

Afghanistan: The alarming effects of climate change

As the 28th United Nations Climate Change Conference ([COP28](#)) draws closer, participants are already pushing for a strong outcome that supports climate action and the [2030 Agenda for Sustainable Development](#) . Participants at last year's [COP27](#) reached a breakthrough agreement on a new Loss and Damage Fund for vulnerable countries hit hard by climate disasters. However, despite being one of the countries most vulnerable to climate change and one of the lowest emitters of greenhouse gases, Afghanistan was not represented at COP27.



WFP/Sadeq Naseri

Some of these disasters are increasing in frequency, intensity and severity, exposing millions of people to critical losses in livelihoods and assets. Afghanistan ranks fourth on the list of countries most at risk of a crisis (INFORM Risk Index 2023), and eighth on the Notre Dame Global Adaptation Index of countries most vulnerable and least prepared to adapt to climate change.



OCHA/Liz Loh-Taylor

Severe droughts intensify

Last year, Afghanistan endured its worst drought in 30 years and now faces its third consecutive year of drought.

At least 60 per cent of the population is dependent on rain-fed agriculture, but changes in rain and snow patterns are severely eroding livelihood practices, which is worsening food insecurity, malnutrition and disease.

Drought is the most frequently reported shock experienced by households in Afghanistan, increasing from 39 per cent in 2021 to 64 per cent in 2022. **Today, 25 out of 34 provinces experience either severe or catastrophic drought conditions, affecting more than 50 per cent of the population.** This is compounded by worsening economic hardship and the effects of four decades of war, which have left half the population in acute hunger, including 6 million people on the brink of famine.

Residents of Elyaskhail village, in Laghman Province, said their land was fertile 30 years ago; they grew different types of crops, the entire area was green and a nearby river flowed perennially. But the land is now dry and arid, trees and vegetation have vanished due to droughts and deforestation, and wildlife have migrated.



OCHA/Liz Loh-Taylor

Global warming is drying the land:

Rising temperatures are rapidly altering precipitation patterns across Afghanistan, diminishing people's access to water. Water scarcity impacts livelihoods, contributes to increased disease outbreaks and drives displacement; abandoned villages are now a common sight across the country.

The mean annual temperature rose by 0.6°C between 1960 and 2008, and by a further 1.2°C between 2009 and 2016, thus intensifying glacier and snow melt, which provide water to rivers during summer.

Most of the country's major rivers originate in the central highlands (Bamyan and Daikundi Provinces), but major water sources for many areas are now significantly affected due to erratic rains, and rapid changes in the amount and timing of snowfall at these higher elevations.

Recurrent drought is drying surface-water sources, such as springs, while at the same time depleting groundwater levels for hand-dug and shallow wells. Some 49 per cent of boreholes assessed in Kabul Province are dry, and the remaining boreholes are functioning at only 60 per cent efficiency.

Elders in Gula Ram village, Laghman Province, explained that the water sources from melting ice in the mountains have dried up, along with vegetation. Mountains are now dry and bare, and medicinal trees and plants that grew in the mountains are extinct.



OCHA/Liz Loh-Taylor

Extreme weather conditions

Amid severe droughts and rising temperatures, Afghanistan is experiencing major swings in extreme weather conditions.

Its neighbour, Pakistan, received more than three times its usual rainfall in August 2022, making it the wettest August since 1961. While not to the same degree, Afghanistan also experienced atypical intense heavy rains and flooding that same month, especially in central, eastern, western and south-eastern regions.

Flooding in Fayzabad District, Jawzjan Province, was historically less frequent, as trees absorbed large parts of spring's snowmelt and reduced the rapid flow of rainwater. However, it is now one of the districts most vulnerable to flooding, due to large-scale deforestation that has contributed to widespread flooding across most of the country in recent years.



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Environmental crisis, shrinking economy

Afghanistan is experiencing a major environmental crisis, including unrelenting deforestation, and land and pasture degradation. Communities in Hakimabad village, Laghman Province, are struggling with reduced incomes, as farming is no longer feasible due to recurrent drought, drying land, severe flooding, deforestation, desertification, and excessive use of farmland and pasture. Once-thriving villages are now losing their livestock and livelihoods, which worsens economic hardship. This phenomenon has become more evident in recent decades.

Desertification has affected more than 75 per cent of the total land area in the country's northern, western and southern regions, reducing vegetation cover for pasture, accelerating land degradation and affecting crop farming in the last four decades.

Climate change is a direct cause of soil degradation, which limits the amount of carbon the Earth can contain.

The convergence of these worsening conditions is depleting livestock and crop production, and forcing people to adopt negative coping strategies, such as child marriage, child labour, and internal and external migration.



OCHA/Elise Blanchard

Humanitarian impact

Afghanistan is now the world's largest and most severe humanitarian crisis. A record 29.2 million people – more than two-thirds of the population – require humanitarian assistance to survive.

That's an increase of more than 480 per cent in just five years. Nearly half the population are food insecure, including almost 3 million people dangerously close to famine.

Afghanistan also has one of the highest rates of malnutrition, with close to 3.2 million children and 840,000 pregnant and nursing mothers suffering from severe acute malnutrition or moderate acute malnutrition.

Humanitarian response

Aid agencies remain in solidarity with the people of Afghanistan, but the impact of climate change has been seriously underestimated. Immediate action is required to protect the population from further harm, including the most vulnerable groups, such as female-headed families, internally displaced people and people with disabilities.

In 2022, aid agencies provided some form of assistance to more than 26.1 million people – almost two thirds of the population.

*In the revised 2023 Humanitarian Response Plan, partners are seeking **US\$3.2 billion to assist 21.3 million people**. So far, the appeal is funded at only 23 per cent.*

Afghanistan also faces a huge deficit in development funding, as most donors either withdrew or froze large-scale bilateral and multilateral cooperation following the [Taliban take over](#) in August 2021, which worsened an already dire situation.



OCHA/Elise Blanchard

Call to action

Humanitarian aid alone is not enough to address the underlying issues that leave Afghanistan vulnerable to climate change-related shocks. The population is remarkably resilient, but they urgently need support to cope with shrinking productive capacity due to climate change, and to reinforce adaptive and livelihood capacities.

For example, farmers in Balkh Province demonstrated that with support from aid agencies, they can grow crops, become self-sustainable, and increase their income while protecting and preserving the environment. However, they need help in strengthening disaster mitigation and effective watershed management mechanisms.

It is important that the Loss and Damage Fund for vulnerable countries, agreed at COP27, materializes and supports the people of Afghanistan to develop early warning systems, and find ways to better protect their livelihoods. It also needs to finance reforestation and land reclamation, and give people the tools – material and otherwise – to adapt to the changing conditions and diversify their livelihoods practices. New strategies for agriculture monitoring and rural land-use planning and management are urgently required to reduce hunger and poverty, and to ensure sustainable food production for Afghanistan’s future generations.

Footnotes *Text: Tapiwa Gomo*

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