

Water Crisis in Pakistan: Causes and Consequences

Outline

1- Introduction

1.1 Hook

1.2 Background

1.3 Thesis statement

2- Root Causes of Pakistan's Water Crisis

2.1 Rapid population growth and unplanned urbanization

2.1.1 Population increasing at an alarming rate while water resources remain the same.

2.1.2 Population projected to reach 338 million by 2050

2.2 Climate Change

2.2.1 Extreme weather and uncertain monsoons

2.2.2 Recurrence of floods and droughts

2.2.3 Melting glaciers

2.3 Poor Water Management

2.3.1 Low irrigation efficiency and incorrect selection of crops

2.3.2 Irrational distribution and consumption of water

2.3.3 lack of water storage facilities

2.4 Water Pollution

2.4.1 Industrial and agricultural runoff

2.4.2 60 million people at risk of exposure to high concentrations of arsenic in groundwater.

2.5 Water Policies

2.5.1 Neglect of water quality issues

2.5.2 Overexploitation of groundwater.

3. Consequences Of The Water Crisis

3.1 Agricultural losses

3.1.1 Water shortages reduce crop yields and livestock production

3.1.2 Threatens Pakistan's food basket crops (wheat, rice, sugarcane, cotton).

3.2 Energy Shortages

3.2.1 Water scarcity reduces hydel production, increasing reliance on costly thermal power.

3.2.2 Hydropower contributes about 25% of Pakistan's electricity.

3.3 Economic Impacts

3.3.1 Agriculture contributions (24% GDP, 42% Labour) under threat.

3.3.2 Reduced water availability impacts exports and rural livelihoods

3.4 Health Impacts

3.4.1 Around 40% diseases in Pakistan linked to contaminated water

3.4.2 Millions lack access to safe drinking water.

3.4.3 Malnutrition as food availability declines

3.5 Environmental Degradation

3.5.1 Drying rivers, wetlands, and lakes damage ecosystems.

3.5.2 Desertification in areas like Thar parkar increases

4. The Way Forward

4.1 Construction of dams

4.2 Recycling of wastewater

4.3 Increasing agricultural efficiency

4.4 Rainwater harvesting

4.5 Water metering / pricing

5. Conclusion

The Essay (Introduction)

As Benjamin Franklin once remarked, "When the well is dry, we know the worth of water." These words correctly describe the water situation of Pakistan where the water crisis threatens the agriculture, economy and national security. With less than 240 millimetres of rainfall in an average year, Pakistan is counted among the most arid countries in the world. Pakistan is dependent on the 2,900 km long Indus River and its tributaries for its needs. Once considered water-abundant, the country has slipped below the scarcity threshold, as per capita availability has fallen alarmingly over the decades. The water crisis in Pakistan is a growing threat stemming from unchecked population growth, climate change, poor water management, water pollution and inadequate water policies. Its repercussions extend beyond agriculture and economy to health, environment, social stability and even national security.