Geography · GS - I

Why is the world today confronted with a crisis of availability of and access to freshwater resources?

EXAM YEAR	PAPER	SUBJECT
2023	GS - I	Geography

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Distinguish physical scarcity from unequal access; examine population growth, urbanisation, agriculture, industrialisation, groundwater depletion, pollution and climate change; highlight regional inequality, governance failures and the need for conservation, efficiency and equitable water management.

Model Answer

Introduction

Freshwater is renewable through the hydrological cycle, yet its availability and accessibility are increasingly under stress. The global water crisis arises from a combination of **physical scarcity, deteriorating quality, unequal distribution and poor governance**.

Body

Growing Demand:

Population growth, urbanisation and industrialisation have increased demand for domestic, agricultural and industrial water. Agriculture remains a major consumer of freshwater.

Groundwater Depletion:

Excessive extraction for irrigation and urban use is lowering groundwater levels in several regions, threatening long-term water security.

Pollution:

Untreated sewage, industrial effluents, agricultural chemicals and solid waste contaminate rivers, lakes and aquifers, reducing usable freshwater.

Climate Change:

Changing rainfall patterns, prolonged droughts, glacier retreat and extreme floods create greater uncertainty in water availability.

Unequal Access:

Freshwater is unevenly distributed geographically, while economic inequality and inadequate infrastructure prevent many communities from accessing safe water.

Governance Deficits:

Fragmented institutions, inefficient irrigation, weak regulation and inadequate pricing mechanisms contribute to wastage.

Conclusion

The water crisis is therefore both an **ecological and governance challenge**. Water conservation, efficient irrigation, wastewater reuse, rainwater harvesting, aquifer management and equitable institutional frameworks are essential for sustainable freshwater security.

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