

ECONOMIC OF WATER MANAGEMENT STRATEGIES: SPECIAL FOCUS ON TAMILNADU

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Abstract: In olden days, natural resource of water is available to every citizen of India without paying money. Now a days, water become the one of the commodity for the middle class and poor class people. Current scenario of water and its crisis made the water as good and make it available as product in the market. In the present work, made an analysis of water resources and its management strategies followed in India majorly focuses on Tamilnadu. The Economic influential parameters and its effect on the people are discussed. The water tariff impacts on the economy of the state of Tamilnadu are made in such way that to project the gap between the water economy. The revised water policy and its impact on the drinking water is also discussed.

Keywords:

1. Introduction

The planet Earth is also called as ‘the Blue Planet’ as it contains plenty of water. However, out of the total water reserve on the earth, fresh water occurs in a very small fraction. It is well known that the whole planet has large volume of water (1338 million BCM), but the volume of traditionally accessible freshwater in lakes and river flows, amounts to a mere 0.0093 million BCM [1]. The second UN World Water Development Report describes water as an essential life sustaining element. Water is a life creating, life supporting and enhancing resource. It is one of the biggest challenges to mankind to manage water in optimal manner of all natural resources as there is no replacement of water and is not internationally traded like other elements such as mineral ores, oil and gas. This makes adaptation to water scarcity more onerous. In fact, at the present stage the world is entering into an unfamiliar age of grave water crisis, coupled with degradation and reduction of many water courses and the threat of conflicts resulting into wars over water [2].

Water plays a vital role in the production of food and fibre to meet the basic requirements for human sustenance. It is equally important element in maintaining a healthy ecosystem and well-being of the living creatures. Water is a renewable but limited natural resource. It is a unique resource which appears in different forms and determines all physical and

biological processes occurring on the planet. There is continuous increase in demand for water with the growth of population and economic activities around the world. Advancement in the field of science and technology has lessened the gap between availability and use of water. In many areas, use of water has reached or even exceeded in comparison to its availability there. In situations where it is scarce, over abundant or its flow is not properly controlled, it almost becomes the subject matter of conflicts and disputes [3].

Water is an essential requirement for the sustenance of all life forms. This product of nature has remained a vital requirement for all human societies, independent of their technological status. Water offers basis for rapid creation of economic value, for example in agriculture or certain industries. Through the provisioning of water for irrigation, the economics of farming in dry areas can undergo magical transformations. Many industries like the pulp based ones or thermal power plants require great volumes of water for their processes or for the dilution of the pollutants they create. This is why, with the advancement of technology, human dependence on water has grown not reduced [4].

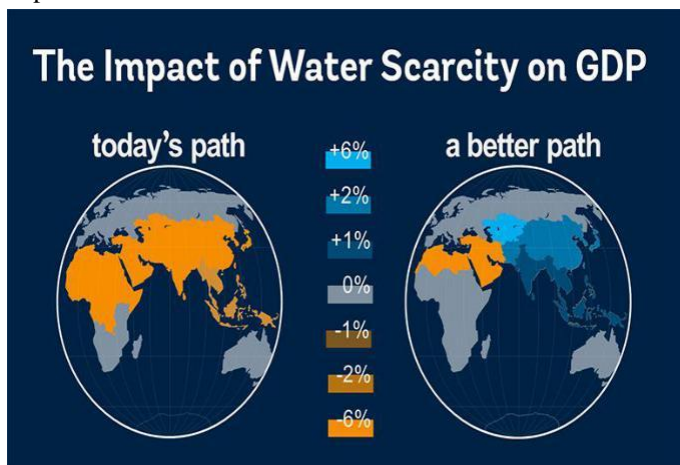
Water is perceived by different people in different ways. It is perceived as an economic good or commodity, or community good, or as a fundamental right or as a divine and sacred resource. When one is under the strong influence of one perception, other perceptions appear fairly wrong. For example, those who consider water as “commons” or as a “community resource” incline to deny fervently that it is an economic good or a commodity. Likewise, those who regard water as a commodity often ignore other dimensions of water. In fact the truth is that one can say many things about water and be right. All the aspects of water like commodity, commons, fundamental right, divine element are incomplete perceptions on their own. These all are valid and right perceptions. We require all of them to comprehend the diverse roles played by water in our lives [5].

2. Water Influence on different Resources

Water casts a major influence on the millions of people. It is capable to unbridle grass root passions and desires of many, like religion or a political ideology. Since the beginning of

civilization, humans have pursued to reside and settle close to water considering the value and need of this element. A former Soviet leader Mikhail Gorbachev has written in this context as following “*People move when there is too little of it. People move when there is too much of it. People journey down it. People write and sing and dance and dream about it. People fight over it. And all people- everywhere and everyday need it*”.

Water is helpful in sustaining and expanding the economies and in conserving the ecosystems on which human civilization depends. The use of water has grown at more than twice the rate of population growth in the past hundred years. This may be due to the fact that humans tend to forget to live in harmony with nature. Yet, with the advancement in the technology resulting in more extraction of groundwater and increase in hydro projects, water scarcity threatens to hamper the future economic growth. The renewable surface freshwater reserves of the planet are found in snows, mountain, rivers, lakes and aquifers. As the ultimate renewable resource, water naturally recycles, rising to become rain or snow, except when pollutants hold it down. Water is, thus, never lost but merely gets recycled. The loss due to evaporation from surface water bodies, evapotranspiration and sublimation returns in the form of precipitation. The renewable freshwater reserves have remained the same since time immemorial, whereas population, consumption and economic activities have expanded manifold.



World Bank. *High and dry: Climate change, water, and the economy*. The World Bank, 2016.

3. Water Markets and Legal Frame Works

Water related issues like scarcity, degradation and depletion of water resources, pollution etc. affect humans in a number of ways. Water sustains the livelihood support system of the people as it is the element that is important for food security. It dissolves waste material and provides sink and combines natural ecosystem. Indeed, the preservation of water sources in its natural and unpolluted state is crucial for the progress and development of a healthy society. Earlier, planners and policy makers consider the development of water resources as central

to the overall economic development resulting in large scale investments concerning water resources focusing on economic development [6].



Treacy, Josephine. "Drinking water treatment and challenges in developing countries." *The relevance of hygiene to health in developing countries* (2019).

Historically, water has determined the centers of civilization. It was not a coincidence that the early civilizations bloomed around rivers and the assured access to such water resources, by helping to initiate agriculture, fostered an evolution from nomadic to sedentary and well developed civilizations. In fact, early trade wholly relied on water for transportation of goods, with water even serving as the catalyst for the first cross-cultural interactions.

International water law and policy has played a pivotal role in forming and shaping water law and policy domestically. International law concerning water and related issues has contributed tremendously in addressing various issues and challenges to water management. As in The Covenant on Economic, Social and Cultural Rights, the human right to water is recognized implicitly. Likewise, The Convention on the Elimination of all Forms of Discrimination against Women casts an obligation on the member states to ensure that women have the right to enjoyment of adequate living conditions, particularly in relation to housing, sanitation, water supply, electricity, transport and communication [7]. Similarly, The Committee on Economic, Social and Cultural Rights recognized the ‘Right to Water’ through the adoption of ‘General Comment’ in 2002 and identified certain duties of the member State parties concerning the right to water. These obligations of the state parties include ensuring access to the minimum requisite quantity of water, right of access to water and water facilities and services without any unreasonable discrimination, sufficient, safe and regular water. These duties also include distribution of all water facilities and services on equitable basis, adoption and implementation of a water plan and strategy at central level. Further, it includes monitoring the degree of realization or non-realization of right to water, adoption of comparatively price effective water programmes to protect weak and ignored groups and to take steps to treat, prevent and control diseases relating to water, particularly to

ensure access to acceptable sanitation conditions.

The Stockholm Declaration lays emphasis on safeguarding and protecting natural resources occurring on the planet including water for the beneficial interests of the present and future generations [8]. Similarly, Dublin Statement on Water and Sustainable Development, 1992 recognizes that freshwater is a limited and vulnerable resource vital to sustain life, progress at all levels and ecological balance. It also emphasizes that there should be an adoption of participatory approach concerning water management and development. In planning and management of the water resource and related issues this statement focused on the involvement of different users particularly women, planners and policy architects at different levels. While emphasizing the economic value of water in all its competing uses it focused on recognition of it as an economic good [9]. The United Nations General Assembly resolution, The Human Right to Water and Sanitation, 2010 also recognizes the right to drinking water that is safe and clean. It also recognized sanitation as a basic human right that is indispensable for the complete enjoyment of life and all other human rights.

In India, the water regulation has been an important concern of rulers since antiquity. The code of Manu addresses certain issues concerning the regulation of water, like pollution of water and its adverse effects on the health of the people. In Kautilian period, the '*Arthashastra*' specifically showed that water users had to pay a water tax for the use of water taken from different sources such as rivers, lakes or springs. Private ownership of water reservoirs, embankments, and tanks was also permitted in the said period. During the period of Muslim rulers water was considered to be a common resource and everyone was allowed to have free access to water and its reasonable use. Yet, it seems that till the colonial period, there was little emphasis on formal water law, in large part because water was not generally conceived as scarce [10].

The British government initiated taking direct interest in forming water law in the nineteenth century. This included several kinds of interventions, including laws for the protection and maintenance of embankments, regulations of ferries, as well as fisheries. In consonance with its desire to harness water for irrigation, the colonial government focused specifically on irrigation. This led to the passing of various enactments, including The Northern India Canal and Drainage Act, 1873 for large scale irrigation and The United Provinces Minor Irrigation Works Act, 1920 for smaller irrigation works. On the whole, laws during British era inclined to focus on economically productive uses of water and showed a little concern to other aspects of water such as environment or social aspects. Over a time, the British Government took a firm position concerning the control and ownership over water sources. The assertion of rights of control over water did not remain limited to irrigation. Thus, water law was mainly concerned with the distribution of water among landowner in

addition to the assertion of the state's overall control over water, thereby creating a direct connection between real property rights and access to or control over water.

Under Indian Constitution, water is primarily included in 'state' list, subject to center control in regulating the development of inter-state rivers and for the settlement of disputes concerning inter-state river waters. The Center can also legislate in the interests of protecting the environment and forests and concerning matters with regard to 'National Planning and Development'.

Over the past 40 years, there have been significant changes in 'Water law'. Firstly, the issue of pollution of water was taken up seriously in 1970s. Secondly, the other dimensions such as the social and human perspectives of water have become fundamental to water law. This is visible in different contexts, from the adoption of measures at policy level for ensuring access to safe and adequate drinking water for every person to the recognition of a fundamental and basic human right to water. Thirdly, the recognition of the ownership and control over groundwater, the landowners reflecting the limitation of legal frameworks, even though few regulatory measures have been taken. Fourthly, significant reforms in water law and water sector have been introduced as part of wide and extensive economic and financial reforms initiated since 1991. After independence, the Constitution of India retained the basic and undeveloped scheme adopted in 1935 to entitle the states to legislate largely in water related matters. Water was, therefore, made part of the state list in acknowledgement of the fact that issues concerning water are different in different parts of the country [11]. Yet, this does not imply that the Union has no role to play concerning the settlement of inter-state river water disputes even though no agreement could be found on a specific mechanism at the time constitution was adopted. Article 262 allowed the Parliament to legislate on this issue. This led to the adoption of 'Interstate River Water Dispute Act, 1956'. This Act empowers the Centre to set up tribunals to adjudicate disputes over water sharing between riparian's of inter-state rivers. Secondly, powers were reserved in the Seventh Schedule for the Union. Regulation of inter-state rivers was one such item which led the Parliament to enact 'The River Boards Act, 1956'. Thirdly, the Union has taken action under Article 252 which allows the Parliament to adopt a legislation in any field in which the states are competent to legislate, provided that states have given their assent. This was the basis for the adoption of 'The Water (Prevention and Control of Pollution) Act, 1974'. Fourthly the Union has used less formal mechanisms to prod states into adopting certain measures. For instance in view of the lack of progress in the provision for the drinking water in rural areas, the Union in the early 1970s came up with the 'Accelerated Rural Water Supply Programme' (ARWSP). Fifthly, the Union has certain other powers relating to water for example environmental clearance in the context of the impact

assessment of large projects.

Therefore, the constitutional division of legislative powers between the Centre Government and State governments constitutes the basic framework for the formal water law in India. In addition, the 73rd and 74th amendments to the Constitution have provided a framework for significant decentralization of democracy. These Amendments entitles the state legislation to give 'Panchayati Raj Institutions' powers and responsibilities over supply of drinking water, minor irrigation, water shed development, fisheries and water management. In urban areas, municipalities have been given wide powers and responsibilities including matter of water supply for various purposes like domestic, industrial and commercial. Besides constitutional matters water law consists of a variety of laws and other legal instruments at the Union and State level. Water law, itself, composed of a number of laws that constitute the core of formal water laws such as irrigation laws, laws relating to river basins, planning and disputes, groundwater laws, hydro power, industries including agro-industries, etc. Following the introduction of water sector reforms during the 1990s the First 'National Water Policy' was adopted in 1987. In the context of evolving water sector reforms, 'National Water Policy' was revised in 2002. Further, the Government of India adopted 'National Water Policy' in the year 2012 keeping in view the several growing issues and concerns in the present-day situation of water resources and their management. The chief aim of 'National Water Policy' is to recommend a basis for formation of system and institutions of laws and to take cognizance of present condition. It also aims to propose a plan of action with a unified nationwide perspective. A number of states have adopted water policies over the past decade.

The right to water may not yet be recognized specifically in Constitution but this has not stopped its development in a variety of circumstances. Firstly, the courts in India have recognized this right in several cases pertaining specifically to this right to water or not. Secondly, a number of states have adopted legislation concerning the realization of this right. Thirdly, the Central Government has also through its directions and guidelines played a significant role in the realization of the right to water particularly in rural areas of the country [12].

Besides constitutional matters, water law consists of a variety of laws and other legal instruments at the Union and the State level. Three major characteristics of water law are firstly while water has been an important concern in law for many years and is specifically considered in Constitution, there has never been a framework of law. This means that there is no single instrument that brings together the general principles of water law. As an outcome, these principles accepted and assumed in different contexts often co-exist or oppose each other. Secondly, water law is still a highly compartmentalized field of law with different laws addressing either different sources

of water like ground water or surface water, or different uses of water such as drinking, irrigation etc. Thirdly, the wide range of water laws addressing different issues cannot mask the limitation of existing water law. Indeed, while water law has been developing for many decades, it has not been particularly adept at addressing new developments in other parts of legal framework.

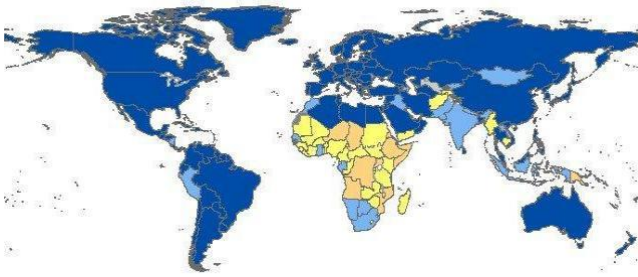
States have legislated Irrigation Acts, which give their government power to regulate the development and use of surface water within their territories. A common feature is that water flowing in rivers and even local streams cannot be impounded, diverted or extracted without government approval. These are supplemented by government orders relating to individual systems setting out the rules regarding permissible crop patterns, allocation and scheduling of canal water, regulations concerning ground water extraction in their command and penalties for violation of rules. The lack of clear and well defined framework of laws covering the aforementioned aspects leaves too much room for arbitrary, shortsighted and opaque decision making.

There are a number of rules and regulations at local levels in addition to laws at central level. These include several written or unwritten provisions or measures regulating the access to and use of water for different purposes such as irrigation or domestic purposes. Certain rules govern access to present sources of drinking water wherein many cases they have the cast basis. However other rules of access to the drinking water sources also exist. There are rules regarding allocation concerning irrigation water through manmade structures such as tanks and check dams. There are many unwritten or informal rules of access and control that evolved over long period of time which exist in parallel to "formal" water rules and regulations [13].

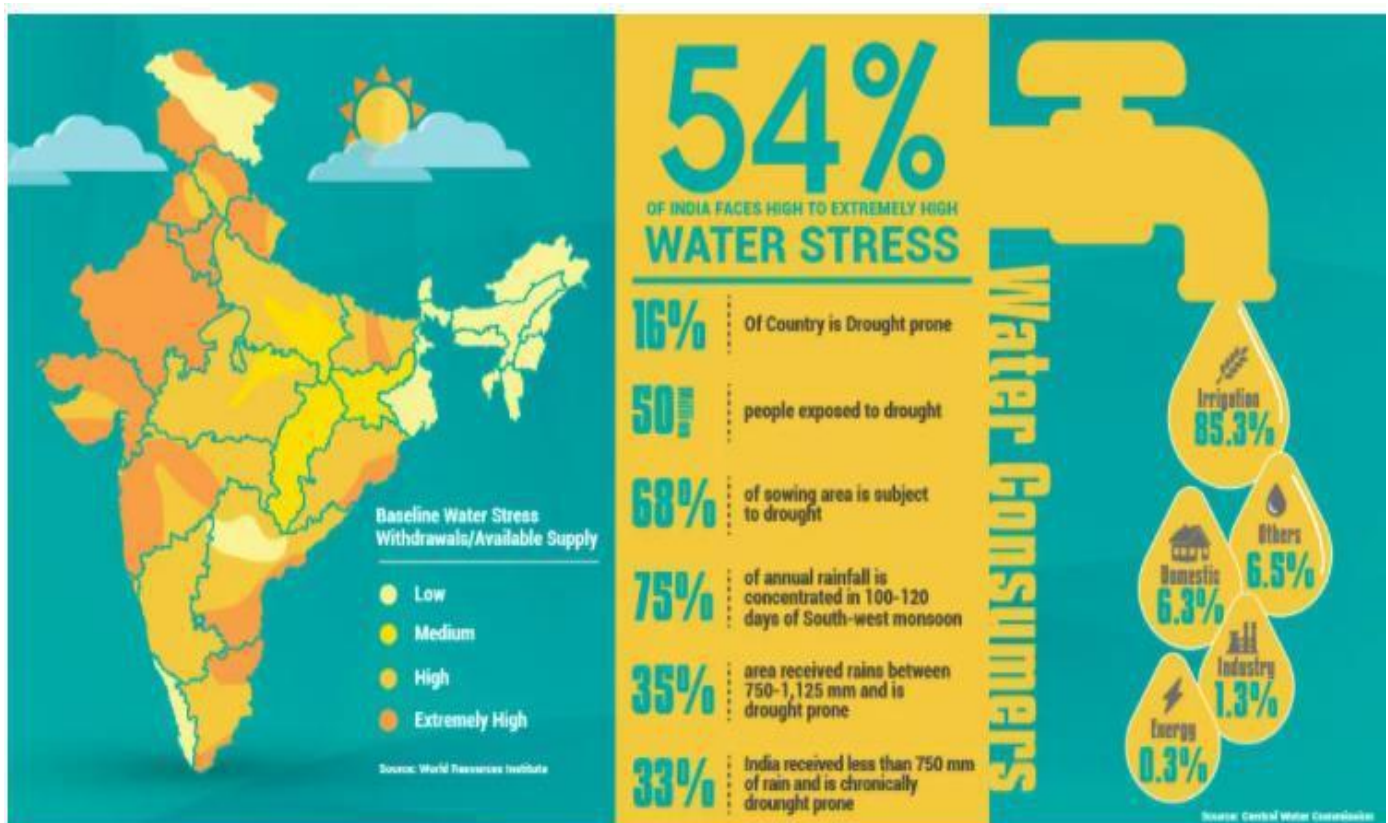
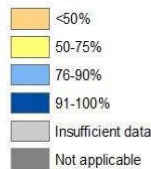
4. Water Management in India

Although 71% of the world's population have access to safe drinking water, 161 million people are using surface water (water directly from rivers, dams, ponds, etc.) as their water source. There are also 264 million people traveling 30 minutes or more to collect drinking water.

<https://www.globalcitizen.org/es/content/new-wash-figures-released/>



Proportion of the national population using at least basic drinking water sources in 2015



iasexpress.net/water-crisis-in-india-upsc-essay/

In the Indian setting, the management of water resource has been usually project centric. This has caused in an approach which is unsystematic and lack of far-sightedness to water resource planning and management. The necessity of having a sound institutional frame work and a comprehensive and integrated approach for the water sector throughout the nation was ignored [14]. Most of the major rivers flowing in the country are inter-state rivers. Tribunals were set up under The Inter State Water Disputes Act, 1956 to resolve interstate river water disputes.

These tribunals face a number of difficulties in recent years [15]. One of such drawback is unreasonable delays at every

stage from the setting up of the tribunal to the official notification of the award of the tribunal. There are also drawbacks in the way of dealing with such disputes. The peaceful settlement through negotiation is generally considered to be appropriate method of adjudication of such disputes. Further, adjudication is contentious leading to enhanced claims by contesting states. Another issue is lack of technical content assisting in reaching at appropriate decision as water disputes have a lot of technical matter and are not best handled by judges. The tribunals are also not having fixed and certain principles to consider while adjudicating. In the absence of uniform principles and directions, there exists every chance of arbitrariness on the part of the tribunals.

Moreover, there are no arrangements regarding implementation of the awards.

There does not exist any specific law or rules particularly relating to dam projects. However, the different provisions relating to planning, approval, financing, construction, operation and maintenance of such projects exist in the constitutional and legal framework of the nation. In view of the planning and construction of dams 'The Inter State Water Disputes Act 1956' is a significant law. The River Boards Act, 1956, 'The Environmental Protection Act', 1986 The Forest Conservation Act, 1980, The Wildlife (Protection) Act, 1972 and The Water (Prevention and Control of Pollution) Act, 1974 also have a bearing on dam projects. The Official Secrets Act, 1923 is invoked at times to deny information to the people while few projects face opposition or criticism on certain basis like environmental or human grounds. The guidelines issued by Central Water Commission for project preparation, Report of National Commission for Integrated Water Resource Development Plan containing observations on the planning, financing, implementation and prioritization of major water related projects and Policy on Hydro Power Development also relate to dams. There is also an issue that remains in heat concerning large dam projects is the displacement of people at large scale as large dam projects often involve the displacement, resettlement and rehabilitation of people. The issues concerning displacement was governed by the Land Acquisition Act, 1897 for almost a century until new Act was passed in the year 2013 [16]. The real operation of the Act has been affected with problems in many cases. There are issues that remain in the actual operation like unreasonable delays and prolonged litigation, leading to shifting of project schedules and cost growths. Further, the people whose lands are being acquired for such purposes often inclined to complain about inequities and injustices, disparities between cases, delays in payments of compensation and corruption at all levels. There are also other issues that arise in regard to displacement and resettlement/ rehabilitation such as conflicts between people and the state, between people in the catchment areas, as well as between different groups in the command area.

Drinking water supply has been one of the primary water related concern for the Central and State Governments for the past several decades. Still, there is no clear legislation on the subject. Since drinking water is a state prerogative there is absence of any central legislation on the subject. However there are policy documents focusing particularly on rural drinking water supply. The main shortcoming of the existing framework for drinking water supply in rural areas is that it allows the government to modify the basic framework for water supply even without consulting the Parliament. At the state level, there have been several initiatives leading to the adoption of legislation concerning drinking water. The relevant Acts cannot be conceived as framework drinking

water legislation as they focus on limited set of issues, such as certain actions taken at the time of water scarcity. In certain cases, such as Karnataka and Maharashtra, states have enacted drinking water Acts having provisions focusing on groundwater. Other states, such as, Uttar Pradesh, have come up with setting up of institutional structures as a solution to water supply throughout the state. Drinking water stands first in the priority list of uses of water in 'The National Water Policy, 1987', but still it lacks effective implementation and thus remained a dead statement on paper. There exist a large number of villages with no water sources despite a lot of planning and missions for drinking water in the country. In some cases the targets for covering such villages with no water sources are repeatedly attained, but the numbers grow larger than smaller. This means that some "covered villages" come again in the uncovered category, and that newer villages are being added to this class [17].

Irrigation law which is the core component of water law is one of the oldest and most established areas of the earlier times [18]. The irrigation Acts adopted in a number of states are based on a similar model, which happens to coincide with water users association model promoted at international level. One of the major drawbacks of this model is that the associations that are set up have no direct link with Panchayati raj institutions. The high level of uniformity between the different acts adopted means that reproducing only one instrument is sufficient to illustrate the general structure of water user association legislation throughout the country. The irrigation sector has its share of woes. Canal irrigation efficiency in India is well below international standards. There are certain issues which are not appropriately addressed like indiscreet canal irrigation without considering soil conditions or over exploitation of water or failure to take ground water table into account. Further, insufficient consideration to drainage in most parts of the nation has led to water logging and pollution. On an average the produce of irrigated agriculture in the country have been comparatively low as compared to the other countries. Canal irrigation is marked by a number of inequities [19]. One of such is the impact of farmers on the decisions of the state government. Many states in the country have large population of farmers which has the tendency to influence the ruling party in framing, formulating, planning on water or irrigation related issues as well as regarding planning, designing and location of major irrigation projects.

Water pollution is another major concern of water management. There exist a number of pollution control and prevention laws and institutions, but they have not been able to prevent the growing menace of pollution and contamination of water resources and systems. The growing pollution and contamination of water makes much of existing water resources unusable. Mining is one such activity whose impact includes the pollution of water. Existing mining law contained

in 'the Mines and Minerals (Development and Regulation) Act, 1957' makes no specific space for integrating the impact of mining on water in the regulatory framework. The much more recent 'National Mineral Policy (for Non-Fuel and Non-Coal Minerals), 2008', takes one step forward with a general recognition that mining impacts water. However this does not amount to an integration of water law principles in mining law.

Sanitation has been given prominence in law and policy framework. A landmark document in this regard is 'the Delhi Declaration' which was adopted at 'the South Asian Conference on Sanitation, 2008'. The wider interpretation of Article 21 of the constitution of India by the Indian judiciary includes the right to sanitation as an essential component of right to life.

There exists a sufficient nexus between water and electricity. Directly, Electricity is linked to water in at least two different ways. Firstly, electricity generated by dams comprises a significant, though declining share of electricity generation since Independence. The second key connection between electricity and water is directly linked to falling water tables and the increasing demands for energy to pump ground water. Till date, 'Electricity law' does not recognize the links between access to electricity, the price of electricity and, access to ground water. Further, it does not recognize any link between electricity and the realization of fundamental right to water. It can be said that there exists insufficiency or inadequacy of addressing of water related issues in the electricity law in the country [20].

Ground water has now become the primary source of water. The extensive, and sometimes indiscriminate, extraction of ground water has resulted in significant depletion and contamination of this source. This alarming situation has triggered different law and policy responses. At the national level two important initiatives are: constitution of 'Central Ground Water Authority' and formation of 'Model Bill' to Regulate and Control the Development and Management of Ground Water. A few states like Andhra Pradesh, Bihar, Goa, Kerala, Himachal Pradesh, Puducherry Tamil Nadu and West Bengal have come up with a separate ground water law focusing on drinking water. The development of separate ground water laws is not a general trend followed by all states. There are still a significant number of states without a separate ground water law.

The state while planning the water resource management considers inter alia topographical conditions, hydrological status of surface and underground water, water distribution priorities and other specific requirements. The state is under obligation to maintain both quantity and quality of the water. It is essential that the use of technology and management practices need to be worked out in reasonable and justifiable distribution of water. It is also mandatory for the state to come up with a water tariff system and fix certain criteria for water

charges to ensure appropriate administration, operation and maintenance of water transportation systems for the use and consumption of water.

The Apex Court as well as various High courts has on several occasions interpreted fundamental right to life to include basic right to water [21]. There are several decisions where the existence of fundamental right to water has been confirmed [22]. The courts have also shown serious concern on the prevention of water pollution in water bodies. On many occasions it has made the cleaning up of water sources such as rivers, the coastline as well wells and tanks mandatory apart from expanding the content of right to life as including right to water [23]. The courts have also shown substantial concern over pollution of ground water by unregulated discharge of wastes and in many judgments the polluters are made liable for cleaning up and restitution of the soil and ground water [24]. Yet, there have been certain decisions that raised controversies concerning the right to water. This includes Supreme Court's 'Sardar Sarovar Project' judgment [25] in which the court justified the construction of dam on the basis that it would meet the water needs of people residing in command area. The adverse impacts of the judgment on realization of the right to water of the persons evacuated were not stated. This decision reveals that the right to water is full of complications and there is need to redefine the existing right to water.

5. Discussions

The Government of Tamilnadu having the department of Municipal Admiration and Water Supply (MAWS) is having the Tamilnadu Water Supply And Drainage Board (TWAD). The Government Order (GO) issued on 17.04.2018 by the MA&WS2 No. 39 stated that the cost of drinking water tariff is rise for 5% for every year [26]. The annual Increase in the cost of water for Rural and Urban local bodies is shown in Fig.

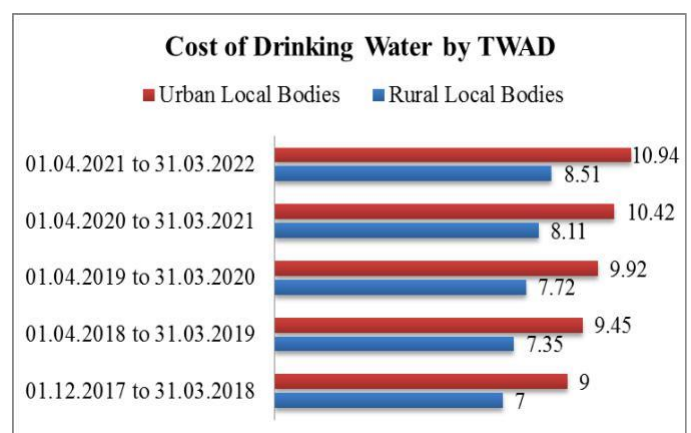


Fig. Percentage of tariff increment to the domestic consumers in Tamilnadu year wise

This clearly shows the cost of water increased by 5% in every

year per liter of water. Let's consider an example, if a water consumed by a 4 people family is 250 liters and they are paying 100 rupees for that. As per the statistics the water price increased by 5% in every year means after 10 years the price of water is exactly 50% hike. In our country like India, the rise of income is not more than 7% of previous year salary [27]. There are many families are dependent on single salary, so four family water tariff hikes around 20%. There is a large gap between the income and expenditure of water.

The government of Tamilnadu taken the many initiative steps towards the water pricing and its policies. Tamilnadu water policy 2012 is reviewed in the "India Partnership of water in South Asia 2015" by the Governing body framed by the Government of Tamilnadu. The committee exposed many views on the water and its current scenario in the state of Tamilnadu. In this work, highlighted the some of the recommendations given by the committee on drinking water are presented. The primary objective of the policy is "Drinking Water to All". To achieve the objective some of key initiatives are proposed and are

✓ The main objective is to give equal usage authority on water for each citizen.

✓ The water industry companies which are aimed for the profit are to be removed from the subsidization of water.

✓ Need to make a strict monitoring and make restrictions on the bottled water industries on their usage of water.

✓ Water has to made available with a lease possible distance

✓ Rights of water should be equal for all humans on the earth which should not distinct by their cast and localities.

✓ Need to monitor the usage of water for cities 139lpcd, 90 lpcd for towns and 55lpcd for rural people

✓ Trade on water has to stop and it never been in the hands of private authorities.

The ground level implementation of above mentioned are taken care by the water regulation authorities and its related bodies.

6. Conclusion

Water is having the at most priority of human survival. In the recent days, the cost of water is becoming the one of the commodities for the below poverty line people as well as middle class also. In the present work made the economic aspects of water and its cost parameters. The cost of the water varies with respect to the location, availability, and its quality standards. The different governing bodies related to the water are working in an effective way to make the drinking water to all. The tariff of 5% increment/year on water is currently applied on the domestic water supply bodies in Tamilnadu. This study clearly shows the there is gap between demand and supply of drinking water and also highlights the necessary

steps taken care by the governments to make the drinking water to all objective

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