

## **The Abyss and Depth of Land Which Had Evaporation Water Crisis**

Dr.GIRDHARI LAL SHARMA<sup>1</sup> , Dr. MUKESH KUMAR<sup>2</sup>

<sup>1</sup> (GEOGRAPHY, SBN P.G. College Shrimadhapur / Pt.Deendayal Upadhyaya Shekhawati University Sikar,INDIA)

<sup>2</sup> (GEOGRAPHY, SBN P.G. College Shrimadhapur / Pt.Deendayal Upadhyaya Shekhawati University Sikar,INDIA)



---

Date of Submission: 17-10-2020

Date of Acceptance: 02-11-2020

---

### **ABSTRACT**

Human population all kinds of vegetation and water for the life of fauna is a mandatory requirement. With the growing industrial sector of the science and increasing population growth, water crisis is becoming a major challenge before the world today.

The present world population has more than 7 billion. The use of water in the water is increasing day by day. Water from the well, the tube well, is going down every year. It is decreasing at a speed of 2 to 6 meters in parts like Rajasthan. Today the ocean section is part of 70.78 percent of the world. But there is an odd distribution of them. In the northern hemisphere, there is a high degree of space. The continental part is also less in the Northern Hemisphere. These parts have 80 percent population of the world. The population depends on the agricultural and industrial requirements of ground water and rain water.

This situation becomes more frightening during the summer. There is a shortage of water around this time. This reduces not only to humans but also for animal birds and other organisms. In many countries of the world, there is a difference in water provided by nature. There are 25 percent desert areas in the world. According to the World Bank report, 16.5 million people in India are far from cleanliness. 21 percent of infected diseases caused by the people are due to polluted water. In India, diarrhea is caused by drinking polluted water in children below 5 years of age.

The use of drinking water in the oceans is negligible. Only 6.25 percent of the entire earth is found in the form of fresh water. In these, 4.5 percent of the part is found as snow in both Polar areas. On the North Pole the Antarctic continent is covered with snow on the Arctic Ocean and the South Pole. The high mountains of Himalaya Alps Rockies Andies etc. are also covered with snow. The remaining 1.75 percent of the water is found in groundwater and rivers.

The demand of water resources has increased in the current world with the ever increasing population. The growth of science has increased the industries. This has done more to exploit ground water and rain water. The water of the rivers has become polluted due to the removal of the upstream from industries and urbanization. The rivers have not been able to drink the water due to the solid and liquid waste removed from the urban areas. Ganga Yamuna is a major polluted river in India. Livelihood of humans and animals in lakes of canals, or excavation of dead animals and vegetation has reduced the quality of water. On the other hand, the quality of water has also declined due to environmental pollution.

Thus, many geographical areas have become dark hubs or hotspots of water. As the Ganga, Sindhu, Dajla, Nile etc. a dam on the river, tapping the water, the water re-utilization has declined. Due to the drainage of the dam well drainage, the groundwater is getting empty from the ground water. With climate change, the problem of famine and droughts in the areas of the world is increasing. Which is transforming the world's more rain-run areas into drought-prone areas.

Disputes arise due to dissolution of drinking water and distribution system. Karnataka-Andhra Pradesh controversy Rajasthan-Punjab-Haryana controversy, Indus wars in India-Pakistan, India has started to face many terrible problems like Ganga dispute with bangladesh etc. So, if this problem is not resolved soon, then the future of war revolution and mutual squabble will be formed.

Therefore keeping in mind the near future, a permanent solution to the problem has become necessary. It has been necessary to coordinate the methods of traditional and modern water conservation. In ancient times, many water conservation measures were adopted in the rajasthan. Like the Khaddien irrigation, Toba method, the water was used in the land, the ponds used to make johra, dams, nadi,jhalra,bawadi,tanka etc. Today this litter has turned into a pile of waste. They need a restructuring again. On the other hand, new methods of modern times are also used. The long-term availability of water should be enhanced by using the fountain method developed by Israel such as the Boond-Boondirrigation system. Convergent systems are still more important today. Busets should be used according to their local needs and geographical conditions. This will increase the groundwater level on one hand and the quality of water on the other hand will also increase.

Snow water can be used by making drainage water. Waterfalls can be used in drinking water and irrigation. On the river Nalo, small dams can be made in Anikit and can be brought to the use of irrigation by stopping the rain water. Ground water can be increased from the works such as implementing the watershed plan, making straws for the roof water for the roof water near the house.

Polyhouses methods is currently a scientific method in crop irrigation. It produces fruit, flower, vegetables using artificial environment methods to minimize the use water at the above-mentioned temperature. It does not only have water conservation. Rather Fruit Flowers Vegetables can be obtained at a lower cost, the maximum profit is obtained quickly.

Sea water can be used to solve the water crisis. Due to this technology being expensive, its usage is being reduced. There is a need to research it and make it affordable. The river combination concept is a new concept to overcome the problem of water shortage in India. Where the rivers of northern India will be connected to the rivers of southern India. This will allow the transfer of water in parts of the lower rainfall with heavy rainfall. On this one side, the problem of flood will be overcome. On the other hand, clean water can be supplied in low rainfall areas.

Thus, to overcome the current water crisis, the quality of the existing water resources should be utilized for the protection of rain water, the use of ground water resources, and the coordination of the tasks. It should have a sense of mutual cooperation in government and non-governmental institutions. There must be a public partnership in its successful implementation.

Human population, water is a compulsory requirement for the life of all types of vegetation and living organisms. Growing industrial with the development of science, Water crisis in front of the world today is a major challenge with the region and the rapid population growth.

The current world population has more than seven billion. So the use of water is increasing day by day. Water is going down rapidly every year by In order to overcome the water crisis, there should be coordination between quality utilization of existing water resources, preservation of rain water, mediocrity utilization of ground water resources etc.

### **I. The study area**

Presented the study area of Sikar district. The heart of Shekhawati region has its special place due to Sikar district history, culture, geography, archeology and scenic places. Torawati Nizam of Jaipur State and the headquarters of Sawai Ramgarh tehsil, Nimakathana Sambar Nizam's Dantarmagarh, ShriMadhopur, Khandela, has been rich in political, cultural, religious heritage since ancient PurnamalVa (4 noise) (Raj.) Sikar district is located in the mid-way circle between 27<sup>0</sup> 21 'Descending to 28<sup>0</sup> 12 North latitude and 74<sup>0</sup> 44 East to 75<sup>0</sup> 25 'East Longitude in Rajasthan. Average height above sea level 432.51 meters. In the north, the boundaries of Iwazun, south-east, Jaipur, north-east of Mahendragarh (Haryana), south west, Nagaur and Churu districts in the north west. The Indian survey department has a degree area of 7732 square kilometers between degree seat 44 and 54.

This information has been obtained for construction of Tanks, Annikat etc. for rain water conservation and it has been explained as to how rainwater is used in maximum.

## II. Literature Review

Mahadevan and Krishnaswami (1935) studied the quality of drinking water in Madurai. After this research work, he found that the ground water here is of harsh nature. And underground water level is continuously falling. In the studies related to water conservation, Anupam Mishra has highlighted the accuracy and responsiveness of Rajasthan on traditional water conservation practices.

Prinz and Anupam Singh (1996) studied water resources and their association management in the dry areas of Germany. In this research, he reviewed the issues related to water resources and identified the major problems in its management.

Vinita and Bhati stressed on the optimum utilization of water in Water Resources and their Utilisation (1996), describing water as the most important resource. They suggested techniques like Irrigation method and Matka irrigation method from the drop-down method of irrigation of Israel on the lines of Israel.

Study the water quality of wells in Udaipur district in Gupta (1997). On the water resources and environment of the state, Gujjar and Shukla, through a detailed study in "**Water Resources Environment and the people**", has suggested that in order to save the future generation from the water crisis in the state, the water distribution program will be implemented at the war level for drinking water in the state. "Tanks should be constructed.

Clark (1999) has included aquatic pollution problems related to developing nations in the book '**Water a Tragedy**'.

In a book called '**Water Scarcity and the Role of Storage in Developments**', Calan A. And his colleagues (2000) have pointed out the importance of development work by proper water conservation and water maintenance and water harvesting.

Of the modal Kumari and Sinha (2001) studied the effect of the quality of ground water on the population of Katihar town in northern Bihar. They studied the chemical quality of wells and tube wells near Kosi river and industrial area, according to the newly set standards of drinking water.

Singh's research in "The development & management of land and water in Buchara Dam Command Area, Rajasthan" (2003), said that the BuraaBhar is situated in the district of Jaipur (located between Shahpura and Kotputli) and was an example of the catchment program. According to them, water levels in the past were very low and agricultural production was very low.

But with the construction of the bout stone, its 20 - 30 KM. As far as ground water level was raised in the area and due to the increase in moisture content in the area, this area is one of the most productive areas of Rajasthan today.

As a result, this area is one of the most productive areas of Rajasthan today. A.C . Narng and G. C . Suresh (2004) studied the chemical quality of ground water in Mangalore city of Karnataka. A.C. Gupta and R.P. Vijaya (2005) has studied some problems related to the quality of groundwater in western Rajasthan. Aukar and M. K Sharma (2007) analyzed the quality of ground water in Jammu and Kad district and presented the report.

Dr . B.C. Jat in his book watershad Management (2007) and Dr. Ramkumar Gurjar and B. C . Jat Books published in 2008 Geography of Water Resources Esa Large Common Language Types of Occupancy Areas, Problems, Technologies, Economic and Environmental Benefits Detailed discussions of public partnership, is program evaluation and water management. In the study of applications for remote sensing technology in water management, B.C. The name of Jat is notable, which is significant in the Water Resources Department of the Indian Remote Sensing Institute, Dehradun, in the year 1999, in the water resources department of the Watershed prioritization on and RunofmodelineBandal Writes Watershed using remote sensing4GS 2011 esa Selection of Suitable sites for rainwater harvesting using Remote Sensino8 GIS - Acase study of solani The watershed has done major research.

The lack of water has traditionally been questioned in the dry and semi-arid areas of water quarries. What is the focus of meditation for modern techniques. The desert management of himself and many studies have been done on this and at present it is also studied. Bassu (1963) told traditional water sources in meeting the geographical location of Rajasthan and desert reduction of Rajasthan, Mishra (1967), Arora (1978), UNESCO (1978), has highlighted this natural resource by highlighting various aspects of water conservation. In this sequence, Vishavas (1978), Rao (10 Holik, Malcon (1982) and Chaturvedi (1985) have presented their studies with techniques and suggestions of various facets for the availability, utilization and protection of water resources in particular, in South Asia.

Dr. Jaspal, Sharma (1990), who has done a significant amount of drinking water in the context of low rainfall areas, considering the important dimensions of water management,

Maitra, Hosse (1992) has been involved in the management of underground water. Arguably presented and pointed towards the crisis of underground water in the coming years. Biswas, Jellai and Stott (1993), contributed to the contribution of human to the overall development of water.

Mishra (1993), (1995) Kalyan and others (1995) on the management of water resources at national and international level. Figures (1998) based on the need of the future based on data collected by world-class institutions Has presented the analysis. Agarwal (1997) has provided information regarding the resources and techniques of traditional water management in dry and semi-arid areas under the Center of Science and Environment.

Barlow and Clark (2002), Ramaswami (2002), Chupada (2003), Nikame (2003), under the National Institutions 10 In addition to this, Happening . In the management of the desert over time, the details of the changes and attributes - the defects, have been presented in the study. On the basis of innovative research, the use of new and improved management techniques in the world is increasing.

Has worked for the improvement of traditional water management techniques in the arid areas under the Rajiv Gandhi Drinking Water Mission from 1988 to 2003, by Joint Presence Central Arid Zone Research Institute (CAZRI). And still work on water management in entire India.

Bansal (2004), presenting his field level analysis on various aspects of water management, emphasized the need for water management policy at the national level. Thomas V KK (2004) has studied the policy aspects of the water resources by explaining the history, development and management of water resources. Sheke (2004) has given important information on the topics of history, development and policies of water resources management. Chauhan, Dubey (2004) has provided field-wise information on modern and ancient techniques of water management. In this order, he has also suggested ways to prevent the loss of pure drinking water and its adverse effects. .

Hrith Vyas (2005) has presented the details of the development and management of ground water in the context of dry and semi-arid areas of Rajasthan in his book. They are considered to be guilty of discriminating behavior of human beings for lack of water resources. If there is not a reason to worry about the future, if there is currently no wastage in the present time, then there is a high probability of a serious crisis arising. Similarly, Narwani (2005) said that detailed information about community water table management was presented. MS Rathod (2005) has worked on exploitation of ground water and its development efforts.

Baalkima (2005) has worked on natural arsenic elements found in groundwater. Traditional Local Kalhan (Translated

Mage (2005) has listed water resources, management and various remedies and techniques in their texts and these remedies adopted in the western countries have also been required to be adopted in our country.

Conservation Kanglei Light Harr Sharad K Jain (2007), has been given a major explanation of India's water resources. PN, Natani (2008), explains the problems of water conservation, dry and Ravindra Kumar and Hemant Mangal (2008) explained about water and land management in Churu district and various chemical elements found in the groundwater of the district in their short stories.

Mahariya (2009) has detailed description of the techniques of modern and traditional water management of celestial water in the desert areas in their research work. In the report, SCRI (2010) has presented the key role of water sharing in the development of the rural areas of Churu district and water conservation techniques adopted in the rural areas.

The key to this and the detailed work on these works is done by the WHO (1) Various international organizations such as UNESCO, F.A.O, W.M.O , W.T.O. And come I.B.R.D. In addition to the national and state level organizations such as the Central Ground Water Board, National Remote Agency, many NGOs are also working to maintain the present availability of water for the next generation. Facts on the issue of water conservation there have been numerous publications about traditional and unconventional approaches at the international, national and local level, in which the following are :

The principalities of Kalhan: A Critical of the Kings of the K Meer (Translated), Kanishka These Delhi-Patna-Varanasi, Volume 1 and 2 are prominent in written literature about water conservation in ancient literature. Apart from R. P. Kangle, (1963) The Kautilya Economics, University of Mumbai, Vol.1, and 2 were published. Explanation interpretations are correct. About the wealth of wealth in about 10).

Explaining ways to conserve rain water in "Water Coservation Handbook" (1971) by Spencer and Carter. In this, he stressed the multi-purpose use of water and the water used for bathing, kitchen, animal bathing etc., used in agricultural work, yesterday, by using the water used in the factories once again to be able to work again and again Use is dominant. Kathuria (1978) all the fundamental and undercurrent related to water accumulation.

### **The objectives of the study**

Work 5m Central Ghetto Sikar District is situated in the macrophage system, where the condition of water is always maintained. The selection of Sikar district (to study the water crisis here) has been kept in mind due to the rising water crisis and problems in its solution, it is a common fact that if a common man is a consumer of water then In each of the.

It is necessary for the citizen to be aware. The main objectives of the study presented in this context are :-

- 1 Assesss and study water resources available in the districts.
- 2 . To study unequal water supply and distribution.

3. To assess the contribution of traditional water sources in contraception and water supply to remote sensing techniques.
4. By analyzing and analyzing the availability of sources of traditional water harvesting.
5. On the usefulness of conventional water sources for the solution of increasing water crisis Suggestions and plans.

### **Research hypothesis**

In the brain of the researcher behind any study There are some hypotheses in the context of a particular study, On the basis of which he studies, the following hypotheses of the researcher in the study:-

1. In the study, people have long been dependent on traditional water sources for various water supply in different uses.
2. With the increase of population, due to lack of surface water and underground water, people of the study area are more sub-sources of traditional water sources. Began to industry.
3. Due to uneven and irregularities in water supply distribution, water crisis is increasing rapidly.
4. By promoting traditional water sources, the water crisis gets rid of it.
5. And if rain water harvesting structures are resurrected then it is possible to solve the problem of drinking water.

In the traditional water storage structures, the selection of rainwater harvesting sites of Sikar district will be done by sampling method and studying with the help of remote sensing technology, the current usage and relevance will be assessed.

### **Research method and statistics**

The study of the research area and the field research has been analysed at the district and tehsil levels. For the researcher's research, the collection and analysis of the facts and compilation methods and classification and analysis of data, writing of research reports etc. There is a definite method to determine.

In this full research work, two types of research techniques will be adopted. First Experience Generation and Second Technique In order to study the study area, the first researcher will have to collect primary data (which will be at the village level) and will be analyzed by synthesizing the texts at the Tehsil and District level and collecting the data of primary data is a direct interview and

The second data required for research work has been done from the following offices.

1. Central Arid Zone Research Institute, Jodhpur.
2. State Ground Water Department, Jaipur.
3. Irrigation Department and Water Department Sikar.
4. Indian Meteorological Department, Regional Office, Jaipur
5. Indian survey department, branch office, Jaipur.
6. Birla Technical Institute, Jaipur.
7. Forest Department Rajasthan Government, Jaipur.
8. Garden Department Rajasthan Government, Jaipur.
9. Tehsil headquarter and Patwar Bhawan, Sikar.
10. Indian Institute of Remote Sensing, Dehradun.

Have been drawn map of the study area of the Survey of India published and soft copy in the technical part of the research that based on area. Future mapping of agriculture and social economic environment has been presented. Primary and secondary data have been collected for research. In selecting the methods of sampling various villages where seniors, head, by personal contact and refused Gramvicas officer. The data has been collected through the conversation. - For this, the researcher himself went on a personal experience basis. Have direct inspections of johars, ponds and babies. Statistics have also been collected on the basis of experience.

### **Bibliography**

- [1]. Arakeri, H.R. and Roy, D. (1998) Principles of soil conservation and water management, Oxford and IBH Publishing Co, Pvt. Ltd., New Delhi, pp. 208-232
- [2]. Bali Y.P. (1981): Watershed Management – Concept & Strategy, Central Soil & Water Cons. Res. & Trg. Inst. Dehradun.
- [3]. Behrman, A.S. (1969) Water is everybody's business: The chemistry of water purification. Allied Publishers Pvt. Ltd., New Delhi.
- [4]. Bhalla, L.R. (2005) Geography of Rajasthan, Kuldeep Publication, Jaipur.
- [5]. Biswas A.K. Jellali M. and Stout (1993) : Water for sustainable development in 21<sup>st</sup> century : Oxford University Press, Oxford.
- [6]. Bithu, B.D. (1985) Environment Impact Assessment of Water Resources Projects in Arid Region, Proc. Suit. Symp. Environmental Impact Assessment of Water Resources Project, Rooksee Publication.
- [7]. Chandra, S., Planning for integrated water resources development project with special reference to conjunctive use of surface and groundwater resources, Central Groundwater Board, New Delhi, 1987.
- [8]. Chatterjee, P.C. (1985) : Impact of Human Activities on Water Resources of Arid Zone, p.p. 135-141.
- [9]. Chorley, R.J. (1969) Water, earth and man, London, methuens.
- [10]. Crispino, Lobo (2002) Watershed Management : A Sustainable Strategy for Augmenting Water Resources and Mitigating Climatic Changes, Annals of Arid Zone, 41 (3 and 4), pp. 359-364.2002.

- [11]. Dasgupta, K. and Mann, H.S. (Ed.) (1977) Ground water resources in desert ecosystem and its importance. CAZRI monograph No. 1 Jodhpur Central Arid Zone Research Institute.
- [12]. Dev, S and Choudhuri, D. 2007: Dynamics of Natural Environment and its Impact upon Rudrasagar Lake of Tripura, North, North-East India ; Water Resources Sustainability in the Context of Global Change (Ed by Dr. R.B. Singh), Rawat Publishers, (In Press) Jaipur
- [13]. Duke, J.M. and Chimann, R. (2004) Research Study Published in the Journal of Soil and Water Conservation, 2004 June, pp. 121-130.
- [14]. Govt. of Rajasthan (1977) Public health and engineering department Unpublished data on water resources, Bikaner.
- [15]. Gupta S.K. and Deshpande, R.D., Water for India 2050: First order assessment of available options. *Curr. Sci.*, 2004, 86(9), 1216-1224.
- [16]. Gurjar R.K. (1995) : Geography of Indira Gandhi Canal Command Area. Rajasthan Hindi Granth Academy, Jaipur
- [17]. Gurjar R.K. and Jat, B.C. Geography of Water Resource, Jaipur 2008.
- [18]. Gurjar R.K. and Jat, B.C. (2004) Environmental Studies, PanchsilPrakshan, Jaipur.
- [19]. Gurjar, R.K. (1992) Irrigation impact on desert ecology, Jaipur.
- [20]. Hooja, R. et al. (1997) The environmental Hazards of water logging in an extensive Irrigated Area in North-West India, C.A.D., Bikaner.
- [21]. Singhvi, A.K. and Kar, A. (1992) Thar desert in Rajasthan; Land, Man and Environment, Geological Society of India, Bangalore.
- [22]. Takkar, P.N. (1996) Micronutrient Research and Sustainable Agricultural Productivity in India, *Journal of India Society of Soic.* Vol. 44. No. 1, PP. 564.
- [23]. Theme paper Five Decades of Water Resources Development in India. Indian Water Resources Society, Roorkee, 1998.
- [24]. Theme paper Management of Floods and Droughts, Indian Water Resources Society, Roorkee, 2001, pp. 4-12.
- [25]. Theme paper on Inter Basin Transfers of water for National Development Problems and Prospects', Indian Water Resources Society, Roorkee, 1980.
- [26]. Vohra, B.B. (1982) Land and water management, problem India; Training Vol. 8, New Delhi. Training Division, D.P. Admn. Reforms. Ministry of Home Affairs.
- [27]. Vohra, B.B. (1987) Land and Water Management Problems in India. Training Vol. 8, New Delhi: Training Division, D.P. Admn. Reforms, Ministry of Home Affairs.
- [28]. W.H.O. (1984) Guidelines for drinking water quantity, Monogram Series No. 63, W.H.O.
- [29]. Jat B.C., Nikam Bhaskar R. and Aggaral, S.P. , 2011 : Selection of Suitable site for water harvesting structures using remote sensing and GIS, project for NMRMS training on Remote sensing and GIS application in water resources, Indian institute of remote sensing. Dehradun, 2011.

Dr.GIRDHARI LAL SHARMA. "The Abyss and Depth of Land Which Had Evaporation Water Crisis.*IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, 14(10), (2020): pp 04-09.