



# REVIEW OF RESEARCH

ISSN: 2249-894X

IMPACT FACTOR : 5.7631 (UIF)

UGC APPROVED JOURNAL NO. 48514

VOLUME - 8 | ISSUE - 9 | JUNE - 2019



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## WATER RESOURCES AND UTILITY IN DISTRICT CHURU

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### ABSTRACT:

*The drinking water has become major problem in all districts of the world, which are having immense population pressure. Incidentally, they are not equipped to face challenges of drinking water scarcity. Water has used for multiple purposes in human life. It is a critical input for the survival of human being, livestock, plants and mankind. Drinking water becomes an important and critical factor in public health and economic development in most parts of the world. Provision of safe and adequate water supply is the most significant function of the urban local bodies. The provision of safe and adequate water is universally recognized as a social right. Water, which is essential for life, growth and health, can also be a source of spread of diseases and cause of ill health, if contaminated or improperly handled and stored.*



*The UNICEF has warned that 44 millions people in the country suffer from the consequences of drinking contaminated water, thereby seriously affecting the health of future generation who are growing up with lots of debilitating diarrhea diseases. The diseases which are spread through the microbial contamination of water, are enteric bacteria and viruses. The main diseases are cholera, acute gastroenteritis, diarrhea, dysentery, typhoid, viral hepatitis A and E and poliomyelitis.*

**KEYWORDS:** Population, resources, Development, Increases, Principal, Global.

### INTRODUCTION

Water is a basic human need and limited natural resource and a precious national asset. In recent decades human demand and misuse of water resource have continued to grow. Therefore, water securing for human life, has become a matter of principal concern for sustainable development in the 21<sup>st</sup> century. Out of total 13,575 million cubic kilometers (km) of water on earth, only 3 per cent, i.e. 37.5 million cubic kilometers is fresh water. As

population increases and water use per person increases, so demand of fresh water has also been increasing. Hence fresh water is emerging as one of the most critical natural resource issue for humanity. India has 2.4 per cent area of the earth and has 2.45 per cent of world's fresh water resources with 16.93 per cent of global population to support with in its limited resources. Out of total fresh water, more than 50 per cent is consumed for industrial activity and only small portion is used for drinking purpose. The importance,

which a country attaches to the need an adequate and wholesome water supply, is an index of its civilization, growth and development.

Its per capita availability in India (as well as in the world as a whole) is becoming less and less for the simple reason that the population is increasing at a very fast rate whereas the total availability of water continues to remain constant. Moreover, the supply of fresh water available to humanity is shrinking, in effect, because many fresh water resources become increasingly

polluted. In India and many other countries, lakes and rivers have become receptacles for a vile assortment of water including untreated or partially treated municipal sewage, toxic industrial effluents and harmful chemicals.

Water is an abundant natural resource as three fourth of the surface of earth is covered with it. It is estimated that about 1360 million cubic kilometres. It is 0.25 per cent of the planet's mass and if spread evenly over its surface it would cover the planet to a height of 2.7 kilometres of the total water resources on the earth. But more than 97 per cent it is in the form of ocean and seas, 2 per cent is locked in ice caps and glaciers and a large proportion of remaining 1 per cent lies far too deep in the ground to exploit.

The drinking water has become major problem in all districts of the world, which are having immense population pressure. Incidentally, they are not equipped to face challenges of drinking water scarcity. Water has used for multiple purposes in human life. It is a critical input for the survival of human being, livestock, plants and mankind. Drinking water becomes an important and critical factor in public health and economic development in most parts of the world. Provision of safe and adequate water supply is the most significant function of the urban local bodies. The provision of safe and adequate water is universally recognized as a social right. Water, which is essential for life, growth and health, can also be a source of spread of diseases and cause of ill health, if contaminated or improperly handled and stored.

The UNICEF has warned that 44 millions people in the country suffer from the consequences of drinking contaminated water, thereby seriously affecting the health of future generation who are growing up with lots of debilitating diarrhoea diseases. The diseases which are spread through the microbial contamination of water, are enteric bacteria and viruses. The main diseases are cholera, acute gastro-enteritis, diarrhoea, dysentery, typhoid, viral hepatitis A and E and poliomyelitis.

Physical infrastructure and the clean environment are significant pre-requisite of the human settlements. Today almost one third of the total population in India does not have access to safe drinking water and nearly 250 million Indians depend on untreated and unsafe sources of drinking water. Every year nearly 10 millions people suffer from cholera, gastroenteritis, diarrhoea, malaria, guinea worm etc., the cause for which could be directly attributed to lack of physical infrastructure. The issue of drinking water. Every year nearly 10 millions people suffer from cholera, gastroenteritis, diarrhoea, malaria, infrastructure, The issue of drinking water has varied dimension. On the one hand, the proportion of drinking water supply in the country as well as increasing shift of population to the urban areas, while, on the other hand from the ill effects of lack of adequate facilities. Through contaminated water, diarrhoea, gastroenteritis, cholera, typhoid, jaundice and roundworm are few of the infections introduced or spread by insufficient and polluted water supply. Unsafe water brings high infant and child mortality and fertility of those who survive into adulthood, poor health loss of productivity and shortened life.

It is not sufficient that adequate water is available. It has to be safe for human consumption. Unsafe drinking water has been the causes of spread of several harmful diseases. No person shall willfully pollute water in or obtained from any well, tank and tube well. Water tank and other sources of supply water is likely to be used for domestic purpose or for the preparation of food or drink for human consumption. So as to be prejudicial for health while it is believed that the prime benefit of adequate and safe water supply is a reduction in water borne diseases, these are the several social benefit, which have been often lost sight of.

The various components which are present in major concentrations in potable water are calcium, magnesium, sodium, potassium, chloride, sulphate, carbonate, bicarbonates. Some proportion of aluminum, barium, boron, fluoride, bromide, iodide, nitrite, nitric phosphates, polyphosphates, iron, manganese and trace element which are dissolved in water make it unsafe and injurious for health. Drinking water supply is a basic amenity in municipal area. Some water supply is done from canal and other storage like pond, tube well, water tank after filtration and purification are not injurious to health but through other source of water supply in which raw materials mixed used without proper purification is injurious to health. A study of health hazards reveals that water borne diseases affect a

considerable percentage of total population of district . This constitutes give danger to Public Health. Some eminent medical practitioners confirm that patients of water borne disease like cholera, typhoid, dysentery, gastroenteritis, and fevers constitute a very significant proportion of critical case particularly in dry months.

There are 60 per cent of persons in developing countries live without adequate supply of drinking water because of water is remote as well as polluted, 10 million women and children spend eight or more hours daily for fetching polluted water. The cost in terms of human suffering is enormous. The country is also increasingly facing the problem of excess chemicals like fluoride, arsenic, nitrates, salinity and iron in ground water sources due to either geo-climatic factor or man made problems. Generally, most of the population suffers from microbial or chemical contaminants in drinking water.

As per global supply and sanitation assessment report prepared by UNICEF-WHO-WSSCC. Over 1 billion people across the world do not have access to adequate and safe drinking water facilities. It is also predicted that it would be about three fold within the next two decades. Most of these people live in Asia, Africa and Latin America. Nearly 3.4 million people in the world, most of them children, die every year from diseases associated with lack of safe drinking water, inadequate sanitation and poor hygiene. Water is fast becoming a scarce resource and in many regions of the world lack of fresh water has already reached a stage of crisis. World Health Organizations (WHO) estimates that almost one million Indian children die because of an unsafe drinking water. About 86 per cent of the total diseases in the country are directly or indirectly related to the poor quality of drinking water. Many children have retarded growth due to poor quality of water. Inequitable distribution of water also create some problems to some people enjoy free access to water while other do not have access to even safe drinking water. Much emphasis is being placed on reducing biological contamination, but contaminated from natural occurring chemicals in ground water and from industrial and agricultural waste is also the world, more particularly in developing countries.

### IMPORTANCE OF THE STUDY

The District Development depend on resources & utility of Water. The present study is an attempt to analyses the problem of water resources & utility in the district by two ways: (i) status of water resources in the district , (ii) water Utility its effect on human health. Foremore is related to every year underground water level is decreasing, so people are facing scarcity of drinking water while later include amount of supply of drinking water. The major problem is that people do not have adequate and safe drinking water in the district , Another thing is that during the summer season, district faces the scarcity of adequate drinking water,. Today drinking water is not safe, it is contaminated from large amount of harmful chemical, dissolve in water which make injurious to health. It causes many water born diseases especially in summer season like typhoid, dysentery, cholera, gastroenteritis, jaundice and diarrhea etc. Another problem is that drinking water demand increases day by day and it is supplied through tube well, hand pump etc. accordingly, Due to more drinking supply from above sources, water level of water is going down and down. Therefore it was notice that canal becomes an important source for drinking purpose. It has been noticed that there are many researchers who have done work on macro level. Very few attentions have been paid to the problems which are cropping up in small districts. The major problem in Churu District Boli Tehsil whatever this tehsil condition very poor. Prsent time in Tehsil many times water fillment by water tanker.

### STUDY AREA

Churu lies in the Jangladesh region of northern Rajasthan and shares boundaries with the Hanumangarh District to the north, the Haryana state to the east, the Jhunjhunun and Sikar districts to the southeast, the Nagaur District to the south, and the Bikaner District to the west. The district has an area of approximately 16,830 km<sup>2</sup>, with a road length of 1901 km. The 2011 population was approximately 2,041,171. The gender ratio is 938 females per 1,000 males; literacy among residents is 67.46%. There are 6 tehsils in the district: Churu, Ratangarh, Taranagar, Rajgarh, Sardarshahar and Sujangarh.

## OBJECTIVES

The present work has been undertaken with following main objectives:

- To Know the our water resources.
- To Know the Water resources Utility.
- To know the source of drinking water supply.
- To know the problem of drinking water supply.
- To evaluate demand and supply of drinking water in the district.
- To analyses the quality and it's related water borne diseases in study area.
- To know the geographical distribution of water born diseases.
- To chalk out a strategic plan to eradicate problem of supply and demand of drinking water supply.

## HYPOTHESES

To achieve alone objectives, some hypotheses develop as follows:

- Water resources is directly related to the development of the district.
- Drinking water supply is directly related to the density of population.
- Water borne diseases are directly related to quality of drinking water supply.
- Amount of safe drinking water supply quantity and demand arises with spatial location of the residentials quartesof the area.
- The quantity of supply and demand of drinking water is directly related to the socio economic status of the people.

## RESEARCH DESIGN AND METHODOLOGY

Data can be primary or secondary. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The secondary data on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process. In present study both primary and secondary data will be used. The present study has been carried out through inductive and empirical approaches. Data pertaining to various attributes of population shall be collected from secondary sources.

## SOURCES OF DATA COLLECTION

For the purpose of data collection and to get other require information related to the research study, both primary and secondary data have been collected from the concerned office and institutions. Regarding water borne diseases, health report of civil hospital, Churu; Public Health Department and water testing laboratory of Churu district have also been consulted.

## REFERENCE

1. Cleick, (1993), Water in crisis. Oxford University Press New York.
2. Chaturvedi M.C. (1987) Water resource system planning and management. Tata mc Graw Hill, New Delhi.
3. Shiklomanov, V.A. World fresh water resources. Oxford University Press, New York.
4. Sundersan P. (1995) Water demand and supply. water resource research Vol. 26 No. 6
5. Todd D.K. (1959) Groundwater hydrology. Tokyo toppan and co.
6. Trivedi P.R. (2000) water supply management. Indian Institute of Ecology and Environment New Delhi.
7. Kaczmarek, t. et al. (1996), Water resources management in the face of climatic hydroogic uncertainties. Water science & Techonology Library, The Netherlands.
8. Mather, J.R. (1984) Water resources John Wiley & Sons USA.
9. Postel S. (1984) Water rethinking management in an age of scarcity world water paper 62
10. Postel, S. (1985) Conserving water the untapped alternatives world water.
11. Saha, P. (1980) water for millions problem and prospects.

12. Saxena S.C. (1978) Water quality problems in Rajasthan Souvenir 7<sup>th</sup> All states public health chief Engineers Course.
13. Ali, Ahmed (1992), Water and urban ecology of jaipur City. Ph.D. Thesis, University of Rajasthan, jaipur.
14. Trivedi, P.R. (2000), Water supply management. Indian Institute of Ecology and Enviroment, New Delhi.
15. C.G.W.B. (2002), Guide on Artificial Recharge to groundwater.
16. "Earth's water distribution". United States Geological Survey. Retrieved 2009-05-13.
17. "Scientific Facts on Water: State of the Resource". GreenFacts Website. Retrieved 2008-01-31.
18. "The World's Water 2006-2007 Tables, Pacific Institute". Worldwater.org. Retrieved 2009-03-12.
19. [1] Archived July 23, 2009, at the Wayback Machine.
20. "WBCSD Water Facts & Trends". Retrieved 2009-03-12.
21. UN Water - Coping with Water Scarcity 2007
22. United Nations Press Release POP/952, 13 March 2007. World population will increase by 2.5 billion by 2050
23. Molden, D. (Ed). Water for food, Water for life: A Comprehensive Assessment of Water Management in Agriculture. Earthscan/IWMI, 2007.
24. Chartres, C. and Varma, S. Out of water. From Abundance to Scarcity and How to Solve the World's Water Problems FT Press (USA), 2010
25. "Water Development and Management Unit - Topics - Irrigation". FAO. Retrieved 2009-03-12.
26. "FAO Water Unit | Water News: water scarcity". Fao.org. Retrieved 2009-03-12.
27. National Water Commission (2010). Australian environmental water management report. NWC, Canberra
28. "Aral Sea trickles back to life". Silk Road Intelligencer. Retrieved 2011-12-05.
29. "World population to reach 9.1 billion in 2050, UN projects". Un.org. 2005-02-24. Retrieved 2009-03-12.
30. "Groundwater – the processes and global significance of aquifer degradation". Google.com. 2003-12-29. doi:10.1098/rstb.2003.1380. Retrieved 2009-03-12.
31. The World Bank, 2010 "Sustaining water for all in a changing climate: World Bank Group Implementation Progress Report". Retrieved 2011-10-24.
32. "Europe's Environment: The Dobris Assessment". Reports.eea.europa.eu. 1995-05-20. Retrieved 2009-03-12.
33. Gleeson, Tom; Wada, Yoshihide; Bierkens, Marc F. P.; van Beek, Ludovicus P. H. (9 August 2012). "Water balance of global aquifers revealed by groundwater footprint". Nature. 488 (7410): 197–200. doi:10.1038/nature11295. Retrieved 2013-05-29.