and (4) the Madras Irrigation Works (Repairs, Improvement and Construction) Act of 1934 and 1945.

The Compulsory Labour (Amendment) Act (1935) was passed with a view to demanding from *ryots* not only labour, but also other materials, such as earth, stone and gunny bags necessary for emergency repairs of an irrigation system. The second Act was passed to levy enhanced water cess on irregular irrigation and also levy additional water cess on estate land *Zamindars* and possessed by *Inamdars*. The third act was passed for the purpose of enforcing *Kudimaramath* system. Instead of compulsory supply of labour, the Act provides for the levy of cess equivalent to the labour required from the landholders in an irrigation structure under the *Kudimaramath* system. The Irrigation Works (Repairs, Improvement and Construction) Act was passed to authorize the government to undertake private irrigation works and supply water from government sources to these private irrigation and levy water charges. These Acts were passed in 1945 but are still in effect. All these Acts are clear cases of not the only appropriation by the State of water rights hitherto enjoyed by the farmers, but also one of enabling the Government to exploit material resources of farmers in more than one way. However, though the Government was armed with all these legislative measures, it never achieved any great degree of success in revamping the *Kudimaramath* system.

## 6. Irrigation legislations and changes in water policies after independence

### 6.1 Irrigation Bill of 1947

After assuming power, the national government prepared an Irrigation Bill basically on the line of the 1924 Bill. The Bill sought to declare that water is the property of the State, and that the State has the right to control irrigation works under both *Zamindari* and *Ryotwari* systems. It also declared that no civil court has the power to hold back the government from undertaking any irrigation work. It also had many other provisions relating to *Kudimaramath*, irrigation *Panchayat* and Water Cess. Though the Bill was not passed, there were some special Acts passed relating to irrigation. They were, Malabar Irrigation Works (Construction and Levy of Cess) Act 1947, Madras Estates (Abolition and Conversion into Ryotwari) Act of 1948 and the Irrigation Tanks Improvement Act of 1949. The Irrigation Bill prepared subsequently in 1950 and 1953 were on the basis of these special Acts. The Irrigation Bill 1953 was meant to "define and amend the law relating to irrigation and the levy of water cess", but the Bill was never passed.

There were a number of other Acts passed subsequently and most of them were for specific irrigation projects executed as a part of Major and Medium irrigation programmes executed during the Plan periods. The Mettur Irrigation Canal Cess Act 1953 and Parambikulam-Aliyar Project Act 1994, are examples. There were also some other legislations, which were general in nature: Tamil Nadu Betterment Levy Act 1955 and Tamil Nadu Field Bothis Act 1969.

During 1960-80, there were many amendments to these Acts. But none of them provided comprehensiveness to irrigation management covering different aspects. A review of some of the important provisions of these Acts are given below (IWS 1997).

### 6.2 Details about provisions of Irrigation Acts in Tamil Nadu

#### *Tamil Nadu Irrigation Cess Act 1865 as modified upto 1980*

The 1865 Irrigation Cess Act declared that the state has the right to collect water charges as it has incurred huge expenditure on irrigation construction and drainage work

for the benefit of large section of farmers including tenants. According to this Act, the arrears of water cess should be collected as arrears of land revenue. This Act extends not only to *Ryotwari* lands but also to *Zamindari* areas. This is the first Act, which imposed water charges and became the basis for the pricing of water in Tamil Nadu. Further, this Act laid down foundation for the differential pricing of water, based upon the period of water supply and the dependability of irrigation sources.

***Tamil Nadu River Conservancy Act 1884 (as Amended in 1969)***

This act was based upon Bombay and North Indian Drainage Act and also Bengal Irrigation Act. This act gives wide powers to canal officers for inspection, regulation, management repairs and other purposes like removing obstruction and closing of channels. Where necessary this also gives powers for acquiring land from farmers and settlement of disputes. According to this Act, every farmer is bound to maintain watercourses in a better condition and use it for the purpose for which it was meant. There are also provisions for compensation for loss in case of non-provision of water supply by the State. The Act also gave powers to canal officers to levy water rates for canal water supply. The rates were to be fixed by the government from time to time. The Act also contained provisions for penalty for violation of rules and regulation fixed by the State.

***Periyar Irrigation Tanks Preservation Act 1933***

This Act is meant for the preservation of tanks under Periyar System in efficient condition. This Act provides for the repair of tanks through labour contribution by farmers as requisitioned by the respective district collectors. The collector has the power to execute measures necessary for the repair of tanks, determine the cost of such repairs and the extent of contribution that has to be made by water users (farmers) for such repairs. Accordingly, every landowner shall be required to pay an amount in proportion, which is one half of the average area of the lands assessed during the three preceding agricultural years.

The Act dispensed with the earlier customary labour contribution and problems associated with it by levying a cash contribution. However, during emergency times, the

collector can take any measure without going through the normal procedure and recover the cost as mentioned above. The Act also provides for the recovery of the cost as arrears of land revenue by attaching the properties of farmers in case of default by them.

#### ***Tamil Nadu Irrigation Voluntary Cess Act 1942***

The Act was passed mainly to enforce the *Kudimaramath* system effectively. The existing provisions in the Madras Compulsory Labour Act 1958 were ineffective as the procedure under this Act was found to be cumbersome. Hence it was felt that the *Kudimaramath* be replaced by a cess levied for the purposes of maintenance. The Act was also meant to make statutory cess, which was already levied in some districts. According to this Act, the state can levy and collect an annual cess if two thirds of the farmers in an area desire it and the amount collected could be utilised for the annual maintenance of irrigation works. In these cases, the *Kudimaramath* obligation on the part of farmers will be dispensed with.

Thus, the Act provided for cash contribution by farmers on a voluntary basis to replace the *Kudimaramath* system. This Act differs from the Periyar Irrigation Cess Act, which is levied compulsorily. The Act gave relief to farmers from the problems of compulsory labour under *Kudimaramath*.

#### ***Tamil Nadu Irrigation works (Repairs, Improvement and Construction) Act 1943***

The Act was meant for to enforce the undertaking of repairs in *Zamindari* areas and private irrigation sources where maintenance was neglected affecting food production. This Act provides for tenants to compel the landowners to undertake repair and maintenance works. In case of failure to undertake such works, the government would do so and recover the cost from the defaulting landowners. The landowners in turn get the right to avail of loans from the government under the Land Improvements Act and also enhance the rent payable by tenants. The Act also gave powers to the government to supply water to private irrigation sources where there is a total collapse of such sources and collect water charges at the rate fixed by the government. However, in practice, the Act was found to be less effective as tenant farmers were afraid of exerting pressure on landowners by applying to the Collector.

An amendment of the Act in 1945 laid down principles of cost sharing between the government and the private owners of irrigation sources, for repairs and maintenance works carried out by the government. Earlier the entire cost of the maintenance works were to be borne by the private owners / Zamindars though the improvement benefited the Ryotwari (government) lands. However, the amendment removed the anomaly and the costs on repairs and maintenance could now be shared proportionately, not exceeding four per cent of the incremental income from such improvements.

***Tamil Nadu Irrigation Tanks (improvement) Act 1949***

The Act was passed with a view to preventing the deteriorating conditions, which had resulted in a decline in the command area effectively irrigated. As per the provisions in the Act, the government can increase the capacity of the tank by raising full tank level (full capacity of a tank), regardless of location, whether *Zamindari*, *Inamdari* or *Ryotwari* area. It also empowers the government to recover the costs in such proportions as may be prescribed by the collector. It also provides for compensation to those affected by such an increase in the level of the tank.

***Tamil Nadu Irrigation Works-Construction of Field Bothies Act 1959***

Though a number of irrigation schemes were executed, the potential command designed was not fully utilized. One of the main reasons identified was the lack of field channels to transport water from branch canals and minor channels. Moreover, as these field channels have to be dug in the midst of fields which fall under the domain of private property, there was a problem in such construction due to lack of cooperation among farmers. Hence, there was a need for an Act, which would facilitate such construction. Under this Act, the district collector can ask land owners to construct or improve field channels at their own costs. It also prohibits anyone obstructing the flow of water in a field channel. However, the implementation of this Act is also unsatisfactory as there is no provision for compulsory acquisition of land under this Act. As a result, the schemes meant for the development of the command area could not be undertaken effectively.

### ***Tamil Nadu Irrigation Levy Betterment Contribution Act 1955***

Since independence, a number of irrigation projects were taken up as a part of an overall agricultural development strategy. This has also contributed to improvements in existing irrigation systems. This Act provides for the capital cost recovery of those projects from beneficiaries. Accordingly, the cost incurred by the improvements should be fully collected over a period of time. However, the practice of this Act is quite unsatisfactory as the state is not interested in the collection of capital costs of such improvements for political reasons.

### ***Tamil Nadu Panchayat Act 1958 (as amended 1997)***

The Act authorises Panchayats to construct and repair minor irrigation works under the control of Panchayats. The Act also provides for the collection of cess on irrigated lands, which is about six times that of unirrigated land. This is one of the major sources of funds for local bodies. However, cesses collected from irrigated lands are not utilised for the proper maintenance of irrigation systems.

### ***Tamil Nadu Additional Assessment and Additional Water Cess Act 1963***

Water cesses were fixed originally at the time of survey and settlements, around 1865 (Irrigation Cess Act 1865). After that there was no revision in water charges until 1963, when additional assessments were levied in the case of wet and dry lands to the extent of 50 per cent of the basic water cess. Thus, the Act paved the way for an increase in irrigation revenues. Since then there has been no revisions in water charges in Tamil Nadu though many states have revised the rates.

### ***Tamil Nadu Land Improvement Act 1959***

The Act is comprehensive enough to undertake conservation and improvement works on soil, groundwater and surface water in any part of the state. Thus, the Act provides for drought and flood relief measures by the government and for the reclamation of wastelands. For this purpose, the Act suggests the creation of Boards at different levels, viz., state, district and river valley catchments areas.

***Compendium of Rules and Regulations (1984): Part I Water Regulation and Part II Flood Regulations***

This contains rules and regulations passed by the government for regulation of water distribution and floods under different irrigation projects in the state. These rules define the responsibilities of officials at different levels in water regulation, dates of opening and closing up of sluices with specific technical parameters.

***Standing Orders of the Board of Revenue***

These orders prescribe different water rates (such as basic rates and additional rates) for different categories of lands (land is classified into six types depending upon the duration of water supply). The Act requires users (new categories) to obtain permission from the government for non-agricultural purposes.

On the whole, the motive of all the legislative measures outlined above was to raise revenue or were related to specific system's management. As mentioned earlier, there were no attempts to bring in a comprehensive legislation for the better management of irrigation taking in to account the changes in agricultural practices, changing water needs and to involve water users in water management practices.

**6.3 Attempts to pass a comprehensive Irrigation Act**

Like Tamil Nadu, many States had a number of Acts relating to different aspects of irrigation but none of them was comprehensive. The multiplicity of Acts dealing with different aspects also created problems for better management of irrigation and quick resolution of conflicts. The Irrigation Commission 1972, which has gone into this question recommended the **consolidation and simplification of Irrigation Acts into one**, which can be applied uniformly throughout a region or State. The matter was referred to the Indian Law Institute in 1977 for the preparation of a Model Irrigation Bill for this purpose. Subsequently, a Committee was constituted to examine the Model Bill prepared by the Law Institute and to suggest modifications. The Bill was circulated among all the States for discussion. The Bill, however, did not

receive much attention from the Tamil Nadu Government. Subsequently, as a part of the Water Resources Management Studies Project funded by the UNDP, an attempt was made by the Institute of Water Studies, PWD, Government of Tamil Nadu, to prepare a draft irrigation Bill on the lines suggested by the Indian Law Institute.

#### **6.4 Salient features of the draft Tamil Nadu Water Resources Act, 1989**

With a motivation of putting together all earlier attempts and to enact a comprehensive Act pertaining to water resources, Tamil Nadu Water Resources Act, 1989, was drafted as a part of the Water Resources Management Project, Government of Tamil Nadu, funded by the United Nations. The motivation of this Act was to enable the State to have greater control over water resources in the State, to have a greater say in water allocation, regulation, to promote equity in water use, maintenance of data base on water resources, to promote and to make legal the conjunctive use of surface and groundwater and to adhere to strict water quality control measures.

Article 2 of the Act states, 'that existing water legislation is piece-meal and inadequate to address the increasing demand for limited water resources in the State of Tamil Nadu; that water for municipal, domestic, irrigation, power, industrial and related uses is vital to the maintenance and development of the State of Tamil Nadu;' (IWS, 1989, P.6). Further, it is unambiguously stated in the objective of the Act that water resources are the property of the State of Tamil Nadu and that the State shall ensure efficient, effective and equitable development among various users. The Act also indicates that the existing water rights heretofore established shall be recognized and protected. To quote from Article 4 of the Act, 'It is the responsibility and authority of the Government in the public interest and benefit to develop, allocate, reallocate distribute, manage, control, regulate and administer the water resources of the State, in all forms, whether atmospheric, surface or underground, including its use, reuse and drainage there from, according to the objectives, policies and principles of this Act; except that the Government must recognize, preserve and protect existing water rights to the use of water subject to necessary control and regulation in the public interest according to the extent of actual and beneficial use' (IWS, 1989,p.10). The Act also has a provision (which was absent from all earlier attempts) for the first time to regulate groundwater extraction. It is indeed heartening that the Act recognized the need for

monitoring not only the quantity but also water quality in various river basins of the State: to quote, 'The State shall assess and monitor the quality of surface and groundwater, establish water quality and discharge standards, and develop plans and programmes for the improvement and prevention of water pollution' (IWS., 1989, p.7).

The draft Act also prioritizes the use of water among different sectors, irrespective of whether it is surface or groundwater but only during the times of scarcity. Accordingly, the first priority goes to domestic and municipal water users (drinking), followed by agricultural, power/ energy, industrial/commercial, and all other users in that order. It may be noted that the second priority users are farmers and industrial users are only the fourth in the order of priority. Several measures are proposed with a view to regulating groundwater use such as to obtain a permit from the Public Works Department before extracting groundwater, to promote conjunctive use of surface and groundwater, to adopt artificial recharge measures wherever necessary and so on. The Act makes a proposal for implementing a more uniform, systematic and equitable means of cost recovery and cost sharing. This also involves also the water users' participation in the construction, operation and maintenance of a system. It is acknowledged in the Act that the existing laws relating to water pollution fail to address the means to maintain the water quality of our water bodies. The Act therefore suggests the formation of river basin authorities in which the Tamil Nadu Pollution Control Board could work jointly with other State agencies related to water.

Further, this draft Act made deliberate efforts to involve water users in the development and management of water resources. The main purpose of the Water Users' Association was to oversee the operation, maintenance, improvement and rehabilitation of the canal network within a command area, to improve water supply conditions, and resolve disputes. And it discusses, extensively, the functions and formation modalities of Water Users' Association and their active involvement in water management. The draft Act was circulated to all States for comments, improvements and modification. Though the draft contained many important provisions, it did not receive much attention from the Tamil Nadu government.

## **7. Farmers' Participation Act and Turnover of Public Irrigation Systems**

Since the early 1990s, the Tamil Nadu Government has been showing an enormous interest in farmers' participation in water management. This, however, seems to be a wisdom which has been received from the World Bank. Thus, the State Government issued an Order in November 1994 to provide for farmers' participation. However, this lacked legal sanction, though it might be held valid by judicial authorities for being a state policy measure (Raju 1994). Nevertheless, the necessity for such legislation arose from the Government's commitment to the World Bank funded Tamil Nadu Water Resources Consolidation Project (WRCP). The funding, which came as a part of the WRCP, was used for the renovation of major surface irrigation systems in the State. Further, as a part of this project, the Farmers' Organization and Turnover (FOT) programme has been given much importance. The main objective of this programme is to shift the responsibilities of system maintenance and water distribution to the Farmers' Organizations, which have a command area of about 500 hectares. However, due to legal and other constraints, there are delays in forming Water Users' Association (WUA) under the present system. Hence, the World Bank has recommended the passing of an Act on the model of the Andhra Pradesh Farmers Management of Irrigation Act (APFMIS). The Andhra Pradesh Act provides for the compulsory membership of farmers coming under a water-users-area, which would be delineated by the district collector. All the landholders belonging to this area would automatically become members of the WUA by a government notification. There are three levels of associations in a project area: Pipe Committee at the outlet level, Farmers Council at the Distributary level and Apex Body at the project level. Elections will be held to these associations to select the management committee. As per the Act, the WUA have powers to levy, collect and share the water charges. The WUA is also given financial assistance for meeting expenditure on system maintenance from a routine grant from the State (Jayaraj 1998). The Tamil Nadu government has already announced an Act based on the Andhra Pradesh experience. This Act is said to be comprehensive enough, which provides for farmers' management of irrigation systems and other associated aspects.

### 7.1 Salient Provisions of the Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000

The purpose of this Act is "to promote and secure distribution of water among its users, adequate maintenance of the irrigation systems, efficient and economical utilization of water to optimize agricultural production by involving the farmers and inculcating a sense of ownership of the irrigation systems in these in accordance with the water budget and the operational plan" (Govt. of Tamil Nadu, 2000). The Act provides for the compulsory membership of farmers in an irrigation system for utilizing water from such a system. According to section 3, clause 1, the collector of a district has the power to delineate command area under an irrigation system and declare it to be the Water Users Association area for the purpose of forming a WUA. Every WUA area can be divided into a number of territorial constituencies 'which shall not be less than four, but shall not be more than ten, as may be prescribed'. All the landholders or the actual cultivating tenants in a water users area shall automatically become members of the association.

One of the important clauses of the Bill is that even if a farmer owns land in more than one territorial constituency of a WUA, he shall be entitled to be a member of only one territorial constituency at his option. This is very crucial because otherwise a bigger landowner, by virtue of the fact that he owns land in many places may exercise power in influencing the activities of the WUA. The members constituting the general body for the respective WUA shall have the right to elect the President and members of the Managing Committee representing various territorial constituencies of the WUA.

The District Collector in respective areas shall make arrangements for such an election. Under normal circumstances, the tenure of the President and the Managing Committee shall be five years.

Two or more WUAs will form a Distributory Committee and Presidents of all WUAs will become members of such a Distributory Committee *ex-officio*, and all such members shall constitute the general body of such a Distributory Committee. In addition, there shall be a Managing Committee for every Distributory Committee, which shall consist of a President and members who shall not exceed five from among

members of Distributary Committees. 'The Government may, in such manner as may be prescribed, delineate every command area or part thereof, of an irrigation system, and declare it to be a Project area for the purpose of this Act'.

Further, a Project Committee is constituted for every project area which will be delineated by the Government. 'The President of every Distributary Committee in the Project Area shall be member of such Project Committee, ex-officio, and all such members shall constitute the general body for such project Committee'. There shall also be a Managing Committee for every Project Committee, which will consist of a President and members who will be elected from among the members of such Project Committee. The number of members in this Managing Committee shall not exceed nine. On top of all these, the Government by notification, may constitute an Apex Committee with a Chairman and such number of members and powers as may be prescribed by the Government. The purpose of the Apex Committee is stated to be to lay down the policies and guidelines for the implementation of the provisions of this Act.

A motion for the recall of a Chairman or a President or a Member, as the case may be, of the Managing Committee of any Farmers' Organization may be made by giving notice in writing and signed by not less than one-third of the total members.

#### ***Main functions of Farmers' organization as prescribed by the Act***

The following functions are some of the functions to be performed by a Water Users Association under this Act:

- Planning and implementation of a rotational water supply system
- Maintenance of irrigation system right from distribution to field channels
- Promotion of economy in the use of water
- Assisting revenue authorities in the collection of water charges
- Maintenance of register of water users
- Maintenance of data base on the inventory of the irrigation system within the area of operation
- Removal of encroachments on canals, drains and tank *poromboke*
- Resolution of disputes among members of the association
- Raising of resources

Similarly, the Distributary Committee and the Project Committee also have some prescribed functions to perform. Most of these relate to the preparation of an operational plan based on the entitlement, area, soil and crop pattern. And they also have to ensure the maintenance of canal network, the proper distribution of water among various WUA, the collection of water rates and the promotion of economy and efficiency in the use of water.

### ***Sources of funding for WUA***

The WUAs under this Act are empowered to levy and collect fees not exceeding Rs.500 per hectare per year from every water user. In addition, the WUA will get access to a funding from other sources such as annual grants from government, such other funds which may be granted by the State and Central Governments, borrowings from financing agencies, income from the assets of the organization and donation from any other sources. The fund thus mobilized shall be deposited in a nationalized bank or a cooperative bank. The managing committee of the Farmers' Organization shall maintain a sinking fund with a view to facilitating repayment towards borrowed funding.

### ***Government's control over WUA***

Under this act, the government shall appoint officers from the irrigation department as special officers or as competent authorities for implementing the decisions taken by the Managing Committee and they have powers of direction or instruction for carrying out the works entrusted to them within the purview of the Act. Every Farmers' Organization shall extend such cooperation or assistance, as may be required by the competent authority, and follow such directions or instructions as may be issued by the competent authority, from time to time, for carrying out the purposes of this Act'.

In order to supervise the functions of the officer including the collectors, the government can appoint a Commissioner and give him the required powers for carrying out the functions specified by the government. The government also has powers to give directions to competent authorities/farmers associations to take such actions as may be specified by it.

### *Settlement of disputes*

The managing committees of WUAs/distributory/project/Apex Committees are the authorities for the settlement of disputes arising among members of such an organisation and the concerned committee shall be decided by the managing committees of immediate higher level organisations. The concerned members if aggrieved by the decisions of such committee can appeal to the next higher level committees and the decisions of such committees shall be final. All the appeals under this act shall be disposed off within fifteen days. It is necessary to underline the powers of the Apex Committee or the Government. The Act says, 'any such dispute or differences arising between a member and the managing committee of a project committee or between two or more project committees shall be determined by the Apex Committee, whose decision shall be final'

### *Provisions for offences and penalties and recovery of arrears*

Those who violate the provisions of this Act 'shall, on conviction, be punished with imprisonment for a term which may extend to two years or with fine which may extend to five thousand rupees, or with both'.

Further, Article-39 of the Act provides for recovery of money due to a Farmers' Organization as arrears of land revenue and 'for the purposes of such recovery, the competent authority (in this case, irrigation department) shall have the powers of a Collector under the Tamil Nadu Revenue Recovery Act, 1864.

## **7.2 Evaluation of the Farmers Participation Act 2000**

### *Positive Aspects*

The Act no doubt provides the legal framework for a better participation by farmers in water management for the first time in the history of irrigation legislations in Tamil Nadu. The Act enables farmers participation, not only at a lower level but also in a restricted manner at the main system level. The farmers' collective participation is enabled through the formation of WUAs, the office bearers for which have got to be

elected through a democratic process. The Act also provides for the autonomous management of the irrigation system by the Farmers Organizations in their respective areas for both the maintenance of the system and for the distribution of water supply. The annual grants allocated by the Government for various purposes, such as for operation and maintenance, can now be better utilized by WUA. Also the WUAs have legal powers to levy and collect additional water charges, which would enhance their financial positions. Hence this provision would go a long way in improving the cost recovery. With regard to the settlement of disputes, since the decisions taken by the concerned Committees or their higher level committees are final, the Courts are forbidden to entertain any further appeal.

A major breakthrough as regards the management of FOs is that the members of the association are vested with powers to recall the committee members. This provision would contribute for the accountability of the elected leaders and restrain them from mismanagement. Further, the Government as has been generally seen in many other organizations like cooperatives and Panchayats, cannot wind up the management committees of WUAs.

### *Negative Aspects*

The Act is comprehensive enough and many provisions of the Act are ideal for a smooth water management system. The Act ensures better participation by farmers in water management not only in water sharing but also in the collection of water rates and in maintenance as well. Further, the intentions of this Act are never in question. In the past also, as we have discussed earlier in this paper, several legal attempts were made by the then British Government to organize farmers to undertake maintenance work. But unfortunately, all past attempts were a gross failure. It does not, however, follow that present attempts would also result in failure. Nevertheless, it is important to take a critical view of the provisions of the Act and such a view may help to correct the inadequacies in the Act.

It is sad indeed that for many historical reasons even the traditional irrigation institutions are fractured and fragmented. But the present Act attempts to organize water users and form associations. Before attempting the introduction of new irrigation

(farmers) organizations through legislative measures, it is therefore necessary to examine the reasons for the disintegration of traditional irrigation institutions.

The traditional irrigation institutions, which evolved over a very long period of time and existed in many canal and tank irrigated areas, are characterized by several social arrangements and social responsibilities. In reality, the technology of water use for agriculture has developed over a period of several centuries, and its history has run parallel with the patterns of human settlements and village societies. The social norms appear through long processes of evolution (Basu, 2000). To quote Ullmann-Margalit, "Norms as a rule do not come into existence at a definite point of time, nor are they the result of a manageable number of identifiable acts. They are, rather, the resultant of complex patterns of behaviour of a large number of people over a protracted period of time" (Ullmann-Margalit, E. 1977 and quoted in Basu, 2000:123). Therefore, it follows that traditional irrigation institutions cannot be definitely dated and the success or failure of an irrigation institution depends very much upon the active participation of each and every individual member of a village society. The participation of a village society however, will be institutionalized and sustained only when a society feels the necessity for it. Under such circumstances, the principles of collective use will evolve and will get institutionalized. This is how history works.

In the same way, if the traditional irrigation institutions at the moment are in the process of decay or already defunct, it is because of some compelling socio-economic, technological and institutional factors. (For more details on the factors, which led to the disintegration traditional irrigation societies see Janakarajan, 1993). The hitherto organized members of a village society are currently unorganized and it is not easy to 'organize' them either by force or by law. This is simply because the fundamental motivation for 'association' or 'convergence' or 'meeting together' should evolve from within, rather than being imposed from above. The next question that comes to our mind is whether we could indoctrinate motivation in their minds. This is grossly unrealistic and impracticable. On the other hand, in many parts of the State and country, whether one likes it or not, traditional irrigation institutions are still functioning to a reasonable degree. In such village societies, are we going to superimpose a new institution, through legislation, on the existing ones? Are we really empowered to alter the norms and institutionalized practices, which have evolved over a long period of time?

Further, let us try to understand the relationship between law or the State and the people for whom it is meant. In the present case, the Act is meant for water users in a village society. As per the Act, the water users have no option except to become members of the WUA. A farmer who owns land in a given command area and if he does not want membership in the WUA, seems to have no right to opt out of WUA. If indeed a farmer does not have the option, then it sounds undemocratic. Look at it from another angle: Most farmers who own wells in the command area (who actually do not want membership in the WUA) become members as required by the law; such members may not participate in the collective action. Indeed, such members do not have any incentive to participate in the 'State sponsored collective action', particularly in a situation where the extraction cost of water from wells is zero (due to hundred percent subsidy extended to agricultural pump sets in the State of Tamil Nadu).

A brief discussion on a few individual sections and various clauses in the Act follows in the next few paragraphs:

The Act is called the Tamil Nadu Farmers' Management of Irrigation Systems Act 2000 but the way 'farmers' are defined is quite narrow. As per the Act 'every WUA shall consist of all the water users in such water users' association area as members' (Section-4.2). If one concludes from the above section that a WUA includes only those cultivators who own or cultivate land, then the Act is effecting a great injustice to a village society, in which water has been considered the property of all sections of the community. And, in the process the Act excludes the landless population from becoming members of a WUA.

Section-12 empowers the Government to constitute an Apex Committee, which will have an overall control over WUAs. But the constituent members of this Committee have not been spelt out. The ambiguity lies, in particular, whether the members of the Apex Committee are primarily from WUA or from WRO or from any other section. This is important because, most of the final decisions are taken by the Apex Committee, and if this Committee is dominated by the WRO, then the strength and autonomy of WUAs will get diluted. On the other hand, if the members of the Apex Committee are nominated from political parties (as happens in the case of Cooperatives at present),

there is every possibility for the misutilisation of this provision in favour of the ruling parties.

Section 26 of the Act provides for the appointment of personnel from the Water Resources Organization (WRO) of the Public Works Department of the Government of Tamil Nadu, as competent authorities for implementing the decisions of the farmers' organization but their role is not specified. Clause (3) of Section 26 is, in fact, vague in defining the powers of the 'competent authorities' of the WRO. It only says that the directions given by the competent authorities must be followed by the farmers' organization. Section 46 (2) also empowers the Government to issue any order as regards the powers of the competent authorities and requires the farmers' organization to give effect to such orders. To quote, 'The Government may issue such orders and directions of a general character as they may consider necessary in respect of any matter relating to the powers and duties of the competent authority or the farmers' organization shall give effect to such orders and directions'. Such undefined powers given to the WRO personnel may result in the misuse of power. In which case, the whole purpose of empowering water users will be defeated. Further, such powers given to the WRO personnel may weaken or dilute the autonomy given to farmers' organizations. In the final analysis, the WUAs may be reduced to the status of a mere takers of directions given by the WRO. This is exactly the problem that confronts us at the moment; in which case, where is the departure from the current system of water management, which is maintained by the bureaucracy? And what kind of powers and autonomy have we 'turned over' to water users through the Act? Please note that even in the case of a settlement of disputes among water users, the final say is in the hands of the WRO. The Act says, 'any such dispute or differences arising between members and the managing committee of a project committee or between two or more project committees shall be determined by the Apex Committee, whose decision shall be final' (Section 36.4). But currently, the matters concerning water disputes are resolved through local institutional mechanisms. This is yet another example which highlights the extended role of the WRO and which disturbs the existing autonomy enjoyed by the irrigation institutions.

Most important of all, the Act discusses the formation of WUA in the surface water commands without taking into account the extensive prevalence of irrigation wells in the same command areas. As discussed earlier, access to a private source of

irrigation (namely, wells) may provide a big disincentive for the farmers to take an active interest in the WUA. At the same time, in order to make the WUA more sustainable, the well owners cannot be asked to close down their wells. The greater the number of wells in a given command area, the less effective will be the collective action. Therefore, a crucial aspect of an integrated water resource management of surface and groundwater is lacking in this Act. Further, the main idea of the 73<sup>rd</sup> amendment to the Panchayat Raj Act is to strengthen the democratically elected government which represents all sections of the village population. But the formation of WUAs weakens this very fundamental objective.

### **8. State water policy in the context of water rights**

So far we have discussed, in a somewhat chronological fashion, the legislative measures undertaken by the State concerning the water sector and water rights. But we have not discussed the State water policy as such. It is interesting to note that the State never had a policy for a coordinated development of water resources until the formulation of a national water policy in 1987. The State drafted its own water policy in 1994 only, that too at the insistence of the Government of India and the World Bank. Until such time, most of the activities of the State were undertaken on an ad hoc basis. In fact, the severity of the looming water crisis was never thought of. (Government of Tamil Nadu 1994). Some of the goals of the State water policy are to establish an information system for water resources, to give top priority for drinking water, to provide adequate water for industries, to maintain water quality, to promote equity and social justice, to promote users' participation in water management and to provide a mechanism for resolving conflicts between users and between intra-state river basins.

The approach of the State water policy has been as follows.

- Efficient management of watershed to minimize sedimentation
- Removal and prevention of encroachment in water courses and water bodies
- Restoration of the capacities of the existing water bodies
- Modernisation of the physical systems
- Avoidance of transmission losses

- Minimisation of evaporation losses
- Adoption of modern methods of irrigation
- Planning of recycling and re-use of water
- Minimisation of leakages in pipelines in drinking water systems
- Artificial recharge of groundwater
- Interlinking the river basins within the state
- Planning for cloud seeding
- Rainwater Harvesting
- Desalination techniques

It can be seen from the above account that the approach of the State water policy to water resource development is technical rather than oriented towards the community. Further, the explanatory note to the water policy offers details about the methods of achieving goals but no mention has been made about the people's rights in water resource development. This also confirms our earlier argument that traditional water rights of people have been appropriated by the State. Though the policy statement mentions farmers' participation in irrigation management, their rights over water are not clearly defined. Water resource systems are generally identified with those who have land and those of the landless are completely excluded. Moreover, the extent of users' participation is limited to the operation and maintenance at local levels only. The involvement of the community in the system level designs and construction are neglected. As the water policy is an important document, which spells the out development strategy of a State, such neglect is a serious flaw and deserves a thorough revision.

## **9. Analytical summing up**

The foregoing discussion demonstrates the initiatives taken by the State to appropriate the water rights that belonged to the people and the measures attempted to turnover the rights back to them. Paradoxically, both the attempts were through legal means. What is absorbing is the State's adeptness in resolving to encourage 'participatory irrigation management' when, after all, the State's management efforts failed to deliver goods. Furthermore, the State's wisdom of turning over irrigation systems to water users is not a 'spontaneous accomplishment', but at the instance of the

World Bank. As a part of the Water Resources Consolidation Project (WRCP) funded by the World Bank, the Tamil Nadu Government has borrowed to the extent of Rs.1200 crores. The implementation of FOT (Farmers' Organization and Turnover) programme in the state is in the initial stage in the major, medium and minor irrigation systems with financial assistance from the World Bank. The State resorts to turning over irrigation systems to people, which are beset by problems such as an absolute deviation from the original operational rules, a gross mismatch between the availability of water supply and the demand for it, low recovery rates, the availability of very little resources for operation and maintenance, corruption at all levels, fragmented community action, and so on. In addition, there has been a huge accumulation of neglected repairs over a long period which has paralysed irrigation management in many systems. It is not clear how far the system improvement works undertaken as a part of the World Bank programme will be effective in solving such an ageold problem of neglected maintenance.

Besides, the substantive question is how can the State impose a non-functioning or a mal-functioning irrigation system to people through an Act? Even if the State imposes it through law, to what extent will people accept it, and what kind of a collective action can we expect from them?

In addition, the State was interested mainly in financial management either by reducing maintenance expenditure on irrigation or by improving the financial outcomes of irrigation projects. Indeed, the Compulsory Labour Act and various other Acts related to water cesses are meant for this purpose. Also the legal provisions were related to project specific operation and management of the system and in that sense, these provisions were regulatory in nature. For a long time, the State played a major role in deciding the rules and regulations of water management. There were no provisions for users' participation. Though there have been some attempts made in recent times towards promoting user participation, these legislations are not comprehensive. Moreover, there is no scope for involving farmers in the plan and design of the system right from the project formulation stage. Even the existing rules and regulations of irrigation systems, which are managerial in nature, suffer from a number of problems (for more details, see Raju, 1994). An important aspect of these legislations is that water rights and land rights are interwoven, which pose problems of equity and social justice.

The more critical issue of relationship between water and water users was never a part of the State's agenda. In the past, farmers' contribution towards all critical functions of water management was through spontaneous community action. Nevertheless, there is a tendency to glorify traditional irrigation practices. Those who do so not only fail to acknowledge the weaknesses in that system but also advocate revamping of such system. Firstly, the irrigation institutions of the past manifested clearly the social and economic hierarchy and for that reason, the question of equity in the sharing of water never arose as a subject matter for discussion. Secondly, no democratic norms were followed in the appointment of irrigation functionaries. Thirdly, all decisions were taken locally and decisions of the canal managers were always final. In sum, it was local irrigation despotism. Further, it is not easy to revamp traditional irrigation institutions. There are many socio-economic and institutional factors, which have contributed to the disintegration of the traditional irrigation societies such as changes in the land control institution and the nature of changes in the control over productive resources, changes in the mode of production, changes in agro-irrigation technology and massive development of groundwater irrigation and so forth. All these have contributed to a great deal of change in village societies. Those who support the revival of traditional water management systems fail to understand the overall development that is taking place in the countryside. Take for instance, the development of groundwater irrigation: can we take this development as an isolated event in a village society? Janakarajan (1993) summarizes this point in the following manner: 'Land transfers from upper castes to the hitherto cultivating castes have been a fundamental change that has taken place in the villages, which in turn has resulted in the emergence of owner cultivation in the place of tenancy contracts. The changes in the mode of cultivation, coupled with the introduction of new technology have induced farmers to go in for an extensive development of well irrigation, in particular wet lands. As a consequence of private control and ownership of irrigation water (viz., groundwater), farmers' interest in the collective effort for maintaining traditional irrigation systems gets weakened. .... landlords who exercised a great deal of power in preserving and controlling the traditional village systems including that of traditional irrigation institutions, have lost their glory. Therefore, traditional irrigation institutions in their normal course disintegrated or are in the process of disintegration....' (p.A.59).

There is another aspect relating to the State vis-a-vis community water rights, which needs to be clarified. The State has the sovereign right to appropriate, control and regulate water, subject to protecting the interests of riparian right holders. The proceedings of many court cases which uphold the rights of the Government as well as those of the riparian rights holders are summarized very well in the draft Water Resources Act, 1989 for Tamil Nadu. In this context one should study the Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000. This Act provides for greater user participation, reduces the State's role in water management but at the same time legalizes water as being the property of landowners only. In the process, the landless population, which hitherto enjoyed rights over community water resources, is excluded. Further, to what extent landowners are motivated to participate in water management as envisaged by the Government remains to be seen.

The State could play a useful role as a protector of water resources rather than as a provider. This is more crucial in a context where the sustainability of water resources is at stake. This is not to deny the fact that civil society has a greater role in contributing to sustainable development but the State certainly has an important role in so far as the enforcement of, for instance, pollution abatement laws, regulating the use of groundwater by different sectors, enforcement of laws to preserve the ecology and environment, technology dissemination and so forth are concerned.

### Appendix 1: Water Rights in old irrigation projects: The Case of Palar

The Palar river, which originates from the *Nandhidurg* hills, runs through the States of Karnataka and Tamil Nadu states, before it joins with the Bay of Bengal near Chennai city. The Palar river used to be the mainstay of at least two districts in Tamil Nadu for both agriculture and drinking. For many centuries, this river provided irrigation water for a couple of million acres, both directly and indirectly. The river water was used to feed a chain of irrigation tanks and also generated hundreds of spring channels (tapping base flow).

Before the construction of the *Palar Anicut* system in the year 1858, farmers used to construct what is locally called *Kondams*, to divert river water to tanks and fields. Thousands of community labourers drawn from many villages were organized for the temporary construction of *kondams* and for all other related activities. Since the *kondams* got washed away during heavy floods, farmers were involved in repeated action every year to divert the Palar river water. With a view to having a permanent structure for diverting water, the then British Government constructed an *Anicut* (a diversion weir) called *Palar Anicut* in the year 1858. This *Anicut*, through four major channels diverted water to a series of tanks in the undivided North Arcot and Chengalpattu districts. Presently, the PAS feeds 317 tanks in this region.

Water management functions in this region were organized by the local people through *Kudimaramath labour*, both before and after the construction of the PAS. But the construction of a temporary *Kondam* required the co-operation of a number of villages, which benefited by the system. Therefore, there existed well-organized principles to organize farmers on such a large scale every year and local farmers enjoyed absolute water rights over the Palar river. This being a general system adopted for the maintenance of the Palar system, there were specific rules regarding supply to individual tanks. Accordingly, when there was no supply from the Palar, *Kondams* were to be built to divert the rain water flowing in the canal. Similarly there were number of traditional methods prescribed for filling up tanks under different water supply conditions. In order to enforce these regulations, village communities used to deploy labourers at crucial points of diversion to ensure that water was not diverted to other channels, which were

not entitled to it. Thus, the village institution ensured that water rights were properly enforced and not infringed upon by illegal methods. This kind of system was observed in almost every channel. The water rights enjoyed by the farmers were codified and adopted by the village communities. Such codified water rights were recorded in a document called *Mamulnamas*.

However, the introduction of the '*kaniyachi*' system on land administration disturbed the water rights hitherto enjoyed by the farmers. Most of all, since the changes in the land administration system (from *Zamindari* to *kaniyatchi*) has increased the number of land owners from one, to say, for example, 30, disturbed the local power equations. Further, since the centralized enforcing authority (*zamindar*) was no more in existence, the local water management functions through community labour got disrupted. As a result, many system tanks, which were functioning better earlier, fell into disuse.

Under these conditions, there was a necessity for the State to intervene. With this view, the Government introduced what is known as the Tank Restoration Scheme in order to renovate and revamp the tank irrigation system in the Presidency. Even then, there was no marked change in the management of the tank irrigation system in the Presidency, more so in the Palar Anicut System.

### ***Construction of the PAS and bureaucratisation of water management***

We have seen earlier that people used to construct temporary *Kondams* to divert water from the river to tanks. The introduction of the *Kaniyatchi* system and the subsequent changes in the land control institution, have resulted in decline in the *Kudimaramath* system. Therefore, with a view to utilising the Palar river water, farmers lobbied for a permanent structure across the river to divert the water to tanks. Thus, the PAS came into existence in the year 1858. This was the beginning of the Government gaining control over water resources. Subsequently, there was pressure exercised by non-command farmers to undertake new schemes in the basin, which resulted in the construction of the *Cheyvar Anicut* in the 1870s. Further, the Government played a crucial role in transacting with the Government of Mysore, the upper riparian, for enhancing water supply in the Palar river. The then Madras

Government, kept increasing command area under the *Palar Anicut* and constructed other *anicuts* with a view to enhancing revenue. The state government, after intensive investigations in the basin in 1930 itself, came to the conclusion that the river was being made to irrigate a far larger area than it was theoretically capable of irrigating. Coupled with this, the efficiency of the PAS has been affected owing to siltation in the *Anicut* and the major channels. Based on recommendations of the Committee, the Government passed an order (GO) prohibiting new irrigations works and an extension of existing works. In addition, the GO also banned the conversion of dry lands into wet and single crop wetlands into double crop wetlands. (G.O. No. 1617 I dated 19<sup>th</sup> June 1931). However, these restrictions were diluted by a number of subsequent GOs. In recent times, after the introduction of the green revolution technology in the mid 1960s, the Tamil Nadu Government relaxed many of these rules with a view to providing more irrigation water. Massive development of well irrigation in the basin has been a clear manifestation of the relaxation of these rules.

In 1981, the government has prohibited the sinking of wells or tubewells with or without pump sets within a distance of 600 metres from either bank of the Palar river. Also such wells were prohibited within two furlongs of the heads of spring channels under the Palar river. (GO MS.No.1198 PWD 6<sup>th</sup> May 1961). However, there were quite a large number of representations from farmers to relax these rules. Subsequently the Government passed a GO reducing the distance to be observed for digging of wells from two furlongs to one furlong. It also relaxed the restrictions on the wells constructed within the command area of the spring channels. In addition, the capacity of the pump sets was restricted to 5 H.P.

As there were further hardships in implementing the 1961 GO, an additional order was passed in 1965 to eliminate the problems. However, it was necessary that the new wells proposed should not interfere with the water tables of the existing wells. Therefore, A GO was issued in December 1978 (GO MS No. 1711 dt.23.12.1978), which relaxed further the conditions for the utilisation of the Palar water. Accordingly, the distance norm for the sinking of wells was reduced to 400 metres in case of spring channels and 50 metres in case of other sources like tanks. Also the pumping capacity increased from 5 HP to 8 HP. However, permission for sinking of wells or installation of pump sets would be given only in areas where the Chief

Engineer (ground water) had given clearance. The distance norm was further reduced from 400 meters to 200 metres in 1985 and the pumping capacity increased to 10 H.P. Accordingly, the permission was also given to regularise all those pump sets, which had already increased their pumping capacities (GO MS. No.702 dt.13<sup>th</sup> May 1985.).

Finally, another amendment to the GO in 1988 gave further relaxations on the recommendations of the High Level Committee on Special Rice Production Programme: The distance rule now will not apply to tributaries or spring channels but only to the river. That is, the distance for prohibition of wells shall be computed from the banks of the river only. The rules apply only to those areas (survey numbers) within the prohibited zone and not to the entire village. The spring channels that existed earlier but had dried up were to be exempted from the purview of the Palar basin rules and the collectors of North Arcot and Chengalput districts were authorised to decide about the defunct channels.

The above historical account explains the manner in which the bureaucratisation of water resources, with particular reference to the Palar basin took place. It also indicates how the peoples' traditional water rights (especially in the tanks and spring channels commands) were appropriated. We have also seen the crucial role of agricultural and well irrigation technology in all these changes.

## **Appendix 2: Water rights under new irrigation projects**

While old irrigation projects are governed by customary rights and by statutes, the new projects taken up after independence are entirely run by the government. The bureaucracy carries out the entire process of project formulation, construction and implementation. Therefore, detailed guidelines for the opening of canals/dams, the regulation of flow, the monitoring of the systems functioning on a day- today basis across through the seasons and across the seasons in a year. And, all the rules of operation system maintenance were framed without consulting the water users in the command. Rules were framed to operate the systems even up to a pipe point level that has command area of less than 50 acres. The duties and responsibilities of irrigation officials at different levels were prescribed and they were required to follow the set guidelines. There is absolutely no scope for the involvement of farmers in the operation and management of the system. Even if they had some prior water rights, when new projects came into existence, all those prior water rights were meddled with. The case of Parambikulam Aliyar Project (PAP) in Tamil Nadu is indicative of the dominance exercised by the bureaucracy.

### ***Parambikulam Aliyar Project (PAP)***

The PAP is basically a multi-purpose irrigation project, which diverts a series of west flowing rivers in the Western Ghats eastwards, in order to provide irrigation to the dry tracts of Coimbatore and Erode districts in Tamil Nadu. The first phase of the PAP was thrown open for irrigation in 1967. At the time of the commencement of the entire project in 1972, the command area developed was to the extent of 150,000 acres. At the beginning, water supply was provided for 12 months, dividing the entire command area into two zones. In 1978, the command area was extended by about 100,000 acres, taking the total command area of the PAP to 250,000 acres. After the extension, water supply was provided once in 18 months, by introducing a three zone pattern. The beneficiaries of the PAP challenged this decision of the Government by a writ petition in the Madras High Court. In 1983, an agreement was reached between the farmers and the State Government: according to this agreement, the original beneficiaries of the PAP would be given first priority in water supply. However in 1993, the government further extended the command area by about 175,000 acres by

passing an act. Therefore the total command area of the PAP reached a figure of 425,000 acres. The original beneficiaries again sought judicial redress. But the Madras High Court dismissed the petition by stating "the change in the circumstances warranted the passing of the enactment". It further held that the action of the legislature in seeking to provide water to additional land could not be regarded as illegal. The Supreme Court also upheld the decision of the Madras High Court after hearing the petition filed by the original beneficiaries. The Supreme Court observed that the legislature has an absolute right to alter the pre-existing right with a view to providing benefit to more people. This verdict of the Supreme Court is important in so far as asserting the State's rights is concerned and further, this verdict has repudiated the prior appropriation rights of the people. Most of all, this verdict has given powers to the State to introduce any changes in the system without consulting beneficiaries.

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