GENERAL INTRODUCTION

Introduction

“The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have little”.

Franklin Delano Roosevelt.

Water is the most precious gift of nature and vital for human survival. The increasing number of human population is posing a serious threat to its existence and availability of future generations. The human body consists of almost 80 percent water. Man is actually 66 percent water by weight, distributed as 26.5 litres inside the cells, 12 liters between the cells and 3.5 liters in blood. We cannot survive long without water because it continuously escapes from the body and therefore need to be replaced. Our daily water loss, averages 1500cc as urine, 500cc in perspiration, 400cc in exhalation and 100cc in excretion, totaling 2500cc. Since a reduction in the body’s water over 10 percent is fatal, roughly 2500cc must be taken in to the body daily. The average man only drinks about 1300cc. The remaining water he obtains from food, providing 850cc daily. The remaining 350cc is produced as a by product of metabolism when the food is burnt to produce energy.¹

The entire biosphere is dependent upon water. In this context the ever depleting water resources and their protection as well as consumption and supply of clean and potable water to the humans and other creatures is the biggest challenge of the 21st century.²
Water has been traditionally treated as a natural right, a right arising out of human nature – historic conditions, basic needs and notions of justice. Water in its symbolic sense can be divided into three phases – sources of life, medium of purification and centre of regeneration. The two themes – medium of purification and centre of regeneration is connected to spirituality, the eternal life.

The use of water by man, plants and animals is universal, without which there can be no life. For survival, every one requires water which is the most important single substance with the exception of the air he breathes. There is an urgent need of water that is clean and pure for several human uses, water for drinking, water for cooking, water for bathing, which is also required for manufacturing and food production and all other factors which are required for sustenance.

The importance of water can be traced from the fact that most important civilization flourished on the banks of rivers and sea coasts. It was the realization of the dawn of civilized life that water is essential for the satisfaction of the human needs. Great civilizations arose in the valleys of great rivers; in the Nile Valley of Egypt, Eupharis valley of Mesopotamia, in the Indus Valley of India, in the Huang He Valley of China. These civilizations made use of water for their irrigation purposes and to meet their basic needs. It can be understood from the history that the civilization crumbled when water supplies failed or poorly managed. The importance of the water can be further traced to the fact that the Greek Philosopher, Empedocles of Argegentum (490-430BC) considered it to be one of the five primary elements or roots from which all the materials of the world are constructed.
It is hard to believe that the earth on which water seems to be the dominant element should ever face its shortage. But the reality is that 97.3 percent of its reserve on earth is saline water. Only 2.7 percent is fresh water. As a result only less than 1% of the water in earth is accessible for direct human use.\(^5\)

Water is the basic need of the human being. It is the right of every person to have access to safe drinking water. The right to safe drinking water is a part of right to life and therefore surely a natural right. Yet, thousands of people across the world lack the source of safe drinking water.\(^6\)

Water is a common resource which is essential to sustain life and because of its importance, everyone have an equal right to this precious resource and a responsibility to protect it. Recognizing the importance of this precious right and the large scale denial to the public, the United Nations adopted the right to safe drinking water as a basic human right\(^6a\).

Now water problems are the most pressing issues. We are faced with the critical question of how to provide a stable supply of water for drinking and food production for a projected population of over 8 billion by 2025.\(^7\)

**Water rights – Some religious and philosophical beliefs.**

‘*By the law of nature three things are common to man kind – the air, running water, the sea and consequently the shores of the sea*’.

Institutes of Justinean 2.1.1\(^8\)
Water is accepted as the cause of the earth in the Chhandogya Upanishad\textsuperscript{9} stating that water is ‘madhu’ or sap of earth, which is quite in accord with the chemical evolution discussing that hydrogen being the main component of water, is the most active agent in life. The above Upanishad has summarized the chemical evolution of life. “Apah” is the Sanskrit equivalent of water and the Chhandogya Upanishad has dealt with the entire evolutionary process from the stage of water to a stage of organism, traveling in all the intervening five staged responsible for converting the chemical evolution into the phenomenon of biological procreation.\textsuperscript{10}

The Vedas have recognized water to have descended from the apex celestral region to the terrestrial plain in four successive orders. There successive orders correspond to the four descending regions of the cosmos and denote respectively the corresponding modes of the liable hydraulic substance, and in that view of the matter, where one region of the cosmos lie pervaded by one form of hydraulic substance, the cosmos is entirely in replete with a substance, becoming gradually complex and compound from the basal element transforming itself to compose the respective form of water by combining the basal hydraulic element with some other component of the cosmos.\textsuperscript{11}

This further illustrates that the water in its \textit{amba}\textsuperscript{12} is the purest, first grade water, free from any pollution whatsoever and descends down to the biosphere through rain in the distilled water, the water of the third grade comparatively susceptible to pollution.

Looking to the impossibility of the terrestrial creatures to get at the first grade water, the same has not been taken into account while describing the firms of water as in
the Athrava Veda which enumerates only three forms of water, the divya or divine, the aap or the atmosphere and the paya or the potable.\textsuperscript{13}

The terrestrial water is further dichotomized in the Rig Veda\textsuperscript{14} into three namely the one which flows along the streams, the other which emerges when dug out and the third which arises automatically in the springs.

In Islam the ‘sharia’ or the ‘way’ originally connotes the path of water.\textsuperscript{15} It provides that the ultimate basis for the rights of ‘thirst’ that apply both to human and animals and extend throughout the main Islamic system of Jurisprudence. Water is the gift of Allah and a broad set of social duties with in Islam forbid refusal of water for animal or human needs particularly the surplus water.\textsuperscript{16} This applies whether the source is ground water or surface water. Similarly, Mohammed’s saying that people are partners in three things fire, water and grass emphasizes that the common nature of water rights and has been interpreted by some Islamic scholars for forbidding water sale whether for drinking and other uses.\textsuperscript{17}

It is interesting to note that no ‘Dharmasastra’ or ‘Vyavahara’ text mentions property rights of any one including the king in rivers or streams.\textsuperscript{18} In sum, throughout history in most societies water has been a common property or open access resources. Riparian rights have allowed holders to use water flowing past their land. Land ownership has carried with it the right to construct wells and extract water but no right to limit the extraction by others.

**Importance of Water**

Water is admittedly the source of life in earth and it could be the destroyer as well. Many of us, who are accustomed to receiving fresh water by simply opening a tap,
perhaps do not realize how precious this natural resource is. A document prepared by the United Nations World Water Conference held in Argentina in March 1977, revealed that if all the world’s water were represented by a half gallon bottle, the quantity of fresh water will be half a tea spoon.¹⁹

Water and particularly fresh water is a matter that must concern every man, woman and child in this planet. Water is an essential ingredient in this environment. Through the hydrological cycle, that powers the movement of materials and energy about the earth, water is essentially a necessary ingredient for the survival of every living organisms. While all environmental concerns are of importance, there is a growing realization that water is the most important element in environment and development issues. In a real sense, water is life. Life on earth started on water and there can be no life without water. Water transports nutrients and chemicals within the biosphere slowing life in all its forms to continue. Plants and animals have a fundamental dependence on water. Water moulds the surface of the earth, eroding materials from some localities, transporting it and deposits it in others. Water is the key of the global energy budget, helping to redistribute heat from one part of the earth to another. It is the main greenhouse gas with a role that is relatively unknown in controlling the energy balance.

Water is also a key component of socio economic systems. It is the basis for agriculture, essential for many industries and for energy production. Its importance for human health and welfare is critical and therefore the supply of water for drinking and sanitation is the major concern.

The total available water for use in India is estimated at 1900 billion cubic meters per year.²⁰ About 80% of this is from the surface run off in rivers, lakes and ponds,
including groundwater resources. According to the scientists of National Environmental Engineering Research Institute (NEERI) a staggering 70% of the available drinking water is polluted. It is also estimated that 73 million people losses their work days every year due to water related diseases such as typhoid, jaundice, cholera, diarrhea and dysentery. The cost in treating them and the lose in the production amount to Rs.600 crores a year.\textsuperscript{21}

Water is so much a part of our daily life and existence, that we are inclined to take it for granted, believing that it will be available in abundance. Our supplies of water are limited.\textsuperscript{22} According to the Central Board for the Prevention and Control of Water Pollution the fresh water that is so essential to our lives is only a small portion of earth’s total water supply, it is only about 2% of the total. Humanity is left with only one teaspoon full of sweet water for every five litres of total water.\textsuperscript{23} This presents a dismal picture of the state of our drinking water. In a world population of 6 billion as many as 1.7 billion lack access to safe drinking water.\textsuperscript{24}

**Right to Safe Drinking Water**

Drinking water is man’s most urgent requirement, for, although he may survive several weeks without food, he dies within a few days when deprived of drinking water. The sources of water today are much the same as they were thousand years ago, but we now exploit them more extensively.

Drinking water has become a serious problem in many parts of the country and the position will go on deteriorating with ever increasing growth of human population. In Large part of the desert and drought prone areas cattle go on dying in thousands every year and people have to migrate leaving their homestead behind in
search of water. Women and girls are affected by the shortage of drinking water. They have to travel a long distance ranging from 100m-6km a day in search of water.\textsuperscript{25}

The Union Finance Minister’s budget speech on February 2005 emphasized that to improve the efficiency and monitoring of drinking water schemes, all schemes have to be amalgamated with the ‘Rajiv Gandhi Drinking Water Mission’. According to the available data, Rs.45, 000 crore is estimated to have been spent in last 30 years on providing clean and safe drinking water to the rural population. More than 3.70 million hand pumps and 1.7 lakh piped water schemes have been installed in the rural areas.\textsuperscript{26}

According to the 2011 Census report of India (except J&K), conducted among 330 million households of which 24% were in rural areas and 54% in urban areas. Only 43.5% of the households in the country use tap water while 87% still depend on tube wells, hand pumps and covered wells as the main source of drinking water. Between 2000 and 2011 the gap in percentage of rural and urban households having tap water connection went down from 44.4% to 39.8%. In 2001, 68.7% urban homes had the connection of water supply, only 24.3% of rural ones did the same. In 2011, the respective percentages were 70.6 and 30.6. The Census Report 2011 reveals that 47% household have the source of water within the premises while 36% households still have to fetch water from a source located with in 500m in rural areas and 100m in urban areas. According to the Census report 2011 taps (43%) and hand pumps (34%) are the two means of sources of drinking water, followed by wells and borewells. While taps were the most common source of Urban India (71%), hand pumps remain the most common source of water for Rural India (44%).\textsuperscript{27}
Among major states, the situation is worse in Kerala where less than one fifth of the households have access to safe drinking water. Much of the Kerala’s water requirement is met through the wells and taps which are provided by the Kerala Water Authority, a governmental body who are engaged with the duty of providing drinking water to the people.

In terms of population segments, the access to safe drinking water varies between the Scheduled Castes and Scheduled Tribes households. While the access to safe drinking water to scheduled caste households in almost same as that of the other households in both the urban and rural areas as the national level access of safe drinking water to the Scheduled Tribes is considerably lower.28

Technology mission for safe drinking water is an open acknowledgement of the serious problem faced by the drinking water shortage but it does not have much encouragement by the progress achieved so far. On one hand, there is a question of augmenting the resources of the critical areas and making proper arrangements for the withdrawal and supply. Equal importance is the aspects regarding safety and health hazard. Methods of purifying have been vogue in the country from the early days. Simple devices have been developed for these purposes which are not fulfilling the need for purifying the water.

So in the wake of all this issues, it became necessary to have a critical study about the availability of the safe drinking water and the policy implementations.
Issues:

1. How far the availability of safe drinking water is provided as a basic human right under various Conventions and Declarations?

2. How far the availability of safe drinking water is provided as a Fundamental Right under the Constitution of India?

3. The Role of Ground Water in providing Safe drinking water.

4. How far the policies and programmes implemented by the Central and the Kerala State Government help in providing the safe drinking water?

5. How far the Rain water harvesting helps in providing the safe drinking water?

6. How far Privatization helps in providing safe drinking water and its impact?

7. How far the water pollution affects the availability of safe drinking water and what are the criteria to be followed in maintaining the water quality?

Objectives:

The main objective of the study is to find a solution to the questions posed in the issues and to analyze how far the legal measures would help in gaining safe drinking water.

Methodology

The method adopted for the study is analytical and descriptive with the help of articles journals, books, journals, periodicals, reports, statutes and by analyzing the judicial decisions. The study is carried out under various heads and the division of the chapter is as follows.

1. Introduction

2. Right to Safe Drinking Water as a Basic Human Right
In this chapter, safe drinking water as a basic human right as recognized in various Conventions, National and International is examined. These Conventions have given a broader idea of water rights and its relation with the human rights.

3. **Right to Safe Drinking Water under the Constitution of India**

   In this chapter, right to safe drinking water as a part of fundamental right under Art.21 is elaborately discussed. This chapter also focuses on the South African Constitution dealing with safe drinking water, Directive Principles of State Policy, and the 73rd and 74th amendments of the Constitution. Various cases have been elaborately discussed under this chapter.

4. **Right to Safe Drinking Water – Policies and Programmes implemented by the Central Government.**

   The chapter focuses on the laws and policies implemented by the Central Government with regard to safe drinking water. The chapter gave importance to the National Water policy, 1987 and 2002 and the Draft National Water Policy, 2012.

5. **Legislative Measures implemented by the Kerala State Government in providing Safe Drinking Water.**

   The chapter concentrates on the legislative measures implemented by the Kerala Government in providing safe drinking water. The chapter concentrates on the various policies and programmes implemented by the Kerala Government in supplying drinking water to the urban and rural areas.

6. **The role of ground water in providing safe drinking water with special reference to the State of Kerala.**
The chapter deals with the rules and regulations dealing with ground water and the ill hazard that may arise due to the over exploitation of the ground water. The chapter also focuses on the Kerala Ground water (Control and Regulation) Act, 2002 and its advantages and disadvantages.

7. **Rain Water Harvesting – How far it help in providing safe drinking water**

The chapter mainly focuses on the importance of the rainwater harvesting and the methods to be applied for harvesting the rain water. The method followed from the ancient period is mentioned in this chapter. The chapter also focuses on the rain water harvesting followed in different parts of India and its importance in the present era.

8. **Privatization of Water – How far it affects the availability of safe drinking water**

The chapter mainly focuses on the role played by the water giants and the World Bank in the privatization of water in India. The chapter also focuses on the Water privatization in the State of Kerala giving special emphasis on the Plachimada Issue.

9. **Water pollution and Water Quality Maintenance**

The chapter explains the meaning of ‘water pollution’ and the legal approaches to the problem of water pollution. The chapter concentrates on the water quality maintenance and the control initiatives. Ground water pollution and the drawbacks in curtailing the water pollution are also mentioned in this chapter.

10. **Conclusion and Suggestions.**
References


6a. “Everyone has the right to clean and accessible water, adequate for the health and well being of the individual and family, and no one shall be deprived of such access or quality of water due to individual economic circumstances”.

7. ‘Special Feature’, *Asia Pacific Perspectives (Japan)*, Volume 1, No.2, June 2003, p.6.


12. In the Aithreya Upanishad, it is stated that ‘he then created three regions of the cosmos, namely the Ambah, which means that the hydraulic element present in the space around and above the sun.’


14. The Rig Veda 7/49/2.


16. Ibid at p.11


20. Ibid at p.20

21. Ibid at p.17


26. Supra no.2 at p.27.
