



Water Crisis: Not Just Meteorology But Mismanagement. 125 Marks

Structure of the Essay:

Introduction:

You can start the introduction through following ways:

- Start with a general introduction/anecdote/an example/a short story/a poem/a quote/a recent event or trend etc which can help in describing the need for self-reliance.
- “The water crisis is not (or not mainly) one of availability; it is, in the Indian context, at any rate, a crisis of gross mismanagement, and globally, a crisis of rapacity.”
Ramaswamy R. Iyer

Thesis Statement:

- It is a transition statement between introduction and body of the essay.
- In thesis statement, you should write outline of the body with your own arguments. You should prove these arguments in body of the essay with relevant examples.

Body of the essay:

Water Crisis and Meteorological Reasons

India has only about 4 per cent of the world’s renewable water resources but is home to nearly 18 per cent of the world’s population. It receives an average annual precipitation of 4,000 billion cubic metres (BCM) which is the principal source of fresh water in the country. This is also responsible for recharge of ground water table. However, this rain is not uniform in time or geography.

Water Crisis- Global Warming and Changing Precipitation Pattern In India

With the rise in global temperature, rainfall will increasingly become more erratic and frequency of extremes like cyclones, cloud bursts, droughts and floods will increase. Changes in temperature, precipitation and other climatic variables are likely to influence the amount and distribution of runoff in Indian rivers. Himalayan rivers are lifeline for millions of people in northern plain. The runoff of the Himalayan rivers is expected to be highly vulnerable to climate change because warmer climate will increase the melting of snow and ice and will have a direct impact on water resources affecting the drinking water, irrigation, hydropower generation and other uses of water.

Water Crisis- Mismanagement of Water Resource

The World Bank has accepted 1000 m³/per capita/year as a general indicator of water. Below 1000 m³/per capita/year, water supply begins to hamper health, economic development and



human well-being. At less than 500 m³ / per capita/ year, water supply becomes a primary constraint to life and countries experience absolute scarcity. In India, the total available water is sufficient for a population of 1650 million (1500 m³ / per capita/ year) if managed properly.

Water Crisis- Agriculture, Low Water Use Efficiency and Politicization

As per the Central Water Commission, 85.3% of the total water consumed was for agriculture. The country records only 38% water-use efficiency in the field of agriculture which is much lower than water use efficiency in USA and China. India ranks second in the world in farm output, and agriculture contributes 17% of the nation's GDP. Still, irrigation systems in most states are centuries old. There is over-dependence on the monsoon. The irrigation infrastructure—canals, groundwater, well-based systems, tanks and rainwater harvesting—has seen substantial expansion over the years, but is clearly not enough.

Water Crisis- Unplanned Urbanization and Culture Of Wastage

The urban population has increased from 17.3% in 1951 31.2% in 2011. The consistent increase in the rate of growth of India's population has also led to the increase in demand for water. The growth of urban centers has been unplanned and haphazard leading to large population living in slums. The water supply of 135 litres per capita per day (LPCD) as a service level benchmark should be given for domestic water use in urban local bodies as per Central Public Health and Environmental Engineering Organisation (CPHEEO), however, currently an average water supply in urban local bodies is 69.25 LPCD.

Water Crisis- The Problem of Quality- Pollution

Water pollution seems to be getting out of hand. There are pollution control laws and institutions, but these have not been able to prevent the growing pollution and contamination of water sources and systems, which in effect makes much of the 'available' water resources unusable. On the one hand we are trying to augment supplies, and on the other we are destroying a part of the existing supply. We have reduced many of our rivers to sewers (e.g., the Yamuna), or turned the water into poison (e.g., the Palar in Tamil Nadu). There are also problems of fluoride content in groundwater in some places, and arsenic, earlier found in West Bengal (as in Bangladesh though not on the same scale) has now begun to appear in Bihar. The contamination of aquifers by industrial effluents and agricultural residues is also a matter for anxiety in many places.

Conclusion:

In September 2015, the UN adopted the 2030 Agenda for Sustainable Development with 17 Sustainable Development Goals (SDGs). Goal 6 is dedicated for ensuring access to water and sanitation for all. In the context of India, challenges for achieving this Goal are immense but possible, provided some steps are taken at the earliest. There is a true proverb in Hindi "Jal hai to Kal hai" which means if there is water then only our future is safe. However, man has been recklessly misusing this precious resource given by nature. It is time we realize that water cycle and the life cycle are one. Therefore, from today let us all pledge to not waste water but to conserve this priceless resource.