**Climate change threatens Pakistan**

[Muhammad Abu Bakar](https://www.nation.com.pk/columnist/muhammad-abu-bakar)

July 19, 2023

[Opinions](https://www.nation.com.pk/opinions), [Columns](https://www.nation.com.pk/columns)

Due to climate change, the entire world, especially Pakistan, is being highly affected. Pakistan is among the ten countries most affected by climate change. Climate change refers to changes in temperature, humidity, or rainfall patterns that occur in a specific region during a particular time period. Upon examining the effects of climate change on Pakistan, it becomes apparent that the entire world is caught in the grip of climatic variations. Unfortunately, Pakistan ranks eighth within that group of the ten most affected countries by climate change. In recent days, astonishing news has emerged revealing the severity of water scarcity resulting from climate change. We learned that Cape Town, a city in South Africa, became the first city in the world to run out of water, earning the title of the first water-scarce city on April 14th of this year. Similarly, Pakistan is projected to face a water shortage by 2025.
The matter I am raising concerns the reasons behind such severe water scarcity. We can explain that in agriculture, 95% of water is utilized, while 4.5% is used for domestic needs. This is because landowners and farmers continue to practice outdated flood irrigation techniques. Pakistan has water reserves of only 224.8 billion cubic meters, while the population has doubled. Moreover, Pakistan lacks a proper water recycling system, although Singapore uses 40% of recycled water for reuse after cycling. Similarly, after extracting water from the ground, there is no proper recharge system in place, which puts Pakistan at the 164th position globally in terms of groundwater replenishment ratio. Due to the extremely low cost of water in Pakistan, water wastage is prevalent. The price of one cubic meter of water is $2 in Pakistan, while in Malaysia, it is $55. The lack of water storage infrastructure in Pakistan also contributes to these issues, leading to frequent flooding in the country. This highlights the crucial importance of constructing dams to address these challenges.
On the other hand, the threat to food security is escalating due to prolonged periods of drought. Climate change has a profound impact on agriculture, posing a risk of food shortage. Just as humans require specific temperature, air, and environment for their survival, trees and plants also rely on these factors for their well-being. In the face of climate change, it is crucial to plant and nurture trees and plants that can withstand lower water requirements and higher temperatures. This approach will help mitigate the risks associated with food scarcity.
Therefore, as the intensity of summer heat continues to increase, the question arises as to why the severity of heat keeps rising with each passing day. Research has revealed that greenhouse gases are responsible for the rising temperatures on Earth. According to estimates, by the end of this century, global temperatures could increase by up to 2 degrees Celsius. Pakistan, particularly Khyber Pakhtunkhwa, experiences heatwaves due to the combination of high temperatures and lack of humidity. When the temperature rises without accompanying moisture, the sensation of heat can surpass 50 degrees Celsius, even when the actual temperature is around 40 degrees Celsius. Additionally, when atmospheric pressure increases, it pushes warm air towards the ground, intensifying the heat.
The concern is valid regarding the need for a strategy to tackle climate change and mitigate its effects. In Pakistan, forests cover only 5% of the total land area, whereas a green country should ideally have forests covering 25% to 35% of its land. Therefore, increasing forest cover by planting more trees in the existing forests is crucial. The government should construct small and large dams in different regions to conserve water during rainfall and prevent water wastage during floods. In Pakistan, energy is primarily generated from oil and coal, which also contribute to the production of greenhouse gases that are highly detrimental to the environment. Therefore, encouraging the public to adopt walking and cycling as means of transportation will not only conserve energy but also contribute to environmental conservation.