



Water Resource Mismanagement in Tamil Nadu & Its Impacts on Farmers

KEYWORDS

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ABSTRACT *Water is a nature's gift to all the living things and non-living things in the universe. "World cannot exist without water". This is what was said by our famous Tamil Poet Deivapulavar Thiruvalluvar. Nobody can imagine a world without water. Now in India there is a greater demand for water due to the ground water level decreases and improper water management system pave the way to water scarcity. It is our duty to utilize properly the natural wealth (or) resources which is exhaustible in nature.¹*

INTRODUCTION

Water is a prime natural resource and a basic necessity for sustaining life on earth. Supplying adequate amount of potable water to the global population is a gigantic task in the wake of growing industrial and domestic needs. The threat of climate change and global warming which has aggravated the problem of water shortage is of particular concern to India as we are largely dependent on glaciers and rainfall for water supply. The problem is acute in India because of its high population density and time variability of rainfall and increasing depletion and contamination of its surface and groundwater resources.²

The huge water resources in India are contaminated by sewage and agricultural run-off / overflow. Besides over use of pesticides and chemicals in agriculture is the primary causes of groundwater pollution in India. The second factor is the industries are contaminating ground water by disposing the waste water in to the river beds and to agriculture lands which spoil the water and also causes for land pollution.

WATER MISMANAGEMENT

A water crisis is a situation when the supply of water is less than the demand. This term basically refers to the world's water resources relative to human demand. The earth has a finite supply of fresh water. According to the UNICEF report on water, there will be constant competition over water between urban dwellers, farmers and industrialists. The World Bank report shows alarming results.

The foremost factor is the climatic changes in global which affect the rainfalls. In India the average rainfall is 4000 billion cubic meter but it is not spread evenly in all States it varies the highest rainfall is at sirapunji where the average rainfall is 11500 millimeter but the improper water management system in India leads 50% of water from Ganga and Bhramaputra dissolves into Arabic sea.

In India water crisis is a man made problem. More than two billion people worldwide live in regions facing water scarcity and in this a particularly acute crisis. Millions of Indians currently lack access to clean drinking water and the situation is only getting worse. India's demand for water is growing at an alarming rate due to the current population density which is world's second largest population.

There has been a distinct lack of attention to water conservation, efficiency of water recycling. Since independence India's primary goals have been economic growth and food security, completely disregarding water conservation which is a rami-

fication today. There are approximately 20 million individual (house owners, farmer or industries) wells in India that are contributing to groundwater depletion.

CONTAMINATION OF WATER

India is the sixth of the world's population faces a rapidly growing water crisis both in urban and rural areas on account of water mismanagement. These states wasteful practices in the use of the water particularly in irrigation, water salinity and inadequate access of safe drinking water and sanitation every river in India are polluted up to some extent the quality or purity of safe drinking water and for agriculture purpose is contaminated by toxic metals, fluoride and nitrates. The polluted water then seeps into the groundwater and contaminated agricultural products when used for irrigation.

Over 21% of transmissible diseases in India are related to unsafe water. Millions of the poorest are affected by preventable diseases caused by inadequate water supply and improper sanitation facilities.

As per Untied Nations Reports:

- 200Crores of people are suffering due to insufficient water.
- 88Crores and 40Lakhs of people are getting safe or pure drinking water.
- Every year 21Lakhs of children are die due to improper sanitation and unsafe drinking water.⁵

WATER MISMANAGEMENT IN TAMIL NADU

The Tamil Nadu Government statistics stated that in Tamil Nadu there are 570000 public rivers, ponds, lakes and wells are situated in various districts but the 60% of water resources are get hold of by private people which is 342000 are destroyed and the balance of 228000 rivers, lakes, ponds and wells are utilized properly today by public and farmers in Tamil Nadu. The lack of awareness and selfishness of the public is one of the reasons for the water resource mismanagement in Tamil Nadu.

IMPACT ON FARMERS

In Tamil Nadu 60% populations are engaging in the field of agriculture and agriculture allied industries where water is the life blood for agriculture. In Tamil Nadu 1800000 well water and bore well water are located for irrigation and agriculture purpose and 44% of irrigation are based on well water and bore well water. At present situation 300000 of well water and bore well water sources are destroyed which is exactly 16.66% because of improper storage of rainwater and over extraction of soil from river beds.

In Tamil Nadu before 20th century the ground water level is at 20 feet the farmers are using the traditional method for agriculture farming purpose and later they use diesel engine to extract water from wells and bore well to supply water for their cultivate lands. In 1963 they used electric motor for supply water for their agricultural lands which leads ground water level reach up to 60 feet down and farmers used high horse power motors to get water for agriculture purpose when the ground water level goes lower and lower.

After use of electric motor for irrigation and for domestic purpose by farmers and other people in Tamil Nadu the ground water level reaches at more than 300 feet as per TWAD report in 2004 and makes the fertile lands in to uncultivated lands and causes water scarcity.

The over extraction of ground water also leads to be a huge problem to people who are living near coastal zones the ground water level at coastal areas are soon going to convert into salt water which is not useful for drinking and for agriculture purpose. There are list of district which are hugely under water scarcity as per the Government of Tamil Nadu Report. They are Cuddalore, Nagapattinam, Tanjore, Tiruvarur, Chennai, Vellore, Salem, Namakkal, Tiruvannamalai, Trichy and Dindugal.⁸

SOLUTIONS FOR WATER CRISIS AND MISMANAGEMENT

An immediate solution for this water crisis in India by making awareness among public to utilize the natural wealth (water) properly by preventing over utilization and contamination of water and make the public to aware about rainwater harvesting which helps to increase the level of ground water.

Indian Government insisting the states to make aware between public to start rainwater harvesting in order to more efficiently tap in to the huge quantity of monsoon rain.

The most talk able project in Government of India is the \$112 billion interlinking of rivers. It was approved by our president in 2002 and is due to be complete in 2016. This project will link all 37 rivers by thousands of miles of canals and dozens of large dams which is a gift for all the agriculturist and citizens.

The State Governments are now concentrating on lakes and ponds by digging and making it depth deeper to conserve the rain water for that the Central Government sponsors under the scheme of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREG).

As per National Water Policy 2012 the Government of India insist for privatization of water where the special commission for water will be setup in every states which leads to create permanent river water commission under the control or supervision of Central Government of India. It will be soon implement in Government Gazette enforce by law.⁶

Government have to take necessary action against the soil theft person from river beds which is one of the potential way to increase the ground water level and the license should be cancelled to the industries which creates hazards to land, water and air.⁷

It is the responsibilities and duty to both of the Government to create awareness between public to preserve rain water and how to utilize the water resource by conducting awareness programs and enforce strict law for the rain water harvesting and eradicate the holding / acquire of free land near by river, lake and pond beds.

Avoid deforestation and plant more trees, the trees are good supporter for environment and potential to reduce the global climatic changes and to give average rainfalls in the seasons. It is our duty to plant at least one tree in our life time to protect our future generation.

CONCLUSION

Water scarcity in India is predominantly a manmade problem therefore if people are join their hands with Government of India to make water management system effectively then the crisis can be addressed with in few years and it may pave way to get sufficient water resources for pure drinking water facilities and for irrigation purpose for the future generation.

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