

CRISIS IMPACT OVERVIEW

On 29 February 2024, the Zambian Government declared a state of disaster in response to an El Niño-induced drought during the 2023–2024 agricultural season. The drought significantly affected agriculture and electricity production, heightening food insecurity and affecting livelihoods in 84 out of 116 districts (Govt. of Zambia 16/04/2024; AJ 29/02/2024; AP 29/02/2024; BBC 02/10/2024). The hardest-hit areas include Central, Eastern, Southern, and Western provinces, which cumulatively account for over 58% of Zambia’s annual maize production over the past five years (OCHA 07/05/2024).

Farmers are particularly vulnerable to the effects of climate-related hazards, including drought, since approximately 90% of cultivation in Zambia uses rain-fed agriculture – a farming practice that relies entirely on natural rainfall to meet crops’ water needs (IWMI 01/10/2024; Beyer et al. 17/12/2015). The severe crop failure during the 2023–2024 agricultural season has significantly affected farmers, leaving many struggling to sustain their livelihoods after the losses. Maize is the most widely cultivated crop in Zambia, occupying over 65% of the country’s agricultural land. It serves as both a major food source for the population and a significant cash crop for the country (GYGA Accessed 07/01/2025). The crop has experienced widespread failure, leading to reduced production during the 2023–2024 agricultural season and affecting around 43% of the total cultivated hectares. Grain production has declined by around 53% compared to the previous season, making the 2023–2024 agricultural season output the lowest in five years (OCHA 16/12/2024).

The drought has significantly affected Lake Kariba, the largest man-made lake in the world by volume, leading to lower water levels (Africanews 13/10/2024; BBC 02/10/2024). By 11 December 2024, the lake’s water volume had decreased from 11.83% of its normal capacity to 2.89% over the year, a reduction of approximately 75% (Zambezi accessed 11/012/2024 ; IWMI 01/10/2024). This has decreased electricity production through the lake’s dam, resulting in up to 21 hours per day of load shedding – the deliberate temporary shutdown of electric power supply to prevent a complete system failure in a part (or parts) of a power-distribution system (Elum Energy 07/09/2023). Load shedding affects over 80% of Zambians, who rely on hydroelectric power for electricity (IWMI 01/10/2024; AP 11/10/2024). The drought has also affected businesses, as the country’s GDP growth projection for 2024 has been downgraded from an earlier estimate of 4.7% to 2.3% because of the adverse impact of power shortages on copper production, Zambia’s key export. This disruption has affected livelihoods and overall economic activity (IMF 26/06/2024; IWMI 01/10/2024; OEC accessed 15/10/2024).

Water and food scarcity has led to the displacement of households within and outside the country, mainly to Namibia. The search for employment and better livelihoods motivates these movements, especially from rural to urban areas in Southern and Western provinces. There remains a lack of precise data on the scale and frequency of these displacements (IOM 18/09/2024; Govt. of Zambia 13/01/2025; OCHA 16/12/2024).

The drought in Zambia has severely worsened food insecurity and malnutrition, with 5.8 million people (33% of the population) expected to face high food insecurity from October 2024 to March 2025, including 236,000 people at Emergency (IPC Phase 4) levels. Year-on-year food inflation was recorded at 18.2% because of poor harvests and high staple prices (IPC 02/10/2024; ZamStats accessed 10/12/2024; IWMI 21/11/2024). Malnutrition has also surged, with a global acute malnutrition rate of 25.2% among screened children and 7.2% of those children treated for severe acute malnutrition (SAM). SAM admissions increased by 69% in 2024 from the previous year, further straining affected households (UNICEF 15/10/2024 and 19/11/2024).

About this report

Aim: This report explores the drivers of drought, the current and anticipated effects on these communities, and the key barriers that hinder access to support for those affected in Zambia. The report addresses gaps in information on the drought that was not available in previous ACAPS publications and serves as a follow-up to a previous report on the [impact of drought](#) published earlier in 2024 (ACAPS 15/03/2024 and 06/05/2024).

Methodology: This report is based on a secondary data analysis of publicly available resources. These include government sources, local and international news, research publications, United Nations sources, and information from national and international nonprofit organisations.

Limitations: This report lacks detailed provincial analysis mainly because of insufficient information available at the provincial and district levels. While women and children are identified as vulnerable groups, the report does not delve into how intersecting factors such as disability or minority status intensify their challenges. Although it is acknowledged that droughts have displaced many people, there is still insufficient quantitative data on people displaced.

CRISIS IMPACTS

Food security

The drought has aggravated existing food insecurity issues. According to the latest IPC report, between October 2024 and March 2025, an estimated 5.8 million people (33% of the analysed population) will likely experience high levels of food insecurity, including 236,000 people facing Emergency (IPC Phase 4) levels. The projected total number of food-insecure people is 186% higher than in the same period the previous year. Zambia's increased food insecurity from October 2024 to March 2025 will stem primarily from insufficient rainfall causing a poor 2023–2024 agricultural season, resulting in low crop yields and high food prices. Limited income for poor households affected by the drought significantly reduces their purchasing power, making it increasingly difficult to access sufficient and nutritious food, which worsens food insecurity. High population growth of nearly 3% annually has also further heightened food insecurity by increasing competition for limited food supplies, straining agricultural output, and placing additional pressure on already limited food availability (IPC 02/10/2024 and 13/11/2023; WorldData accessed 19/12/2024).

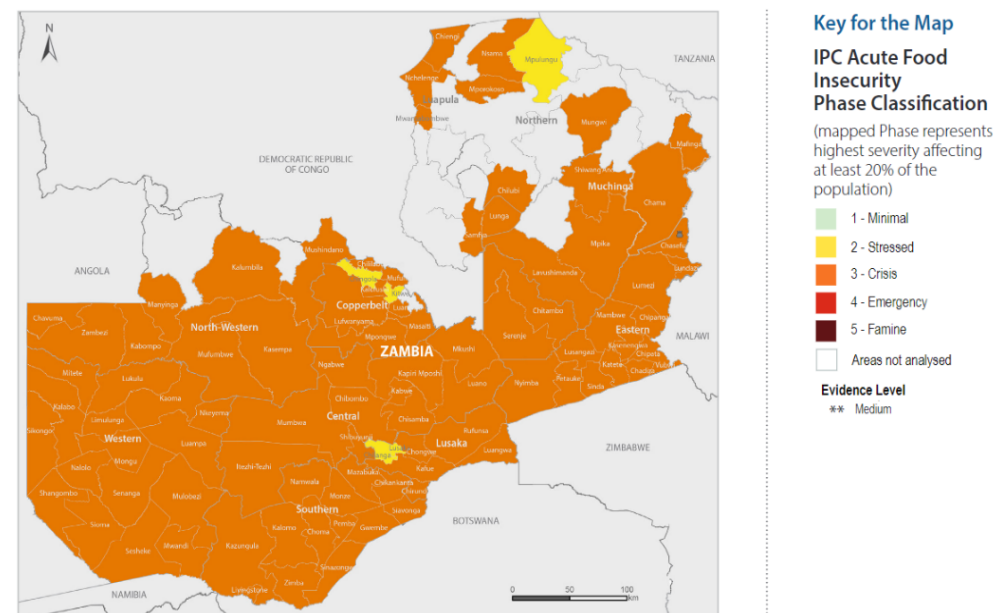
Reduced precipitation and crop failures in various districts of Central, Eastern, Southern, and Western provinces have made it challenging for poor households who rely on agriculture for their livelihoods to produce or procure enough food. This aggravates their vulnerability to malnutrition (IWMI 01/10/2024; European Commission 12/06/2024). Nationwide, 28% of households consume only one meal per day, with Western province recording the highest rate at 53% and Lusaka the lowest at 19% (IPC 02/10/2024).

There are reports of drought-affected households resorting to potentially harmful coping strategies, such as child labour and transactional sex (OCHA 16/12/2024). Refugees in drought-affected and food-insecure regions, such as Western and North-Western provinces, have also adopted potentially harmful coping mechanisms, including borrowing money, cutting back on health and education expenses, and reducing both the number and size of daily meals (UNHCR 11/10/2024).

On average, food prices increased by 18.2% between November 2023 and November 2024 – the highest year-on-year food inflation in 2024 (ZamStats accessed 10/12/2024; IWMI 21/11/2024). Higher prices of staples such as bread and cereals were the main drivers of the rise in inflation. Zambia's food inflation has risen because of the El Niño-induced drought, with the harvest estimated at 1.6 million tonnes, almost 50% below the five-year average (FAO 18/10/2024; SADC 16/12/2024). Maize grain prices also increased for the second consecutive

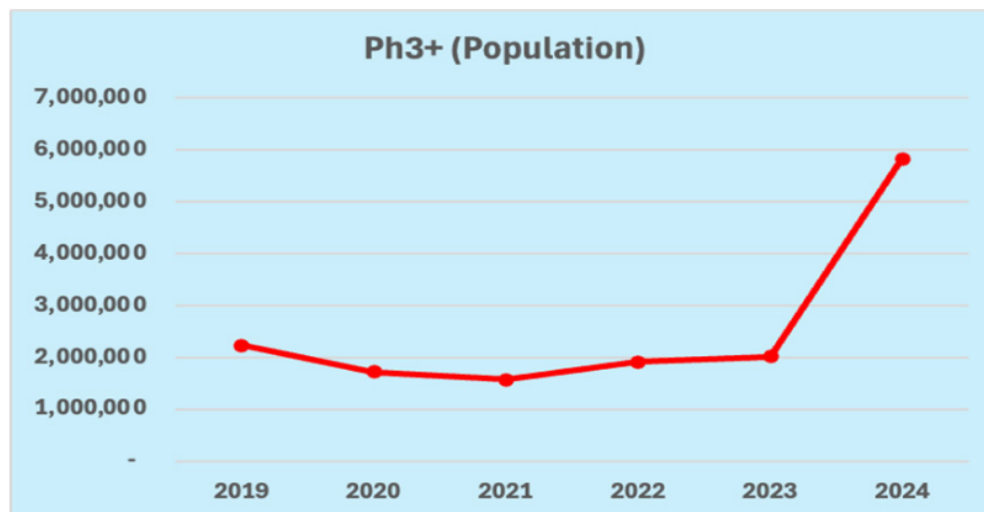
month in November, rising by 26% year-on-year (FAO 11/12/2024). Shortages have necessitated expensive food imports, whose costs are compounded by the depreciation of the Zambian kwacha. By 12 November, the kwacha had fallen by 3.1% against the US dollar, a key currency for imports and exports (RCV 13/11/2024; FAO 18/10/2024).

Map 1. Projected IPC acute food insecurity map (October 2024 to March 2025)



Source: IPC (02/10/2024)

Figure 1. Trend of analysed population in Crisis (IPC Phase 3) or above in Zambia, 2019–2024



Source: IPC (02/10/2024)

Malnutrition

Drought has severely affected food accessibility, resulting in low food consumption scores. Between April–September 2024, Western province recorded the highest percentage of households with poor food consumption scores at 62%, followed by Eastern province at 51%. This indicates a significant level of food insecurity and a potential rise in malnutrition rates (IPC 02/10/2024). A nationwide survey conducted by UNICEF between March–September 2024 screened nearly 112,000 children under five years of age in 84 drought-affected districts for malnutrition. Out of those screened, around 8,100 children (7.2%) were enrolled in treatment for SAM, while an additional 20,200 children (18%) received treatment for moderate acute malnutrition (MAM) (UNICEF 15/10/2024). Zambia had one of the highest rates of acute and chronic malnutrition in sub-Saharan Africa in 2024, with 35% of children under five years old suffering from chronic malnutrition and 4% from acute malnutrition (CERF 10/05/2024; UNICEF 30/05/2024). In September 2024, SAM admissions nationwide rose by 69% compared to the same month in 2023 (UNICEF 19/11/2024). Malnutrition weakens the immune system, increasing children’s vulnerability to diseases such as malaria, which is endemic in the country (SMO accessed 05/11/2024).

Water, sanitation, and hygiene

Groundwater levels have significantly declined, causing boreholes and both shallow and deep wells to dry up (UNICEF 22/04/2024). Water sources such as rivers and streams are also experiencing reduced levels, further limiting the availability of clean and safe water for livestock, agriculture, and domestic use (IFRC 17/10/2024; UNICEF 22/04/2024). The situation is particularly dire in areas that depend on the Kafue and Zambezi Rivers, heavily affected by recurring droughts (HWI accessed 20/12/2024).

Access to safe drinking water remains a challenge. In 2024, 32% of households lacked access to basic water services, and the situation was even more severe among the poorest quintile, where 60% of households are without basic water access (UNICEF accessed 20/12/2024). Water scarcity has led to outbreaks of diarrhoeal diseases and other vector-borne illnesses such as cholera because of poor hygiene. As bodies of water dry up, they may create breeding grounds for mosquitoes, increasing the risk of malaria, especially in Luapula, Muchinga, Northern, and North-Western provinces (SMO accessed 20/12/2024; IFRC 17/10/2024).

During the pre-lean season, from July–December 2024, water shortages intensified as a result of reduced groundwater availability and dried-up water sources (IPC 02/10/2024). A joint rapid needs assessment in April 2024 found that livestock farmers were grappling with reduced pasture resources because of limited grazing land, primarily affecting cattle. 44% of households reported a decrease in available grazing land, while 39% had to travel long distances to access water points (IFRC 17/10/2024).

Livelihoods and economic growth

Agriculture is vital for livelihoods in Zambia. In 2023, over 60% of the population (mainly in rural areas and mostly consisting of smallholder farmers) depended on agriculture for their livelihoods (UNDP 08/05/2023; UNSDG accessed 09/12/2024). The drought-induced destruction of crop yields has created additional hardships for farmers. These crop failures not only threaten food security but also present significant economic challenges for agricultural families, as most rely on crop sales as their primary source of income (OCHA 07/05/2024 and 04/12/2024). Families’ inability to sell crops or even sustain their households can lead to an alarming decrease in income, forcing those affected to seek alternative means of livelihood by adopting potentially harmful coping mechanisms such as child marriage, child labour, and meal reduction or resulting in neglect by parents (OCHA 16/12/2024; IPC 02/10/2024).

Central, Eastern, Southern, and Western provinces of Zambia, which cumulatively host over 76% of the nation’s livestock, are the regions most severely affected by drought. This crisis has significantly reduced access to pasture and water resources, posing serious risks to

livestock health and productivity (OCHA 07/05/2024 and 04/12/2024). Resource scarcity resulting from the drought may lead to higher livestock mortality rates, poorer health, decreased productivity, and increased vulnerability to poverty for communities that depend on pastoralism (IFRC 17/10/2024).

The drought has significantly disrupted Zambia's livelihoods, particularly in the mining sector, which heavily relies on consistent electricity supply for operations. The copper industry, which contributes over 70% of the country's foreign export earnings, has faced production challenges because of load-shedding caused by water shortages. Load-shedding has reached up to 21 hours daily and, by August 2024, had reduced the country's power generation to 1,019MW, well below the required 3,811MW capacity (NAZ 09/10/2024; IWMI 01/10/2024; PwC 16/10/2024; ITA 09/01/2020). This energy deficit has stalled copper processing and led to a 7.9% drop in copper production, from 763,500 tonnes in 2022 to 698,566 tonnes in 2023. Mineral export earnings consequently fell by 10.5%, from USD 11.7 billion in 2022 to USD 10.5 billion in 2023. Reduced mining activity directly affects workers in the sector, resulting in job losses and reduced incomes (PwC 16/10/2024; OEC accessed 04/11/2024; IWMI 01/10/2024).

Load shedding also affects many businesses that rely heavily on electricity for daily functions such as lighting, machine operations, and communication. Some businesses have had to close, hindering employment and job security in affected areas. For example, if construction companies face delays and disruptions, they may hire fewer people. The cost of running generators or installing solar systems is also increasing, leading to fewer job opportunities (IFRC 19/12/2024; BII 11/09/2024). The drought's ripple effects extend to reduced national revenue and economic growth slowdown, limiting the Government's ability to provide critical services and further worsening poverty (IMF 26/06/2024; PwC 16/10/2024).

Health

The 2023–2024 drought in Zambia affected not only electricity production but also public health, with women and girls increasingly relying on charcoal production for cooking, as poverty rises and alternative livelihoods remain scarce (IWMI 01/10/2024). This labour-intensive practice poses serious health risks, including respiratory issues, severe coughs, chest pains, and body aches resulting from prolonged smoke inhalation (FTA 23/02/2018; DN 01/09/2024).

In Eastern, Lusaka, and Southern provinces, there are reports of girls engaging in transactional sex for financial support, contributing to a rise in HIV rates and unintended pregnancies (UNFPA 03/07/2024). In 2023, Zambia's HIV prevalence among adults aged 15–49 was 9.8%. Women in this age group had a significantly higher prevalence rate of 12.6% compared to men (6.9%). This data highlights that HIV in Zambia disproportionately affects women and girls, highlighting gender-related vulnerabilities (UNAIDS accessed 20/12/2024).

The drought has also aggravated mental health challenges among parents unable to provide for their families, leading to increased stress and frustration. Between March–October 2024, requests for mental health and psychosocial support accounted for 16.7% of the 60,000 calls received by Lifeline Childline Zambia's call centre, indicating a growing need for mental health services during the crisis (OCHA 16/12/2024).

Education

Drought-induced food insecurity has affected education in Zambia. School-age children are losing focus or dropping out of school to help their families find food, while malnutrition prevents others from attending classes (PI 16/10/2024; DN 16/05/2024; WVI 03/10/2024). In June 2024, a rapid qualitative assessment revealed that hunger was causing a visible decline in school attendance, mainly at secondary institutions that lack feeding programmes (WVI 03/10/2024).

School feeding programmes significantly enhance enrolment and attendance, and their absence creates substantial barriers to education access. For instance, there was a 40% increase in enrolment and attendance after the Government introduced a school feeding programme in Chipili district (ZANIS 23/11/2024; LT 20/11/2024). According to a UNICEF report, 66% of respondents are not attending school because they are involved in economic activities to support their families in response to the drought (LT 20/11/2024; UNICEF 15/10/2024). Caregivers often leave older children at home to care for younger siblings while they search for food, water, or pasture for their livestock, increasing the risk of school dropouts (OCHA 07/05/2024).

Protection risks

The drought in Zambia has heightened protection risks for children, particularly adolescent girls, and has forced children into child labour. There has been an increase in adolescent girls participating in transactional sex, as well as an increase in child marriages, with desperate families resorting to marrying young girls for money or food as a coping strategy (WVI 03/10/2024; OCHA 07/05/2024). As recently as 2018, Zambia had one of the highest rates of child marriage globally, with 29% of girls married before the age of 18 (Malunga et al. 20/02/2023; OCHA 07/05/2024).

The 2018 Zambia Demographic and Health Survey revealed rural-urban disparities in adolescent pregnancies. Rural areas display a much higher rate, with 37% of adolescent girls becoming pregnant, compared to just 17% in urban regions. Adolescent pregnancy rates are particularly high in Eastern and Southern provinces, reaching up to 48% and contributing

to a national average of 29% (Malunga et al. 02/02/2023). This has led to more adolescent pregnancies and unsafe abortions, putting young girls at risk of protection concerns (WVI 03/10/2024). By June 2024, adolescent pregnancy rates were highest in the provinces most affected by drought, with Eastern province at 16.69%, followed by Southern province at 13.41% and Central province at 12.64%. The drought has aggravated these issues, as economic hardship has made it increasingly difficult for families (particularly in rural areas) to support children, and neglect by parents has been reported as a coping strategy (OCHA 16/12/2024). This financial strain may lead some pregnant women, especially adolescent girls, to seek unsafe abortions, perceiving raising a child as economically unfeasible because of limited resources and lack of access to healthcare services.

Limited water sources and barriers to access are forcing women and girls to walk long distances to fetch water, heightening the risk of protection concerns such as gender-based violence, sexual exploitation, and abuse (OCHA 04/12/2024 and 08/05/2024; UNFPA 03/07/2024).

OUTLOOK

The seasonal forecast predicts continued above-normal temperatures from January–March 2025, during the November–March rainy season. Under these conditions, insufficient ground moisture may hinder planting, potentially disrupting the 2024–2025 agricultural season (WMO accessed 20/12/2024; ACAPS accessed 20/12/2024). There is also a high probability of above-average rainfall from November 2024 to April 2025 linked to the anticipated development of a La Niña phenomenon, which historically correlates with significant rainfall across the country. This is expected to be generally beneficial for agricultural production in 2025, especially since many crops depend on rainfall, although increased chances of above-average rainfall raise the risk of localised flooding, which could damage crops and infrastructure (FAO 18/10/2024).

The 2023–2024 drought in Zambia is expected to worsen existing challenges, significantly affecting livelihoods, health, food security, and the environment. With water stress and declining pasture availability, livestock farmers are increasingly at risk of losing their herds to disease outbreaks and starvation (OCHA 16/12/2024). Because of limited water, there are reports of livestock and wildlife sharing water sources in Southern province. This is expected to increase the spread of diseases such as anthrax, which poses a threat to livestock health, further straining ecosystems already vulnerable from prolonged dry conditions (OCHA 16/12/2024; IFRC 17/10/2024; Govt. of Zambia 02/09/2024). In June 2023, the Kanchindu and Siameja veterinary camps in Sinazongwe district, Southern province, reported human and animal cases of anthrax. By 20 November 2023, Zambia had recorded 684 suspected human cases, including four deaths, with a case fatality ratio of 0.6%. Most cases were reported in Southern province (370 cases, 54%), followed by Western (88 cases, 13%), Lusaka (82 cases, 12%), Eastern (66 cases, 10%), and Muchinga (47 cases, 7%) provinces (WHO 08/12/2023; UNMC 12/12/2023).

The drought is projected to worsen malnutrition, particularly among children under five. By June 2025, nearly 52,000 children in 84 drought-affected districts are anticipated to suffer from SAM, while an additional 276,000 are expected to experience MAM (UNICEF 21/06/2024).

Children face several risks, including lethargy, delayed developmental milestones, poor hygiene, and diarrhoea. Limited access to water, reduced food intake, and inadequate nutrition can increase the spread of diarrhoeal diseases such as dysentery and typhoid, as well as conditions such as acute respiratory infections, SAM, MAM, and various skin conditions (OCHA 16/12/2024; IFRC 17/10/2024).

The impacts of the drought extend beyond rural communities that depend on agriculture and livestock. Indirectly, those involved in Zambia's mining economy through services and trade are likely to encounter diminishing opportunities, which could lead to increasing poverty levels (PwC 16/10/2024). In drought-affected areas, declining groundwater levels and reduced river flows will also hinder local economies that rely on water resources for various sources of livelihood, such as fishing (IFRC 17/10/2024).

HUMANITARIAN ACCESS CONSTRAINTS

Zambia's road network is nearly 67,700km, with around 40,500km designated as the core road network. Only roughly 15% of the roads are paved (Logistics Cluster accessed 11/12/2024). Zambia's varied landscape includes remote areas that pose logistical challenges for humanitarian organisations providing assistance. Remote areas such as Shangombo district in Western province, which is severely affected by drought, face significant accessibility challenges because of poor road conditions that aid delivery (OCHA 04/12/2024; UNICEF 16/10/2024).

In the southwest, roads are predominantly sandy and difficult to navigate even during the dry season (Logistics Cluster accessed 11/12/2024). During the rainy season (November–March), heavy rainfall and flooding aggravate these difficulties, further constraining humanitarian responders' ability to conduct their activities in certain districts (OCHA 04/12/2024; ACAPS accessed 10/12/2024; Logistics Cluster accessed 11/12/2024).

Limited access to medical equipment can significantly affect hospitals and clinics, which depend on electricity for essential devices such as refrigerators for vaccines and blood storage, ventilators, and diagnostic tools. Power outages, particularly in remote and rural areas, can disrupt these critical services, hinder humanitarian efforts by affecting logistics, compromise patient care, and potentially lead to increased mortality in the most affected areas (Prospero accessed 04/01/2025).

Mobile phone networks and internet services often rely on electricity, and power outages can also disrupt telecommunications, affecting humanitarian activities and response (Service Electric 27/06/2024).

DRIVERS OF THE CRISIS

El Niño

The 2023–2024 El Niño is a significant driver of the drought crisis in Zambia, as it has disrupted normal weather patterns by reducing rainfall and increasing temperatures during the period of December–April (MGEE 10/2024; Met Office accessed 10/12/2024; OCHA 20/09/2024). This phenomenon is characterised by warmer-than-average sea surface temperatures in the Pacific Ocean that disrupt normal weather patterns, often leading to prolonged dry spells and severely affecting water availability, agriculture, and food security (Met Office accessed 10/12/2024). Across southern African countries, El Niño aggravates drought conditions, reducing crop yields, depleting water resources, and heightening the risk of starvation and malnutrition in communities that rely heavily on rain-fed agriculture (Met Office accessed 10/12/2024; OCHA 20/09/2024).

Climate change

Climate change describes long-term changes in Earth's average weather patterns and conditions, driven by both human activities and natural processes (WMO accessed 11/12/2024). Rising global temperatures have disrupted established climate systems, causing extended dry spells, decreased rainfall, and a rise in extreme weather events, including droughts. Rainfall variability has increased over the last 30 years in Zambia, leading to more frequent flooding, prolonged dry periods, and heightened pest infestations (IFPRI 10/11/2023). Between 2046–2050, national rainfall is projected to decrease by 0.87%. In the southern and western regions, this reduction is expected to be as much as 3–4% during the same period. At the same time, temperatures are predicted to rise by 1.82° C, with increases ranging from 0–3.8° C in the western regions. As a result, maize, which is a staple cereal, is expected to see yields decline by 3–6% in both southern and western regions (FAO accessed 15/12/2024; Ngoma et al. 09/2023).

Over the last two decades, Zambia's agro-ecological regions, which include areas in Eastern, Southern, and Western provinces, have been getting low, unpredictable, and unevenly distributed rainfall (Ngoma et al. 27/08/2021; Govt. of Zambia 24/09/2020). These climatic changes have led to declining agricultural yields, water shortages for both people and livestock, and escalating food insecurity, posing serious challenges to livelihoods in drought-prone regions (ITV 14/10/2024; NPR 21/05/2024; OCHA 16/12/2024).

COMPOUNDING FACTORS

Deforestation and land degradation

Zambia is one of the southern African countries with the highest deforestation rates (GFW accessed 10/12/2024). By 2023, the country had been losing an estimated 172,000 hectares of forest annually, significantly reducing tree cover essential for mitigating climate change, maintaining soil fertility, and retaining moisture (ZCD 27/05/2024; ND 07/06/2024). Agricultural expansion, charcoal production, and infrastructure development are the primary drivers of this deforestation (ZDH accessed 10/12/2024; ZCD 27/05/2024). The heavy reliance on charcoal as a primary energy source, especially in rural areas, has worsened deforestation. About 16% of the rural population's livelihoods depend significantly on both forest products (such as timber, firewood, and medicinal plants) and non-forest resources (such as agricultural land and water sources), which contribute around 20% of the incomes of rural households (ZCD 27/05/2024; DDCF accessed 10/12/2024). In response to the drought, rural communities have resorted to coping strategies that include activities that cause deforestation (IWMI 01/10/2024).

Poverty

Zambia is one of the countries with the highest levels of poverty in the world. More than half of the population lives on less than USD 1.9 per day, and the situation is particularly severe in rural areas. Poverty affected 64.3% of the population in 2022, up from 54.4% in 2015. The current energy crisis, with its impact on job losses, only worsens this situation (WB accessed 26/12/2024; BMZ accessed 26/12/2024).