

Title: "Water Crisis: A Looming Threat to Human Survival"

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- d. Climate change as a threat
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Jack and Jill went up the hill to fetch a pail of water, but all the water had dried up. The world was now much hotter. So Jack and Jill set on the hill, their throats were so dry, they couldn't find the drop to drink, and one day, neither will I.... As the world is seriously grappled with the challenge of water shortage, one day all humans would be sitting with dry throats and chapped lips, just like Jack and Jill. Water crisis is one of the biggest challenges of the 21st century, despite Earth being a blue planet. * There are many factors that contribute to the crisis which include both natural and human-created circumstances that lead to water scarcity across the globe. ~~They~~ Growing population, irresponsible use of water, cost free water and changing climatic conditions contribute to the growing need for water usage which ultimately causes its shortage. Under such circumstances, it poses disastrous impacts on the biodiversity. The rapidly

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increasing demand and the fast decreasing reserves of water demand effective measures to be taken in order to curb the menace. In this context, as water is a requisite for human survival, yet its crisis has posed serious threats to the world regarding its availability.

Water crisis is a threat to human survival. This is because, water reservoirs are depleting at a very fast rate. All the 1% available water is used and misused in various activities by the entire population on this planet. With growing needs of water, the situation becomes more difficult for ~~the~~ each and every creature to get adequate supply.

It's increased consumption at agricultural, industrial and domestic levels leads to the exhaustion of the reserves available in the world for sustainable life and growth of humans.

According to the international stats, consumption of water has increased 7 folds in 21st century; people consuming more and more water. In this situation,

As the scarcity of water becomes a great challenge for the human survival.

There are multiple factors that contribute to the ~~lack~~^{the} inavailability of required amount of water to human beings to fulfill their needs. The foremost among them is the rapid increase in population across the globe. The sharp rise in the number of individuals demand more supply to carry out day-to-day activities. Even the basic activities of washing, drinking, brushing require gallons of water by a single person to perform these tasks. So, more heads in ^{the} world lead to an increased demand, which causes water shortage. The United Nations Population Fund report of 2023 projects population of around 8 billion requires 60 litres of water per day, ^{by a single individual} in ~~the~~ all ~~activ~~^{one's} acts like brushing, washing, drinking and flushing. This indicates the growing concern for more water availability to every individual. Eventually, ^{contributes to} ~~leads~~ more population to a greater access, and leading to water crisis.

The irresponsible use of water is another factor behind water scarcity in the world. The people, without taking into consideration that fact that a calculated amount of water should be used for a particular task, misuse water. This paints a grim picture as the already limited source is poorly used with running taps and water being wasted through tankers. It not only becomes a challenge for a large number of people in the world ^{today}, but also for the future generations. The ~~peop~~ problem is not just ^{this} that there are more number of people on Earth using water, it is how they are using the water. In this scenario, the equitable supply of water is threatened in the more demanding sectors and this leads to a state of water death on the planet.

In the same view, the cost free water is another leading cause behind its shortage. This is because, water is not abide by any rules regarding its consumption or consideration of ~~of~~ its amount. People hardly pay ~~for~~

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anything for it, or it is negligible ~~for~~ in comparison to the other essentials they consume. As a result, neither do people care to use it ethically, nor do the governments make more efforts to construct barrages and dams as reservoirs. It ultimately makes the situation worse. As according to Thomas Fuller, "We never know the worth of water till the well is dry" imparts the idea that what's freely available is often wasted. This is how, the cheaper or low costs of water makes it an easily available commodity which is then misused according to people's desire, contributing to its shortage.

Climate change; another significant factor behind water shortage is itself ~~is~~ a life threatening issue for human survival. The varying weather patterns across the world lead to more severe environmental disasters i.e floods, melting of glaciers ~~is~~ and other such hazards in which the available water reserves are quickly draining out. It, ^{also} results in extreme heat in some parts of the world that human

lives; in need of excess water, could not tolerate the temperatures and ending in deaths due to heatstroke or extreme cold. In the context of emerging crisis, it is certainly not possible to supply enough water to such a large population. It ultimately leads to severe consequences and threatens human life. According to World Bank, more than 40% of the global population already face water scarcity, intensified by the impact of rising temperature. Amid these conditions, water shortage is a looming threat due to climatic variations.

In the realm of water crisis, the excessive use of water to manufacture products and commodities poses a substantial risk. Excessive amounts of water is required to produce daily usage eatables, ~~and other~~ ranging from vegetables, fruits, packaged items and much more. Water plays a major role in ~~not~~ their manufacture ~~and~~ as well as branding. Due to such prevalent practices, the quantity of freshwater is dropping day-by-day.

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The more advancements in living styles and the new and novel discoveries on cooking methods, ~~diff~~ changing cuisines and variety of food patterns across the globe is intensifying the crisis. 1 pound of chicken requires 500 ~~grams~~ gallons of water. 1 pound of pork, 800 gallons; 1 standard quarter pound burger 600 gallons, including that of used for making a bun, lettuce, tomato and other constituents. (USGS, 2016). In view of these conditions, water being used irregularly and unconsciously leads to burgeoning of its scarcity in the world.

Moving ahead with the same writing, ineffective water supply lines ~~further as~~ exacerbate the water crisis.

The water being transferred from the primary sources to filtration plants and pumping stations demand a widespread network of pipelines and supply chains to carry the task effectively. However, in most countries such mechanisms of disinfection, filtration and supplying is not managed and carried meticulously, resulting in line

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losses and water leakage. At last, industries, factories and households demand and consume more water from the actual sources leading to its shortage in the long run. An estimated of total 42% of water leakage occurs in Mexico city due to faulty supply lines. Thus, the instrumental incapacibilities aggravate water scarcity in the region.

Water crisis across the world poses harmful impacts ~~for~~ humanity. The threat to human life is at the forefront of it. Due to poor sanitation and access to water, ~~p~~ many people died ~~due~~ because of certain diseases or epidemics or pandemics for the last few decades. Furthermore, due to severe climatic variations, the demand ~~increases~~ of its consumption ^{increases} and if not ^{increases} adequately provided to ^{every} other individual, leads to a sharp rise in the death tolls on the planet. The concept of Day Zero in Cape Town in South Africa where scantiness of water and ~~p~~ increasing disease rate ~~due to~~ lead to shutting off water supply to the civilians during 2017-18 water

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crisis. Therefore, it impacts human life adversely in many ways.

Correspondingly, water crisis affects the people by sowing discord among the states. It gives rise to many interstate and intrastate conflicts in the world. Multiple states, being concerned about their future existential crisis, tend to be in a constant state of rift with the other ones. It is due to the fact that water ^{being} is a valuable asset, is the need of time of every nation in such changing climatic conditions. ~~It~~ Ultimately, more water is required to carry out ~~each and~~ every task of modern times, ^{as it involves} whether maritime trade to securing water for daily usage. The strengthening conflict between India and Pakistan over the Indus water and the IRSA (Indus ~~water~~ River System Authority) issue is the clear example of dominance of one state over the other for water availability. In this way, water crisis becomes a threat to states' collaboration and promotes conflict among them.

In the similar vein, water scar-

city ^{affects} impact the public by extra cost of water for daily usage. This practice is ~~more~~ common in developing countries where water theft and line losses force people to look for alternate means and connections to secure their supply of water. They have to access Tankers ~~and~~ to meet their daily demand, which also yields an extra cost on the part of consumers who also pay the ^{annual or monthly} charges. This poses extra burden over the public. Thus, it threatens the financial security of citizens in some countries. A prime example of tanker mafia in Karachi, Pakistan is very common. Here the mafia being aware of the scarce supply in certain regions, puts extra charges on the civilians, resulting in a grand scheme of money making. This is how, water inavailability causes a burden on the economy by risking ~~the~~ human life.

Another devastating impact of water shortage is the increasing food scarcity in the region. This is because more varieties of food are needed to feed the growing population, which in turn

requires gallons of water availability. Many countries thus import food items from the developed nations to address their needs. In this situation, water holds immense importance as, ^{more} food requires more water for its production; and the lack of former directly impacts the availability of later. 112 states import food worldwide, Japan, Gulf states, ^{and others.} by 2050, 160 states will fall victim ^{to} of shortage of food. Consequently, the looming threat of water scarcity carries with it the risk of food scarcity as well.

Following the same path, water insecurity affects the social sector substantially. The different sectors i.e health, education and nearly every department suffers adversely ^{i.e the health,} due to lack of resources; the medications, the toolkits and primarily the machinery. This is because they all are dependent on water, either for their production, sanitation or effective working and functioning. Similarly, every institution ~~and~~ progresses with ~~it~~ on the expense of effective resources which require water to serve their needs. The more reliance of the institutional machinery on the

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water reserves of a country, yields the delimiting progress in every sector due to its more consumption and less ways of its storage. This is how, the dependency of facilities on water resources is a threat to ~~secure~~ the security of human lives and their future.

Additionally, water scarcity impedes growth and development. The economy depends upon ~~the~~ agriculture, ^{and} industrial production which are at the risk of default. The countries' GDP gets predominantly attacked by the crisis looming across the world, more specifically to the developing nations. ~~The~~ Both types of economies demand vast supplies of water to facilitate progress for ⁱⁿ food security in their regions and ~~expect~~ to boost their economies.

~~But~~ An example of India: According to central water commission (CWC, 2019), 60% of irrigated agriculture affected by water scarcity, threatening food security and economic growth. As a result, the unavailability of fresh water hinders the growth and development across the world.

There are various ways to combat water scarcity in order to escape its harmful effects. The paramount among them is water conservation. Encouraging and implementing water conservation practices can significantly reduce its excess consumption. It can include promoting efficient irrigation techniques, fixing the leaky pipes, ^{and} using the water-saving appliances. This can in return make it available to those in need facing the health, food and economic constraints. As according to Leonardo da Vinci, "Water is the driving force of all nature." In this regard water conservation is crucial to mitigate the crisis.

Another essential step towards confronting the crisis is to implement appropriate pricing mechanism. Water pricing can incentivize water conservation and efficient use. In such manner, people will become more conscious of its usage and wastage. It thus creates a sense of awareness among people regarding the emerging crises and its scarcity as a threat. The case of Sydney's ~~crisis~~

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Water wise Rules (2003): promoted water saving habits, such as restricted garden watering and efficient appliances. They also employed water pricing as a key tool to encourage conservation during periods of drought. Such effective measures via water pricing are crucial to overcome the threat.

To put the point further across, desalination is another effective technique to manage the crisis. Desalination involves the removal of salt and other impurities from seawater or brackish water to produce freshwater. Advancements in desalination technologies, such as reverse osmosis and multi-stage flash distillation, have made it a viable option for increasing water supply in coastal regions. On these grounds more freshwater can be sourced, and thus ~~the~~ risks of water scarcity can be mitigated.

Alongwith these measures, public awareness and education hold significant value in water conservation. Educating communities about the value of water, the importance of conservation,

and individual responsibility can lead to behavioural changes that reduce water consumption and wastage. Educating the masses can be a ^{towards} step ^{to} a balanced approach ~~towards~~ ^{for} water storage, usage and wastage. As it ^{can} ~~is~~ also be taught through the religious injunctions: "Do not waste water even if you were at a running stream" (Prophet, PBUH). Thus, instructing the public regarding the usage and ~~conservation~~ ^{conservation} of water serves an essential function in combating the crisis.

Over and above all these, international cooperation occupies a central role.

As water scarcity is a global challenge, ~~that~~ ^{it} requires international cooperation through joint efforts ~~to~~ to counter the threat. Sharing best practices, technology transfer, and coordinated efforts ⁱⁿ manage^{ing} the transboundary water resources can help alleviate water insecurity in the regions facing severe water stress. Introducing new techniques in agriculture and methods like DRIP irrigation, and similar sustainable

practices can be constructive. Hence, these measures via international concerted efforts, can be fruitful in the long-run to address water challenges.

In light of everything mentioned, ~~that~~ the fact that all living things need water makes this crisis exceptionally hard. But it can also inspire people to act in exceptional ways to solve it. The trick in recognizing how valuable water is before there is not enough of it. There is dire need to remember that people's fates are tied to what rushes out of their taps. The crisis is looming widely and the human activities are further exacerbating it with their inhumane practices and activities, which is ultimately disturbing the environmental pattern and opening the door ^{to} the risk for human lives. To combat these, effective strategies are needed to be implemented in order to save this valuable assets for the long haul.