AFGHANISTAN
Understanding drought

ACAPS ANALYSIS HUB AFGHANISTAN

Thematic report
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OVERVIEW

Drought in Afghanistan is driven by complex interactions between climatic and human-induced factors, and has become a leading driver of humanitarian needs across the country. In recent decades, both the frequency and severity of droughts have increased. Since 1969, Afghanistan has experienced eight major drought events, affecting over 13 million people in 2018 and 11 million in 2021. Declining groundwater levels threaten water access for millions of Afghans.

Projections indicate that rising temperatures, melting Hindu Kush glaciers, and changes in precipitation patterns will lead to worsening drought conditions in many parts of the country. Key human-induced drivers of drought – including poor water storage and management, challenges in land management and governance, unsustainable water consumption, and environmental degradation – remain largely unaddressed by the Interim Taliban Authorities (ITA) as a result of significant financial and technical constraints.

While communities are still recovering from the severe drought of 2021–2023, alarmingly low snow levels in the Hindu Kush Himalayan region in June 2024 raised concerns about water scarcity and increased risk of hydrological and agricultural drought in the latter half of 2024. This is expected to be aggravated by the likely development of La Niña, which typically brings below-average precipitation across Afghanistan.

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KEY FINDINGS

- **Agricultural drought** is **threatening** the **food security** and **livelihoods** of millions of Afghans, particularly in the country's **northern, northwestern, and central provinces**. Nearly half of the country's districts are classified as 'very high risk' and 'high risk' according to the Afghanistan Drought Severity Index. Following the ITA's opium ban in 2022, the shift to wheat and other water-intensive crops has put added pressure on water resources, further depleting surface and underground water.
- **Hydrological drought** is a major concern, as **declining groundwater tables** are being reported across the country, particularly in the **Helmand, Kabul, and Northern River Basins.**
- **Historically low groundwater tables,** compounded by water pollution, are **threatening water access in major cities** such as Herat and Kabul. These cities are expected to face more frequent and severe water shortages, with significant **health impacts** on the population, particularly those living in **informal settlements**, amid the increasing population pressure resulting from rural-urban migration and forced re**turns.**
- **Drought** is **aggravating existing protection risks** for w**omen and girls**, as gender-based violence (GBV) cases are increasing in drought-affected communities.
- Afghanistan has one of the highest rates of **chronic malnutrition** in children globally, and **children under five** are particularly vulnerable to drought. Drought is expected to aggravate challenges related to accessing safe water, sanitation, and hygiene, and will increase the incidence of waterborne diseases, potentially leading to even higher rates of chronic malnutrition.
- **Groups least able to access traditional drought-coping strategies,** such as community support, include **IDPs** and **returnees, women** and **girls, people with disabilities,** and **economically vulnerable individuals** living in resource-scarce communities.
- Drought is increasing **competition over land and water**, threatening to worsen intra and interethnic conflict, and posing a significant **threat to peace, stability, and social cohesion** in the country.
- Since the ITA's takeover in 2021, i**nstitutional capacity for drought management**, particularly monitoring, early detection, and response, have been severely **affected by reduced funding** and **technical expertise** within key government bodies.

ABOUT THIS REPORT

Aim

This thematic report aims to provide a comprehensive and accessible overview of drought in Afghanistan and inform drought risk-sensitive programming and resilience-building strategies.

Scope

This report's geographic scope is nationwide, but it also provides subnational analysis, where available, in order to highlight the different trends, impacts, and coping strategies at the provincial level. The thematic scope explores drought drivers, impacts, and risk-management strategies and initiatives since the ITA takeover.

Methodology

This report employs a mixed methodology, integrating both secondary and primary data. Primary data collection involved ten key information interviews (KIIs) with key stakeholders – including national and international experts in climate change, agriculture, water, and natural resources – to complement the secondary data review. Secondary data review involved examining available scientific studies, research papers from think tanks, remote sensing data, and reports from specialised local and international NGOs, as well as UN agencies.

Limitations

Afghanistan has limited infrastructure for the collection and monitoring of weather data (precipitation, temperature, and humidity) and hydrological data (groundwater levels, river discharge, and reservoir storage), particularly in rural and remote areas. This lack of data poses limitations to the identification of historical drought trends and projections at the subnational level. Subnational analysis of drought drivers, aggravating factors, and impacts is also complicated by Afghanistan's varied landscape, which encompasses a wide range of ecological zones, from rugged mountain ranges to arid deserts and fertile river valleys.

As this report relies primarily on secondary data, it is limited to publicly available information. Applying an intersectional lens that considers different aspects of identity, such as gender, age, disability, socioeconomic status, and ethnicity, is also challenging given the social, cultural, and political barriers that lead to the limited nuance and questionable reliability of information on drought's differing impacts. There is also a lack of available and nuanced analysis of the different vulnerabilities faced and adaptive strategies used by Afghanistan's many cultures and ethnicities.

WHAT IS DROUGHT – SOME DEFINITIONS

- **Drought** can be defined as persistent and unusual dry weather conditions (rain or snow precipitation deficit) that affect a region's hydrological balance, causing water shortage (IPCC 05/08/2012; NRDC 13/09/2018). The different typologies of drought are distinguished based on their development and impact. The following drought typologies are considered in this paper.
- **Meteorological drought** is defined as a period of unusual precipitation deficit in relation to a region's long-term average conditions (EU accessed 23/06/2024). Changes to precipitation amounts and distribution in a specific geographic location are influenced by several factors, including ocean temperatures, atmospheric air circulation, climate variability phenomena such as the El Niño Southern Oscillation, changes in the local landscape, and climate change (NASA accessed 12/04/2024; WHO 09/11/2023).
- **Hydrological drought** occurs when streamflow in rivers and streams decreases alongside decreases in reservoir, lake, and groundwater levels as compared to the average (EU accessed 23/06/2024).
- **Agricultural drought** occurs when a meteorological drought leads to a deficit in soil moisture, limiting water availability for crops and natural vegetation (EU accessed 23/06/2024). While lack of precipitation is the primary cause of drought, increased evapotranspiration induced by factors such as temperature, vegetation cover, and groundwater storage can contribute to the emergence of agricultural/ecological drought (IPCC 05/08/2012).
- **Socioeconomic drought** describes the impact of drought conditions on the supply and demand of goods such as water, animal fodder, food grains, fish, and hydroelectric power (NOAA accessed 15/04/2024). Socioeconomic drought includes both the economic impacts of drought – such as an increase in poverty levels – and the social impacts, such as migration and coping strategies with potentially harmful effects (FAO 12/02/2020).

DROUGHT TRENDS AND PROJECTIONS

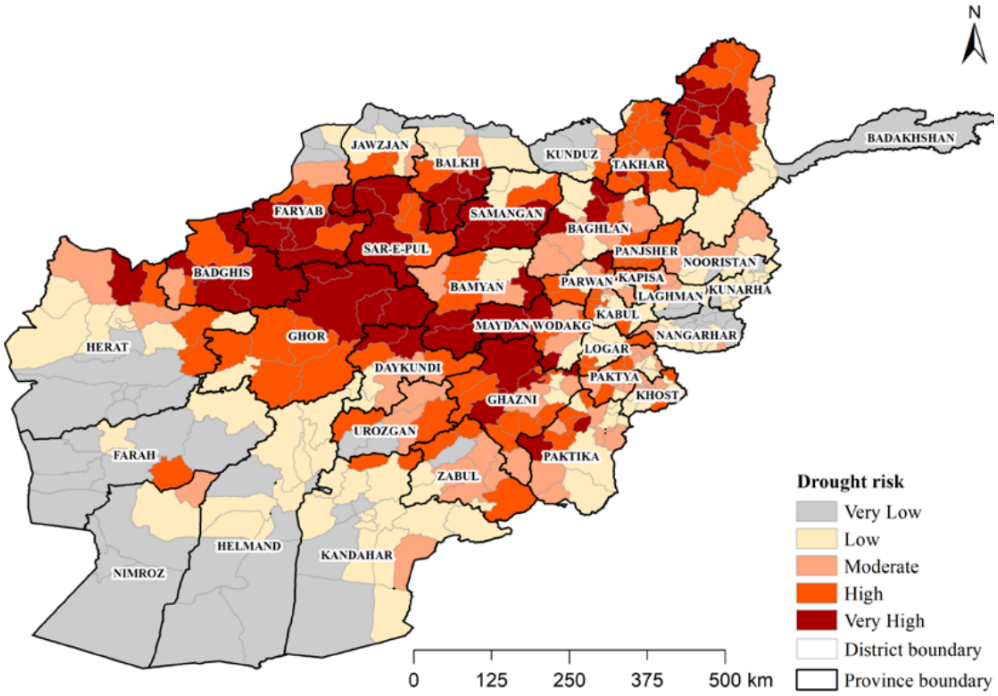
Table 1. Main drought events in Afghanistan since 1969

Year	Regions	Provinces	Drought-affected population
1969	Southeast:	Paktika	48,000
1971	Northeast Northwest Central West		data not available
2000	Northeast: Southeast: South: West:	Badakhshan, Baghlan, Kunduz, Takhar Ghazni, Khost, Paktika Helmand, Kandahar, Nimroz, Uruzgan, Zabul Badghis, Farah, Herat	2,580,000
2006	Northeast: North: Central Highland: South: West:	Badakhshan, Badghis, Baghlan, Kunduz, Takhar Balkh, Faryab, Jawzjan, Samangan, Saripul Bamyan, Daykundi Uruzgan Ghor	1,900,000
2008	Northeast: North:	Bagdhis, Kunduz Balkh, Faryab	280,000
2011	Northeast: North: Central Highland: West:	Badakshan, Baghlan, Kunduz, Takhar Balkh, Faryab, Jawzjan, Samangan, Saripul Bamyan, Daykundi Badghis, Ghor, Herat	1,750,000
2018	Northeast: East: Central Highland: South: West:	Badakhshan, Badghis, Baghlan, Kunduz, Takhar Nangarhar Daykundi Helmand, Kandahar, Zabul Ghor, Farah, Herat	13,500,000
2021	Northeast: North: West:	Badakhshan, Badghis, Baghlan, Kunduz, Takhar Balkh, Faryab, Jawzjan, Samangan, Saripul Herat	11,000,000

Source: ACAPS using data from EM-DAT (accessed 02/07/2024)

Drought in Afghanistan

Map 1. Agricultural drought risk in Afghanistan based on the Drought Severity Index (2001–2019)



Source: IWMI (13/12/2023)

Drought is a recurrent hazard in Afghanistan, with two–three widespread droughts occurring every ten years since the 1970s (FAO 12/02/2020). In recent decades, **drought frequency and intensity have increased**. A recent study of historical drought characteristics between 1980–2017 identified a trend toward more frequent, severe, and longer lasting droughts affecting sub-catchments in Afghanistan's Central, North, and Southeast regions (Chen et al., 06/02/2023). 18 of Afghanistan's 34 provinces have at least one district where over 60,000 people are exposed to frequent droughts and considered at chronic risk (FAO 12/02/2020).

Since 1969, Afghanistan has experienced eight major drought events, with the 2018 and 2021 droughts affecting more than 13 million and 11 million people respectively (EM-DAT accessed 17/06/2023).

Agricultural drought has become increasingly frequent in Afghanistan since 2000. A drought risk analysis conducted by the International Water Management Institute, based on the Drought Severity Index (a composite index used to measure agricultural drought), identified Afghanistan's **Central, North, and Northwest provinces** as areas most prone to agricultural drought. The map below highlights areas at the highest risk of agricultural drought and indicates where population and food security are most likely to be affected. Out of 401 districts, 60 are classified as 'very high risk' and 107 as 'high risk' (IWMI 13/12/2023).

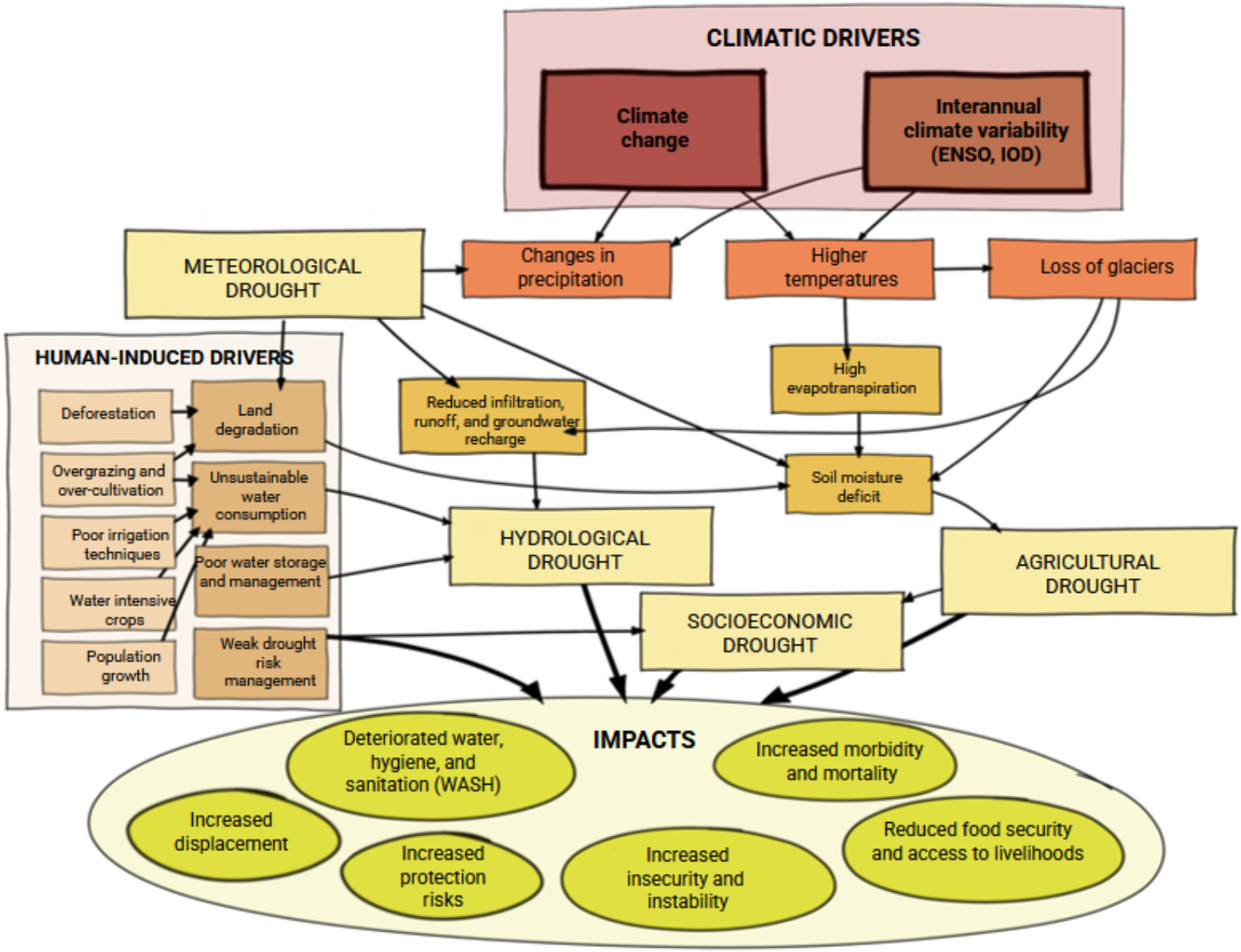
Although the availability of groundwater data for Afghanistan remains limited, there is a documented trend of **hydrological drought**, with **declining groundwater tables** reported across the country, particularly in the Helmand, Kabul, and Northern River Basins, where agricultural withdrawals exceed aquifer recharge rates (SWP 08/2021). Average annual groundwater storage is estimated to have significantly reduced across the country during the 2008–2022 period, as compared to 2003–2007, except in Nuristan and Badakhshan provinces in the East and Northeast regions respectively (KII 14/05/2024). Groundwater is the primary source of drinking and domestic water supply in most of Afghanistan's cities and rural areas, and its reduction is a cause of more frequent water shortages, particularly in urban areas (SWP 08/2021). Kabul especially is facing a sharp decrease in underground water levels, which is affecting water supply (IPS 14/12/2023).

2024–2025 projections

In 2024, March–May rainfall triggered widespread flooding and landslides, but also significantly reduced the precipitation deficits observed in large parts of the country at the beginning of the 2023–2024 winter wet season. This reduction benefitted both crops and rangelands, providing some relief from three years of drought and drought-like conditions (IFRC 15/05/2024; FEWS NET 31/05/2024). In June, however, the International Centre for Integrated Mountain Development issued a warning about **alarmingly low snow levels** in the **Hindu Kush Himalayan region**, warning of the risk of water scarcity for downstream communities. The Helmand and Amu Darya River Basins recorded the most significant anomalies, indicating an increased risk of hydrological and agricultural drought in the second half of 2024 (ICIMOD 17/06/2024). Alongside this, **La Niña,** which typically brings below-normal precipitation across Afghanistan and is considered a driver of drought in the country, **is likely to develop by September 2024** (NOAA 24/06/2024; OCHA 16/05/2024; OCHA accessed 03/06/2024). This may result in **below-average precipitation** starting i**n the last trimester of 2024, with a** delayed and below-average 2024–2025 winter wet season, which may affect the planting and growing of winter wheat (OCHA 16/05/2024).

DRIVERS OF DROUGHT IN AFGHANISTAN

Figure 1. The drivers of drought and dimensions of impact in Afghanistan



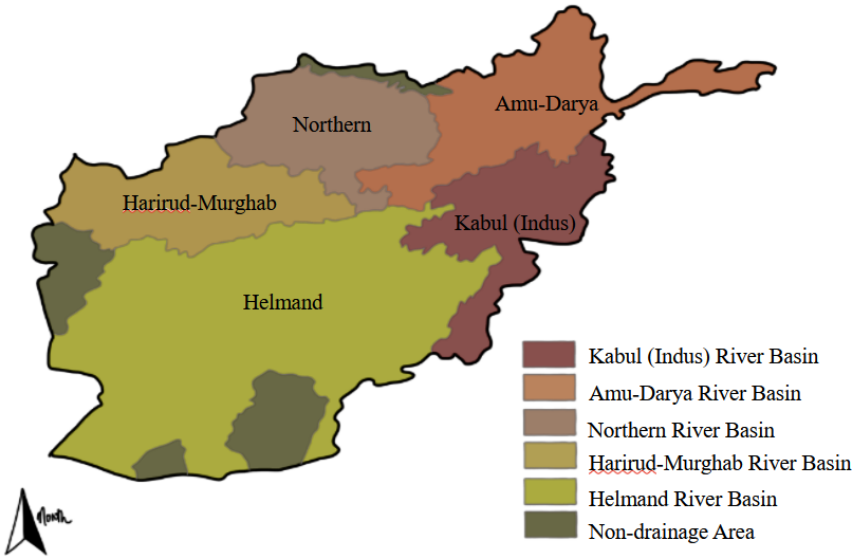
Source: ACAPS

Afghanistan has abundant water resources, totalling 75 billion cubic metres, which also benefit neighbouring countries (Tearline 22/02/2023). Afghanistan's frequent droughts result from a complex interaction between climatic and human-induced factors. While the country faces significant changes in temperature and precipitation patterns, which lead to more frequent meteorological droughts and glacier loss, the key drivers of hydrological and agricultural drought are man-made and include poor water storage and management, unsustainable water consumption, and weak institutional drought risk management capacities (see Figure 1).

Climatic drivers of drought

Climate and topography

Map 2. Afghanistan river basins



Source: ACAPS using data from Hayat and Tayfur (05/09/2023)

Afghanistan has a predominantly **dry continental climate**, with significant seasonal variations in temperature and precipitation as well as important differences according to altitude and location. In the mountainous regions of the central, east, and northeast parts of the country, annual temperatures are well below freezing, while temperatures often exceed 35°C in arid southern regions. Precipitation ranges from less than 150mm annually in the arid Southwest region to over 1,000mm in the mountainous Northeast region (WB 2021). Although largely arid, Afghanistan's high, snow-capped mountain ranges mean it is **rich in water resources.** These mountains act as natural water reservoirs, with summer snowmelt sustaining the flow of major rivers (IWMI 06/2002). All of Afghanistan's **five river basins (Amu Darya, Harirud-Murghab, Helmand, Kabul**, and **Northern – see map 2**) originate in the Hindu Kush mountain range and flow into neighbouring countries, constituting an important source of water for Iran, Pakistan, Tajikistan, and Uzbekistan (SWP 08/2021). Afghanistan's winter season, October–February, brings heavy snowfall and harsh temperatures. In spring, the melting snow provides essential water for crops, making it crucial to agriculture. Spring generally lasts from April–May in most areas, and from March–May in the south. While rain can lead to dangerous flash floods during this time, spring rains are vital to the country's agriculture (ACAPS accessed 02/06/2024; AfghanAid accessed 02/06/2024).

Climate change

Afghanistan is one of the lowest emitters of greenhouse gases but ranks among the ten countries most vulnerable to climate change (WPR accessed 30/05/2024; ND-GAIN accessed 09/04/2024). Despite this vulnerability, Afghanistan's international isolation since the ITA takeover in 2021 has led to its delegate applications being rejected by the Conference of Parties since 2022. Afghanistan also remains unable to access key climate funds (Reuters 11/12/2023; The Guardian 30/10/2021). Although no attribution studies have pinpointed the exact role of climate change in specific drought events in Afghanistan, temperature increases, altered precipitation patterns, and glacier loss have been identified as significant drivers of drought in the country (Qutbudin et al. 25/05/2019).

Temperature increases

Afghanistan is experiencing warming rates higher than the global average (WB/ADB 24/09/2021). The country's **mean annual temperature** has risen by 1.8°C since 1950 (UNFCC 12/2017). The Central and Southwest regions experienced stronger warming trends than northeastern and glacial areas (WB/ADB 24/09/2021; Aich et al. 23/05/2017). These temperature changes have increased **evapotranspiration**, leading to **soil moisture deficits** in crop-growing regions and, as a consequence, more frequent **agricultural droughts,** particularly in the country's Northwest and Southwest regions (Qutbudin et al. 25/05/2019).

Future climate projections differ based on the level of greenhouse gas emissions (Rapid Concentration Pathways, RCP). In an optimistic scenario (RCP 4.5), 1.5°C of warming is

expected by 2050, while a high-emission scenario (RCP 8.5) forecasts a 3°C rise by the same year. In both scenarios, warming is anticipated year-round and across the entire country, with the Central Highland region experiencing particularly significant increases (Climate Diplomacy 30/10/2019; UNFCCC 01/03/2020).

Precipitation changes

Available data shows no significant change in annual **precipitation amounts** at the national level since 1901, but **heavy rainfall events** have increased by between 10–25% across the country over the past 30 years (WB accessed 03/06/2024; Climate Diplomacy 09/2019). Some studies also identified **precipitation changes between and within regions of Afghanistan,** as well as **variation by season**. A study covering 1979–2019 found a **decrease in precipitation** in most of the **northern, western, southern, and southeastern provinces**. In contrast, six central provinces, as well as the East and Southeast regions, experienced an increase in precipitation (Assistant and Esmailnejad 26/06/2022). Another study found that during the wheat-growing season, the Southwest region experienced a decrease in precipitation, while the Northeast region saw an increase. In the rice-growing season, rainfall increased in both the Northeast and Southeast regions, enhancing water availability (Qutbudin et al. 25/05/2019). Future changes to Afghanistan's rainfall patterns are highly uncertain (WB/ADB 24/09/2021). Some models **predict a significant decrease in springtime precipitation (March–May)** for the North, Central Highland, and East regions, potentially offset by a slight increase in precipitation between October–December. In contrast, the Hindu Kush region is expected to experience an increase in winter precipitation, while spring precipitation in this area is anticipated to remain stable. The projected decrease in springtime precipitation in certain parts of the country is particularly concerning because it coincides with the plant-growth period essential to agricultural production (NEPA/UNEP 26/04/2015).

Glacier melting

Between 1990–2015, nearly 14% of Afghanistan's glaciers were lost as a result of global warming, and the melting rate has only been accelerating in recent years (AAN 05/01/2021). An assessment report found that the **Hindu Kush Himalayan glaciers disappeared 65% faster between 2011–2020 than in the previous decade** (ICIMOD 27/09/2023). Glaciers play a key role in natural freshwater storage and the regulation of seasonal river flows in Afghanistan, and more than 80% of Afghanistan's water resources originate in the Hindu Kush mountains (SWP 08/2021; UNEP 01/2009). It is projected that the second half of the 21st century will see even more glacial mass reduction and the consequential reduction in glacial runoff (WB/ADB 24/09/2021). A recent assessment has also anticipated, according to current emissions trajectories, that the **Hindu Kush Himalaya glaciers will lose up to 80% of their current volume by the end of the century.** This would drastically reduce freshwater for major rivers such as the Amu Darya, Helmand, and Kabul (ICIMOD 20/06/2023; SWP 08/2021). Arid land-cover is likely to expand either side of the Hindu Kush, leading to shifts in ecosystems and the potential loss of biodiversity (WB/ADB 24/09/2021).

Interannual climate variability phenomena

Interannual climate variability phenomena, such as El Niño and Southern Oscillation and the Indian Ocean Dipole, greatly contribute to precipitation and temperature variability in Afghanistan. While El Niño typically brings above-average precipitation, **La Niña** is associated with below-normal precipitation **(meteorological drought)** across the country (OCHA 16/05/2024). Since 1984, 8 of 11 droughts have been associated with La Niña (FAO 12/10/2023). The probability of drought in Afghanistan substantially increases during La Niña years (between 50–70%), particularly in the North, Northeast, and West regions. During La Niña, snow water equivalent volume decreases by an estimated 9–30% across major basins. Reduced precipitation during La Niña is also associated with hydrological and agricultural drought, which significantly reduces wheat yields (Shukla et al. 28/05/2024). Similar to La Niña, a **negative Indian Ocean Dipole** correlates to reduced precipitation in Afghanistan, often resulting in reduced precipitation in the country's eastern regions (FEWS NET 2021; Pothapakula et.al. 03/11/2020).

HUMAN-INDUCED DRIVERS OF DROUGHT

Water management and unsustainable consumption

Poor water storage, management, and unsustainable consumption compound the effects of meteorological drought and constitute an important driver of hydrological, agricultural, and socioeconomic drought in Afghanistan (KII 14/05/2024). The country's water sector faces significant challenges, including financial constraints, lack of data, insufficient technical capacity, poor coordination, and damaged, inadequate water infrastructure resulting from decades of conflict and poor maintenance (AGWA 22/03/2023). Although Afghanistan has more surface water availability than other countries in the region, it also has the **lowest per capita water storage capacity**. As a result, only 30% of surface water is used and 70% flows into neighbouring countries (UNFCCC 12/2017; Zan Times 31/12/2022).

Afghanistan also has u**nsustainable water consumption practices**. The country's 2023 rating on the Water Stress Index, which measures the ratio of water demand to renewable supply, indicated 'high stress', meaning that demand used between 40–80% of renewable water supplies (WRI 16/08/2023). Unsustainable consumption has severely affected both groundwater and surface water supplies (SWP 08/2021). The agriculture sector accounts for nearly all the water withdrawal in Afghanistan (FAO 23/08/2021). Most of the grown staple crops, such as wheat and rice, are water-intensive (FAO 12/02/2020). **Intensive irrigation,** particularly for wheat, occurs along the central, Harirud, Kabul, and Kunduz reaches of the Helmand River (SWP 08/2021). Most irrigation systems are community-managed canals characterised by low

efficiency. These systems are typically supply-based and do not take crops' actual water needs into account. This approach favours upstream farmers, who use more water than their crops require, leading to water shortages for those downstream (Akhtar and Shah 01/12/2019). Experts also point out the issue of cultivating water-intensive cash crops, such as watermelon, which offer minimal economic return relative to their high water consumption (KII 14/05/2024). Since the **ban on opium** cultivation in 2022, many farmers turned to wheat or other more water-intensive crops. With a total increase of 160,000 hectares in wheat cultivation across the Farah, Helmand, Kandahar, and Nangahar provinces, wheat farming places added strain on these provinces' already scarce water resources (UNODC 11/2023; NIKKEI 24/07/2023).The rapid natural **population growth**, combined with the recent increase in returning former refugees from Pakistan and Iran, has further strained Afghanistan's resource supplies (Akhtar and Shah 01/12/2019). Rural-urban migration has driven rapid **urbanisation**, reflected in an annual urban growth rate of 4.5% (UN Habitat accessed 17/06/2024). This has increased demand for drinking water in cities and the extraction of water for agriculture in peri-urban areas (KII 14/05/2024).

Environmental degradation

Environmental degradation is both an aggravating factor and effect of drought, as it reduces ecosystems and communities' capacity to cope with climate shocks and increases competition over scarce land and water. Afghanistan scores 5 out of 5 on the Ecological Threat Register, indicating severe ecological threats (IEP 01/11/2023).

Deforestation disrupts the local water cycle by reducing atmospheric evaporation and precipitation, degrading soil moisture retention, and increasing erosion, aggravating drought conditions (Sustainability Times 04/01/2023; UNEP 06/2020). Only 2.8% of Afghanistan's land is covered by forests (FAO accessed 02/07/2024). The country has experienced a significant decline in its forest cover, losing over one-third of its forests between 1990–2005. By 2013, about half the country's forests had disappeared. Between 2001–2023, Khost and Kunar provinces accounted for 69% of the total tree cover loss (LobeLog 25/03/2019; Global Forest Watch accessed 07/06/2024). Decades of conflict and the breakdown of local institutions have resulted in the loss of traditional community-level natural resource management systems in Afghanistan. As a result, previously forested common land has been unlawfully converted for private crop cultivation and exploited in the illegal timber trade. Illegal logging, a significant contributor to deforestation, has intensified as a result of conflict (NPR 18/03/2013; Gandhara 05/10/2017). Conflict-induced displacement has also created unclear ownership rights and the unequal, unsustainable use of shared resources (The New Arab 15/05/2019; AJ 04/07/2019). The destruction of electrical grids has also forced a reliance on wood for heating, further increasing timber use (The New Arab 15/05/2019).

Large areas of Afghanistan suffer from l**and degradation** and **desertification**, with most regions classified as having 'degraded soil' and an estimated 80% of land at risk of soil erosion (FAO accessed 17/06/2024). According to the UN Convention to Combat Desertification, desertification is "the degradation of land in arid, semi-arid, and dry sub-humid areas" (UNCCD accessed 28/05/2024). Over the last four decades, drought, coupled with deforestation and overgrazing, has accelerated land and soil degradation and contributed to the desertification of 75% of the country's northern, southern, and western regions (Aich et al. 23/05/2017; OCHA 01/08/2023; WB 06/2018). Outdated farming techniques and lack of tools lead to the inefficient and **unsustainable use of agricultural land,** aggravating deforestation and desertification (Afghanaid accessed 07/06/2024). Overgrazing and intensified wheat production have also degraded livestock rangelands, increasing pastoral communities' vulnerability to drought and other climate shocks (SIPRI 02/2023).

Human-induced groundwater and surface water contamination is a significant issue in Afghanistan and aggravates drought, further limiting access to drinkable water. Poor urban sanitation systems, particularly around Kabul, lead to widespread faecal contamination (SWP 08/2021). The extensive use of pesticides in agriculture and chemical toxins and heavy metals in the mining sector also further pollute the water (AREU 30/04/2020). Water pollution compounds natural challenges, such as the presence of heavy metals (e.g. arsenic) in the Helmand and Kabul River Basins, and naturally high salinity in parts of the Northern River Basin (SWP 08/2021).

DROUGHT IMPACT DIMENSIONS

Drought in Afghanistan has widespread implications across all areas of life, threatening livelihoods and access to food and water, alongside causing displacement, health, protection, and security and stability concerns. In a country where an estimated 23.7 million people will be in need of humanitarian assistance in 2024, people whose resilience mechanisms have been eroded by decades of war, poverty, and climate change, the impacts of drought cannot be underestimated (OCHA 23/12/2023; ACAPS 03/06/2024). **Drought is a risk multiplier**; its effect on various humanitarian dimensions both aggravates and is aggravated by existing issues, such as population increase, especially with the recent uptick in returns from Pakistan and Iran (ACAPS 07/12/2023).

As noted by OCHA, "Afghanistan remains a protection crisis, intensified by climate change-induced water scarcity" (OCHA 23/12/2023). Protection risks exist across all drought impacts, and **drought and other climate-induced stressors aggravate existing protection risks** (Protection Cluster 22/05/2024). Restrictive gender norms, such as the ban on girls' education and limitations on women's ability to work, aggravate vulnerability to many of the impacts of drought, with knock-on effects for short, medium, and long-term safety and wellbeing (UN Women 12/12/2023; UN HRC 15/06/2023; CARE/UN Women 10/12/2023). Such restrictions also limit women and girls' ability to access humanitarian services. The impacts of drought likely

also aggravate the vulnerability of LGBTQ+ people, as they are in hiding, self-restricting their own mobility, and less able to access services, food, aid, and livelihood opportunities (HRW 26/01/2022; UNHCR 06/12/2023; Rainbow Railroad 24/12/2022; ILGA 15/04/2022). An assessment conducted in 2021 found a **correlation between drought and an increase in GBV,** particularly intimate partner violence and child, early, and forced marriages (CARE 06/08/2021).

Increased displacement

Between **2013–2023, drought caused the displacement of 418,000 Afghans** – nearly **28% of the total** 1.5 million people displaced in that period – most of whom (371,000) were displaced during the 2018 drought (IDMC accessed 07/06/2024). As environmental drivers of displacement are often indirect, difficult to distinguish from other drivers, and contribute to other drivers, the impact of drought on displacement may actually be higher (MPI 29/06/2022; ActionAid 15/12/2020).

IDPs tend to travel as families or households and settle near big cities or informal settlements. Two case studies in Khaylan village (Takhar province) and Shaiday camp (Herat city) found, however, that **women and girls tend to be 'left behind'** when male family members migrate as a result of loss of livelihood. These women and girls noted the harassment and abuse they experience when being outside the home without a Mahram, alongside lower wages (ActionAid 15/12/2020).

Consequences of displacement include **lack of employment opportunities, family separation, debt,** and continued hardship (ActionAid 15/12/2020; IIED 05/02/2024). Decades of crisis have eroded resilience, meaning that people likely have few remaining resources by the time of their displacement and reached the 'tipping point' of migration (ACAPS 03/06/2024; ActionAid 15/12/2020). The mismatch between rural skills, urban contexts, and high levels of illiteracy contribute to IDPs and returnees working in difficult, dangerous, and underpaid jobs (MPI 29/06/2022; IIED 05/02/2024).

IDP and returnee women, in particular, experience economic hardship and lower incomes than their male counterparts, making women less able to provide for themselves and their families alongside the cascading potential protection risks to their dependents; women are also more likely to have more dependents (CARE/UN Women 10/12/2023). Afghan **women and girls in displacement settings** may face **heightened GBV risks** as a result of inadequate shelter, hostilities with the host community, precarious living conditions, restricted movement, and limited access to protection mechanisms (Protection Cluster 10/11/2021; UN Women 01/03/2022). **Displaced people with disabilities** are also vulnerable, as they are more likely to experience **violence, exploitation, and abuse** in emergency shelters and collective sites and **struggle to access humanitarian assistance** (HI 01/12/2023; GTS 26/02/2024).

Displacement places a huge **strain on urban areas**, aggravating needs in areas already under strain and experiencing c**ompetition over labour, shelter, and other basic needs**. For example, Kabul and Herat (both receiving cities) have struggled with sufficient water availability, and almost all cities lack adequate and sufficient WASH facilities for IDPs, compounding susceptibility to waterborne and vector-borne diseases (MPI 29/06/2022). Where water supply or access to other key resources decreases, the risk of conflict over competition for resources increases (Climate Change Post 22/07/2021; UNHCR 06/12/2023). Insufficient or inadequate shelter is also a key issue affecting displaced people, especially in urban areas (Shelter Cluster 03/2024). A study on the potential strain posed by returnees identified host communities' **limited absorption capacity** and competition over scarce resources causing increased friction between returnees and host communities (Oxfam 31/01/2018). It is likely that the arrival of IDPs in new communities will have similar outcomes.

Reduced access to water, sanitation, hygiene, and health

According to the UNDP, 79% of Afghans **lack adequate access** to water, which has become increasingly scarce, particularly in southern and western parts of the country (UNDP 22/03/2024; IPS 14/12/2023). Water scarcity is particularly severe in urban areas. In Kabul and Herat, groundwater levels have decreased by 50% and 25% respectively as a result of excessive use and population growth (8AM Media 28/02/2023; Zan Times 31/12/2022).

In December 2023, suspensions in water supply forced Kabul residents in some districts to queue for long hours to access sufficient water (IPS 14/12/2023). **As collecting water is often considered women's work, women and girls are disproportionately affected.** After closer water sources have dried up, women and girls are required to travel longer journeys several times a day to secure enough water to meet their household needs (Afghanaid accessed 27/06/2024; UNICEF accessed 28/05/2024; Zan Times 12/06/2023). Travelling long distances to collect water also has direct implications on education and exposes women and girls to increased risk of harassment and GBV en route (Afghanaid accessed 02/07/2024).

Afghans' **limited access to safe WASH facilities** is aggravated by water scarcity resulting from drought. An estimated 30% of Afghan households "do not have a toilet that hygienically separates waste from human contact", and nearly 11% practice open defecation (UNICEF 2022). Insufficient water and inadequate WASH facilities also increase health risks for women and girls, particularly infection resulting from poor menstrual hygiene management, as they are limited in their ability to safely and privately manage periods (UNICEF 27/05/2021).

Drought and climate change also have a direct impact on waterborne and vector-borne diseases. The combination of insufficient access to safe water and exposure to high temperatures contributes to the increase in spread of **waterborne diseases** (UNICEF 2022;

Masood et al. 23/05/2022). Cholera, diarrhoea, dysentery, hepatitis A, typhoid, and polio, which is endemic in Afghanistan, are all linked to contaminated water sources (UNICEF 2022). Further, climate change and shifting population patterns (e.g. resulting from displacement) enable vectors to expand range, leading to vector-borne diseases – such as malaria, which has become endemic in Afghanistan – to spread (Nieto et al. 09/07/2012; Essar et al. 18/12/2023; Siddiqui et al. 17/08/2022; Masood et al. 23/05/2022). The health impacts of drought can be particularly severe for women and girls, whose access to healthcare has worsened significantly as a result of ITA restrictions on women's freedom of movement and employment (Safi et al. 23/09/2022; UN Women 15/08/2022; TNH 25/09/2023; HRW 12/02/2024).

As access to safe drinking water is crucial to addressing malnutrition and limiting the spread of waterborne diseases, **children under five are especially vulnerable** to the impacts of drought (UNICEF 2022). Afghanistan has one of the highest rates of **chronic malnutrition** in children in the world (UNICEF accessed 28/05/2024). Unsafe drinking water, poor sanitation, and inadequate hygiene (often resulting from insufficient water for hand washing) are key contributors to malnutrition in children under five and can lead to diarrhoea (Batool et al. 03/11/2023). In 2008, the WHO estimated that 50% of malnutrition globally was linked to repeated diarrhoea or intestinal worms from unsafe water or poor sanitation and hygiene (WHO 01/2008). In March 2024, the WHO reported that acute watery diarrhoea was among the three most epidemic-prone infectious diseases (WHO 29/04/2024). Insufficient water contributing to poor sanitation and inadequate hygiene also impedes the treatment of diarrhoea and can result in chronic exposure to pathogens that change the gut's ability to absorb nutrition, leading to chronic malnutrition in children (Batool et al. 03/11/2023).

Decreased food security and reduced access to livelihoods

As **agricultural production** employs 80% of the population – both directly and indirectly – and accounts for at least 25% of the country's GDP, drought's impact on livelihoods, agriculture, and food security is particularly severe (UNAMA 23/10/2016; FAO 19/11/2021). Poor soil conditions, insufficient water, and the high costs associated with farming are further aggravated by drought and environmental degradation, leaving available land fallow and making farming even more difficult (ALCS 01/05/2017). In 2023, Afghanistan was classified as a food insecurity hotspot of very high concern. Although IPC projections have improved slightly for May–October 2024, food insecurity remains high across the country (IPC 27/05/2024).

According to the December 2023 REACH Humanitarian Situation Monitoring assessment, communities attribute the difficulties meeting basic needs, including access to food (the primary need highlighted), to both drought (85%) and economic shock (86%) (REACH 14/04/2024). Isolating drought's impact on food insecurity in Afghanistan is difficult because food insecurity is driven by a combination of economic, social, and environmental factors (WB 03/10/2023; IPC 14/12/2023). That said, **drought severely reduces wheat yields**, a staple food in Afghanistan, and the combination of drought, overgrazing, limited locust control, and above-average temperatures has created conditions suitable to **locust outbreaks** – northern and northeastern Afghanistan are particularly susceptible to locust outbreaks, which devastate crop yields (FAO 10/05/2023). Drought-induced pasture and grazing-area depletion also affects the physical condition of livestock, increasing mortality and morbidity (FEWS NET 09/03/2024).

People reliant on livestock and subsistence farming for food and livelihoods are also among those most affected by drought, as it directly affects agriculture and animal husbandry and subsistence farmers have "little diversification and few social safety nets" (IFRC 10/08/2021; Foodtank 12/2021). **Nomadic pastoralists (such as the Kuchi) are more susceptible to the impact of drought on livelihoods,** as they are reliant on weather patterns and water to sustain their livestock. Persistent drought has resulted in loss of herds and forced many Kuchi into a marginally sedentary lifestyle (DCA 2019). Lack of pasture makes livestock herding unaffordable, forcing nomadic pastoralists to engage in coping strategies with long-term harmful consequences on livelihoods, such as 'tactical distress destocking' (trading in livestock for a lower cost) (FAO 31/03/2022).

In 2016, women made up 58.6% of the workforce in livestock production (ALCS 01/05/2017). **Women-owned businesses, including in agriculture, are more susceptible to shocks** (e.g. drought) because they tend to be unlicensed and "suffer [from] insecurity, lack of access to finance, poor market information, inadequate access to raw materials, basic infrastructure, male-dominated society, corruption, and lack of educational credentials" (Hashemy et al. 08/05/2023). Increasing restrictions on women's freedom of movement and employment have also threatened the food security of women-headed households by reducing their participation in agriculture and business (Najam et al. 30/03/2023; WFP 28/02/2022; CARE 29/12/2022; ICARDA accessed 29/05/2024; NYT 01/09/2016). As **women, women-headed households, and children are among the most vulnerable to food insecurity,** they are also among the most vulnerable to the impacts of drought. Even prior to the ITA's return to power in 2021, women-headed households were more likely to experience food insecurity than male-headed households, and women are more likely to employ food-related coping strategies such as reducing food intake or skipping meals to ensure their children and husbands eat. When food is scarce, boys tend to receive more than girls (CARE 29/12/2022). Insufficient food contributes to malnutrition, especially among children under the age of five, and increased susceptibility to infectious disease (CARE 29/12/2022; UNICEF accessed 28/05/2024). **Food insecurity also renders girls more vulnerable to forced marriage,** as households resort to coping mechanisms with potentially harmful consequences to manage food insecurity, reducing the number of mouths to feed or in the hopes that their daughters will have better lives (CARE 29/12/2022; UNICEF accessed 28/05/2024). **People with disabilities'** existing vulnerability to food insecurity is also likely aggravated by drought, as they continue to experience discrimination, exclusion, and high poverty and food insecurity rates (Protection Cluster 22/05/2024; UNHCR 29/04/2021).

Increased inter and intra-community conflict

Drought and environmental degradation also result in **competition over scarce shared resources,** with a direct effect on social cohesion. Existing inequalities around access to land across social groups and economic classes are aggravated by drought and other climate-related impacts, contributing to an increase in domestic conflict, at the very least, at the intercommunity level (Pain 2013). The decline in total and per capita pasture areas, increased competition over scarce resources (particularly water), and existing conflict around access to water points will increase further as water availability decreases (ACAPS 26/07/2023).

Those most affected are communities that compete over land and water, such as the nomadic Kuchi, who compete with sedentary agricultural communities over access to grazing land because the Kuchi, in their search for pasture lands, have been forced onto lands used by farming communities (TNH 07/04/2008; de Weijer 06/2007; ACAPS 26/07/2023; NUPI/SIPRI 28/02/2023; MPI 29/06/2022). This situation is further aggravated by the change in dispute resolution mechanisms and their results, with Hazara farmers (favoured under the previous administration) complaining of ITA favouritism for Kuchi nomads (AAN 22/12/2022). It is also worth noting that the return of Afghan refugees from Iran and Pakistan, combined with already strained resources, may also increase competition over scarce resources, increasing inter and intra-community tensions (ACAPS 07/12/2023).

INSTITUTIONAL AND COMMUNITY DROUGHT RISK-MANAGEMENT CAPACITIES

Institutional drought risk management capacities

Key stakeholders and technical capacity

In Afghanistan, there are several ministries and government bodies that share responsibility for drought-related matters, including the Ministry of Agriculture, Irrigation, and Livestock, the Ministry of Energy and Water (MEW), the Ministry of Rural Rehabilitation and Development, and the National Environmental Protection Agency. The High Commission of Disaster Management and the Afghanistan National Disaster Management Authority are responsible for coordination and management of disaster preparedness and response (MRRD 28/06/2014; ANDMA 10/2019; IFRC 22/04/2014). **The lack of coordination** among government institutions and their overlapping and fragmented responsibilities has, **however, historically weakened institutional drought risk management capacities** (IWMI 13/12/2023). The absence of gender considerations and resources to facilitate the inclusion of women also represented a notable gap in institutional disaster management policies (Hamidazada et al. 16/09/2019). Afghanistan's 2020 Drought Risk Management Strategy defined both institutional and international roles and responsibilities in drought risk management and provided a resource and operational plan for integrated drought risk management (FAO 12/02/2020).

Since the ITA takeover in 2021, Afghanistan's water institutions have experienced a **significant loss of technical capacity.** Technical experts working under the previous Government left in large numbers after the ITA came to power, including the head of the National Environmental Protection Agency (MPI 29/06/2022; KII 14/05/2024). In 2022, UNICEF warned that essential water and sanitation workers had not been paid for months, raising concerns that they could leave, resulting in major water and sanitation service failures (UNICEF 2022). The lack of adequate human, technical, and financial resources is hindering implementation of the 2020 Drought Risk Management Strategy (KII 27/06/2024).

Financial capacity

Under the former Government of the Islamic Republic of Afghanistan (GoIRA), international financial and technical assistance played a crucial role in strengthening Afghanistan's drought risk management capacities. Key international development assistance contributors to the Afghanistan water sector included the World Bank, Asian Development Bank, European Union, USAID, and UN agencies, particularly the UNDP (KII 04/06/2024; AGWA 22/03/2023). According to the World Bank, by 2021, the total funds allocated to Afghanistan's water sector since 2002 was over USD 4 billion. Projects included constructing and rehabilitating irrigation systems,

managing on-farm water, installing water supply networks, rehabilitating hydropower plants, and supporting water resource management programmes (AGWA 22/03/2023). Since the ITA takeover, **cuts to development assistance** and **economic sanctions** against the ITA have **drastically reduced financial capacities for disaster risk management** and halted key donor-funded drought risk management initiatives. These include a USD 222.5 million World Bank project for early warning and response systems, and the Asian Development Bank's Arghandab Integrated Water Resources Development project (AAN 06/11/2021).

Drought monitoring, detection, and early warning

In 2018, the National Statistics and Information Authority created the **National Early Warning Committee** in an effort to improve hazard monitoring, detection, and alert. Previously, the Government had a permanent collaboration with FEWS NET, UN agencies, and INGOs for drought monitoring and forecasting. The Afghanistan Meteorological Department was in charge of drought monitoring and the building and maintenance of weather stations, including rain and snow stations, and hydraulic stream gauge stations (FAO 12/02/2020). To improve institutional drought early warning capacities and decision-making, the **Afghanistan Drought Early Warning System (AF-DEWS)** was introduced in 2020, with support from the World Bank (KII 21/05/2024). The AF-DEWS Tool was an online platform based on near real-time drought indicators, covering meteorological, agricultural, and hydrological droughts. The AF-DEWS Tool also included a comprehensive composite index, the Integrated Drought Severity Index, to support institutional drought decision-making (IWMI 13/12/2023). The funding freeze and suspension of international assistance significantly affected institutional drought monitoring and detection capacities (KII 11/05/2024; KII 14/05/2024; KII 15/05/2024). When the ITA came to power in 2021, the AF-DEWS, which was in a testing phase, lost funding and became inactive (AAN 06/11/2021; KII 21/05/2024).The **Afghanistan Meteorological Department** also lost significant financial and technical capacities, reducing its ability to collect and analyse weather data. One interviewee noted that the ITA takeover also affected drought monitoring coordination mechanisms between the authorities and international responders (KII 04/06/2024). As a result, the ITA now predominantly relies on informal drought monitoring methods instead of a comprehensive, data-based drought monitoring system (KII 14/05/2024). In 2021, the GoIRA made an official declaration of drought, but there have been no such declarations since by the ITA, despite the severe drought-like conditions the country experienced in 2022–2023 and local drought declarations by provincial authorities in affected provinces (KII 04/06/2024; IFRC 12/07/2021). **Under the ITA, drought monitoring and early warning is predominantly led by international responders** (KII 04/06/2024). In May 2024, OCHA released a Slow-Onset Early Action Plan for Drought, which includes a drought monitoring framework based on the Combined Drought Indicator (regularly monitored by OCHA), REACH's Shock Monitoring Index at the district level, and field verification by the Inter-Cluster Coordination Team and Regional Inter-Cluster Coordination Groups (OCHA 16/05/2024). Interagency drought monitoring coordination is also performed within clusters, such as the Food Security and Agriculture Cluster, and includes stakeholders such as FEWS NET, iMMAP, the FAO, and UNICEF (KII 04/06/2024).

Water and land management

The GoIRA undertook several initiatives to address the causes of drought and mitigate its impacts. The Ministry of Agriculture, Irrigation, and Livestock established natural resource databases and implemented forest and rangeland rehabilitation. It also introduced drought-tolerant seed varieties through the Agriculture Production and Productivity Program and addressed institutional needs with the National Comprehensive Agricultural Development Priority Programme. The MEW expanded water harvesting with the Irrigation Expansion, Rehabilitation, and Modernization Sub-Program and modernised water usage with the Irrigation Rehabilitation and Development Programme. The Ministry of Rural Rehabilitation and Development improved rural livelihoods through check dams and rainwater harvesting (FAO 12/02/2020).

Despite the financial and technical challenges since 2021, the **ITA is implementing major water infrastructure projects,** such as the continuation of the **Qush Tepa Canal,** supposedly funded by off-budget resources and mining concessions (WB 04/2023). The 115-mile Qush Tepa Canal is designed to divert 20% of the Amu Darya River's water across northern Afghanistan's Balkh, Faryab, and Jowzjan provinces, raising concerns over water security in neighbouring Turkmenistan and Uzbekistan. Once complete, the canal is expected to provide irrigation to 550,000 hectares of desert land, increasing Afghanistan's arable land by one-third (WP 20/08/2023; Tolo News 25/11/2022; The Diplomat 05/07/2023). Some experts have warned, however, about the canal's design, future maintenance challenges to mitigate siltation, and associated environmental impacts, including the risk of soil salinisation and land erosion (KII 15/05/2024; WP 20/08/2023; Dialogue Earth 18/05/2023). While no decisions on the distribution of land benefitting from the canal have been made, access to this land may trigger communal tensions and fuel intra and interethnic rivalries (ATN News 19/12/2022; KII 11/06/2024).

Efforts to **maintain and repair dams** also continue under the ITA. The MEW has initiated the maintenance of the Qargha Dam and the reconstruction of the Bakhshabad Dam. Afghanistan also continues to receive support through initiatives such as the UNDP Area Based Approach for Development Emergency Initiatives, which included the construction of a small dam in Qalat city, under the ITA (Tearline 22/02/2023). Despite continuing efforts, however, and similar to the situation under the GoIRA, several irrigation dams continue to be unable to control their water discharge, leaving the surrounding areas dependent on erratic precipitation, further contributing to the water crisis (Tearline 22/02/2023).

Information on **institutional land management** for drought risk reduction under the ITA is difficult to find. The ITA seems predominantly focused on community-based reforestation initiatives (KII 11/05/2024; KII 20/05/2024). INGOs and UN agencies continue to support community-level land and water management initiatives, such as reforestation, forest management, watershed management, and climate-smart agriculture (KII 15/05/2024; KII 20/05/2024; FAO 05/03/2023; Afghanaid accessed 08/06/2024).

Adaptation and drought resilience-building initiatives

Since the ITA takeover in 2021, Afghanistan has faced **restricted access to climate change funds,** including UN climate funds such as the Green Climate Fund, and the postponement of proposals amounting to USD 750 million (The Diplomat 29/04/2024; Reuters 11/12/2023). Despite efforts by the UN and other high-ranking officials, Afghanistan has been excluded from the UNFCCC Conference of Parties since 2022, leaving the country out of key climate negotiations (Reuters 11/12/2023).

Drought emergency response

The High Commission of Disaster Management, currently chaired by the First Deputy Prime Minister, continues to operate under the ITA (DPMEA 23/05/2022). Institutional assistance to affected communities is currently limited, however, by a lack of resources (KII 04/06/2024; KII 14/05/2024). Both central and provincial authorities support drought-affected communities through mechanisms such as seed and food distribution, but, similar to under the GoIRA, emergency assistance continues to rely heavily on INGOs, UN agencies, and community-led initiatives funded by private citizens (KII 11/05/2024; KII 14/05/2024; KII 20/05/2024; KII 04/06/2024).

Local and community-based drought risk management strategies

Afghan communities have a rich tradition of water and drought risk management strategies. While many such strategies still exist, others have been eroded by decades of conflict, poor governance, and the pressures of climate change. Some such mechanisms address the management of scarce water resources, which perhaps, until recently, were not specifically drought risk management tools, but can function as such. Other mechanisms have helped farmers anticipate changes in precipitation and mitigate possible drought impacts.

Water management systems

Traditional water management mechanisms rely on the role of mirabs, or water masters. Mirabs play a crucial role in managing and distributing irrigation water, ensuring fair allocation among farmers and overseeing the management of irrigation infrastructure (Mahaqi 02/03/2021; Safi et al. 11/2016). The maintenance of water systems relies on community work called hashar (AREU 06/2008). Mirabs are often the arbiters of water distribution decisions. In ethno-linguistically diverse areas such as Kunduz or Takhar provinces, where ethnic or political rivalries often cause disputes over irrigation water distribution, mirabs can face significant pressure during drought (Akhtar and Shah 2020).

Karez systems are Afghanistan's traditional irrigation systems made of underground tunnels that channel underground water using natural underground pressure and gravity (Himat and Dogan 05/08/2019). Karez are spread across 8% of Afghanistan's irrigated land, and they are a key source of water for rural communities in the South and Southwestern regions (Down to Hearth 13/08/2021). Prior to the 1970s, Karez systems enabled farmers to effectively cope with periods of water scarcity (AAN 07/02/2021). Conflict, prolonged droughts, and overexploitation, however, have led to the destruction or drying up of numerous Karez systems. It is estimated that approximately 60–70% of these systems have dried up completely (SWP 08/2021; Down to Hearth 13/08/2021). Consequently, the Karez system has largely fallen into disuse, leading farmers to adopt mechanised borewell systems. Since 2013, solar-powered deep well pumps, which have become more easily available and affordable, have replaced the traditional underground water irrigation system, leading to more uncontrolled underground water extraction (Freethink 06/08/2020; Down to Hearth 13/08/2021; KII 14/05/2024 b).

Drought monitoring and detection mechanisms

Afghan farmers and pastoralists traditionally use snowfall patterns to anticipate drought. An interviewee noted that farmers and pastoralists expect snow in November and use its presence or absence to predict water availability for the following year (KII 14/05/2024). Another interviewee observed that if there is little snowfall in November–December, farmers and pastoralists anticipate less water availability and adjust their agricultural practices

accordingly. The timing of seed sowing in November is crucial and determined by snow and weather conditions. If sowing is missed in November, farmers resort to sowing in March, though yields are typically lower (KII 11/05/2024). These traditional methods do not consider other drivers of agricultural drought, such as low groundwater levels, however, and the absence of resources and tools for early detection and proactive action limits farmers' ability to effectively cope with drought. In 2018, many farmers were unaware of the impending drought until it had already destroyed their livelihoods (KII 13/05/2024; KII 21/05/2024). The status of farmer and pastoralist unions and associations in Afghanistan under the ITA remains unclear, limiting joint drought management efforts (KII 13/05/2024; KII 04/06/2024).

Coping strategies

Farmers in Afghanistan use various strategies to cope with drought, including by growing early-maturing crops, changing crop patterns, and diversifying land by cultivating hills and slopes to ensure irrigation and provide straw for animal feed during droughts. Farmers also avoid water-intensive crops, such as rice, during dry years. When necessary, they turn to carpet weaving and other handicrafts as alternative livelihoods (Aliyar and Collins 05/2022; KII 20/05/2024; KII 15/05/2024). These strategies are often limited, however, by insufficient education and access to necessary inputs and tools (KII 15/05/2024). Farmers and pastoralists also resort to seasonal migration to major cities or other countries in search of better opportunities, borrowing money or selling livestock when water is scarce (KII 11/05/2024; KII 14/05/2024; KII 15/05/2024). Traditional community-based drought coping mechanisms include collective actions, such as hashar, and community solidarity and charity support to affected families (KII 13/05/2024; ACAPS 03/06/2024; Shirzad et al. 20/04/2024). Informal credit and solidarity lending systems are also common forms of social protection, which increase social cohesion, risk-sharing, and resilience. These systems depend on the community's economic wellbeing, however, and are threatened by increasing poverty and repeated shocks (SPARC 31/01/2024; ACAPS 03/06/2024). Significant gender disparities in the ownership of productive assets and women's exclusion from decision-making in both community and private spheres limit their ability to access and benefit from these coping strategies, making women more vulnerable to drought (CARE 06/08/2021). Since the ITA takeover in 2021, restrictions on women and girls' freedoms and rights have further limited their participation in economic, social, and public life, impeding their access to services and assistance. As a result, women and girls are increasingly resorting to negative coping strategies (Protection Cluster 22/05/2024). IDPs and returnees also face limited access to community support, with integration in host communities being especially difficult for displaced women and girls (ACAPS 03/06/2024).