WATER-DRIVEN HUNGER:

HOW THE CLIMATE CRISIS FUELS AFRICA'S FOOD EMERGENCY

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ABSTRACT

This briefing paper examines the interconnected water and food crises in Eastern and Southern Africa, focusing on eight of the continent's most water-insecure countries. The focus countries are hunger hotspot countries for 2025 according to the FAO and WFP. The report shows that to address food security, water security is fundamental.

The report demonstrates the importance of adopting an integrated approach that tackles water and food insecurities, emphasizing the importance of equitable access to resources and improved coordination between sectors such as water, sanitation, and hygiene (WASH), food security and nutrition. It also points out the challenges of localizing climate models, securing funding for adaptation, and responding to loss and damage.

The brief was developed using a combination of desk reviews and key informant interviews conducted at the country level to gather comprehensive insights.

1 BACKGROUND

This paper explores the impact of climate change on eight countries in Eastern and Southern Africa suffering from water and food insecurity: Ethiopia, Kenya, Malawi, Mozambique, Somalia, South Sudan, Zambia, and Zimbabwe. It highlights how shifts in climate patterns have exacerbated the depletion of water resources, pushing millions of pastoralists, farmers, and women into acute hunger. These eight nations are identified as Hunger Hotspots for 2025[1], facing the most severe impacts from extreme weather conditions and increasing climate variability and are also among the 30 most water insecure countries in the world as per the National Water Security Score of the Global Water Security 2023 Assessment[2].

In 2025, the continuation of the La Niña phenomenon, projected to persist through March, is expected to significantly alter rainfall patterns and temperatures. This will lead to flooding in Malawi, Mozambique, South Sudan, Zambia, and Zimbabwe, while southern and southeastern Ethiopia, eastern Kenya, and Somalia will experience drier-than-average conditions. These changes will again impact millions of vulnerable people, as noted in the 2025 Hunger Hotspots report. Over the past five years, these countries have repeatedly encountered droughts and floods—events that are growing in frequency and severity. The current La Niña follows a severe El Niño-induced drought in southern Africa and floods in East Africa, alongside the record droughts in East Africa from 2020 to 2023.

These ongoing challenges have heightened the vulnerability of communities dependent on land and water resources. From 2020 to 2023, consecutive droughts and devastating floods displaced nearly half a million people and affected over 1.5 million individuals across Kenya, Somalia, Burundi, and Tanzania[3]. Economic, political, and civil instability have hindered recovery efforts, complicating the rebuilding process for these communities in dire need of continued support.

Despite the severity of these impacts, affected communities are often left with minimal humanitarian assistance after the immediate crisis passes. Once the first rain falls or floodwaters recede, humanitarian efforts are quickly withdrawn, leaving people to rebuild their lives without sustained support. Recovery is largely left to communities whose resilience is increasingly undermined by consecutive disasters. International commitments often remain short-term and fragmented, focusing on 'lifesaving' measures rather than long-term recovery or rebuilding, resilience-building or anticipatory actions to prepare for the next crisis.

The paper emphasizes that understanding water and food security as interconnected phenomena is essential to effectively address these crises, considering both distributional aspects and local experiences. This approach can enhance crisis analysis, guide adaptation strategies, mitigate loss and damage, and align with climate financing mechanisms. By highlighting integrated approaches to water and food security, the report seeks to clarify the drivers of these intertwined crises and suggest sustainable adaptation and mitigation strategies. It also provides insights into effective water management practices that can help national governments and policymakers adopt comprehensive policies, ultimately improving governance to tackle the complex interplay of these crises.

2 CLIMATE CHANGE AND ITS IMPACT ON WATER SECURITY

The climate crisis in East and Southern Africa has drastically affected water cycles, surface and groundwater availability, agricultural production, livestock health, and fisheries. Notably, rainfall has decreased by up to 10% in parts of East and Southern Africa since the late 20th century[4], destabilizing agriculture, where approximately 91% of crops rely on rain-fed systems (see Table 1 below). This reduction in rainfall directly threatens livestock, with about 70% of rural populations estimated to depend on animal husbandry for their livelihoods[5]. As climate zones shift from semi-arid to arid, food production, primarily reliant on rainwater, becomes increasingly erratic. This dynamic and often non-linear pattern exacerbates water and food insecurity for millions, highlighting the urgent need for adaptive and resilient strategies to safeguard vulnerable communities.

Country	No of People experiencing Food Insecurity in 2024 (in millions)[6]	Total Population without access to safe drinking water (in millions)[7]	% of agricultural land with irrigation
Ethiopia	22[8]	52.1	5%
Kenya	1.9	19.6	>5%
Malawi	5.4	2.0	2-4%
Mozambique	2.79	15.5	1%
Somalia	4.4	11.8	20-25%[9]
South Sudan	7.1	4.5	>5%
Zambia	5.8	6.8	5.7%[10]
Zimbabwe	6	3.6	30%
Total	**55.39**	**115.9**	**≈9%**

Table 1 – Food and Water Insecurity Indicators

The table highlights issues related to food insecurity and access to safe drinking water across the eight African countries covered in this brief in 2024 and 2021 respectively. Data on water access is limited and the last complete year with comparable data for rural access to safe drinking water was only available for 2021. Given the years between 2021 and 2024 were marked by concurrent crises, the assumption is that water access probably did not markedly improve in any one of the eight countries. Ethiopia stands out with the highest number of people facing food insecurity and the largest number of people lacking access to safe drinking water. The Table also highlights that over 55 million people are expected to experience food insecurity, while more than an estimated 115.9 million lack access to safe drinking water. Additionally, the percentage of agricultural land with irrigation is low in most countries, with Zimbabwe showing a comparatively high rate of 30%. This data underscores the interconnected challenges of food security and water access, highlighting the need for improved agricultural practices, especially considering the climate crisis.

However, addressing the climate crisis in East and Southern Africa presents significant challenges due to inadequate infrastructure. Over 60% of rural communities lack modern irrigation systems and sufficient water catchment and storage facilities, severely hampering water utilization and crop cultivation. The African Development Bank estimates that up to 70% of the infrastructure Africa will need by 2050 has not yet been build which includes all of those mentioned above

but also flood-resistant infrastructure[11]. Financial constraints compound the issue, as sub-Saharan Africa receives only 3 to 4%[12] of global climate finance, despite being disproportionately affected by climate change. Furthermore, limited access to climate information undermines adaptation efforts and hinders effective planning at all levels.

NORTH-SOUTH GAPS IN ADAPTATION EFFORTS

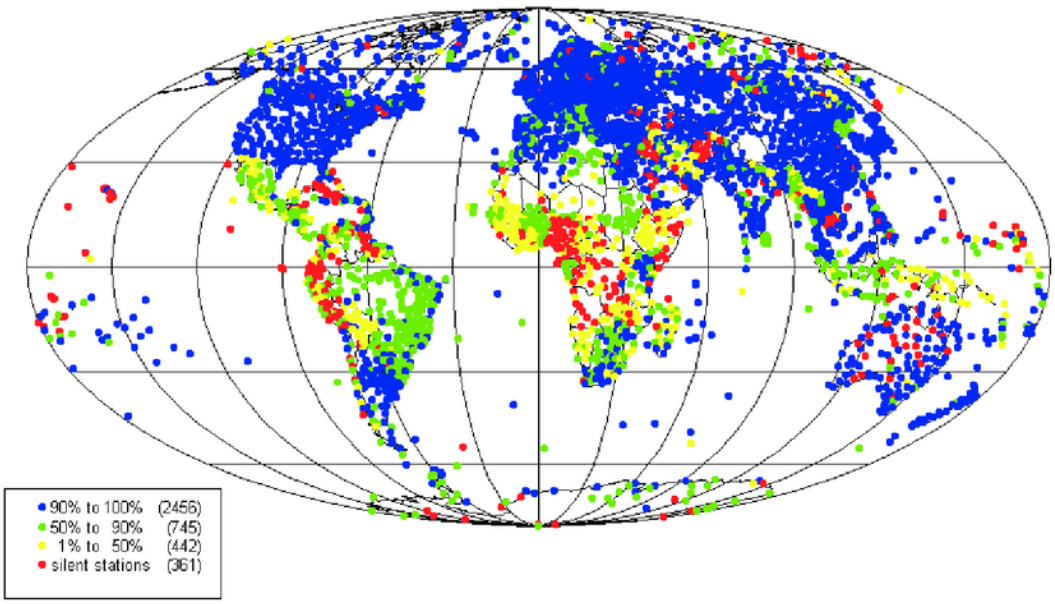
A lack of comprehensive, high-quality data severely hinders Sub-Saharan Africa's efforts to address food and water insecurity. Reliance on global macro-systems like the El Niño-Southern Oscillation (ENSO), the Indian Ocean Dipole (IOD), the Inter-Tropical Convergence Zone (ITCZ), and Sea Surface Temperature (SST) provides some insight, but it fails to capture the local dynamics necessary for effective intervention.

Furthermore, a significant North-South data gap in climate change modeling exacerbates challenges related to shifts in agroecological zones. This gap limits communities' ability to adapt, perpetuating cycles of food insecurity, especially in regions like East and Central Ethiopia, where predicting Belg (February-May) rains is notoriously difficult. These rains, vital for agriculture, fail approximately once every three years.

The Belg rains from February to May are vital for Ethiopia's agriculture, which employs 80% of the population. The Belg rains are particularly necessary in the central and eastern highlands, supporting crops like teff, maize, and barley. Accurate predictions of these rains are essential for ensuring food security; however, they are challenging due to Ethiopia's complex topography and variable climate. The country's location in the Horn of Africa makes it susceptible to unpredictable weather patterns influenced by the Indian Ocean and the Atlantic. Anomalies like El Niño and La Niña often lead to inadequate or excessive rainfall. Limited meteorological infrastructure and lack of advanced forecasting technology further complicate predictions. Reliable rainfall forecasts are crucial for agricultural planning, reducing crop failure risks, preventing food shortages, and enhancing productivity—key for alleviating poverty and building resilience to climate-related challenges in Ethiopia.

The divide in hydro-meteorological data complicates efforts to ground and localize climate models, which is essential for improved forecasting and informed decision-making regarding adaptation, loss, and compensation. This data gap also impacts funding streams that are crucial for these initiatives. National Meteorological Systems, often under-resourced and lacking in technical expertise, struggle to provide accurate climate change projections. This deficiency adversely affects adaptation investments and limits the ability to address loss and damage claims from multilateral organizations, local communities, and the private sector.

Below is a map illustrating the global distribution and density of ground meteorological stations, as well as their level of integration with the World Meteorological Organization (WMO). A clear North-South divide emerges, which should not only be attributed to physical infrastructure and available technology but also to a broader research and technological gap, as well as weak integration of hydro-meteorological systems. This divide significantly affects local weather forecasting and limits access to comprehensive and long-term data series necessary for grounding climate change models, thereby hindering the development of effective adaptation plans and funding mechanisms.



"Countries with limited to moderate Multi-hazard and Early Warning Systems MHEWS () coverage have nearly six times higher disaster-related deaths from disasters compared with that in the countries with better coverage (4.05 mortality per 100,000 population, compared with 0.71). Similarly, countries with limited to moderate MHEWS coverage have nearly five times more people affected by disaster than countries with substantial to comprehensive coverage"[13].

For the distribution of ground-based weather stations in the Global Telecommunication System, color coding indicates the percentage of data communication reported by the World Meteorological Organization (WMO). Blue represents the highest level of integration, while red signifies completely silent stations. (Source: Washington, Harrison, and Conway)

IMPACTS ON FOOD PRODUCTION SYSTEMS

The climate crisis in Eastern and Southern Africa has significantly affected food systems by altering climatic zones across various altitudes and regions.

A striking indicator of climate change has been the observed recession of tropical glaciers in East Africa (Tanzania, Kenya, Uganda) since the 18th century. Today, Mount Kilimanjaro has lost 91.4% of its glaciers, Mount Kenya has lost 95.8%, and the Ruwenzori Mountains have lost 94.2%. This serves as a clear sign of a shift toward a drier climate in East Africa[14], threatening hydrology, ecosystems, and traditional irrigation systems on the slopes of these majestic mountains.[15]

Over the past 30 to 40 years, climate zones have shifted and expanded toward hotter and drier conditions, causing significant changes in agroecosystems and land use. In Kenya alone, approximately 136,129 square kilometers have transitioned from wetter to drier zones[16]. As arid characteristics become more prevalent, variability in climate increases, thereby reducing management options for those reliant on agriculture.

Precipitation Zones	Average Precipitation (mm)	Climate Region Designation	1980 (km²)	2000 (km²)	2020 (km²)	Change (1980-2020)	% Change (1980-2020)
1	>103	Humid	26,654	23,029	12,285	-14,368	**-54%**
2	80-103	Sub-humid	25,034	23,757	25,640	606	**2%**
3	65-80	Semi-humid	28,941	20,190	24,537	-4,404	**-15%**
4	48-65	Semi-humid to Semi-arid	78,493	53,342	46,968	-31,525	**-40%**
5	36-48	Semi-arid	49,894	52,885	65,509	15,615	**31%**
6	25-36	Sub-arid	70,832	56,230	101,497	30,665	**43%**
7	<25	Arid	293,966	344,378	297,376	3,410	**1%**

Table 2 – Kenya Climatic Zone Shift

Table 2 illustrates the shift in climatic zones in terms of land surface area in Kenya from 1980 to 2020. During this period, the humid climate region has decreased by 54%, while the semi-arid climate region has increased by 31% and the sub-arid climate region has expanded by 43%. This data is sourced from Lawrence, T. J., Vilbig, J. M., Kangogo, G., et al. (2023). "Shifting Climate Zones and Expanding Tropical and Arid Climate Regions Across Kenya (1980–2020)." Regional Environmental Change, 23, 59.

Similarly, in Zimbabwe, the government, in 2020, updated the Agroecological Zones (AEZ[17]) based on maps made in 1960m, and revised in 1984, mainly due to the Climate-induced changes:

"Current observations indicate that climate change has disrupted the normal climatic patterns in such a way that the traditionally recognized AEZs are no longer in tandem with the expected agricultural productivity, hence reduced agricultural yields." Furthermore, "a larger proportion of the AEZ shifted towards drier and less productive" [...]. In Zimbabwe, "of the changed areas, 44.7% experienced downgrading while 5.5% experienced improvement in AEZs over the years".

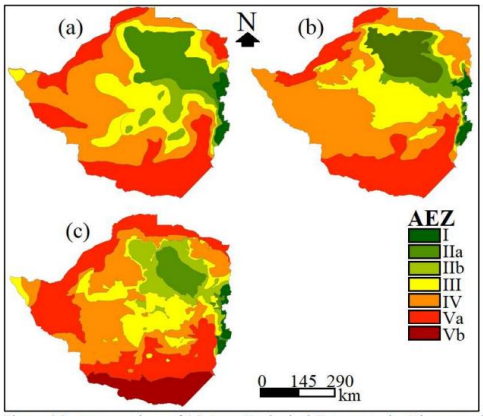


Figure 4.3: A comparison of (a) Agro-Ecological Zone maps by Vincent and Thomas (1960) and (b) AGRITEX (1984) with (c) ZINGSA AEZ (2020)

Maps showing the Agroecological zones of Zimbabwe as they have changed from the 1960s, 1984, and 2020. From Revision of Zimbabwe's Agroecological Zones (2020).

Changes in rainfall seasonality—encompassing duration, intensity, and distribution—significantly impact long-term livelihoods, particularly for agro-pastoral and pastoral communities in Ethiopia, Somalia, Kenya, and South Sudan. Shifts in climate and agroecological zones, particularly in Kenya and Zimbabwe, present increased risks to maize production, a staple food, leading to heightened food insecurity in regions receiving less than 800 mm of rainfall, as observed in Kenya, Uganda, and Tanzania. According to a study published in Climate and Development, projections indicate that increasing dryness will result in a decline in mean maize yields of over 29% in Southern Africa and 32% in East Africa for the period 2041-2070 compared to 1971-2020[18].

Furthermore, food insecurity trends in the eight countries reveal a general increase from 2019 to 2024. The year 2019 serves as a crucial baseline, representing a stable pre-pandemic period, during which there were no notable droughts or floods. This baseline allows for clear comparisons to assess the impact of subsequent disruptions such as COVID-19, climate change, and economic shifts.

Countries	Food Insecurity[19] in 2019 (in millions)	Food Insecurity in 2024 (in millions)	%age change
Ethiopia	8	22	175%
Kenya	1.6	1.9	18.75%
Malawi	1.9	5.4	184%
Mozambique	1.6	2.79	74%
Somalia	2.1	4.4	101%
South Sudan	6.35	7.1	11.8%
Zambia	1.7	5.8	241%
Zimbabwe	7.7	6	22%
Total	30.95	55.39	79%

Table 3 – Food Insecurity Comparison over five years

Water scarcity for livestock and agriculture further exacerbates this crisis. Although there is a noticeable shift by pastoralists from investing in cattle to small ruminants like sheep and goats, the adoption of drought-resistant crops, such as millet and cassava, remains limited. This situation underscores the urgent need for targeted and informed adaptation measures.

FLASH FLOODS AND FLASH DROUGHTS

The increasing frequency and intensity of extreme weather events, such as flash floods and droughts, present significant challenges. Between 2000 and 2022, flash floods became 20 times more frequent than in the previous century, particularly impacting drought-prone regions[20]. Since 2000, the duration of droughts has also risen by 29%[21]. These events are complex to forecast due to their dependence on local factors like topography and hydrology. Flash floods can occur rapidly, often due to small amounts of rainfall falling on land stripped off grass (for example for agriculture) or drought-affected soils that repel water, thus increasing community vulnerability. Conversely, flash droughts are a newly recognized type of extreme weather event characterized by their rapid onset, occurring in as little as 20 days. They are triggered by below-average precipitation, high temperatures, strong winds, and increased solar radiation, leading to quick reductions in soil moisture. Flash droughts severely disrupt agricultural production and water availability, often interrupting regular rainy seasons. In Southern Africa, areas with humid and semi-humid climates, such as parts of Ethiopia and Mozambique, are particularly vulnerable to flash droughts, exacerbating existing challenges. These changing climate conditions highlight the urgent need for improved local meteorological data systems to support early warning systems and ensure that climate adaptation and mitigation strategies are effective and timely. Overall, the intensifying impacts of climate change underscore the necessity of a comprehensive understanding of how these extreme weather events interact with water and food security.

SECTION 3: WATER SECURITY AND FOOD SECURITY LINKS

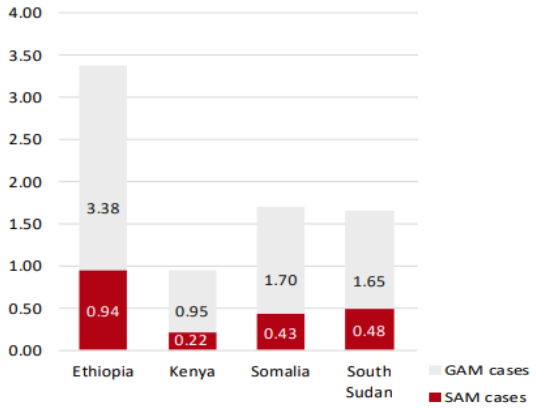
The paper highlights the vital connection between water and food security, emphasizing that access to water is essential for good nutrition. Using the UNICEF Conceptual Framework on Maternal and Child Nutrition, the section below explores the key factors that link water and food security. These factors include safe drinking water, reliable household food access, and adequate healthcare services. These are crucial for maintaining proper nutrition, particularly for vulnerable and marginalized groups.

Key Findings

- **Contamination and Malnutrition**

Regions such as Ethiopia, southern Somalia, and South Sudan are experiencing severe levels of acute malnutrition in children under five, driven by the dual crises of water and food insecurity. Contaminated surface water exacerbates malnutrition, leading to alarming rates of Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM).

The lack of access to clean water negatively impacts food preparation, hygiene, and sanitation and worsens nutritional outcomes. Below is a recent example of malnutrition's consequences in East Africa, mainly caused by water and food insecurity (health services and health-seeking habits, too). Contaminated surface water is quite common in parts of Ethiopia, southern Somalia, and South Sudan, contributing to undernutrition outcomes (high GAM and SAM levels).



% of Under-five children suffering from acute malnutrition (in millions. Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM)) Source: IPC, 2024 Ethiopia HRP, UNICEF

The rise of cholera has also become a pressing public health concern due to people ingesting contaminated water or food, especially in southern Africa. As climate change intensifies extreme weather events, such as cyclones, floods and droughts, the integrity of water sources is increasingly jeopardized, leading to outbreaks of this waterborne disease. In Zambia and Zimbabwe, the rate of infection in 2024 was extremely high with these countries having 40,356 cases between them – accounting for 50% of cholera infections in the African continent[22].

- **Water as a Determinant of Food Utilization**

Access to safe water is critical for household food utilization and environmental health. According to UNICEF's frameworks, which emphasize the interplay between water, sanitation, and nutrition, it is evident that inadequate water access can lead to malnutrition and poor health outcomes. Without sufficient water supply, efforts to enhance food utilization and elevate nutritional standards become severely hindered, highlighting the urgent need to prioritize sustainable water management strategies to safeguard public health and improve overall community resilience. According to the World Health Organization, each person needs about 50-100 liters of water daily for basic needs, including food preparation and hygiene. However, many people, particularly in rural areas of the eight countries, tend to receive significantly less than this minimum requirement as demonstrated in Table 4 below.

Country	Rural water usage per person per day/ in liters (estimates)
Ethiopia	15[23]
Kenya	25[24]
Malawi	36[25]
Mozambique	<10[26]
Somalia	20[27]
South Sudan	22.5[28]
Zambia	40[29]
Zimbabwe	<20[30]

Table 4 – Estimates of Rural water usage per person per day

- **Financial Impacts of Water Insecurity**

The financial burden of accessing water, whether through costly water trucking services or inflated prices at tap stands, directly affects household purchasing power for food. This burden is particularly heavy for families in eastern and southern Africa, where approximately 116 million people face severe water scarcity. In subsistence economies, where up to 80% of rural populations rely on agriculture, limited water availability constrains agricultural production and livestock rearing, directly reducing food availability and household income. In countries like Ethiopia and Kenya, where up to 25% of rural households spend more than 30 minutes daily just collecting water, the impact on time, finances, and opportunity costs is substantial. Water insecurity, therefore, not only limits access to safe water but also exacerbates poverty and food insecurity. In these regions, the cycle of water scarcity and food insecurity is tied closely to economic instability, affecting diets and livelihoods in ways that perpetuate the struggle against poverty.

"Access to free clean water has improved our lives. Before this project, we used to buy water at 10 US dollars per jerrican, which is expensive for the communities here, including the elderly and orphans"

Raaliya from Somalia[31]

- **Competing Demands During Drought**

Drought conditions heighten competition for water resources, escalating tensions between domestic consumption and agricultural or livestock needs. This intensifying struggle over limited water exacerbates scarcity, often forcing communities to relocate in search of vital resources, thus increasing their vulnerability and the likelihood of conflict. The scarcity of water during droughts disrupts livelihoods, undermines food production, and worsens food insecurity.

A relevant example of this is highlighted in the arid and semi-arid regions of Kenya. Here, prolonged droughts have led to increased competition for the limited water available in the Turkana Basin. This struggle has forced pastoralists to migrate with their livestock in search of grazing lands and water, sometimes resulting in conflicts with neighboring communities over scarce resources. Such situations underscore the urgent need for effective water management and conflict resolution mechanisms to enhance resilience against drought-induced challenges.

- **Gendered Impact of Water and Food Insecurity**

Water and food insecurity are deeply linked, especially for women and girls who face the toughest challenges during crises. When clean water is scarce, crops suffer, leading to less food and higher prices, making it tough for families to get enough to eat. Women often juggle water collection with cooking and farming, so long trips for water take away their time and energy needed to secure food. In eastern Africa women tend to walk up to 10 kms a day to fetch water while in southern Africa, women and girls tend to walk up to 8 Kms a day to fetch water.

Additionally, as water becomes scarcer due to climate change and poor management, nutritious food becomes harder to find, creating a distressing cycle. Women and girls, who often care for their families, must focus on immediate needs, sidelining their own education and work opportunities. This cycle traps communities in poverty.

- **Impact of Floods and Flash Floods**

Extreme weather events, such as floods and flash floods, have a devastating impact on food security. These disasters cause significant loss of life and displacement, disrupt agricultural production, and increase the risk of waterborne diseases. The long-term consequences of such events can cripple food systems, hinder recovery efforts, and lead to chronic malnutrition.

- **Methodological Challenges in Measuring Water-Food Links**

While food security indicators typically cover availability, access, utilization, and stability, WASH (Water, Sanitation, and Hygiene) indicators have traditionally focused on water supply and utilization alone. This gap highlights the need for integrated tools, such as the Household Water Insecurity Scale (HWISE) and the Food Insecurity Experience Scale (FIES), which provide a more comprehensive understanding of the linkages between water and food security. Using such tools can improve the design of interventions that address both water and food insecurity more effectively.

The findings emphasize the importance of addressing water security as a critical component of food security interventions. Policy responses and humanitarian efforts must go beyond short-term relief to include long-term strategies that enhance water security and support food security. Understanding the connections

between water access, food availability, and nutrition is essential for developing programs tackling the root causes of water and food insecurity.
This integrated approach is particularly relevant for regions affected by climate change, conflict, and economic instability, where both water and food systems are under strain. By addressing the water-food security nexus through holistic analysis and coordinated action, resilience can be significantly improved in communities facing these intertwined challenges. This approach also aligns with global sustainable development goals, aiming to reduce poverty and hunger while ensuring access to clean water and sanitation.

BETTER WATER GOVERNANCE FOR WATER SECURITY

Water security in East and Southern Africa is intricately tied to the management and allocation of resources by key institutions like National Water Basin Authorities, community level Water User Associations, and Irrigator Organizations. These entities play a pivotal role in sustainable water resource management, determining who receives access and the quality of water. However, these institutions face significant challenges. They grapple with competing demands from agricultural, industrial, and residential sectors while contending with climate change impacts that can exacerbate water scarcity. Additionally, some regions suffer from inadequate infrastructure and governance, making equitable distribution more complex. For instance, in the Limpopo (Zimbabwe and Mozambique), Shabelle and Juba (Ethiopia, Somalia) River Basins, competing interests between upstream and downstream users have a high risk of developing into disputes as all three are in semi-arid regions, highlighting the need for effective water budgeting to ensure fair and sustainable allocation. Addressing these challenges requires comprehensive strategies, including adopting advanced water budgeting techniques, to enhance the resilience of water systems and secure equitable access for all communities.

Water budgeting is the systematic evaluation and planning of water resources, involving the allocation and management of water supply and demand. It is essentially a "balance sheet" for water resources, ensuring that the water inflow (like precipitation and surface runoff) matches the outflow needs (such as agricultural, industrial, and domestic use) while considering storage factors (like reservoirs and aquifers).

The concept of water budgeting now includes green water (water absorbed by soil and plants through rainfall), grey water (from domestic or agricultural drainage), and blue water (from rivers, basins, and underground sources). A notable example is Kenya's Tana River, where downstream users compensate upstream farmers for services that preserve water quality. Shared water basins across East and Southern Africa—such as the Nile, Zambezi, and Shire rivers—highlight the need for improved transboundary governance, as existing initiatives remain weak and fragmented, often excluding local communities.

Green water, stored in soil and plants, is vital for environmental sustainability and agriculture, particularly in rainfed farming and pastoralism, where it supports plant growth and ecosystem health. Its efficient management is crucial because it

fosters biodiversity, aids climate regulation by influencing weather patterns through evapotranspiration, and maintains soil integrity. However, its overuse through unsustainable agricultural practices or deforestation can lead to soil degradation and reduced moisture retention, exacerbating desertification and impacting food security. With climatic changes altering precipitation patterns and threatening green water availability, the participation of local communities becomes indispensable in implementing sustainable land management practices and conservation efforts, ensuring the resilience of ecosystems and agricultural systems reliant on this essential resource.

In light of the demanding situations faced by the food and water systems in East and Southern Africa, a new economics of water is vital to address the growing issues related to changing weather patterns, which disrupt water availability and lead to food insecurity. Current models often treat water as a commodity rather than a shared resource. Redefining water economics will prioritize equitable access, sustainable use, and ecosystem health, ensuring local community involvement in decision-making. This approach supports resilience, equity, and long-term water and food security amidst environmental changes.

To foster equitable and sustainable water management within this new water economics, communities should lead decision-making through inclusive local councils and participatory forums, prioritizing marginalized voices. Integrated approaches must balance ecological and societal needs via cross-sector collaboration, regional ecosystem-based planning, and climate-resilient infrastructure like rainwater harvesting and drought-resistant agriculture. Legal frameworks should enshrine water as a human right, ensuring universal access, affordability, and protection against privatization. Sustainable practices—such as efficient irrigation, greywater recycling, and water-saving technologies—must be paired with rigorous quality monitoring and transparent reporting to build trust. Education initiatives and public awareness campaigns can promote conservation, while diversified funding, public-private partnerships, and research into both indigenous practices and modern innovations support resilient infrastructure development. Strengthened policies to curb pollution, enforce land-use regulations, and safeguard watersheds will further reinforce adaptive, community-driven strategies, ensuring long-term water security and climate resilience.

SECTION 4: CALL TO ACTION

Oxfam is calling on:

The International Community and Donors to:

- Urgently reduce greenhouse gas emissions, mainly from leading polluting nations, and increase their commitment to reduction.
- Increase their climate finance for low-income countries, for example, by maintaining commitments of 100 billion USD annually for adaptation, loss, and damages.
- Urgently prioritize, maintain, and fill the UN humanitarian appeal gap to countries hard hit by weather extremes and water and food insecurity. Funding should be provided on a multi-year and flexible basis. Donors should also support the scale-up of anticipatory action.

National Governments, Local Authorities, Multilateral Bodies and Donors to:

- Increase investments in key public essential services and infrastructures in the arid and semi-arid lands of Eastern and Southern Africa to fulfill basic needs, prioritizing WASH and Food, Health, and Education, including adult (youth) learning programs, public works for public assets like flood control, soil and water conservation, re-naturalization, and community initiatives that focus on water and food security outcomes.

National and Local Authorities to:

- Adopt and implement agricultural policies that prioritize community food security by focusing on production and income stability, access to production services along value chains, and reducing food system risks rather than solely concentrating on production volumes and export crops. Incentives should be provided for agriculture's environmental and social benefits, not just its production aspects. This approach also requires integrated strategies in rural areas, including investments in WASH services that incorporate sustainable water resource management for domestic, livestock, and agricultural usage.
- Adopt decent work policies that invest in women and youth, leverage climate adaptation, and increase inclusiveness and fairness of locally adapted value chains for the economic inclusion of youth and women. Encourage institutional and organizational building of community-based initiatives for local development. Commit higher investment and actions toward ongoing displacement and urbanization process.
- Increase investment in Disaster Risk Reduction and anticipatory action, especially against floods and storms, through social safety net initiatives for most vulnerable people unable to engage in any livelihood, including Anticipatory Action and Weather Index Insurance.
- Reduce the gap in National Hydro-Meteorological Systems in Eastern and Southern African countries. It is urgent to provide accurate and grounded climate change projections, enable adaptation investments, and address loss and damage compensations by multilateral bodies, governments, communities, and the private sector.
- Support cross-sectoral analysis of multiyear and multicounty extreme weather events, looking at their impact, adopting a long-term approach, considering them as key co-factors in the historical socioeconomic process, affecting

whole regions, and transforming societies permanently.
- Promote a multi-stakeholder approach is recommended through partnerships involving government, local authorities, research, parastatal, community, women and youth organizations, water users, and agriculture producers, ensuring their participation and contribution.

National and Local Authorities in partnership with the International Community, Civil Society and Communities to:

- Promote and support Water Security analysis, especially in crises, through the development and support of the broader adoption of the Water Severity Scale (WSC) through the Global WASH cluster, as well the use of Indicators that highlight problems of water access like the HWISE that can easily be correlated and compared with Food Security data.
- Also promote more integrated water and food security analyses. It will be particularly valuable to create a new set of indicators that integrate metrics for food and water access. Treating food and water insecurity as interconnected components will lead to more effective and holistic interventions. By taking these steps, we can work towards sustainable solutions that improve public health, resilience, and overall community well-being.

NOTES

1 UN World Food Programme (2024) Hunger Hotspots: FAO-WFP early warnings on acute food insecurity, November 2024 to May 2025 Outlook https://www.wfp.org/publications/hunger-hotspots-fao-wfp-early-warnings-acute-food-insecurity-november-2024-may-2025

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Cover photo: Aqiqah, a mother of three collects water from an Oxfam-constructed water tank in Beledweyne, Somalia, significantly reducing the burden on women and girls who previously had to walk long distances to access water/Mohammed Ali/Oxfam

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