

Water crisis in Pakistan and its Remedies

1) Introduction

- a. Global water security Report (2023)
- b. Thesis statement

2) Causes of water crisis

- a. Lack of dams construction
- b. No proper canal system
- c. Mismanagement of resources
- d. Dispute between the provinces
 - Kalabagh dam

- e. No proper function of ^{natural} Disaster Management Authority (DRAA) (NDMA)
- f. Political instability

3) Source of water

- a. Indus River
- b. Tarbela ~~dam~~ Dam
- c. Mangla ~~dam~~ Dam
- d. Chashma Barrage reservoir
- e. Industry

4) Impact on economy

5) Recommendation

- a. Chashma dam
- b. Kalabagh dam
- c. Gomal Zam dam
- d. Water management

Make a comprehensive, Outline

Work on your articulation and

writing skills

Improve your understanding

about topic

Avoid unnecessary information

Write only what is demanded

Give pertinent recommendations

e. Provide alternate source of energy

f. Equal distribution of water among provinces

b) Conclusion

The latest UN report 'Global Water Security 2023 Assessment' places Pakistan in the critically water-insecure category, indicating that the country is facing a water emergency that requires immediate attention. Since 1947, Pakistan has faced water insecurity among the provinces. In 1960, Pakistan-India signed the Indus Water Treaty (IWT) brokered by the World Bank. Equal distribution of Rivers, in which Pakistan, Indus River, Chenab, and Jhelum), India (Ravi, Bias, and Sutlej). After independence, Pakistan stuck in water security crisis due to political instability, lack of good governance, controversy among

provinces, and mismanagement of resources, which lead the Dabagh dam, Tarbela dam, and Mangla dam. In these, discussing the political instability, mismanagement of resources: both dams and canal, controversy among the provinces and no proper management, while in contrast their sources and seem recommendation.

Firstly, dams plays a profound role in the water security crisis, storing water and then following it both are relevance for human resources and for land resources.

But unfortunately, Pakistan has lack of dams to store the water at artificial ruins and the rivers, such as the Indus River, Chenab River, and Jhelum River, which play a significant role for Pakistan water management resources. The Tarbela dam and the Mangla dam both play essential role but their capacity

are not much more for the entire province province. However, lack of government accountability in the water management resource devasted and erode the

damns and the canal systems.

Although unawareness through education made the system more worse for the water crisis. No proper policies for the creation of dams and creating

misperception about the dams on social media, which leads the water scarcity and controversy about the provinces. Creating propaganda

and disadvantages of the KalaBagh dam lead the controversy among the government and the provinces, also

affect the water system. Moreover,

these erode the human energy resources and affect the Pakistan economy, because

it plays a core role of making the hydropower which generates electricity which

helps beneficial to both for human resources and for the economic sectors.

Canal system plays a substantial role in irrigating lands which enhance the human resources and eliminate the poverty. Lack of dams is the ultimate source of eliminating the canal system.

However, misuse of water resources management creates the canal issues. Everyone has ~~use~~ using the water resources for their own purpose individually.

Individually irrigating lands creating the scarcity of water in the form of canals, which leads to contention among people and the provinces which eliminate and abandon the canals system for personal gain. These will creates and enhanced a huge amount of water scarcity which affect the water management system.

Although, illiteracy among public will creates these issues and lead the canal dispute among the public and the

process, after soon of "effect the entire Indus Water Treaty (IWT) between the Pakistan-India, which degrade the ~~other~~ Rivers. Moreover, those ~~elite~~ ~~elite~~ individual purposes lack of proper system, misuse of water resources and the controversy among ~~the~~ public and ~~the~~ provinces will increase and devastated the dams and canal system which directly the water scarcity in a nation.

Similarly, proper management ~~will~~ enhance the water capacity and capability but in contrast, mismanagement of the ~~the~~ water has erode the water capacity and will affect the scarcity of water. Lack of accountability in the government and a local government ~~will~~ ^{has} create these issue that will directly affected the water management system and creates a tension in a region and regional. However, lack of awareness in

public and no proper platform given by government or local government to the people have raise in creating mismanage of the water that will devasted the dams system, canal system, and the irrigation system. Although, these all are come from lack of accountability, bad policies of the government, and the political instability which eliminate the proper use of water and creates a tension in the public, which leads the protest and unrest in banning the water management system. Moreover, the federal government and provincial government plays a significant role in creating all these issue which affect the entire water system. Thus, it has devasted the agriculture sector and the economic system which has a key element for the human resources.

Political instability, mismanagement of the water resources, and the personal interest creates issue among the provinces and regional. The Kalabagh dam is the main cause of rising disputes among the provincial government and the federal government. In addition, the Kalabagh dam on Indus Rivers will reduced the water capacity and creates water scarcity. Moreover, different social activist say that the Kalabagh dam has no relevance for the KP and the rest of others provinces. Although, these misperception plays an important role in creating the dispute among each provinces. However, the political status plays a substantial role in creating those issue for individual benefit.

Every political leaders have serve their duty individually for personal party joining where they belong. These create the

unrest situation and triggered to leads the uncomfortable condition among the of the federal and provincial government. In addition, the Kalabagh dam has the significant for UP which cover almost their irrigated lands but due to political instability it affect the energy resources and the irrigated lands. So, these political instability, individual struggling, lack of domestic policies for water management have caused devastate and eradicate the water resources.

The more government provide facilities to National Disaster Management Authority (NDMA) the more they work on water scarcity. Lack of facilities to NDMA will affect the energy resources. The more affect the energy resources, the more enhance the poor water scarcity. Lack of proper relief by government to ~~facilitate~~ ~~the~~ NDMA that facilitate the water energy resources. In addition, lack of accountability

has affected the proper function on the energy management, which lead to erode the availability of water. These will decrease the agriculture output which has the core significance in energy resources. However, the immediate funds to the energy sector which has the ultimate cause in enhancing the water scarcity and eradicating the water & capability. Although, these will lead down to the ~~unreliability~~ government to the unreliability which ~~also~~ creates the mistrust on the governance system. Moreover, the economic sector which plays a central role in these has the ultimate cause in the energy sectors. Provincial debt ~~will~~ has creates these tension.

Political instability has a core significance in these sectors. Personal interest, lack of illiteracy skills, unaccountability, and interference come from political instability which

disrupt the energy management system that devastated the water capability. However, bad policies for the water management which has the ultimate cause for the water crises. These can laid down the system in the highly disputed area. Although, which creates an poverty among political status that affect the governance system which caused for the water resources management. Moreover, the more political instability caused for the water crises, the more it affect the agriculture and industrial sector; the more they two affected, the more the economy will be down fall. So, these economic downfall has erode the the water capability which unrest and ~~collisions~~ in a country.

The Indus Rivers has the capability in enhancing the water capacity through out the country. Increasing

energy source for agriculture sector and industrial sector. However, these sectors have improve the livelihood life. Providing water for the irrigation system and cultivating such like, crops, wheat, and rice which have the core element eradicating the poverty by selling and exporting those. Although, the Indus River has the ability to store the water in the form of dams which have the substantial role in providing the electricity and energy for the technology in in the form of power plant. In addition, these enhanced the economic condition of the country which eliminate the poverty and providing an opportunities for the people. However, these will strong the governance system, increase justice on the system, and ensure the reinforce of the water management system.

Terbela dam is the highly hydro-electric energy produced power plant with the capacity of 4,888 MW. This energy power plant has the intense source for the industrial and agriculture sectors of the country. In addition, majority of the population are highly dependent on those two sectors. However, those provide most of the employment opportunity, in which people gone their families. Immense storage water has produced electricity which became beneficial for the irrigation system in the form of tubewell to irrigate the land, which plays a crucial role in the agriculture exporting domestically. Although, the more capitalized those two sectors on the behalf of Rivers and Dams, the more economy will increase and the more the country will improve their technological advancement.

Mangla Dam is one of the largest dam in Pakistan constructed in 1961 during the Ayub Khan era. It has the capacity of storing water with the ~~1000~~ capacity of 1,000 MW and located on the Jhelum River. However, it has the capability to control the flooding and flow it into the Indus River. While also has the capability of producing electricity which have beneficial for agriculture sectors and industrial sectors. Although, these two sectors have enhance the energy products and provide an opportunities for the job employment with the help of dams giving them our electricity. Moreover, dams protect us from flooding and providing us an products in the form of protecting building collapsing and eroded, and products like water for irrigating lands and for industrial.

Similarly, the Chashma Barrage reservoir has the water storage reservoir for energy located on the Indus River. It has 184 MW installed capacity for energy resources. However, Chashma Barrage plays a substantial role for the energy resources, linkage with the Jhelum canal which have a multiple use for irrigation and agriculture sectors. Although, it has the essential source for the industrial and ~~providing~~ for flooding control system. The recent flood in UP and Punjab, dams and Barrages playing a significant role storing water capacity and decreasing the flooding flow which cause for collapsing building, deviating canals resources, and evacuating people. Moreover, these control and protect the agriculture sectors, industrial sectors, and Building collapsing from floods, while erode their flow capacity in the form of storing water and then releasing it.

into the rivers.

The industrial sectors have the role in energy management and providing their economies throughout the country and the world. Providing opportunities and eliminating the poverty in the form of jobs and goods. However, exporting goods through provinces have promoting mutual cooperation and national integration, while enhancing economies. Although those mutual cooperation, national integration, and exporting goods have reinforce governance system throughout provinces.

Good governance system plays an important role in stabilizing the economy which has the very role in energy resources. Moreover, industrial sectors have the backbone of the economy in technology and military advancements, in which the government defend its energy resources by these military capability and technological advancement.

Bad governance, lack of accountability

accountability, mismanagement of the resources, and political instability impact the economy. The recent flood in UP and Bihar have devastated multiple sectors, collapsing buildings, destroying land infrastructure, evacuating families from dangerous place to safety place, and loss of human life. However, almost 35% of the lands have been devastated in Bihar, including families, goods and building infrastructure. So, these ruthless policies can lead the devastation and eroding economic sectors which have a significant role in enhancing the economy. Although the economic sectors have a profound role in providing facilities and promoting technology. But the unconscious policies have led there in affecting the water sources which have the beneficial role to reinforce the government. Moreover, affecting economy will lead the water crisis and economic crisis.

Making dams, like Chasma

Dam has enhancing the water storage capacity. Chasma Dam has the capability of 184 MW power generation. However, these power generation can be used in the industrial and agriculture Sectors. Although, storage water, protection protecting from floods have the one element for energy sectors. Furthermore, enhancing agriculture Sectors and industrial Sectors by dams have reinforce the economy. These both plays an important role in job employment and eliminating the poverty rate by proper working in industries and irrigation and by labours. Making goods and cultivating crops from industries and agriculture to exports will enhance the government more strong and erode the energy crises. Moreover, it improve and enhanced the economic stability for better governance.

Similarly, the Katalagh Dam has the proposed storage capacity is about 6.1 million acre-feet. The more water stored, the more civilian protect from floods. However, storing of water can produce and generate electricity. The Katalagh Dam has the power generation capacity is about 3,600 MW. This can reinforce the economic condition of the country which have the capability to modernize the industries. Although, the economy has a profound role in agriculture sectors, providing job facilities and reinforcing the irrigation system which can lead by eliminating goods security and produced more products. Moreover, exporting those products is the ultimate aim of promoting economy and attracting more investors. These can leads more economic integration with the collaboration of mutual understanding by exporting the products.

Gomal Zam dam has the one significant of generation capacity about 17.4 MW. However, producing water about 191,000 Acres of agriculture land in D.I. Khan and Tonk district. Boosts agriculture in Southern Khyber Pakhtunkhwa while providing clean hydroelectric energy for industries. Although, it has the capability of protecting civilians from floods. Storing capacity of Gomal Zam dam is 1.14 million acre-feet. These helps in industrial zone and irrigation to providing electricity for proper work. Moreover, producing goods and foods which have the beneficial role for the livelihood and for the government. Utilising those for the exports and generating more revenues which have plays an important roles in the economies. Thus, it has leads to economic prosperity and enhancing the water security by eliminating

the water crosses.

Making good policies and providing multiple sources for water management system will enhance the management system.

However, good governance and political stability plays a substantial role in the water management system.

Although, it will reinforce the disaster management system, agriculture sector, and the industrial system of the government. By providing foods from agriculture sectors, job employment from industrial sectors, and protection from floods will stabilize the economic capability in improving the governance system and providing facilities in different institution.

Moreover, reinforcing water management system have increase and improve the livelihood life by irrigated lands, and elaborate the water security

in a country. This will lead to the credibility on the system.

Similarly, making strong policies for more dams and providing more quantities for more growth in water management system.

In the Kalabagh Dam has the alternate source for water security in providing more facilities to go for their off-shore infrastructure building. Although, the technology plays a profound role in this building infrastructure of the Kalabagh Dams.

Furthermore, the political stability having substantial role in providing facilities and making good policies for the water security. Extending dams by providing alternate source in the form of canal have increase the water capability and decrease the water scarcity domestically.

Moreover, ~~the~~ these can be well relation domestically and provincially by distributing the water through canal system.

Political stability and good governance

among provinces plays a significant role in mutual cooperation. However, those are based on equal distribution of water among provinces. Equal distribution of water among provinces have erode the water scarcity in the provinces and also has reinforce the mutual relations among countries through mutual cooperation. Although

Although, mutual cooperation and mutual
relation in the equal distribution
of water sources will enhance
the justice system on the government.

Thus, these systems will give association to people on the water management system that will provide them different kind of sources in irrigating their lands and getting benefit from it.