

Pakistan's Water Crisis:

Threatening Food Security And Economic Stability

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The history of Pakistan's water crisis traced back to the partition of British India in 1947 when the distribution of water resources between India and Pakistan was a contentious issue. The Indus Basin Irrigation System, which supports the agricultural backbone of Pakistan, divided between the two countries under the 1960 Indus Water Treaty. Despite this agreement, water disputes have continued to strain relations between India and Pakistan, further complicating water management in the region.

The mismanagement of water resources in Pakistan has also played a significant role in worsening the crisis. Inefficient irrigation practices, such as flood irrigation and outdated infrastructure, have led to water wastage and depletion of groundwater reserves. Pakistan Council of Research in Water Resources (PCRWR), Pakistan is likely to face absolute water scarcity by 2025 if urgent measures which are not taken to address the crisis.

The water crisis in Pakistan has severe implications for food security and economic stability. Agriculture accounts for a significant portion of Pakistan's GDP, and a lack of water availability hampers crop productivity and diversification. Farmers forced to rely on unsustainable groundwater extraction practices, leading to land degradation and reduced agricultural yields. This not only threatens food security within the country but also impacts the export potential of agricultural products.

A severe water crisis that poses significant threats to its food security and economic stability. With a growing population expanding agriculture sector and unpredictable water availability due to climate change. Pakistan is at a critical juncture in managing

its water resources effectively. The challenges posed by Pakistan's water crisis, the implications for food security and economic stability and potential solutions to address these pressing issues.

Pakistan's water crisis is multifaceted, stemming from issues such as water scarcity, mismanagement, pollution, and inefficient distribution systems. The country relies heavily on the Indus River system for its water supply, but increasing water demand from agriculture, industry, and domestic use is straining this finite resource. Climate change aggravates the situation, leading to unpredictable rainfall patterns, melting glaciers, and reduced water availability. As a result, Pakistan is considered a water-stressed country, with per capita water availability declining over the years.

The agricultural sector that is the backbone of Pakistan's economy is heavily dependent on the availability of water. Irrigated agriculture accounts for a significant portion of the country's GDP and employs a large portion of the workforce. However, water scarcity and inefficient irrigation practices threaten agricultural productivity and food security in Pakistan. Farmers often resort to overdrawing groundwater or using outdated irrigation techniques, leading to water wastage and degradation of soil fertility. This unsustainable use of water resources not only hampers agricultural productivity but also contributes to environmental degradation and water pollution.

The water crisis in Pakistan has broader implications for the country's economic stability. As a predominantly agrarian economy, any disruptions in agricultural production due to water scarcity can have ripple effects on the overall economy. Reduced crop yields, water stress-related conflicts, increased food prices can exacerbate poverty further straining the

social fabric of the country. Moreover, industries that rely on water for their operations, such as textiles and manufacturing, face challenges in maintaining production levels amidst water shortages.

Addressing Pakistan's water crisis requires a multi-faceted approach that encompasses policy reforms, investments in infrastructure, efficient water management practices, and public awareness campaigns. The government needs to prioritize water governance, water conservation laws and water use practices in agriculture and industry. Improving irrigation systems, promoting water-efficient crops investing in water recycling and desalination technologies can help to improve water availability in the country.

Industries dependent on water for production processes are also facing challenges due to the water crisis. Textile, sugar, and pharmaceutical industries require substantial water supplies, and the scarcity of water disrupts their operations, leading to reduced economic output and job losses. The overall economic stability of Pakistan further compromised by the water crisis, as the disruption in agricultural and industrial sectors affects the country's GDP growth and foreign exchange earnings.

Addressing this crisis requires concerted efforts from the government, civil society, and the private sector to manage water resources sustainably and ensure equitable access to water for all sectors. Implementing sound water management practices, investing in water infrastructure, raising awareness about the importance of water conservation. The complex history of water disputes, mismanagement of water resources, and the urgent need for sustainable solutions make it imperative for Pakistan to address this crisis promptly.