

Climate change catastrophe

# Khyber Pakhtunkhwa (Pakistan): Farmers in KP's southern districts face ruin due to changing weather patterns

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## Several riparian districts of Khyber Pakhtunkhwa are facing water scarcity that has lowered crop productivity and affected orchards

Due to severe dry spells and sudden changes in the weather pattern, for the last two years, the guava orchards have dried up in Lakki Marwat. 75 per cent of the arable land is arid and the staple crops are dependent on rain. Two rivers, Kurram, and Tochi also known as Gambila, pass through the district. However, these rivers irrigate very limited land in Lakki Marwat.

The ground water up to 300 feet depth is brackish and not suitable for drinking or irrigation. Water mined from 1,000 feet depth is better, but only a limited number of people can afford deep tubewells.

Zareef Khan, the caretaker of a guava orchard in Lakki Marwat, says the orchard has been badly affected by an extreme winter and dry spells over the last two years. He says he has had to down many trees in the hope of replacing them later.

“Due to extreme cold wind in December and January, the orchard was damaged. We also experienced two dry spells which badly affected the yield of other fruit in the area.”

Dr Dil Fayyaz from the Agriculture Department says the soil in Bannu, Lakki Marwat and DI Khan is suitable only for date farming. “The underground water in most areas of Karak, Bannu, Lakki and DI Khan is brackish and not recommended for drinking or irrigation,” he says.

Lakki Marwat is one of the less developed districts in KP with an annual rainfall of 70-80mm. To overcome the water shortage, Iqbal Hussain, the deputy commissioner, is implementing ‘social transformation model’ advocating rainwater harvesting to irrigate wheat and other crops.

“Last year with the support of the community, we constructed 103 dikes and aquifer recharges along the banks of Kurram and Tochi rivers. They not only save the community from floods and recharge the water table, but also provide water for crops.”

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He says the aquifer recharge model is working. “A farmer in the Bitani area received a bumper wheat crop. Several developed countries have implemented similar models. Dikes and aquifer recharges not only protect the community from flood, they also increase crop yields and raise the water table,” he says.

The Marwat Canal from the Baran small dam was constructed in 1962. It closed down a few years ago when the dam silted up. This affected 70 per cent of farmers in the district. Only a handful of the affected farmers have installed tubewells for irrigation. Those with smaller land holdings had no other option but to migrate.

Abdul Qayyum Khan, the district agriculture officer at Lakki Marwat, says the changes in the weather patterns have affected orchards and staple crops in most of the southern districts of the province. “Due to dry winters, I do not recommend plantation of guava orchards. The weather is no longer suitable for guava,” Abdul Qayyum says.

He says heavy frost and intense cold in December and January had damaged orchards that were established in the open. “Those that were within walls fared better. Farmers who took other protective measures also got away with less damage. However, most of the guava orchards in the district have been damaged,” Abdul Qayyum says. He says climate change has been a disaster for orchards and crops in the entire region.

Dr Asif Khan, a Peshawar-based climate and water expert, says Pakistan is the fifth worst-affected country by extreme weather events due to climate change. He says such events are affecting the productivity of the crops and orchards. Water requirement for irrigating crops is also likely to increase.

Climate change is visibly affecting the planet. It may emerge as the next global challenge like a pandemic. Last year the Asian Development Bank (ADB) and the World Bank (WB) estimated a \$3.8 billion in annual economic loss in Pakistan due to climate change.

**Muhammad Daud Khan**

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<https://www.thenews.com.pk/tns/detail/975866-climate-change-catastrophe>
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