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A STUDY OF ANCIENT WATER CULTURE IN INDIA

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Abstract:

The lack of awareness about nature and natural resources in human beings remains until there is a crisis. Over the last several decades people has been suffer polluted water and scarcity of water. The water rich area of the India where water is easily available and free of cost. On the contrary water is being marketed very cleverly in the drought prone area. Private ownership is being established on it so there is a need to think on it. Water is origin of life. These water made the planet more special than other planets. The water gave birth to the ancient water culture and engulfed the ancient water culture after a couple of years. It is very important to study the ancient water culture and how it was planned in terms of water management, it is distribution and famine.

Keywords- Importance of water, Water culture, Water management, Agriculture.

Introduction:

Annaddhavanti Bhutani Parjanya danna sabhav
|| (1)

The gist of the third chapter of the Bhagavad Gita is that all animals are made up of food. Food is produced by rain, that is, by water. Nothing can survive without water. The importance of water as the birthplace and protector of all living things on earth is unique.

Since primitive man to the present day, all living things have been waiting for rain. Water is available in the whole world but there is asymmetry in its availability. Due to this asymmetrical feature of water it is used carelessly at the places where it is easily available. Water is used ungenerously or beggarly at the places where there is a severe water shortage. Due to this dissimilarity in the vital source of nature conflicts take place in two villages, two states or in two countries.

The scarcity of water has become a burning issue in the globe. People are fighting among themselves on the issue of differential use of water. Despite the politics being played by some politicians for their political purposes, water has united some people at regions because people have understood the importance of water and the dirty politics of politicians on its use.

Now-a-days water has been used as a political weapon. Former US President *John F. Kennedy* has said that the person who solves global water problems should be awarded a double Nobel Prize. One is about solving the problem properly and the other is about avoiding war. The reaction of John F. Kennedy shows the current withering state of water. There 30% of the world's population, or about 210 million people, do not have access to clean

water. The 26.6 core people have to walk 30 minutes in order to bring 10 to 15 liter water and have to make several rounds every day. The well known Economist, *Nicholas Stern* warned that in 2050, 20 million people will have to leave their villages, states or countries for water. The situation of water will be more disastrous than predicted by some water experts. *Karolina, Sulivhan* and *Jermi Meg* proposed the concept of Water Poverty Index based on the Human Development Index.(2)

The water poverty index measures the availability of water in a country. It has formulated five criteria to measure the water poverty index. The first criterion is to see how much water is there in a country. The second is to see whether the people in a country get water or not. The third criterion is based on the capability of people to buy water. The fourth criterion is to analyze how the people of a country use water. Lastly, the water poverty index observes the environmental condition of a country. Unfortunately, we still do not understand that water is limited and not free.

1. Need to study the ancient water culture:

To the best of knowledge, after the literature survey understand the importance of the water. To study the availability of water, water allocation, water management and famine measures in ancient times and how people of ancient times solved the problems of water. Can any lessons be learned from ancient water culture in modern times? To study the techniques developed by the Indian society over the last several centuries in the field of water conservation. To know how they survived and thrived for centuries ago on the strength of the techniques originated in the ancient times.

To understand why and how a country like India in which the people in ancient times developed various techniques of using water effectively has become a water scarcity country? To overcome today's problem of water scarcity, the study of water culture in ancient times will be useful.

Objectives:

1. To Study Water Storage Management in Ancient Period.
2. To study the system of water storage protection in India.

Methodology:

Secondary data has been used mostly for this research paper. The Secondary data is collected from different sources such as books, articles, various magazines, newspapers and government websites for this study.

1. Period 600 BC to 400 BC

According to *Nand, Morya, Shung, Satvahana, Kshatrap, PallavaChaul*, etc. were the major dynasties in India. Among these dynasties *Morya, Shung, Satvahana Kshatrap* and *Chaul* contributed a lot in the field of water management. The concept of welfare state was implemented during this period. During this period, *Krishi Parashar, Arya Chanyak, Manu* etc. became great commentators on water science.(3)

The ancient history of the India is believed to have started from the *Morya* period when a lake named *Sudarshan* was built at *Girnar* (Gujarat) during the reign of Emperor *Chandragupta Morya*. This lake was built by *Pushyagupta*, the Governor of *Chandragupta Morya* in the 4th century BC, on which many

canals were built. This lake has been in operation for 350 years. In the second century, during the *Rudradaman* period, the *Girnar* area was hit by a severe storm and the rivers the *Suvarnasikata* and the *Palashini* were flooded. *Skandha gupta* decided to repair it as it was heavily irrigated, a large part of a population and livestock depended on the lake of *Sudarshan*. The lake was built in the period of *Morya* and it was operating till the *Gupta* period at its full potential until the 5th century. This is the only example of a welfare state in the world. The oral tradition shows that the lake had been in use for 1000 years. *Krishi Parashar* was a senior scholar in the field of water and agriculture. He was a well known scholar of this period in environmental science.

Kautilya's Arthashastra was a world-famous treatise in the 4th century BC. His experience and knowledge of all subjects could not be compared to any other scholar in the India. Though his areas of study were Economics and Politics, he expressed his views on the importance of water conservation and water management. According to *Kautilya* for the financial development the focus should be given on water conservation and its management. He had also given his views on the role of the king, the state and the society in water conservation.

Period 230 BC to 230 periods:

The *Satavahana dynasty* of Paithan ruled over the whole of South India. The welfare state was the meeting and target of its administration. The *Satvahana* period inscriptions have a special record of mechanical engineering, which indicates the existence of a machine-assisted reservoir-constructing

category. The machine assisted technique helped in digging the wells, in constructing the lakes and in proper allocation of water through the machines on these water sources. Overall, Maharashtra was thriving in agriculture and agro-based industries during the 450 years of *Satvahana*. His era is considered to be the golden age of Maharashtra and South India. Prosperity through irrigation was the foundation of their development. This formula is still worth considering today.

Period 230 AD to 455 AD:

The *Wakataka dynasty* came to the fore in South India as the political successor of the *Satavahanas*. The *Wakataka* family was divided into four branches. All four branches of the *Wakataka* family made great strides in the field of water conservation. *Devsen* of *Vatsagutma* branch had built a lake called *Sudarshan* at *Hisse Voral* near Washim around 455 AD. Apart from this lake other three lakes were built in the region. The fact that the lakes are working today also. It shows that a large number of lakes have been built during this period. The lakes built in the 5th century have been quenching the thirst of people for 16 centuries.

Period after 550:

The *Wakataka Empire* was dismantled at the end of 550 AD. After the demolition of the *Wakataka dynasty*, large and small kingdoms were formed. The *Chalukyas* of the *Badam dynasty* took the advantage of this opportunity to dominate Maharashtra. Meanwhile, the *Rashtrakutas* ruled over some lands for a while. *Rashtrakutas* changed their capitals in the hilly areas so they developed the techniques of

storing the water on the mountains. Later on this stored water was used to supply for the people in the capitals. Hundreds of water conservation works were carried out continuously in different parts of India during the early medieval period. The *Chalukyas* of *Kalyani* also contributed a lot in building the lakes and conserving the water. During the reign of *Chalukya Nripati Vikramaditya VI*, his commander *Bhimanath* built a lake called *Bhimsagar* at Ganeshwadi near Latur. This reservoir is still in use today.

Varahmihira was a great astrologer in *Avantinagar*. He lived between 505 and 587 in Andhra Pradesh. His research and techniques were used in 1981 in Andhra Pradesh to find out the underground water. 150 bore wells were excavated by Tirupati Vyankateshwar University in collaboration with ISRO and UGC. None of the excavated well was a failure and every excavated well has enough water, this indicates the depth of *Varahmihira's* study about water reservoirs and underground water.

Ancient Inscriptions & Public participation:

The public participation in building the lakes and storing the water for the use in a drought evidenced by ancient inscriptions. The construction of reservoirs is the responsibility of all sections of the society. For involvement of the public in building the water sources, the people in the 10th century made rules and disciplines applicable to all. During the reign of *Rajasekhara Vartan* in the 10th century, a common man bought land with his own money and gave it to the Gram Sabha to build a reservoir. Arrangements were made for the maintenance and removal of silt of the lake from the proceeds of that land. For that maintenance 6 laborers, a carpenter, a blacksmith and a spider were employed.

In the 9th century's inscription the incident of a landlord had been unscripted. The landlord who showed inability to pay the tax, then the Gram Sabha paid the tax to the king and his land was confiscated for some time and they declared the landlord as an enemy of the society. People in the society were supported and motivated in building the water reservoirs. If someone had a desire to build the reservoir then society used to collect money for assisting the person in building the reservoir. At that time they were given many tax concessions and special rights in respect of reservoirs. The then government, society and individuals were very much aware about the irrigation in their area.

Conclusion:

We do not find the existence of the glorious tradition of the ancient water storage system and its management in allocating the available water to all. It may have been neglected but it is unaffordable to forget it. In the situation of an uncertainty of rain; the crisis of environment change; growing population; increased need of the water and the fear of drought, we cannot afford to forget the path shown by the people in ancient times. Our forefather had designed a proper system of getting the water, storing the water in reservoirs and using the water in effective ways. The permanent system of all these things was designed and implemented by our forefathers very strictly in the ancient period. It was so strong that even after the change of political power, the system remained the same. In today's world people in our nation broke down or neglected the ancient water culture of our nation and they are unwilling to accept the rules, regulations and newly formed systems of

the government. All these things dragged the entire nation into the situation of a scarcity of water. To overcome this crisis of scarcity of water we have to follow the ancient water culture of India.

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