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Challenges to Agriculture in Sub-Saharan Africa

Between Climate Shocks and Fertiliser Shortages



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Executive Summary

Keir Fairey

Agriculture is a cornerstone of Sub-Saharan Africa, not only due to its economic impact but also because of its importance to livelihoods, food security, and political stability. It provides just under half of all employment in the region, yet the sector increasingly faces layers of challenges that are becoming more complex and intertwined.

Structural problems, including dependency on rain-fed agriculture and weak transport and storage infrastructure, have created persistent strain. Additionally, these structural issues are being exacerbated by a range of interconnected shocks, notably the closure of the Strait of Hormuz. A huge amount of fertiliser travels through this chokepoint. The delays and disruptions impacting sectors and economies all over the world, as a result of the conflict, will significantly affect agriculture in the region. Many countries and crops are reliant on a steady flow of fertiliser, and due to the temporal nature of agriculture, delays will impact harvests not only in 2026 but likely into 2027.

Compounding this stress are the increasingly unpredictable shocks of a chaotic climate. Unpredictable rainfall in the breadbaskets of the region makes output varied, with some producing a glut of crops while other regions face shortages. Combined with soil degradation, this creates increased competition and pressure on valuable land, which leads directly into another challenge: conflict. Conflicts old and new continue to cause disruption at all levels of society, including agriculture. The huge humanitarian impact of conflict and the vast movement of people fleeing war continue to put increased strain on an already structurally uneven agriculture sector. The potential to rise to these challenges and remain resilient will depend on whether governments and markets can reduce these structural vulnerabilities before temporary shocks become prolonged crises.

Looking forward, key priorities to watch will be the flow and price of fertiliser. It will be incredibly important that the region's farmers have access during crucial times in the agricultural cycle. The cost and production of key crops like wheat, rice, and maize will indicate whether input shortages are translating into more serious food insecurity. At the same time, conflict displacement and climate shocks will continue to impact the sector, and governments', markets', and NGOs' responses will determine if these increasingly complex and interconnected shocks can be absorbed.

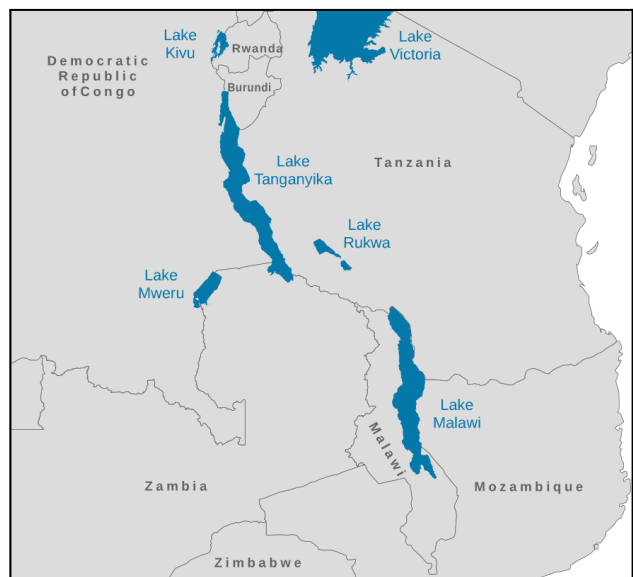
Agriculture: A Snapshot

Keir Fairley and Rishaan Uttamchandani

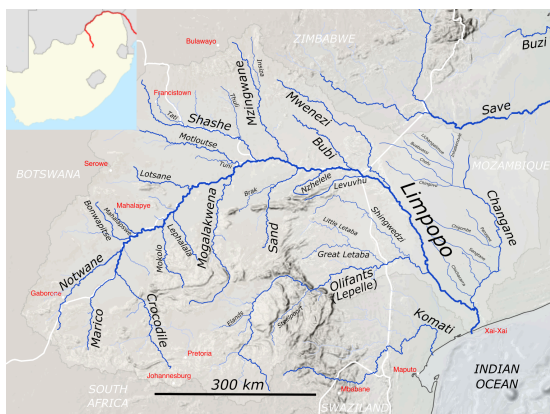
Agriculture remains a keystone across Sub-Saharan Africa, impacting countries on a political, societal, and economic level. This is not necessarily because it is highly productive, but because it underpins employment, household income, rural livelihoods, and political security. In 2025, agriculture [accounted for](#) just under half of all employment across the region (excluding high-income countries). While agriculture plays a vital role across the region, large-scale production is centred around a few key [‘bread baskets’](#).

Lake Malawi / Lake Tanganyika Basin

This area spans Malawi, Zambia, Tanzania, Mozambique, and the DRC and is crucial for growing crops such as cassava, maize, legumes, and rice. Crucial to this area is the health and abundance of the surrounding freshwater in the two major lakes and smaller networks of rivers. While fertile, much of this area is still limited by poor infrastructure, like roads, which makes it harder to transport products, and a lack of processing, which keeps the value of the production low.



Map of the Lake Malawi and Lake Tanganyika Basin
Source: [MellonDor](#) CC



Limpopo River Basin
[Keenan Pepper and Peter in](#) CC

Limpopo River Basin

This enormous river basin includes territory in Botswana, Mozambique, South Africa, and Zimbabwe. The area is highly productive and acts as a microcosm of challenges facing agriculture. Particularly prone to droughts related to climate change, this region is a hub for sorghum and maize. While South Africa has been able to mitigate the effects of a changing climate due to efficient irrigation producing vegetables, fruits, and wines, in Zimbabwe and Mozambique, agriculture has been focused on smallholder farms, which are significantly more susceptible to climate shocks.

Niger and Volta Basins

This is one of West Africa's most important food-growing regions, structured around the bordering river basins of the Niger and Volta. Key crops produced here are yam, cassava, rice and maize. It has played a crucial role in allowing both Nigeria and Ghana to become some of the region's key processors of agricultural products.



Niger and Volta River Basins

Source: [Hel-hama](#) CC, modified by Polis Analysis

Macro-economics

Agriculture occupies a larger share of Sub-Saharan Africa's economies than in any other region. The sector contributes roughly 17% of regional value added but provides jobs for almost half of the workforce. This shows that although there are many labourers working in farming, each worker generates relatively little economic value. Regional growth is projected to rise from 3.5% in 2025 to 4.3% in 2026-27, as agriculture starts to recover from weak harvests in 2023 and 2024.

Despite regional trends, variation between countries is stark. Agriculture contributes more than a third of output in Ethiopia, Chad and Niger, around a fifth in Nigeria and Kenya, but under 3% in South Africa, where a commercial farming sector has taken hold alongside a much larger industrial and services economy.

The region's export list is still concentrated in commercial warm-weather crops that cannot easily be grown in temperate climates. Cocoa is the largest single earner, with Côte d'Ivoire and Ghana supplying more than 60% of world production and Nigeria and Cameroon adding smaller volumes. East Africa dominates coffee and tea, with Uganda

overtaking Ethiopia to become the continent's largest coffee exporter, earning a record \$2.4 billion (£1.8 billion) in 2025, while Ethiopian coffee sales still rose 47% year on year in the opening quarter of 2025–26. Kenya has the most diverse export list of all, though, combining tea with 'horticulture' worth around \$1.1 billion (£820 million) and supplying roughly 40% of the European Union's cut roses.

However, that pattern has started to shift. According to IMF figures, [around 20% of Sub-Saharan Africa's](#) trade now goes to China, which supplies about 16% of the continent's imports, and Beijing's tariff repeal on West African cocoa signals a gradual shift in buyers. Côte d'Ivoire's plan to process half of its cocoa crop domestically is a more direct response than any shift in the choice of where to export. It is aimed, particularly, at keeping more value inside the country rather than simply changing who purchases the goods.

Despite this export strength, the region is a net importer of food. The FAO expects Sub-Saharan Africa's food import bill to reach [\\$65 billion \(£48 billion\) in 2025](#), a third consecutive annual increase from \$62.8 billion (£47.2 billion) in 2024. Cereals account for \$21.9 billion (£16.4 billion) of imports, with edible oils, fish, sugar, and beverages adding a further \$23.4 billion (£17.6 billion). Most wheat comes from Russia, Ukraine, and the EU; rice from India and Southeast Asia, with the region now the world's largest rice-importing bloc; and vegetable oils mainly from Indonesia and Malaysia. This is not a shortage of land. Rather, it is a mismatch between the food urban consumers increasingly want and what the region produces most efficiently, made significantly worse by limited milling, storage, and processing capacity.

This dependence creates two vulnerabilities in the system. The first is supply concentration. Russia and Ukraine alone account for close to a quarter of global wheat, maize and barley trade and the disruption after February 2022 showed how quickly a single corridor can transmit price shocks inland. Second, there is a financial risk. Import bills are in dollars, but revenues are not, so any currency depreciation raises the domestic cost of food directly, feeding inflation and subsidy spending as well. That pressure lands on budgets that are already stretched, with more than half the region's IDA-eligible countries at high risk of, or already in, debt distress.

Low productivity is still one of the biggest challenges facing agriculture. Maize yields are only around 1.2 tonnes per hectare, against a global average of about 5.8 tonnes. Irrigation covers only a small share of cultivated land, so output stays tied to rainfall and increasingly exposed to drought, while post-harvest losses are still high because storage and cold chain capacity are limited.

In contrast, demand is certainly not the problem. The region's working-age population is expected to grow by roughly 740 million by 2050 and diets are moving toward processed cereals and protein. Africa therefore imports more food from outside the continent than it exports, resulting in a food trade deficit which is focused on a handful of large importers rather than spread evenly across the region. Working against this, the EU Deforestation Regulation has forced tracking requirements, which are likely to raise compliance costs for smaller food producers while strengthening the position of larger, better capitalised ones.

These developments pull in different directions. The African Continental Free Trade Area (AfCFTA) aims to encourage more trade between African countries, reducing reliance on overseas markets and making the region less exposed to external price shocks. Achieving this, however, will require significant investment in transport links, processing facilities and storage infrastructure.

The same \$100 billion (£75 billion) gap between what African cocoa farmers earn and what the finished product is worth shows up again, in a different shape, in the food import bill, and in the compliance costs the EU's new rules will impose on smallholders who can least afford them. Whether this gap narrows over the next decade or widens because of stricter European rules will depend less on trade policy and more on how quickly countries build processing plants, storage facilities, and roads. This basic infrastructure will determine whether agricultural strength is turned into real economic value by creating a sustainable model for the region.

Fertiliser Shortage

Uzdah Jawaid

The disruption to shipping through the Strait of Hormuz is creating a fertiliser supply shock that could reach African farms months after the initial geopolitical crisis. The corridor carries a significant share of globally traded fertiliser and its key inputs. The Food and Agriculture Organization (FAO) estimates that [20-30% of global fertiliser](#) passes through the Strait, while the African Development Bank (AfDB) estimates that the route accounts for roughly [one quarter of global ammonia trade](#) and more than one-third of seaborne urea trade. The Gulf is also a major source of sulphur, an essential input for producing phosphate fertilisers.

Types of fertilisers

The immediate concern covers several essential inputs. Urea and ammonia are particularly important because they provide nitrogen, which supports plant growth. Phosphate fertilisers are also exposed because their production depends on sulphur. The disruption therefore affects both finished fertiliser and the raw materials needed to make it.

The price impact has already been significant. The [FAO reported](#) that Middle Eastern granular urea prices rose 19% in the first week of March, while Egyptian urea prices increased by 28%. The reason extends beyond shipping: natural gas is a major feedstock for nitrogen fertiliser, meaning higher energy costs can add further pressure to production costs.

Africa is particularly vulnerable because approximately [80% of fertiliser used in Sub-Saharan Africa is imported](#). This means a disruption in a distant shipping corridor can quickly become a local affordability problem for farmers.

Communities impacted by the shortage

The most exposed are smallholder farmers in fertiliser-importing countries. Smallholders produce nearly 70% of sub-Saharan Africa's food, according to the AfDB, but generally have less cash than large commercial farms to buy fertiliser in advance or absorb sudden price increases. Higher prices can therefore result in farmers applying less fertiliser, delaying its use or abandoning application altogether.

The exposure is not uniform across the continent. [FAO specifically identifies](#) Somalia, Kenya, Tanzania and Mozambique as particularly vulnerable because of their dependence on imported fertiliser. Sudan faces an additional risk because it is already

experiencing acute food insecurity. More broadly, import-dependent countries are particularly exposed where conflict, climate shocks, debt pressures or weak public finances are already limiting governments' ability to support farmers.

There is also a second side to the disruption. Africa is not only a fertiliser importer. Morocco and Egypt, which collectively [account for approximately 70% of Africa's fertiliser exports](#), risk losing export revenue as supply chain disruptions intensify. Meanwhile, net-importing countries, including Ethiopia, Côte d'Ivoire, Zambia, Kenya and the Democratic Republic of Congo, face rising import costs, mounting food inflation and potential declines in agricultural yields. The result is a dual shock, affecting both fertiliser producers and import-dependent economies across the continent.

How long will this last?

The answer depends less on the day shipping resumes than on when fertiliser reaches farms. FAO has warned that fertiliser scarcity caused by the Hormuz disruption [will lead](#) to lower yields and tighter food supplies in the second half of 2026 and into 2027. This is because fertiliser has to be applied during specific stages of the crop cycle. A delay of even a few weeks can force farmers to reduce application or miss the fertilisation window altogether. Once that happens, reopening the trade route cannot restore the yield that has already been lost.

[FAO's assessment](#) shows that the duration of the disruption will determine when its effects become visible. A prolonged disruption risks affecting farmers' planting and fertilisation decisions, as higher fertiliser and energy costs may lead them to plant less, use less fertiliser or abandon production altogether. The resulting lower yields would emerge at harvest, meaning the effects could continue into 2027 even if shipping conditions improve earlier.

This means the disruption could outlast the immediate shipping crisis. Even if fertiliser flows begin to recover, farmers who have already missed critical application windows may still face lower yields in the following harvests. For Africa's import-dependent economies, the key question is therefore not simply when Hormuz trade resumes, but whether fertiliser can reach farmers in time for the next planting and fertilisation cycles.

Crops impacted by shortage

FAO identifies maize, wheat and rice among the crops most at risk. These are central to food supplies in many African countries, so lower fertiliser use can have consequences beyond individual farms. The [AfDB cites FAO estimates](#) that a 10% reduction in fertiliser availability could reduce maize, rice and wheat production in Sub-Saharan Africa by up to 25%, potentially contributing to food inflation of as much as 8%.

The effect is not simply a matter of farmers having less fertiliser. [FAO warns](#) that farmers may respond to shortages and higher prices by reducing fertiliser application or switching to less input-intensive crops. Because fertiliser use has a non-linear relationship with yields, relatively modest reductions in application can produce larger declines in output, particularly in regions where fertiliser use is already low.

That [vulnerability is particularly stark in Africa](#). Fertiliser use averages just 17-23 kg per hectare, compared with a global average of 135 kg per hectare, reflecting persistent constraints on affordability and access. The disruption therefore comes at a time when many African farmers, particularly smallholders, already have limited capacity to absorb higher input costs.

The impact will therefore extend beyond individual farmers. Lower yields of maize, wheat and rice would reduce food availability while higher production costs feed through to consumer prices. For countries already reliant on food imports or facing climate, conflict and economic pressures, a fertiliser shock could therefore become a wider food-security problem. A disruption that begins in a shipping corridor thousands of kilometres away could ultimately affect what farmers can afford to plant and what households can afford to eat.

Conflict

Samantha LiPuma

Conflict pressures on agricultural growth

As discussed in previous sections, agriculture carries significant economic importance across Sub-Saharan Africa, with large parts of the population depending on the sector for their employment. While there is a considerable potential for growth (based on population size and resources), the region [has grown](#) at a slower pace than other regions in terms of agricultural production. Over the past few decades, the region has steadily increased its reliance on (processed) food imports and its exports remain mainly raw commodities.

Conflict can have particularly severe effects on access to fertile land, agricultural inputs, and market growth or development. One of the most destructive periods for agricultural production was during the Congo War, often referred to as Africa's World War. By the end of the war, in 1999, the DRC's GNP [had decreased](#) by 14% that year, there was a food deficit of 1 million tonnes, and the main agricultural exports declined by 30-34%. In addition, competition over land and agricultural resources can itself contribute to the emergence or escalation of conflict. Agriculture and violence are therefore closely interconnected rather than separate challenges.

Violent outbreaks and protracted conflicts continue to displace large numbers of people across the region, often forcing people away from agricultural land and into displacement camps or host communities. The loss of access to land undermines household self-reliance while simultaneously reducing the economic and productive value that cultivated land could have generated. As agricultural production declines, displaced populations may become increasingly dependent on humanitarian assistance and subsidised food for survival. Caused by the number of protracted conflicts across the region, primarily in the Sahel, Central Africa, and the Horn of Africa, widespread displacement and insecurity are contributing to significant reductions in agricultural production while simultaneously increasing humanitarian needs.

Conflict can strain agriculture, as agricultural strain can similarly fuel conflict. Factors such as climate change, insecure land tenure, shortages of agricultural inputs such as fertiliser, and growing competition over natural resources [have been identified](#) as important drivers of tensions and violent conflict between farmers and herders, particularly in West and Central Africa.

These pressures can be compounded in areas hosting large displaced populations, whether they are displaced for violent, political or environmental reasons. Economic hardship, land scarcity, and increased competition over water, grazing areas, farmland, and other resources can heighten tensions between displaced or migrant populations and host communities. At the same time, these constraints further reduce agricultural productivity, leaving already vulnerable households in increasingly precarious economic and food-security situations.

The relationship between agriculture and conflict can develop into a self-reinforcing cycle. Violence and displacement reduce agricultural production and access to livelihoods, while declining productivity, land scarcity, and competition over limited resources can generate additional tensions and contribute to renewed violence.

Current Humanitarian Strain in Conflict Zone

The fertiliser shortages [caused by](#) the prolonged disruptions of movement in the Strait of Hormuz are worsening the humanitarian situation in the region. While the fertiliser shortage itself has not been attributed as the direct cause of a violent outbreak, it has the potential to put a [massive funding strain](#) on governments or organisations that normally subsidise fertiliser for populations living in deep poverty and/or conflict zones.

For example, Sudan is a major recipient of agriculture-related aid; however, it has become nearly impossible to provide aid to those living in conflict-afflicted territories, and the fertiliser shortage is worsening the matter. Following the start of Sudan's civil war in 2023, Sudan's fertiliser imports [fell](#) from 450,000 metric tonnes to 50,000 metric tonnes within the year. In response, transnational agencies supported the recovery of agricultural production in Sudan to sustain livelihoods and foster self-reliance. In 2025, over 6.4 million Sudanese people [received](#) agricultural inputs (support) from the United Nations, and over 80,000 farmers were supported with seed and fertiliser deliveries or training. In the same year, a pan-African initiative successfully delivered 37,000 metric tonnes of high-quality fertilisers to the country, emphasising the importance of agrarian production in sustaining livelihoods.

However, over the past year, the Rapid Support Forces (RSF) have escalated their insurgency, not only leading to mass human atrocities but also making it nearly impossible for humanitarian aid to reach what could be considered one of the worst humanitarian crises in the world. Now, with the increased price of fertiliser, it is even more difficult for humanitarian and development agencies to subsidise agricultural products in an ever-growing dire situation. The United Nations [cites](#) that only one-third of its funding goal has been met as of mid-September, warning that the entire humanitarian system in Sudan "could collapse." Increased violence, combined with the

humanitarian funding shortfall, is likely to strain agricultural development and sustainability. This, in turn, reduces self-reliance and is likely to increase the number of people in need of humanitarian assistance.

Effects on Agricultural Capacity

Conflict can sharply reduce agriculture and agribusiness capacity in Sub-Saharan Africa, generating substantial anti-development costs, such as productivity loss, food insecurity, high prices for farming inputs, among others. In addition to the immediate costs of conflict, persistent conflict also changes how people choose to invest in land. A recent study of rural Nigeria [found](#) that the cultivation of major crops declined as violent incidents increased, due to the extended labour and time consumption required for major crops. This can reduce food availability in the short term and weaken long-term investment in agriculture.

This has had harrowing effects for the region as a whole, which continues to be plagued by violence. Global armed conflicts (the largest portion in Sub-Saharan Africa) [have reached](#) a historic high in 2025. If violence escalates in the region, along with the effects of climate change, agricultural production is likely to be hit hard in regions with naturally hot climates and limited resource access. Mitigating violence, while strengthening agricultural resilience, becomes not only an economic and food-security priority but an important component of reducing wider humanitarian vulnerability and preventing existing pressures from becoming increasingly self-reinforcing.

Environmental

Ella Burden

Environmental Stressors and Agricultural Production Constraints

Sub-Saharan Africa is among the regions most vulnerable to climate change, owing to the combination of high climatic exposure and inadequate capacity to absorb environmental shocks. The region's agricultural systems are particularly susceptible, as over 90% of cultivation [depends](#) on natural rainfall rather than controlled irrigation. This means changes in rainfall, temperature and soil conditions are transmitted directly into planting conditions, crop yields and livestock productivity, with weaker harvests affecting household incomes, local food availability and the cost of agricultural commodities.

Agriculture [accounts](#) for approximately 49.3% of employment across the region, making access to productive land central to household income and rural activity. This dependence is particularly pronounced in countries where agricultural employment remains concentrated in rural areas and livelihood diversification is limited. Environmental pressures that stagnate agricultural productivity can reduce rural employment, constrain household purchasing power, and increase dependence on food markets. At the national level, governments may then face higher import requirements and greater pressure to manage food-price increases, particularly where domestic production cannot meet demand.

In the absence of alternative employment, and under conditions of limited income diversification, rural households often extend cultivation into marginal land. Households also expand livelihood holdings as protection against economic and climatic shocks. Around 74% of agricultural output growth has come from the [conversion of new land](#) rather than improvements in yield. This model of expansion further strains land resources while doing little to raise productivity, leaving agricultural systems with limited capacity to absorb environmental shocks.

The result is that environmental pressures can move beyond individual farms into wider food and livelihood systems. Soil degradation reduces the productive capacity of land over time, while rainfall variability can produce substantial differences in agricultural conditions between regions during the same season. The consequences spill over into higher food pricing, disrupted cross-border supply, reduced rural employment and greater demand on governments and humanitarian actors.

Soil Degradation

Soil degradation is reducing the productive capacity of agricultural land across Sub-Saharan Africa. It refers to the loss of soil fertility and structure through erosion, nutrient depletion, deforestation and unsustainable land-use practices. As soil quality deteriorates, farmers require more land or inputs to maintain the same level of production, while degraded soils are less able to support reliable yields. This is particularly significant in rain-fed systems, where farmers have limited means of compensating for declining soil quality through irrigation or other forms of production support.

The scale of degradation is substantial. Soil erosion removes around 50 kilograms of key nutrients per hectare each year, amounting to over nine million tonnes annually [across](#) the region. Between 2015 and 2023, an estimated 163 million hectares of land were [affected](#) by degradation, reducing the amount of productive land available for cultivation and contributing to more frequent localised crop failure during rainfall shocks. These losses are already visible across the region, where soil erosion has been associated with 9-34% lower [yields](#) for key staple crops, such as teff and wheat. For producers, this reduces the amount of food that can be obtained from existing land and raises the likelihood that further land will need to be brought into cultivation to sustain output.

Environmental exposure also [varies](#) across the region. [Around](#) 32% of land lies within arid and desert zones, 30% in humid systems, 25% in semi-arid areas, and 13% in sub-humid regions. This distribution exposes the dominance of moisture-limited environments, where agricultural production is already operating close to ecological thresholds and is highly sensitive to small shifts in rainfall. In the Sahel, annual rainfall fluctuates by 30-40%, while even humid regions experience 15-20% variation. Short, intense rainfall events can also strip exposed topsoil and carry nutrients away before they can be absorbed, leaving less fertile land for subsequent planting.

Land degradation is particularly severe across the Sahel and East African corridor, where around 90% of rangelands and 80% of rain-fed farmland are afflicted by erosion and vegetation loss. Approximately 319 million hectares are [vulnerable](#) to desertification, while some semi-arid areas are experiencing desert encroachment of up to five metres per year. As productive land becomes harder to maintain, pressure shifts onto remaining agricultural areas, grazing systems and water resources, compounding the strain on communities whose livelihoods depend directly on them.

Household land use

Human land-use pressure is a major source of continued soil degradation across the region. Where households have limited access to alternative employment, credit, or productive land, immediate food and income requirements often take precedence over longer-term land management. Cultivation is therefore extended into marginal areas, fallow periods are shortened, and livestock holdings are expanded as a means of protecting household assets against economic and environmental shocks. These practices allow households to maintain production in the short term, but reduce the time and space available for soils and grazing systems to recover.

Deforestation adds further pressure because trees and vegetation protect soil from erosion while contributing organic matter that helps maintain soil fertility. Sub-Saharan Africa [lost](#) an estimated 4.4 million hectares of forest annually between 2015 and 2020, driven in part by agricultural expansion and fuelwood demand. The removal of tree cover leaves soil more vulnerable to erosion and reduces the organic material returned to agricultural land, accelerating the decline in land quality for cultivation and grazing. In densely populated farming areas such as Iganga and Masaka in Uganda, continuous cultivation without recovery periods is widely [reported](#) as a consequence of land scarcity and demographic pressure.

El Niño–Southern Oscillation (ENSO) and Rainfall Variability

The El Niño–Southern Oscillation (ENSO) is the main driver of year-to-year rainfall variability across Sub-Saharan Africa. It results from changes in sea surface temperatures and atmospheric circulation across the tropical Pacific, which alter the distribution and timing of rainfall across Africa. El Niño is generally associated with drier conditions across Southern Africa and wetter conditions in parts of East Africa, while La Niña tends to produce the opposite pattern. The effects are geographically uneven, with the same climate cycle capable of improving agricultural conditions in one part of the region while reducing production elsewhere.

In Southern Africa, ENSO conditions can directly affect cereal production depending on their timing within the agricultural season. The 2025-26 season illustrates this divergence: South Africa [recorded](#) maize output around 10% above the five-year average, and Zambia is expected to achieve a record cereal harvest, while Angola, Mozambique, and southern Madagascar continue to face lower output following below-average rainfall and disrupted growing conditions.

East Africa follows a broadly reversed ENSO pattern, with immediate implications for food and livelihood security. Above-average rainfall has [supported](#) crop development in Kenya, western Ethiopia, [particularly](#) parts of Benishangul-Gumuz and Gambella, and

northern Uganda, while irregular rainfall continues to compromise production in Somalia and south-eastern Ethiopia. In pastoral areas, the consequences manifest as poor grazing conditions and water shortages, adding to existing displacement pressures. The sequence of prolonged drought between 2020 and 2023 followed by widespread flooding also exemplified the difficulty of recovery when successive shocks [affect](#) the same communities.

West and Central Africa experience ENSO variability alongside existing environmental and political pressures. While early-season rainfall has supported production in some areas, below-average precipitation is forecast across parts of the Sahel, including Senegal, The Gambia, Guinea, and southern Chad. In the Lake Chad Basin, flooding in 2024 [inundated](#) 418,300 hectares of farmland, while delayed planting during the 2025-26 season curtailed the time available to plant and harvest. Alternating flood and dry conditions also disrupt livestock movement corridors, reducing the reliability of agro-pastoral systems that support local food availability. Together, these pressures complicate efforts to assess food requirements and respond before local production losses become wider supply problems.

The regional effect is therefore not simply a question of more or less rainfall. ENSO can alter where agricultural surpluses and deficits emerge, when food becomes available and how easily it can move between production zones. Sharp differences between neighbouring areas can place greater pressure on cross-border grain flows and informal trading networks, particularly where formal supply chains are unable to respond quickly.

Environmental pressures are straining agricultural production across Sub-Saharan Africa, with rainfall variability, soil degradation and land-use pressure affecting both the quantity and reliability of food production. Because agriculture remains central to employment and household incomes, production shocks can quickly affect food prices, trade flows and rural livelihoods. For governments, businesses and humanitarian actors, this makes agricultural conditions harder to forecast and increases the need to account for environmental risks when assessing food supply, markets and regional stability.

Impacts

Langa Cele

As discussed in previous sections, agriculture carries significant economic as well as societal importance across Sub-Saharan Africa. However, [agricultural challenges](#) in Southern Africa trigger deep socioeconomic vulnerabilities, creating a dangerous ripple effect that starts at the household level and extends to global commodity markets. Agricultural failure in the region rarely acts as a single cause. It transmits shocks from the environment into household budgets, state finances, and political stability, then back into farming.

How shocks reach production and livelihoods?

Much of Southern African farming is largely [rain-fed](#), and the region now swings between extremes within a single season. In Mozambique, [severe flooding](#) in January 2026 was followed by a 40-day dry spell with intense heat and then renewed heavy rain in March, producing extensive crop and livestock losses. Recovery has been [slowed](#) by prolonged waterlogging, soil degradation and limited access to seed, which delayed second-season planting by more than a month. [In an analysis of ten Sub-Saharan countries](#) over a period of 20 years, researchers have found that rising temperatures pose a significant long-term risk to food security, whilst the region's low adaptive capacity in agricultural techniques triggers a cascading sequence of [socio-political crises](#). Although the study covers a wider geographical area, its findings provide context for understanding climate-related risks in Southern Africa.

The 2023-24 El Niño drought showed what this costs. World Food Programme (WFP) [reported](#) harvests were wiped out in a region where about 70% of the population relies on agriculture, with farmers in Zambia who normally feed their communities harvesting nothing. Losses extend to livestock and labour. Analysts [expect](#) household food availability in southern and central Mozambique to stay below average until January 2027 and agricultural wages to stay below average from October 2026. Agricultural employment is an important source of income for rural households, helping them purchase food when their own harvest fails.

Societal Impact: The Human & Political Toll

When agricultural systems break down under severe environmental stress, the consequences rapidly extend beyond damaged yields to destabilise the foundational social fabric of the region. The intersection of climate shocks and agricultural failure acts as an [aggressive driver](#) of human displacement. Academic reports tracking regional dynamics highlight that severe weather events have forced hundreds of thousands into

[internal displacement](#) across the Southern African Development Community (SADC) area.

As extreme droughts wipe out a significant portion of [harvests](#) in critical producing countries like Zambia, Zimbabwe, and Malawi, traditional farmlands and grazing pastures are rendered completely unviable. This environmental collapse can increase displacement and migration as households seek alternative livelihoods and access to resources. Pastoralists are forced to drive their herds across traditional tribal boundaries or international borders in search of surviving water tables. This dynamic pits displaced communities directly against local populations over rapidly diminishing arable land and water access, transforming a lack of rain into localised, violent resource conflicts. Furthermore, displaced rural households, particularly younger people, tend to move toward cities such as Maputo, Johannesburg, and Harare, where informal settlements already strain water and power services.

Economic Impact

The economic effect arrives from two directions at once: the first is household hardship as agricultural shocks manifest primarily through [hyper-localised](#) inflation and an aggressive erosion of purchasing power. Thus, households—primarily lower-income—are particularly vulnerable because they have less capacity to absorb a price shock and lose income at the moment prices rise. At a national level, the channel runs through the external accounts. When [harvests fail](#), countries that normally self-supply or export must import grain and draw down foreign exchange reserves. Currency pressure follows, raising the local-currency cost of imported food, fuel, and equipment and of servicing foreign-currency debt. Because a significant share of sovereign debt in the region is denominated in foreign currency, such as the US dollar, depreciation inflates debt service just as tax revenue shrinks, and governments divert budget from infrastructure, education, and social protection.

Global Macro Impact: The International Contagion

Southern Africa's integration into global networks means that deep regional shocks cross borders, transforming local failures into international economic pressures. The region can be [characterised](#) as a grain market, not a price-setter on the scale of the Black Sea or the US Midwest. When South Africa, Zambia and Zimbabwe swing from surplus to import demand, the clearest effects are on regional maize and wheat prices and on neighbours' import bills. After the 2026 floods, for example, Mozambique was importing vegetables from South Africa at an atypical time of year.

Beyond basic grains, countries in Southern Africa export selected high-value agricultural products to the global market, particularly to Europe, Asia, and North America. [Logistical](#)

[bottlenecks](#) at the Cape Town port combined with climate shocks disrupt supply, inflating procurement costs for international retailers.

The combination of agricultural failure, forced migration, and localised conflict creates a heavy burden for the international community, altering foreign aid budgets.

As acute [food insecurity](#) deepens across the region, the financial demand for massive humanitarian interventions escalates dramatically. International organisations such as the United Nations World Food Programme (WFP), the World Bank, and international development agencies are forced to mobilise multi-billion-dollar emergency relief packages. Money spent on repeated emergency response is not available for climate adaptation, energy transition and infrastructure investment that would shrink the next emergency.

Agricultural challenges in Southern Africa are not an isolated sector problem. A weather shock becomes a production loss, then an economic, social and political event, and instability can return the system to the start. At the household level, food price inflation erodes health and economic security. At the national level, shrunk revenue and higher import bills leave sovereign balance sheets exposed. Because conditions persist, the cheapest points of intervention are the early ones, and reactive relief alone will not break the cycle.

The evidence points to four priorities. The first is accelerating climate-smart agriculture and climate adaptation. The second is deploying blended finance and better-targeted input support to empower smallholders, backed by higher public agricultural investment. The third is modernising regional trade and transport infrastructure so that markets keep functioning under stress. The fourth is governance that sustains institutions through shocks, with Han and Mutale specifically recommending early warning systems that combine agricultural, nutritional and economic indicators.

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In an era of twenty-four-hour news, complex political developments, and disinformation, we believe individuals deserve access to fact-based, free, and easy-to-understand analysis of the events shaping their lives.

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