

Investing in water to feed Africa

Africa stands at a decisive moment for its food and water future. Across the continent, farmers are facing longer dry spells, erratic rainfall, and intensifying climate shocks. When rains fail, crops fail. When crops fail, livelihoods are threatened.

Recent droughts in the Horn of Africa and Southern Africa have underscored how exposed our food systems remain. Between 2020 and 2023, the Horn of Africa experienced one of the most severe droughts in recent history, displacing millions and jeopardising livelihoods in Kenya, Somalia, and Ethiopia. Similarly, the 2023-2024 drought in Zambia revealed how limited water storage and weak climate information services intensify vulnerability and undermine effective response. These crises remind us of a fundamental truth: Africa's food security is inseparable from water security.

Yet the question before us is not only how much water Africa has. It is how reliably farmers can access and manage it.

Today, most of Sub-Saharan Africa remains dependent on rain-fed agriculture. Only about 6 to 7 percent of cultivated land is irrigated, compared to more than a third in Asia. Closing this gap is not simply about large infrastructure. It is about enabling farmers with practical, climate-smart technologies that are viable at scale and sustainable over time.

Across multiple countries, we have seen that when farming systems reach a critical economic threshold, around 1,500 farmers connected to functioning markets, technology adoption becomes feasible and transformative. At that scale, irrigation, solar pumping, small-scale water storage, and improved climate information services shift from isolated interventions to system change. Productivity rises. Risk declines. Investment follows.

This is the shift Africa must accelerate. Reliable irrigation systems, including drip and sprinkler technologies, stabilise production

Africa's food future depends on water security...



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Water



and allow farmers to diversify. A major constraint on irrigation expansion is the high cost and unreliability of water lifting. Diesel pumps remain expensive, and grid electricity is often inaccessible in rural regions.

Solar-powered irrigation offers a transformative alternative: it is clean, affordable, and enables farmers to access water year-round from rivers, lakes, or groundwater. Scaling solar irrigation, in combination with rainwater harvesting and groundwater management, provides a resilient, integrated water system capable of sustaining communities amid climate uncertainty. The rapid growth of solar-powered irrigation across Africa is already helping farmers lower production costs and improve water-use efficiency.

These solutions empower farmers directly. They improve water productivity, reduce vulnerability to climate shocks, and create the foundation for stronger markets and more resilient value chains.

Improved water management at farm and community level strengthens food systems more equitably and sustainably than large capital projects alone. It builds resilience from the ground up and contributes meaningfully to national food sufficiency goals. It also opens pathways for youth employment and

women's economic participation by lowering entry barriers and strengthening local enterprise ecosystems.

Africa also holds significant groundwater potential. Unlocking it responsibly, through managed aquifer recharge, shallow wells, and sustainable extraction, can provide critical buffers during drought. The priority must be long-term stewardship alongside expanded access. The African Union has consistently placed water security at the center of agricultural transformation and climate adaptation. As we advance continental frameworks and strengthen policy coherence, our focus must remain on enabling practical solutions that reach farmers at scale.

Africa must accelerate investment in climate-smart water technologies that are financially viable, inclusive, and market-linked. Public policy should prioritise enabling environments: affordable finance, targeted incentives for efficient systems, climate information services, and strengthened value chains.

Partnerships are essential. Continental leadership must be matched by coordinated implementation, catalytic investment, and aligned incentives. When institutions, private sector actors, and development partners converge around scalable, farmer-centered solutions, the results are measurable: higher yields, stronger resilience, and more stable rural economies.

This year's focus on water is both timely and necessary. Africa's food future depends on water security and water security will be sustained through implementation. It will depend not only on strong continental frameworks, but on solutions adopted at scale. It will be measured not only by commitments advanced, but by farmers equipped, field by field, with the water and technologies that strengthen productivity and resilience.

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