

Necessity of Flood Management Laws in Tamilnadu, India

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ABSTRACT

Tamil Nadu covers an area of about 130,058 square kilometers and is the eleventh largest state in India. It has a coastline of about 1,000 kilometers. The major area in Tamil Nadu falls in a region of low seismic hazard. The entire state relies on monsoon rains and hence it is prone to droughts when there is shortage of rainfall. The climate of the state varies between dry sub – humid to semi – arid. The normal annual precipitation of the state is about 945 mm. Since the state is entirely hooked in to rains for recharging its water resources, monsoon failures cause acute water deficiency. But in the case of Chennai, the typical coastal city which is the capital of Tamil Nadu faces the problem of flooding even for short duration rainfall due to uncontrolled construction activities, improper maintenance of waterways and illegal encroachment along the bunds. The adverse impacts of flooding includes loss of life and property, disruption of economic activity (shortage of food, energy, water and other basic needs), mass migration of people and animals and environmental degradation relating to the spreading of pollutants by means of flood waters. Since Tamil Nadu is not a flood prone area, so far no flood management law is enacted. But nowadays due to urbanization and other anthropogenic activities the coastal areas in Tamil Nadu are prone to frequent flood. The best way to manage flood is to maximize the net benefits from the flood plains and minimize the loss of life from flooding. For the effective management of flood, there should be a strong legal frame work and effective institutional support for its implementation. This paper discusses about: (a)how flood related laws have evolved in different states of India (b)relevance of existing laws followed in Tamil Nadu for flood management and the necessity for the enactment of separate flood management laws in Tamil Nadu.

Keywords: -Flooding, flood management, legal framework

INTRODUCTION

A flood is an overflow of an expanse of water that submerges land. Floods can be magnified in urban areas. As land is converted from fields and woodlands to roads and parking lots, it loses its ability to absorb rainfall. Urbanization increases runoff two to six times over what would occur on natural terrain. During periods of urban flooding, streets can become swift moving rivers, while basements can become death traps as they fill with water. Human beings are responsible for this type of flooding. As people, they did not protest

against encroachment of the lakes. As Government official they did not take any action to evict the encroachment and as a politician they encourage their party men to encroach the lakes. This is the condition prevailing in many of the places. There are no laws which are strictly enforced to prevent the above condition.

The growth in infrastructure development, especially in South Chennai including the IT corridor and industries may have had implications for the problem of flooding noticed in recent years (for example:

Velachery during 2005). The drainage of storm water has been a real problem for many of the newly emerging habitations in this part of the city. The impacts of flooding on the growth of IT industry and sustainability of housing sector may be significant in the years to come. There should be a law in such a way that it should control the unscientific development.

Existing laws must be revisited because there are number of key roles a legal framework plays in the implementation

process of flood management policies, namely to define the institutional roles and responsibilities, to determine and protect rights and obligations and to provide mechanisms for dispute management.

OBJECTIVES

The main objectives of this paper are

1. To discuss about the existing flood related laws in Tamil Nadu and India
2. To illustrate the importance of legal framework for flood related issues in Tamil Nadu.

LOCATION MAP

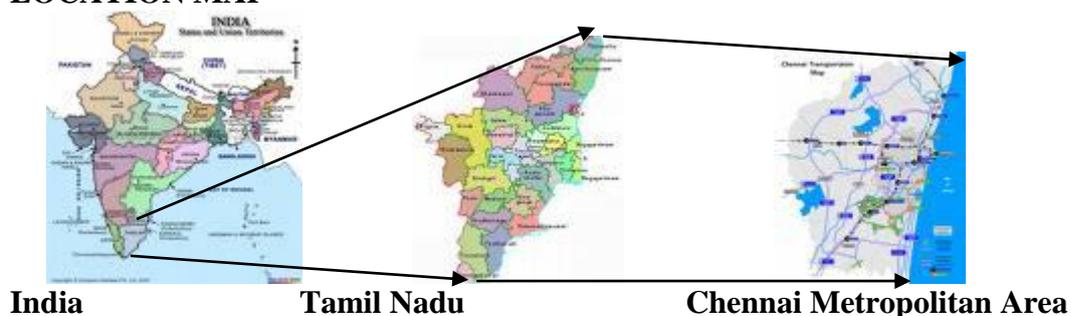


Fig.1: Location Map

LAWS ADDRESSING FLOOD MANAGEMENT IN INDIA

In order to address various aspects of flood management different states have different laws, dealing with whole range of issues, from land use planning, compulsory evacuation of land in case of floods, suitability of lands for construction of flood works, remission and suspension of land revenue in cases of agricultural calamity caused by floods. The various laws are discussed below.

The Andhra Pradesh Rivers Conservancy Act, 1884 deals in part with plain zoning. The main purpose of the act is to provide for the conservancy of rivers, and for that purpose it aims to prevent the unauthorized action of private individuals in obstructing the flow of rivers.

The Assam Embankment and Drainage Act, 1954: the act deals specifically with construction, maintenance and management of embankments and drainage works. This act illustrates that all necessary measures for flood control and embankments should be undertaken by the State government.

The Bengal Irrigation Act, 1876 the act mainly provided for construction, maintenance and regulation of canals and for the supply of water from them. The act included the provisions for construction of flood embankments and other drainage works. The Bengal Embankment Act, 1882: this act was applicable to the states of West Bengal, Bihar and other parts of Orissa. It provided for the construction, maintenance and management of

embankment and water courses. The Bengal Famine Insurance Fund Act, 1938 which provides for the establishment and maintenance of the Bengal Famine Insurance Fund. The proceeds of the fund are required to be spent on the relief of famine and distress caused by floods and natural disasters.

The Bihar Irrigation Act, 1997: the act provides for the preparation and execution of schemes for drainage works, including those for protection from floods or erosion by a river and embankment works. This act also stresses that the encroachments so formed on the river, stream or natural drainage course has to be removed. Bihar Restriction of Uses of Land Act, 1948: the act empowers the state government to declare any land to be a “controlled area” and prohibits any person to “erect or re-erect any building, or make or extend any excavation, or lay out any means of access to a road in a controlled area, except with the previous permission of the controlling authority in writing”.

The Calcutta Metropolitan Planning Area (Use and development of Land) Control Act, 1965 provides for controlling the use and development of land in the Calcutta Metropolitan Planning Area. Under this act, the state government may declare an area as a controlled area, if it thinks that the use and development of the land requires to be controlled under this act with a view to securing its orderly development.

Flood Plain Zoning Act, 1978 enacted by the state of Manipur empowers the state to notify and demarcate the flood plain area after proper survey, and prohibit or restrict the use of land therein.

Flood Relief Act, 1948: the act aims to provide immediate relief to flood affected areas in the country. It contains detailed provisions regarding immediate requisition

and acquisition of land for building sites and building materials and for the purpose of rehabilitation of flood affected people.

The Gujarat disaster Management Act, 2003 provides for effective management of disasters to mitigate their effects and for administrating, facilitating, coordinating and monitoring emergency relief during and after the occurrence of disasters. The Act also seeks to provide for implementing and monitoring measures for rehabilitation and reconstruction in the aftermath of the disasters.

National Policy for Rehabilitation and Resettlement of Project Affected Families, 2004 addresses displacement caused by industrial or developmental projects and overlooks any kinds of natural disaster like floods.

The Northern India Canal and Drainage Act, 1873: This vital legislation is meant to manage irrigation, navigation and drain of all rivers, streams flowing in natural channels and the entire lakes and alternative collections of still water within the states involved. The act empowers the government to organize schemes for drain works necessary for the advance of any land, or for the protection from the flood or any other alternative accumulations of water or from erosion by a stream.

The Orissa Irrigation Act, 1959: the act empowers the government to prohibit or remove obstructions to any river, stream or drainage works. Damage to or interference with the irrigation work or diversion of the river, stream, and spring where there is a flood embankment is an offence punishable under this act. The Orissa Public Embankment Construction and Improvement Act, 1951: this act provides for construction and improvement of public embankments for the prevention of floods in Orissa. The Orissa Hydro-Electric Projects & Flood Control Works

(Survey) Act, 1961 provides for the survey and investigation of the suitability of lands required for the establishment of flood control works.

The Uttar Pradesh Zamindari Abolition and Land reforms Act, 1950 lays down that land owners are entitled to remission or suspension of the land revenue on the occurrence of an agricultural calamity.

The laws like the Andhra Pradesh Famine Relief Fund Act, 1936, the Orissa Famine Relief Fund Act, 1937, the Bombay State Famine Relief Fund Act, 1958 states that a state should establish a famine relief fund. Such funds are required to be utilized only for the relief of famine and distress caused by serious floods and other natural disasters.

EXISTING LAWS IN TAMIL NADU AND ITS PURPOSE

The existing laws in Tamil Nadu related to flood management and water resources are briefly discussed below

The Tamil Nadu Groundwater (Development and Management) Act, 2003: an act to protect ground water resources to provide safeguards against hazards of its over exploitation and to ensure its planned development and proper management in the state of Tamil Nadu. This act extends to the whole state of Tamil Nadu except the areas to which the Chennai Metropolitan area Ground-water (Regulation) Act, 1987 extends.

Chennai Metropolitan area Ground-water (Regulation) Act, 1987: the act focuses on the compatibility with the existing water resources, the factors that affect, control or prevent pollution, the existence of other sources of water other than wells and it's compatibly, the possibility of rain water harvesting and conservation. It is essential to harvest rain water so that it can be effectively utilized in summer season.

As per the Indian constitution, the directive principles of State policy assign duties to the State and all citizens through Article 48A and 51 A which states that the state shall endeavor to guard the surroundings and to safeguard the forests and life of the country and to defend and improve the natural surroundings as well as forests, lakes, rivers and wild life and to own compassion for living creatures. The goal of this policy is to confirm environmental stability and maintenance of ecological balance together with atmospheric equilibrium that is important for sustenance of all life forms, human, animal and plant.

The Water (Prevention and Control of Pollution) Cess Act, 1977: An act to produce for the levy and cess collection on water consumed by persons carrying on some industries and by native authorities, with an outlook to enhance the resources of the Central Board and therefore the State Boards for the hindrance and management of pollution planted below the Water (Prevention and management of Pollution) Act, 1974. This act extends to the complete of Republic of India except the state of Jammu and Kashmir.

The Environment (Protection) Act, 1986: An act to produce for the protection and improvement of surroundings and for matters connected there with. This act has been enacted to get apt steps for the protection and improvement of environs and the preclusion of hazards to human society, living creatures, plants and property.

Tamil Nadu Village Panchayats (Framing of Bye-laws) Rules, 1999: the rules states that a Panchayat may frame bye-laws not inconsistent with the Act or Rules made there under on matters enumerated below i.e. use of public tanks, wells, conduits and other places or works for drinking water

supply, the protection of trees, grass and other appurtenances of public street.

Tamil Nadu Protection of Tanks and Eviction of Encroachment Act 2007 and Rules 2007 (*but the state itself continues to encroach on marsh lands and Ari*) this act aimed at identifying the original boundaries of the lakes and also stipulates penal action against encroachers.

IMPORTANCE OF LEGAL FRAMEWORK

Developing new legislation is an iterative process between legislators, researchers, advisers, committees and stakeholders. The effectiveness of any legislation reflects the success or otherwise of this process, along with its subsequent regulation and enforcement. Policy-making is a continuous process, and science and technology are an important part of that process throughout the cycle (Spray et al., 2009). A bottom-up approach should be followed where local communities, local knowledge and local preferences might be identified at the outset, options explored and new holistic solutions developed before framing a law (Parrot et al., 2009).

Integrated Water Resource Management (IWRM) and specifically for flooding, integrated flood management (IFM) are both well-developed conceptual frameworks that have been widely used before in many countries (APFM, 2006). The greatest scientific challenge to the ratification of law comes from the current state of knowledge of hydrological science itself. In particular, the effectiveness of natural flood management in terms of its impact on flood processes at the catchment scale should be considered (Kenyon, 2008).

Catchments are more than hydrological systems; they exhibit social, political, economic and environmental complexities that interact in a highly complex and

uncertain manner (Collin et al., 2007). Hence, the law should be framed in such a way that it should promote catchment-wide approach to flood risk management. In addition to that, it is required to enact a law, that it should (i) act in the way best calculated to manage flood risk in a sustainable way, (ii) promote sustainable flood risk management, and (iii) act in the way best calculated to contribute to the achievement of sustainable development.

Due to increase in population, urbanization and deforestation our society is becoming vulnerable to the adverse impacts of floods. The following example would illustrate the importance of law. Rain water harvesting has been made mandatory in all houses in Tamil Nadu. All new water and sewer connections are provided only after the installation of rain water harvesting structure. As a result all the houses in Tamil Nadu are having a rain water harvesting structure to store rain water, conserve it and use it for their domestic purposes. All these things went possible only after the strict implementation of the law. In the same way law should be implemented for flood related issues. The law should be in such a way that (a) No flood relief funds to encroachers (b) Compulsory eviction of those who have already encroached (c) No basic amenities must be provided to that locality.

CONCLUSION

Unlike in other states of India, there aren't any special legal or policy regimes for conservation of wetlands, flood plain partition, construction and maintenance of evacuation canals and embankments, land use coming up with, obligatory evacuation of land flooding things and suitability of lands for construction of flood works in province. In order to safeguard Chennai from adverse impacts of floods a proper law and policies must be worked out and implemented strictly and they should make

the existing laws operative wherever they are dysfunctional. It is in the hands of budding engineers and policy makers to come up with innovative suggestions and implement a law for flood management strategies.

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