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ESSAY TOPIC: WATER CRISIS AND NATIONAL UNITY.

Outlines.

1. Introduction.

This is Statement: Water Crisis is among the major arising issues. It is caused by poor-management and changing climate patterns. It is a threat to the National unity of our country. However it can be tackled through efficient management and proper measures.

2. Importance of Water and water Crisis.

3. Causes of Water Crisis in Pakistan.

a). Rapid Population growth is the cause of water crisis.

b). Depleting water storage facility.

c). Inadequate water distribution among provincial units.

d). Climate change and Glacial melting

e). Poor Water Management system.

f). Domestic water usage and wastage because of less education of masses.

g). Violation of Indus Water Treaty (IWT) by India.

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4. Impacts of Water Crisis on National Unity.

- a). It will be the source of inter-provincial conflicts.
- b). Low Crop yield and Ultimate food insecurity.
- c). Social Unrest and health hazards.
- d). Conversion of fertile land into the barren land due to water scarcity.
- e). A threat to Economy
- f). It leads to Environmental degradation.
- g). Water shortage is harmful for industrial Development.

5. Ways forward to overcome water crisis and to maintain National Unity.

- a). Efficient water Management system and installation of more dams.
- b). Water Recycling
- c). Awareness among masses through education and media.

6. Conclusion.

Essay:-

The incident of Karbala took place in 680 CE when Imam Hussein, the grandson of Prophet Muhammad (P.B.U.H), and his followers were martyred in a tragic battle against the Umayyad Caliph Yazid. Hussein (R.A) and his companions remained without water for three days before a group of fifty men led by his half-brother Abbas was able to access the river. The war of Karbala started on the issue of water. This incident shows the importance of water in our lives. History has witnessed the wars on waters. Water is one of the most precious resources on the planet. More than 1 billion people do not have access to a source of clean drinking water, and around 3 billion experience water scarcity at least one month per year. In Pakistan water crisis is one of the major emerging issues. Rapid population growth is the important cause of water crisis. Depletion of water storage facility, climate change, glacial melting, domestic water wastage, unequal distribution of water among provincial units and violation of Indus water Treaty are some significant reasons behind water crisis in Pakistan. Water crisis is among the major existing

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issues. It is caused by poor-management system and changing climate patterns. It is a threat to the National unity of our country. However it can be tackled through efficient management and proper measures. (214)

"Thousands have lived without love, not one without water."
- W. H. Auden.

Water is the basis for the beginning of life on the planet, the basis for its existence and continuation, and it is one of the most important necessities of life. Where there is water, life thrives. And without water, there are no manifestations of life, and Allah has made it clear the importance of water for the life of beings on the face of earth in His saying, "We made from water every living thing, will they not believe" (Surat Al-Anbiya, Verse 30). Water is one of the life secrets for all beings. And cell science proved that water is an important component of living cell material. For an adult person, water forms 70 to 90% of his total body, while for an elderly person. The cells of the body without water cannot obtain food or expel waste from the body. Without water plants could not grow and will not be able to produce food upon which all humanity is dependent. Water scarcity, is the lack of sufficient available water resources to meet the demands within a region. Water is unequally

distributed over time and space. Much of it is wasted, polluted and unsustainably managed. A number of places and regions are chronically short of water because its use at the global level has increased more than twice as fast as the population over the last century. Pressure on water resources is increasing in several parts of the world, especially in China, India, Pakistan, in the Middle East and many countries and regions of Africa. Pakistan is facing a severe water crisis that is putting millions of lives at risk. The latest UN report 'Global Water Security 2023 Assessment' places Pakistan in the critically water-insecure category, indicating the country is facing a water emergency that requires immediate attention.

Rapid population growth is the cause of water insecurity in Pakistan. When there will be rapid increasing in the population it will cause increase in the demand and supply of water. The biggest challenge to deteriorating water resources and decreasing per capita water availability in Pakistan is population growth. Between 1972 and 2020 Pakistan's population increased by 2.6 times, moving it in rank from 9th to 5th. Total water use in Pakistan increased by about 0.7 percent per year between 1977 and 2017 while total water

resources remained static at 246.8 billion cubic meters (BCM), resulting in a decrease in per capita water resources from 3,478 to 1,117 cubic meters per year. Pakistan's population is projected to increase by over one-half (53 percent), reaching 338 million by 2050. (Reference: Pakistan Institute of Development Economics (PIDE) Report on Water Crisis in Pakistan, 2022). If water efficiency remains the same, the water withdrawal to water resources ratio may exceed 100 percent in coming decades.

Depletion of water storage facility is contributing to the water crisis. Controlling the flow of water can be a useful and necessary action to sustain population growth. Dams, levees, dikes, and reservoirs are built to help control the flow of water or to contain the water in one place so it can be used by people for drinking water, irrigation, or flood prevention. Unfortunately Pakistan lack sufficient water storage system, its maximum fresh water is flowing in the Indian Ocean. As per IMF Report 2023, with the current 30-day water storage capacity, some 207 million people will face absolute scarcity of water, with less than 500 cubic meters available per person by 2025, a demand-supply gap of approximately 83 Million acre-feet (MAF). Lack of water storage facility is leading to the water crisis in Pakistan.

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Inadequate water distribution among provincial units of Pakistan. Water should equally be distributed on the basis of demands and needs. Provinces are in dispute over their respective share of water under the Indus Water Treaty IWT, with particular reference to utilizing water for Kharif and Rabi seasons through link canals managed by the Indus River System Authority Irsa. Irsa has stopped ~~is~~ satisfying Punjab, Sindh and Balochistan provinces over distribution of irrigation water for current Rabi season because of 34.0 percent shortage of water, primarily due to construction of Baglihar dam on Chenab. Water supply would be further restricted because of planned construction of Basru multi-power project Swalkot dam, and Pakot Dul dam on Chenab river by India. Unless resolved it would continue to be a recurring problem. These conflicts are leading toward water crisis in the country. Glacial Melting is ^{going to be} the major reason of water crisis. Glaciers are the major source of fresh water in Pakistan. Pakistan has less storage capacity to store this water and all this melted water is flowing in the ocean. Because increasing earth's temperature glaciers are melting across the world. According to NASA

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The Greenland and Antarctic ice sheets have decreased in mass. Glaciers are retreating almost everywhere around the world including in the Alps, Himalayas, Andes, Rockies, Alaska and Africa. Therefore, melting of glaciers caused severe water scarcity.

Domestic water waste is the reason behind water scarcity. This is because of less educated public, they don't aware about the importance of water. They are using and wasting water carelessly. Government don't have check and balance over water usage. They consider it as a free, cheap and priceless commodity that's they don't worth it. They are wasting water and it is leading to water crisis. There is no proper system of water retreat. Hence ignorant public is also contributing in water crisis.

Indus River System or Basin is most important basin in the world. It provides 125-130 million Acre water on average, Pakistan and India have clashes over water distribution. Indus water Treaty was signed between

India and Pakistan under the supervision of World Bank. According to which the water of Indus, Jhelum and Chenab will be used by Pakistan. But India is violating the conditions of this treaty. Two such examples of this violation are **Baglihar hydroelectric project on Chenab and Kishanganga Dam on Jhelum**. Due to these two projects water level has decreased from normal in these two rivers. Pakistan is unable to meet its water demands because of this violation. Therefore violation of Indus water Treaty is leading to water crisis.

A growing scarcity of water resources in the country is increasingly becoming a source of conflict among provinces over the distribution of available water. Already the country is facing interprovincial conflicts if there will be increase in crisis, it will cause to increase in the gap between demand and supply of water. Therefore it may cause to increase in the conflicts among units on the distribution of water. In this it may harm Nation unity.

Water crisis leads to low crop yield and food insecurity. Pakistan's economy is water-intensive. It largely dependant on agriculture.

to meet its domestic needs. 90% of Pakistan's food is locally produced on Indus river basin. If there will be water scarcity it will resist food production. According to the UN FAO, between 2000 and 5000 litres of water are needed to produce a person's daily food intake. Water is an indispensable ingredient to agricultural production and without water, farmers would not be able to grow their crops and feed their animals. Therefore water insecurity means food insecurity.

Water scarcity leads to social unrest and health hazards. Because of insufficient clean water availability people are using contaminated water and have sanitation problems. It cause certain water related diseases. According to an International Union for Conservation of Nature (IUCN) report, infant deaths from water-related diarrhea account to 60% of all deaths. In Pakistan the highest in Asia. Around 53000 children died from diarrhea caused by contaminated water. Therefore, water crisis cause social problems and certain diseases.

Water Shortage causes loss the fertility of the land. Water has the key role in land's fertility. Lack of water causes drought situation. It will

show resistance in the growing of plants, crops, cotton and fruits etc. It can cause food insecurity and feminine like situation. Water shortage has caused soil salinity that will lead to desertification of land. Therefore, water crisis leads to desertification. Water crisis is a threat to Pakistan's economy. Pakistan's

agricultural need and much of energy meet through water. It is the important factor of Pakistan's economy. Water can serve as the engine of economic growth and regional trade expansion. With agriculture being Pakistan's major sector (constituting 20% of GDP) and largest water consumer, it is estimated that even if a billion dollar output is achieved for every million acre-feet of water utilized for agriculture, the water economy has the potential to increase total annual agricultural GDP to \$200 billion from its current \$50 billion.

Similarly hydroenergy is the ^{most} cheaper and cleaner source of energy than hydrocarbons. Because of water scarcity there will be huge loss in the agricultural and energy sector. Hence, water crisis is a threat to economy.

Water crisis may cause environmental degradation. It has dangerous impacts on aquatic animals

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and also for domestic animals. Water scarcity leads to sanitation problems which in turn cause pollution. It causes air pollution. Water crisis leads to drought which reduces green lands. It causes soil erosion and salinity. Therefore, water crisis caused environmental degradation.

Water shortage is also harmful for industrial development. In Pakistan 3% of water is used for industrial development. But some industries are indirectly dependant on water for example fabric industry and cotton industry. Moreover, cement industry, sugar mills are also dependant on water. Sugar and rice crop need large amount of water. Water scarcity leads to stunt industrial growth.

Water crisis could be controlled through Efficient Water Management system and installation of more dams. There is need to reforms in the Water Resource Management system for example in WAPDA there is need to replace non-technical experts with technical water experts. There is need to work on Water Resource Development and Water Resource Management storage capacity. Federal government should change on

provinces and farmers according to the amount of water used. Water is most important than energy sectors. Government should launch water meters at Domestic level especially in urban centers. There should be more focus on water billing and their collection. The most important way to control water crisis is to enhance the water storage capacity, to build more and more dams, prevent flow of river water in the ocean. To improve Indus Water Irrigation.

Water Recycling is also the important measure to prevent water crisis. Domestic and industrial water should be recycled. For this government should focus on the installation of Waste water treatment plants, Desalination units, and ^{water} filtration plants. With the help of desalination units we can meet our needs from sea water. For this purpose government should make strong policies and implementation of those policies is also important.

Water crisis can also be controlled through education. Public should be aware about the worth of water. Education and media are playing important role in this case. There should be ^{water} awareness campaigns on social media and

in educational Institutions. There should be a public service message that ~~with~~ importance of water and about careful use of water at Domestic level.

Water is essential component of life. Almost every ^{living} being on earth needs water to survive. Life is not possible without water. But because of unexpected weather patterns and human activities globe is facing fresh water crisis. Because of increase earth's temperature, Glacial retreat, Rising sea level and poor management of water, Pakistan is facing Acute water shortage. It has various impacts on Agriculture, economy, food and water insecurity. It has also caused social issues within the country. Although water crisis is challenging to national unity but it can be tackled through proper water management. It can be done through inclusive water institutions, through water expert staff and installation of water storage dams and reservoirs. Stop wasting water campaign and water billing is also helpful. Water metering can also play a role. Every one should play a role at individual level to save water. "Do not waste a drop of water even if you are standing on a running stream".
— Prophet Muhammad (P.B.U.H).