

WATER CRISIS- A CATASTROPHE IN THE GLOBE WORLD , AN STUDY ON HOW PEOPLE ARE DEALING WITH THE PROBLEM OF WATER SCARCITY**¹Dr.Sumanta Bhattacharya, ²Bhavneet Kaur Sachdev**Research Scholar at MAKAUT , Public-Foreign-Defence Policy Analyst¹ , Political Science hons (Calcutta University) Masters in Development studies²**sumanta.21394@gmail.com¹, bhavneet829@gmail.com²****ABSTRACT**

Water crisis is a catastrophe for the world , where 1.2 billion across the world have no access to safe drinking water , where India is the country which is worst affected by this scarcity . In India more than half of the inhabitants don't have admittance to drinking water , already have of the places water doesn't exist anymore , people have to travel to a minimum of 2.5 km in the rural villages to reach to the nearest location where they get access to drinking water which is polluted , the groundwater of 21 cities have also ended , the ponds and lakes are been destroyed with dump from Industrial waste , climate change environmental degradation have added to the crisis . We have lack of water harvesting system , ground water recharge provisions , water is required for all the purpose , rapid urbanization and unplanned development has resulted in the scarcity of water , where in India 70% of the water is polluted and the urban population waste a huge amount of water , we require filters to be installed in all villages to purify water for drinking , followed by every state and community should promote rain water harvesting so that we can save water .

Keywords: *Water crisis, India , drinking water, unplanned development , groundwater , industrial waste , filters.*

INTRODUCTION

2.2 billion are living without portable water and 4.2 billion have lack of sanitation facilities in this world out of a population of 7.8 billion , which means half of the world is suffering from water crisis and security issues and it is doing to rise in the upcoming years , people will not have access to drinking water .Water crisis has emerged as a disaster in the world and we have already crossed the limit to prevent in further . People across the world in same or the other corner has faced water crisis may be small population but now the situation affects majority of the population , the countries like Middle East region or you can say all the desert places had shortage of water , but they use to get it from other countries , but today no country is capable for much export of water . Now what can be the causes of this water scarcity , I would say both natural and man-made factors are responsible for this and a big thanks to the Industrial revolution which has played a big role in polluting the water resources , these big industries through their waste into the oceans , seas and the nearby lakes , the harmful chemicals present that mix with the water making it unfit for drinking and above all open the doors of a number of disease and the water is also saline . The Industrial revolution is also responsible for emission of greenhouse gases into the atmosphere polluting the air which results in environmental hazard , construction of building , mining and logging are all responsible for water crisis today , deforestation have also resulted in water crisis, these factors has basically given rise to Climate change also which has directly or indirectly affected the water bodies and resulted in water crisis .In Africa around 80% of the population have no approach to pure drinking water , Bangladesh which is home to 700 rivers is facing water crisis where 2 million people have lack of access to better water and 40 million are facing sanitation crisis . There was ample amount of ponds and lakes across the globe and we were sure so we won't face water crisis , with time these small ponds and lakes were taken and building where constructed on it , with rapid urbanization , globalisation and growth of population we are facing massive crisis of water .Underground water which was a source of alternative has been used by

maximum countries especially India , in fact we have experienced 7 water wars till today in the world and India was even part of one of the war . The water wars and conflict between the upstream and downstream countries also at one point make the water unfit for the other to use , Upstream countries have an upper hand in the use of water from rivers and are more powerful which has contributed to water scarcity for the downstream country .

RESEARCH METHODOLOGY

For the purpose of this exploration , I have used a amalgamation of two of the archetypical social sciences research tools application –as they are authentic and brilliant method to assemble statistics from multiple appellants in a methodical and convenient way . Question were asked to the common youth , public policy Analyst , rural people ,survey , interviews –consisting of several interrogation which were dispersed among representative of each contender group .

OBJECTIVE OF THE RESEARCH PAPER

The main areas of exploration in this paper incorporates

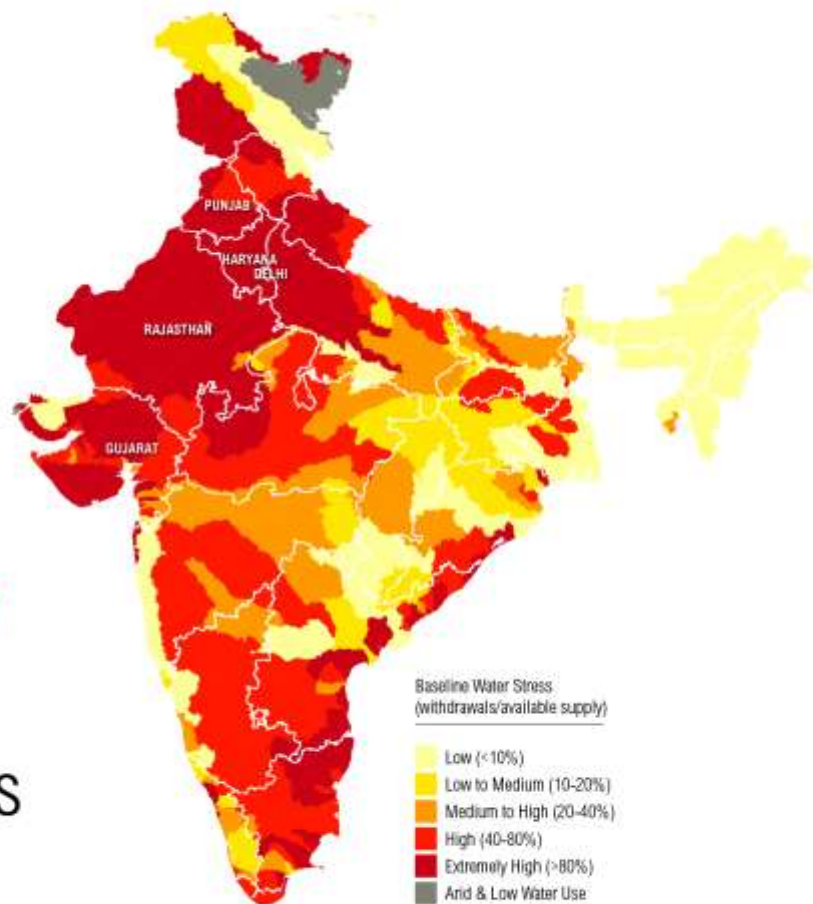
- 1.Understanding water crisis across the globe
- 2.Reasons behind water crisis .
- 3.How water scarcity has effected India .
- 4.How people are coping with the problem of Water crisis in India .

LITERATURE REVIEW

Natural disasters like drought and famine , resulting in prolonged dry seasons also contribute to Water crisis in a country .Coming to India which stands at the 2nd position after China when it comes to population it has a population of 1.3 billion and it is expected that it is soon doing to cross China in the next five years . India at present is doing through the worst water crisis in the world , where 2 Lakh people die due to lack of safe drinking water facilities available to them , people in the rural area are largely effected by this , in villages many people have to travel 4 km to get water for drinking and this water is not completely safe for drinking , in fact in some villages people in their lifetime have not seen pure water , one should not take about sanitation , India has a very poor system of sanitation , there is no waste management system in the rural area for treating water to make it fit for people to drink , around 550 people everyday consumer impure water and these unsafe water is giving rise to water borne disease which is affecting the health of people and community .India not only requires water for drinking and sanitation process but for agriculture use also .India grown maximum crops which require huge amount of water , around 70% of the groundwater is used for agriculture purpose , and India is the country which uses the maximum amount of ground water and now we don't have much groundwater left , there is illegal access to groundwater , the water is being used for construction purpose , with rapid rise in urbanization with unplanned development ,where maximum water is used from groundwater , apart from that also India is the 3rd country when it comes to wastage of water .Wastage of water happens more in the urban sector where as in the rural sector people are dying due to know access to safe drinking water , Odisha is the worst effected countries as per the census of 2018 , many cities like Delhi , Chennai , Hyderabad , Bangalore are among the 21 cities where they groundwater has ended .Prolonged dry seasons , Lack of water management system in India , no skilled professional to manage the water system , lack of initiative by the people and the state and central government clashes of opinion has further added to the problem , 90% of the people in India live below poverty line , purchasing water is very difficult , a small tank of water cost 900 , and the villagers can

earn an amount of 800 rupees in a week , people don't get the minimum amount of water required for the proper function of the body where as food security and water crisis are inter linked and for the growth of crops we require water , water crisis will automatically result in food crisis .

54%
of India
Faces
**High to
Extremely
High**
Water Stress

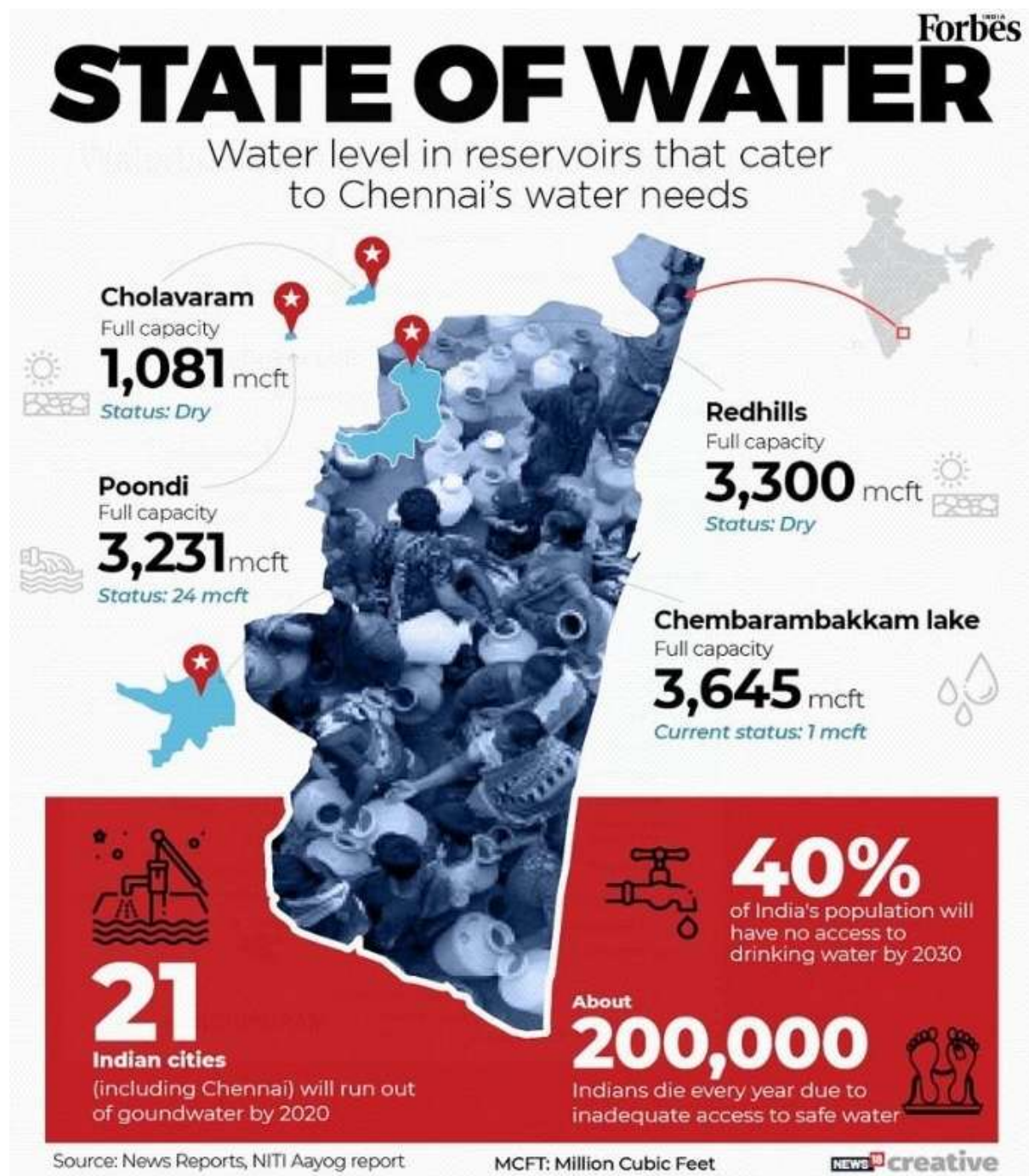


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FINDINGS

In Chennai ground water is over , the situation at other place is worst , 60 crore people are facing harsh water scarcity , which indicates a huge number .Monsoon has received to many places but drought remains a problem in many regions , where as there are places suffering from flood . Above all 70% of the water in India is polluted , in the list of 122 countries , India is the third most water polluted country in the world , 2 lakh people die due to polluted water , the way ground water is being pumped using borewells it is assumed that groundwater will be finished by 2040 in India .Pumping water using submersible pumps is happening in all parts of the country .According to Word Bank , India takes out maximum amount of groundwater in the world, India takes out 25 % every year which is around 2.5 lakh crore litres , the water is taken out by the municipality and supplied to people and people even illegal apply submersible and take out water , people have installed water pumps at home , after rain these groundwater get recharged however the speed at which it get replenished , the extraction rate is much faster than this .



If we talk about Chennai it is the among the 7th big city on the earth , before partition and the growth of urbanization Madras had more than 30 , 000 ponds and 5000 hectares Marshland , its soil and rock types indicated that the city is historically a flood plain , lake and moor is supportive in recharging the natural aquifer in the zone , but today most of the ponds don't exist and the 5000 hectares of marshland is now left with less than 600 hectares and the remaining marshland its groundwater is contaminate due to continues throwing of waste happening in the region , in last few decades in Chennai urbanization increased by 20 times in 40 years and this was done at the open and green areas , Chennai airport is constructed on Adiyar river's flood basin , urban mobility has been built on the marshland and the areas got transformed into urban impermeable exterior absences of drainage system it results in water logging , 2015 floods that killed thousands of people happened because of the same reason ,land that could absorb rain water , the land given by nature has been used for

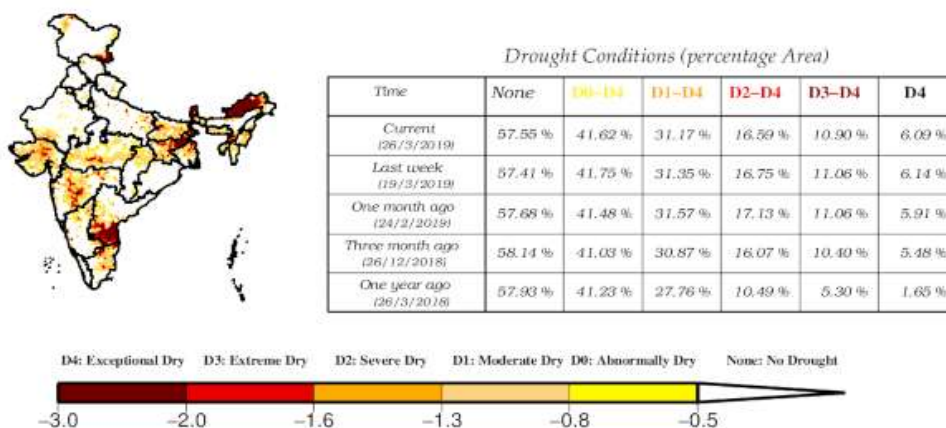
development purpose so what doesn't get seep in the land , water blockage happens and groundwater is not recharged , all over the country hundred and thousands of lakes and small water bodies have disappeared over the years , intrude for the greed of land or public or private invest has built something on it , as part of the urban development for instance the IIMS in Patna that has been made by filling 35 acres of lake

We know that we have ground water , so we started to bore to take out groundwater , but now the groundwater has also finished , in Chennai water crisis has been going on from the past 3 years but people get to know when the situation get worst , today this is the condition in most parts of the country , Water is getting over from a lot of places and many have got over , both urban and rural India are facing an acute water shortage .

By the year 2030 , 40% of all of India could have no water in the groundwater and no access to drinking water , as per present situation , the country s going through drought conditions , and the worst manifestation of this was seen in Chennai where the capacity of water reservoirs which has come to 0.2% , water tanks have been expensive and this has even resulted in fight in Chennai and caused death of a person , there have been a lot of incidents in Madhya Pradesh , fights over water amongst the people , water riots have happened in Uttar Pradesh in fact during elections in Uttar Pradesh five villages had boycotted elections , as the government doesn't solve their problem of water crisis . A man in Jharkhand attacked 6 people with a knife in a brawl over water in 2019 .In Madhya Pradesh police men were deputed to guard the water tankers . In Rajasthan in many villages people have started to lock their water containers to prevent stealing of water , and a women in these villages have to work 2.5 Km to reach to the nearest water source ,

These issues are very much related to our climate change we are experiencing extreme hot and winters are becoming colder , the monsoon season is becoming shorter but the intensity of the rains have increased , this leads to floods whenever it rains and droughts when it does not rain , such things are happening on a larger scale when more trees are cut down and environment is further destroyed , for instance 54,000 mangroves are being cut down for laying bullet train tracks , today when you open the tap you get polluted water .out of 700 districts 256 have no access to safe drinking water in India . Water today has become a luxury for many people , we need to take steps to save water else life on earth will become very difficult .

Drought Early Warning System (DEWS): India
(26/03/2019)



WAY FORWARD

Today as a nation and individually we need to work to save water , every society should start a system of water harvesting , every building should install tanks and start saving rainwater . India only saves 8% of the rainwater , We need to install purifying filters and make polluted water portable as much as possible , before that we should take measures to control climate change and environment degradation which has resulted in water crisis . We need to limit the use of groundwater whatever is left , creation of more lakes and ponds . We need to construct an committee in every district , city and state and keep a record of what being used and the amount of water is being wasted so that we can take necessary measures to save the waste water and reuse it . We need to develop waste water treatment facilitates in every corner of the country ,introduce new laws and regulations and prohibit the excess deposit of Industrial waste into the water bodies . We need to form a team of professional to look after the water management system and research centre should be open . Special filters should be set up in every villages as maximum people from the very beginning have been consuming polluted water , the water collected from the ponds , river should be first treated and the people should intake it , free water supply should be initiated in villages where there is no water left as in most the villages the main occupation is farming and if don't have access to water they can't harvest crops , people will anyhow die because of lack of water and food. In the urban area people should minimize their water waste .

CONCLUSION

Today many states in India in particular Madhya Pradesh , Gujarat , Haryana , Punjab , Chennai , Chennai , Delhi , Hyderabad are joining the list , the water crisis issue is escalating with each passing day and with rising die caused due to no water or intake of polluted water , the government are taking measures to tackle the water crisis , by brining in the Jal Shkati project by arranging pipeline water facilitates to maximum household , groundwater recharge techniques are being introduced . It is estimated that in the upcoming years water will get vanished , people have to travel only distance to get minimum water for drinking , we need to stop the wastage of water and provide free water services in the villages as everyone can't afford to pay for a small tank of water , death are happening due to intake of polluted water we need to install filter in villages and harvest water as much as possible and treat waste water with new technology , to save water before it's too late and we have no access to water of any kind .

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