Issue Brief: The Methods our Members are Employing to Ensure Food Security

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Tanzanian woman pouring harvested rice from her hands. Photo: Ali Mkumbwa/UnSplash

Billions of people still lack access to nutritious, safe, and sufficient food. According to FAO, hunger and food insecurity trends are not yet moving in the right direction to end hunger and food insecurity (SDG Target 2.1) by 2030. Yet progress is being made across many countries, and different agricultural models and practices, growing awareness and practices for developing climate resiliency and new agricultural finance tools and reforms are proving successful.

In this month's Issue Brief, GlobalWA looks at how members are innovating, fine-tuning existing proven solutions and are moving the needle towards greater food security in the communities where they work.



The Hunger Project takes a very localized <u>approach</u>, developing skills and leaders from within the communities. They have three pillars to their approach:

Start with women: Studies show that when women are supported and empowered, all of society benefits.

Mobilize Communities: The Hunger Project provides trainings to build people's capacities, leadership, and confidence, and envision their future and take action.

Engage Local Government: The Hunger Project works in partnership with local government bodies to ensure that they are effective, include the leadership of women, are directly accountable to local people, and provide access to resources and information.

Key to the success of their efforts is ensuring a mindset shift from "I can't" to "I can" to "We can." They achieve this through their VCA, or "Vision, Commitment & Action," workshops where villagers are guided to envision the future they want, outline the steps to accomplishing their vision, and commit to the actions needed.

This formula has proven <u>successful</u>, having reached an estimated 12.4 million people in 9,500 partner communities in 1,200 project sites.



The **Bill & Melinda Gates Foundation** has a keen eye on climate change and climate adaptation when it comes to <u>food systems and food security</u>. The Gates Foundation recognizes that smallholder farmers are the ones feeling the largest impact of climate change and has committed \$1.4 billion to help meet climate adaptation needs. More than 2 billion people depend on smallholder farms for food and income, yet less than 2% of global climate finance is devoted to helping these farms adapt to climate change. The

funded projects focus on smallholder farmers in sub-Saharan Africa and South Asia with the main goals to build resilience and food security.

One such project is in partnership with Institute of Crop Science at the Chinese Academy of Agricultural Sciences (CAAS) which focuses on <u>strengthening rice seed systems</u> in West African countries. The project goals are to emphasize the integration of breeding, production, and extension to help more smallholder farmers meet the challenges posed by climate change. The project team works with Chinese and African breeding experts to breed new rice varieties, including customizing the Green Super Rice (GSR) varieties that can produce high yields even under extreme climate conditions to suit local environments.

The results have been very promising. Through four demonstrations sites during 2022's dry season, and local farms in Mali, these new rice varieties created on average 30-50% higher yields. Hybrid rice seed production trials have also been successful in these local environments.



Opportunity International believes, and has aptly proven, that with financial solutions and training, people living in poverty become empowered to transform their lives and their communities. Their services focus on <u>microenterprise</u>, working with financial institutions to cater to communities' needs and situations, training to build agriculture and business acumen, programs and training to enhance <u>education</u> opportunities, and building individual and community leadership.

Their <u>Agriculture Finance</u> (AgFinance) arm focuses on smallholder farmers – especially women – and addresses the issues of low crop yields, lack of available finance, lack of business training, and climate change.

Core to their AgFinance work are Farmer Support Agents, or FSAs, who are farmers, community leaders, and agents of change who connect directly with fellow farmers to help them access finance, improve their farms, and increase their incomes. They are digitally equipped with a smartphone and taught to use a data collection tool and training content.

FSAs provide fellow farmers with training on business, finance, agriculture practices, and group dynamics. These farmer groups also have access to support for information on distribution, markets, and a network of farmers to learn from.

FSAs teach farmers on how to produce higher yield crops and <u>climate resilience</u>, such as regenerative agriculture practices including minimizing soil disturbance, maximizing crop diversity, keeping the soil covered, maintaining a living root year-round and integrating livestock.



Mercy Corps, similar to Opportunity International, holistically examines smallholder farmers' needs with an <u>agricultural finance</u> (AgriFin) and localized lens, creating customized approaches. They employ a market facilitation model to drive collaboration and innovation for smallholder agriculture between financial institutions, mobile networks, educators, tech start-ups & government.

Through their research and human centered design approach, they apply various tools, training including digital literacy, technologies, and partner-created innovations to create highly tailored bundled solutions.

Mercy Corps has invested in digital technologies extensively as they believe through digital literacy and useful technology, farmers can gain direct access to a range of inclusive and empowering financial information, platforms, and market access services. They start simply and as digital literacy increases with the farmers, sequentiall add more complex products.

One example of a tech innovation that has proved its usefulness and viability, is AgriPay, Zambia's first digital banking platform for farmers. Partnering with ZANACO, the largest bank by customer size in Zambia, AgriPay is a mobile-based platform that provides a holistic suite of financial services designed for smallholder farmers. The platform is designed to be gender-inclusive to ensure the product was suitable for women as well as men. Read a case study here.



Food security for **World Vision** involves not only providing immediate and reliable hunger relief but also training on long-term agriculture and market solutions.

When there are conflict or natural disaster <u>emergencies</u>, or when poverty or circumstance occludes access to proper nutrition and adequate calories, World Vision will employ one or more mitigating programs such as emergency food rations, cash transfers, food vouchers, school feeding programs, and nutritional supplements focused on babies and those with severe illness.

For more sustainable and climate resilient solutions, World Vision provides training on agriculture and farming practices, improved seed access and cultivation, soil and water management, market access, nutrition, and dietary diversity.

World Vision's various programs assist over 100 million people across 100 countries, and one USAID-funded program World Vision leads is ENSURE which improved lives of more than 215,000 in Zimbabwe. ENSURE — Enhancing Nutrition, Stepping Up Resilience and Enterprise — targeted six districts across Manicaland and Masvingo provinces and worked in partnership with the government, local leaders, and other nongovernmental organizations to improve food security and livelihoods through agriculture and economic empowerment programs, improving health through nutrition programs, and improving natural resource management through environmental stewardship programs. Key among the community resilience interventions are small-dams, small-scale irrigation schemes, and community gardens.

Many lessons were learned throughout this program with potential for wider applications in other similar agro-ecological zones in Zimbabwe and other countries highly vulnerable to climate shocks and and disruption:

- The need for shifting the paradigm in agricultural development to reduce dependency on rainfed agriculture and monocropping.
- The transformative power of small-scale irrigation schemes for building the resilience of smallholder farmers.
- The garden is also a platform for sharing knowledge, innovation, and practices.
- Gender equality has brought fundamental economic and social change in the community, which has been a game changer.
- Strengthening community-owned institutions and linkages with local government and authorities.
- Sustainability of community assets when ENSURE ends: The overwhelming response among interviewed farmers and community leaders was that they will sustain the assets they have created after ENSURE ends.

Read more about ENSURE here.



Grow Further takes a more <u>fundamental approach</u> to food security: agricultural innovation. They connect Indvidual donors, scientists, and farmers to incubate ideas and innovations to produce more nutritious, profitable, and climate-change ready crops and livestock.

There is a gap in funding models between scientists in low- and middle-income countries and granting agencies that can provide the necessary funding. Grow Further fills this gap with their process and platform which allows connectivity between individual funders who care about food security and the scientists developing agricultural innovations, with the end-goal to accelerate the development of agricultural innovation for the benefit of smallholder farmers.

One such project is enhancing <u>Bambara groundnut</u> production, adoption, and utilization for food security and increased income among smallholder farmers in northern Ghana. Bambara groundnuts are a highly nutritious bean which can be processed into oil, flour, and milk. The challenge is that yields are low and there has been little scientific research on increasing yields or producing varieties, and it has not yet been commercialized for wider distribution.

Grow Further will provide a grant over 3 years to cover all research and development costs associated with the project. The grantee is the Council for Scientific and Industrial Research-Savanna Agricultural Research Institute (CSIR-SARI), a public scientific research institution in Tamale, Ghana with key partners of Ministry of Food and Agriculture of Ghana, agricultural extension services; Seed Producers Association of Ghana for seed production; Heritage Seed Company LTD for seed production; and Rural Agrihub and WhatIf Foods for purchasing and processing of Bambara groundnuts.

By working closely with women farmers and other stakeholders, the project's goal is to understand the agronomy and economics of Bambara groundnut production, particularly which traits are most desired, and breed the first commercial variety accordingly. It will develop innovation platforms that link research and development with agricultural extension (e.g., through on-farm trials). It will also conduct trials to develop recommended

management practices (especially plant spacing, fertilizer, and weed control) and work with the private sector to develop seed production systems and markets.

The project aims to develop the first variety of Bambara groundnut in 3 years and release it commercially in the 4th year. Not only is Grow Further providing the grant to cover research and development costs, they will also provide capacity building, particularly around monitoring and evaluation and marketing and communications.

As you have read above, GlobalWA members are applying conscientious, holistic strategies, new innovative techniques and technologies, and are creating strategic partnerships to help ensure food security not only for their constituent communities, but as examples for the rest of the world to learn from.