

INSIGHT BRIEF

No. 18, 2025

School of Modern Diplomacy Series 2024

Humanitarian Innovation: A Diplomatic Tool to Address Food Insecurity in Eastern Africa

Joy Matwale

Background

Eastern Africa is one of the most climate-vulnerable regions in the world, experiencing escalating food insecurity that is driven by climate change, prolonged conflict, and political instability. A [2024 report from UNICEF](#) highlighted that approximately 8 million people across Ethiopia, Somalia, South Sudan, Uganda, Burundi, Rwanda, and Kenya, faced increased vulnerabilities due to El Nino. Additionally, these countries typically face recurrent droughts, erratic rainfall patterns, and floods that disrupt agriculture, food distribution, and trade, resulting in a vicious cycle of hunger, displacement, and poverty in the region.

The World Food Programme (WFP), as the largest humanitarian food assistance organization, is actively involved in addressing these crises. However, its operations are under significant strain due to the growing scale of need – a common challenge experienced by the broader community of humanitarian actors. According to [the United Nations Office for the Coordination of Humanitarian Affairs](#) (UNOCHA), funding shortfalls are also cutting into the ability of humanitarian partners to meet the most acute needs of people in crisis worldwide, contributing to cuts in food assistance and leaving more people at risk of starvation.

In response, humanitarian organizations are increasingly looking to deploy the use of new technologies and innovative

Highlights

Eastern Africa faces severe food insecurity due to climate change, erratic weather patterns, and ongoing conflicts, leading to displacement and rising food prices.

The WFP is using cash-based transfers, early warning systems, and climate-resilient farming techniques to improve food security and support local economies.

WFP's first regional innovation hub in Eastern Africa fosters collaboration between governments, NGOs, and private sector actors to build sustainable, climate-resilient food systems.

Barriers such as political instability, infrastructure gaps, and funding constraints hinder humanitarian innovation, requiring stronger regional cooperation and multi-stakeholder engagement.

approaches to help address the complexities contributing to food insecurity in the Eastern Africa region. [WFP](#) has been at the forefront of these efforts, deploying disruptive innovations and business models to help solve hunger.

Innovation closely intersects with science diplomacy, and in line with this, WFP recognizes that the effectiveness of its humanitarian innovation efforts is closely linked to strong diplomatic engagement at local, regional, and international levels to ensure coordinated responses to crises, as well as garner broader stakeholder support for the scale-up of sustainable interventions.

Humanitarian Innovation and Its Role in Diplomacy

The Challenge of Food Insecurity in Eastern Africa

Food insecurity in Eastern Africa has been exacerbated by a changing climate and violent conflicts. [Increasingly unpredictable weather patterns](#) have disrupted agricultural production, leading to severe droughts in countries like Somalia and Ethiopia and devastating floods in South Sudan and Sudan. Armed conflicts in [South Sudan](#), [Somalia](#), and [Sudan](#) have also led to the breakdown of food systems, with both direct and indirect impacts on food production, transportation, and distribution networks.

Innovative modalities for delivering aid assistance allowed recipients to purchase food from local markets, thereby stimulating local economies, as well as providing more dignified and flexible assistance. Innovations

As a result of erratic climatic conditions and conflict, millions of people in the region have been displaced and agricultural livelihoods destroyed, driving food prices to unaffordable levels and creating urgent humanitarian needs. Additionally, the widespread displacement of populations has meant that many affected communities rely heavily on food assistance, making it even more difficult to break the cycle of poverty and hunger.

The Role of Humanitarian Innovation in Addressing Food Insecurity

Humanitarian innovation is reshaping the ways in which food assistance is delivered, as well as contributing to strengthening the resilience of communities to respond to climatic shocks.

WFP has pioneered the use of [cash-based transfers](#), including mobile money and digital cash transfers, in countries like Kenya and Uganda. These innovative modalities for delivering aid assistance allowed recipients to purchase food from local markets, thereby stimulating local economies, as well as providing more dignified and flexible assistance. Innovations in food production technologies, such as hydroponics and climate-resilient crops, are also helping communities adapt to changing environmental conditions and reducing their dependence on external food aid.

WFP is also deploying data-driven early warning systems to predict food shortages, assess climate risks, plan for efficient food distributions, and ensure operational safety during emergency response, for example, during the [flooding crises in Mozambique](#). Further, satellite imagery and drones are being used to monitor agricultural conditions and assist with logistics in difficult-to-reach areas, improving response times and resource allocation.

Additional innovative approaches that are contributing to strengthening the resilience of local communities include the [Farm to Market Alliance](#) (FtMA) which is deploying the Farmer Service Centre (FSC) model that links farmers with structured markets and ensures sustainable service delivery at the last mile.

Making up the largest segment of farmers in Africa, FtMA recognizes that smallholder farmers are the key to building sustainable food systems to advance towards food security.

Science Diplomacy in Humanitarian Innovation

[According to Luk Van Langenhove & Eric Piaget](#), science diplomacy entails leveraging scientific collaborations to address global challenges, such as climate change, as well as fostering international partnerships.

In this regard, within the UN context, WFP, together with UNICEF and UNDP, co-leads the [UN Innovation Network](#). This is a forum aimed at fostering international partnerships where UN counterparts, NGOs, and private-sector innovation groups can share insights and knowledge to advance humanitarian innovation. Additionally, WFP fosters other strategic partnerships with companies and organizations to advance and scale innovative solutions that have been created and developed within WFP.

Science diplomacy entails leveraging scientific collaborations to address global challenges, such as climate change, as well as fostering international partnerships

Another multilateral forum that WFP is engaged with is the [South-South and Triangular Cooperation \(SSTC\)](#), where it supports countries from the Global South to harness 1) agricultural and food systems knowledge, and 2) capacities and technical expertise across countries, to strengthen national systems, with a focus on the most vulnerable people within these countries. This mechanism involves a direct exchange of knowledge, resources, experiences, and technical know-how among developing countries, which could take the form of funding, training, technical assistance, or any other type of support to be provided, as identified by the participating partners.

WFP has also been working closely with national governments, UN agencies, as well as cooperating partners to advocate and advance its [Local and Regional Food Procurement Policy \(LRFPP\)](#) pilots in Ethiopia, Sudan, and Uganda. The policy aims to support market linkages for smallholder farmers by linking WFP's programming in agriculture, nutrition, and food systems activities with the objective of strengthening local food systems and the ability of local supply chains to respond to regional needs, as informed by the lessons garnered from the disruptions caused by the COVID-19 crisis.

Diplomacy and Collaboration: WFP's Role in Eastern Africa

In the region, WFP has established the [IGNITE Innovation Hub for Eastern Africa](#) – its first regional innovation hub – in collaboration with CARE Denmark. The Hub's overall goal is that “food systems in Eastern Africa are climate resilient, inclusive, and locally led.”

The IGNITE Hub covers 10 countries – Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, and Uganda, where WFP has a deep field presence. In these countries, the Hub works closely with partners, including local governments, academia, NGOs, the private sector, and other UN agencies, as an activator of collaborative networks driving towards sustainable systems level change.

The Hub leverages WFP's broader programming to engage governments to advance conducive policies that can foster an enabling environment for its innovative programs and the wider food systems ecosystem, with a focus on sustainability, gender inclusion, youth empowerment, and climate action.

Overcoming Barriers to Humanitarian Innovation

Despite the progress in humanitarian innovation, significant barriers remain. These include, but are not limited to:

- **Political instability and conflict:** Currently, South Sudan, Sudan, Somalia, and Ethiopia are experiencing ongoing conflict which creates an unstable environment that hinders the potential of scaling up innovative solutions in parts of Eastern Africa.
- **Infrastructure gaps:** Including limited road access, unreliable electricity, weak telecommunications, and limited internet connectivity can restrict the use of technology and data-driven innovations by local communities.
- **Digital literacy:** Many rural or conflict-affected communities may have limited experience with digital technologies which may impede the adoption or uptake of digital solutions.
- **Funding constraints:** Humanitarian innovation typically relies on external donor funding, which may be unpredictable and/or insufficient. Donors may opt to prioritize short-term relief over innovation programming.
- **Data availability and usage:** Collecting and analysing data in humanitarian contexts raises privacy and data protection concerns. It must be ensured that vulnerable populations are protected from potential misuse of their data.

Overcoming these barriers requires a multi-stakeholder approach and collaboration between governments, international organizations, the private sector, and local communities. Key to addressing these challenges will include

enhancing regional cooperation through stronger diplomatic engagement – governments, international donors, the private sector, and humanitarian organizations will all need to work together to create an enabling environment to support humanitarian innovations that are context-specific, inclusive, and adaptable to the unique challenges of Eastern Africa.

Conclusion

The combination of humanitarian innovation and science diplomacy holds significant potential to address the complex challenges of food insecurity and climate change in Eastern Africa.

First, by leveraging innovative approaches and technologies – such as FtMA's Farmer Service Centre model, mobile money, and drone-assisted logistics – humanitarian organizations like WFP can improve the efficiency of aid delivery, enhance local communities' resilience, and reduce dependency on external food assistance.

Second, scientific collaboration and regional diplomatic efforts can play an essential role in supporting the scale-up of these innovations, as well as ensuring that they are implemented sustainably. For example, by leveraging modalities like the South-to-South and Triangular Cooperation to support cross-country scaling up of successful innovative programs or approaches.

Third, multi-stakeholder science diplomacy can facilitate collaboration and sharing of expertise and resources to drive long-term solutions for food insecurity in the region. This would require different actors – Governments, Academia, Multi-lateral organizations, NGOs, and the private sector –

to continue working together to coordinate efforts towards finding innovative approaches to build a more resilient, food-secure future for Eastern Africa.

References

- Farm to Market Alliance. (n.d.). Making markets work through off-takers: Showcasing the work of the Farm to Market Alliance in Kenya, Rwanda, and Tanzania. [Off-taker packet]. Retrieved from <http://ftma.org/wp-content/uploads/2022/02/Markets-Packet-Sept2024.pdf>
- Oyewole, B. (2022, September 28-29). Boosting smallholder farmers' productivity to feed Africa against the looming food crisis [Keynote address]. AfDB Virtual Evaluation Week, Kigali, Rwanda. Retrieved from https://idev.afdb.org/sites/default/files/documents/files/Evaluation%20Week%202022%20-%20BOOSTING%20SMALLHOLDER%20FARMERS_Dr%20Babafemi_Agrulture%20session%20%281%29.pdf
- UNOCHA. (2024). Global humanitarian overview 2024, mid-year update (snapshot as of 31 May 2024). United Nations. Retrieved from <https://www.unocha.org/publications/report/world/global-humanitarian-overview-2024-mid-year-update-snapshot-31-may-2024>
- WFP. (2023). Eastern Africa, evaluation of local and regional food procurement pilot programmes 2021-2023. United Nations World Food Programme. Retrieved from <https://www.wfp.org/publications/eastern-africa-evaluation-local-and-regional-food-procurement-pilot-programmes-2021>

EDITORIAL INFORMATION

About the Author:

This insight brief was developed by Joy Matwale as part of the assessment for the School of Modern Diplomacy, with insights drawn from lectures, discussions, and research. The views expressed herein do not necessarily reflect the positions of the School of Modern Diplomacy.

Acknowledgements:

I would like to acknowledge the World Food Programme and UN agencies for their ongoing work in Eastern Africa and for providing critical data and reports that contributed to this insight. I would also like to thank the School of Modern Diplomacy 2024 course speakers, comprising both

professors and practising professionals, whose insights also contributed to shaping this brief.

Disclaimer: The views expressed in this publication are those of the authors and do not necessarily reflect the views of the United Nations University.

Publisher: United Nations University Institute on Comparative Regional Integration Studies (UNU-CRIS), Bruges, Belgium

Copyright © 2025 United Nations University Institute on Comparative Regional Integration Studies