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BATCH # OB-62

TOPIC:

Water Crisis In Pakistan: Causes And Consequences

★ Causes.

★ Consequences.

★ Overpopulation.

★ Ecosystem.

★ Glaciers melting.

disruption.

★ Soil Salinization.

★ Agricultural use.

Brainstorm

★ Food Insecurity.

★ Water Pollution.

★ Reduced hydro-power generation.

★ Limited Storage capacity.

★ Economic Instability.

★ Inadequate policies.

★ waterborne diseases.

Outlines

1) Introduction:

- 1.1) Hook
- 1.2) General background
- 1.3) Thesis statement.

2) Causes of water Crisis in Pakistan:

2.1) Demographic and Socio-economic factors.

- 2.1.1) Overpopulation.
- 2.1.2) Urbanization
- 2.1.3) Agricultural dominance, 65% dependency of rural population on water intense agriculture. (Pakistan Bureau of Statistics)
- 2.1.4) Poverty.

2.2) Environmental and climate change.

- 2.2.1) Climate change, impacts 75% of Pakistan's water supply (Asian Development Bank report).

2.2.2) Glacier melting

2.2.3) Precipitation variability,
20-30% decrease in
rainfall since 1990

(Pakistan Meteorological
Department).

2.2.4) Water pollution.

2.3) Lack of infrastructure and management.

2.3.1) Inefficient water management.

2.3.2) Limited water storage capacity, only 10%.
(World Bank)

2.3.3) Outdated infrastructure.

2.3.4) Lack of water metering

2.4) Institutional and policy factors.

2.4.1) Weak institutions.
(World Bank, "Pakistan water sector review," 2020)

2.4.2) Inadequate policies.

2.4.3) Transboundary disputes.

2.4.4) Limited public awareness (UNESCO, "Water

education in Pakistan,
2019).

3) Consequences of Water Crisis in Pakistan:

3.1) Environmental and health consequences.

3.1.1) Ecosystem disruption, 30% decline in aquatic life (World Wildlife Fund, 2020).

3.1.2) Water pollution, 40% of water sources are contaminated (Pakistan water and power Development Authority, 2018).

3.1.3) Soil salinization.

3.1.4) Increased risk of waterborne diseases.

3.2) Socio-economic impacts.

3.2.1) Food insecurity

3.2.2) Human migration.

3.2.3) Social unrest.

3.2.4) Economic instability, 2-3% annual GDP loss due to water scarcity (World Bank, 2020)

3.3) Impacts on agriculture and livestock.

3.3.1) Reduced crop yields, 20-30% decline in major crops (Pakistan central cotton Research Institute, 2020).

3.3.2) Livestock impacts.

3.3.3) Irrigation system collapse.

3.3.4) Farming community displacement.

3.4) Impacts on infrastructure and energy sector.

3.4.1) water supply system failure.

3.4.2) Energy scarcity, reduced hydropower generation (Pakistan water and Power Development Authority, 2020).

3.4.3) Increased water treatment costs.

3.4.4) waste water management challenges.

4) Conclusion:

THE ESSAY

"The water crisis is a silent emergency, demanding immediate attention" (Dr. Maria Neira, WHO Director, Public Health). Water crisis is one of the five (5) major crisis in the world. It is a global challenge despite focusing on many international policies. The number of water scarce countries is expected to double in the coming years. Unfortunately, Pakistan ranks among the countries, most vulnerable to water scarcity. According to the United Nations Development Programme (UNDP) and the Pakistan Council of Research in Water Resources (PCRWR), Pakistan ranks 3rd in the world among countries facing acute water shortage while 4th largest in water consumption. The main causes behind water crisis in Pakistan

are demographic and socio-economic factors, environmental and climate change factors, infrastructure and management factors, institutional and policy making factors. The consequences of the water crisis in Pakistan are far-reaching and multifaceted which includes environmental and health impacts, socio-economic impacts, agricultural and food security impacts, infrastructure and energy sector impacts. If the situation remains unchanged, the whole country may face water scarcity by 2025.