THE CHICAGO COUNCIL ON GLOBAL AFFAIRS

The Case for Inclusive Agricultural Development

Multisectoral Perspectives

By Benjamin Allen, John Coonrod, Jacqueline Ashby, and Wawira Njiru

June 2022

Image 1

Introduction

The world is facing immense barriers to achieving the UN Sustainable Development Goal of Zero Hunger. The COVID-19 pandemic, now in its third year, has exposed the fragility of a deeply globalized food system. In 2020 farmers were forced to dump tons of milk and let produce rot in fields while lines for food assistance lengthened around the world. School closures left millions of children without a reliable source of food. Even as lockdowns ease and many nations return to quasi-normalcy, persistent climate shocks continue to displace millions and disrupt farmers' planting, growing, and harvesting. Russia's invasion of Ukraine in late February pushed an already-on-the-brink food system over the edge as prices of food, fertilizer, and other key inputs have skyrocketed.

As dramatic as these overlapping crises are, we can no longer say that the world is facing "unprecedented challenges." The volatility and steep rise of global food prices mirror what the world experienced in 2007–2008 and 2010–2011. Following the 2007–2008 food price crisis, the Obama administration established Feed the Future, the United States Agency for International Development's (USAID) flagship food security initiative. This marked a shift in US international food aid, refocusing on agricultural development for longer-term prosperity and stability.[1] The international community also devoted more funding and attention to agriculture through the G20's Global Agriculture and Food Security Program (GAFSP), a multilateral financing platform for food and nutrition security.

Even though these and other mechanisms have helped refocus donors on longer-term food security, more work remains. According to the World Food Programme (WFP), approximately 811 million people go to bed hungry every night.[2] The number of people facing acute food insecurity—defined as "food deprivation that threatens lives or livelihoods, regardless of the causes, context, or duration"—has more than doubled since 2019.[3] WFP estimates that the war in Ukraine could push an additional 33 to 47 million people into acute food insecurity in 2022. The ever intensifying climate crisis also looms large over every growing season.

Over the past two decades, a growing consensus has emerged in the development sector that international assistance far too often reflects the priorities of donors rather than communities. This

Image 1: Gorreti Ndagire (center), 40, counts money during a Savings and Internal Lending Communities (SILC) group meeting in Katoosi village, Ddwaniro subcounty, Rakai district, Uganda, January 30, 2019. Catholic Relief Services/Will Baxter

The Chicago Council on Global Affairs is an independent, nonpartisan organization. All statements of fact and expressions of opinion contained in this briefing note are the sole responsibility of the authors and do not necessarily reflect the views of the Chicago Council on Global Affairs or of the project funders.

Copyright ©2022 by Chicago Council on Global Affairs

All rights reserved.

Printed in the United States of America.

This article may not be reproduced in whole or in part, in any form (beyond that copying permitted by sections 107 and 108 of the US Copyright Law and excerpts by reviewers for the public press), without written permission from the publisher. For further information about the Chicago Council or this briefing note, please write to Chicago Council on Global Affairs, 180 North Stetson Avenue, Suite 1400, Chicago, IL 60601 or visit
thechicagocouncil.org.

consensus has driven several rounds of reforms, including the humanitarian aid community's Grand Bargain of 2016 in which donors committed to funneling more funding directly to those in need.[4] The United States is a signatory of the Grand Bargain and has consistently attempted to increase funding for local organizations in both humanitarian and development assistance. Yet USAID has struggled to meet internal goals, from Obama-era benchmarks to the subsequent "Journey to Self-Reliance." In the past 10 years, USAID increased its funding to local partners from four to six percent.[5] In 2017 almost two thirds of its assistance was awarded to 25 partners.

Reflecting both the development consensus and the challenges of transformational reform, USAID Administrator Samantha Power announced an ambitious new focus on inclusive development for the agency in 2021. Her announcement followed the publication of a draft policy on local capacity development, which provides a framework for shifting overall organizational approaches to development.[6] The policy helps establish an agencywide understanding of what locally led development means and a unified system for building on local strengths to achieve local goals. Nevertheless, there are substantial and legitimate reasons why inclusive development assistance remains elusive. George Ingram's recent working paper, "Locally Driven Development: Overcoming the Obstacles," provides an excellent summary of the legal and regulatory impediments, including budgetary rigidity, risk mitigation, and the limits of local organizational capacity.[7]

With this policy brief, we aspire to add to the growing conversation about inclusive development through the lens of agriculture and food security. Agricultural development assistance is, at its core, a long-term investment and, as such, is well suited to the coming shifts in policy and funding. USAID's local capacity development draft policy advocates for beginning with the local system, a critical step that mirrors the food security community's move toward systems approaches to agriculture.

Recognizing that inclusive agricultural development is a nuanced and multifaceted issue, this brief features four expert perspectives on how to ensure US agriculture and food security assistance reflects not only the priorities of local communities but also communities' own metrics of success. The four chapters explore inclusive development through a case study of how to embed trust and flexibility into programs for greater local ownership, the need for women's leadership, social enterprises' potential for scalable and locally led systems change, and participatory agricultural research and development. The brief concludes with policy recommendations to further US government efforts, gleaned from the authors and consultations with more than 20 stakeholders in government, international NGOs, academia, and the advocacy community.

Box 1: **Defining Terms**

The terms inclusive development, local capacity development, and locally led development are often used interchangeably with no guarantee of a common understanding of the terms. Shared vocabulary is necessary to maximize effectiveness and efficiency in the development community. This policy brief uses the terms to loosely signify a power shift in the traditional donor–recipient relationship that empowers local actors—communities, organizations, networks, or governments—to design their own food security solutions, define success, and innovate and adapt to challenges.

Endnotes

1 Catherine Bertini and Dan Glickman, *Renewing American Leadership in the Fight against Global Hunger and Poverty* (Chicago: The Chicago Council on Global Affairs, 2009), 24.

2 "A Hunger Catastrophe," World Food Programme, accessed May 20, 2022, https://www.wfp.org/hunger-catastrophe.

3 IPC Global Partners, *Integrated Food Security Phase Classification Technical Manual Version 3.1* (Rome: UN Food and Agriculture Organization, 2021), 3.

4 "About the Grand Bargain," Inter-Agency Standing Committee, United Nations Office for the Coordination of Humanitarian Affairs, accessed May 10, 2022, https://interagencystandingcommittee.org/about-the-grand-bargain.

5 Samantha Power, "A New Vision for Global Development," filmed November 8, 2021 at Georgetown University, Washington, DC, video, 43:13, https://www.usaid.gov/news-information/speeches/nov-4-2021-administrator-samantha-power-new-vision-global-development.

6 USAID, "Local Capacity Development Policy" (Washington, DC: USAID, 2021), https://www.usaid.gov/sites/default/files/documents/LCD_Policy_-_FORMATTED_508_01-11.pdf.

7 George Ingram, "Locally Driven Development: Overcoming the Obstacles" (working paper, Brookings Institution, Washington, DC, 2022).

Leveraging trust and flexibility to promote rural livelihoods

Benjamin S. Allen
Technical Advisor III, Microfinance Research and Learning
Catholic Relief Services

One-size-fits-all development models rarely transition well from one context to another. Participants may feel pressure to follow a model even if it does not align with their own priorities or the local context in hopes of eventually getting the benefits they want. Consequences include reduced impact and project failure.[1] Development organizations must therefore design innovative, flexible, market-oriented solutions that empower participants to choose what works best for them.

Catholic Relief Services (CRS) embeds trust, flexibility, and local ownership in its savings-led microfinance programming to help participants acquire the knowledge, skills, and tools to make informed decisions on their own. CRS's flagship savings group model, Savings and Internal Lending Communities (SILC), has reached 4.6 million people in 61 countries with this flexible approach. In addition, more than 5,800 fee-for-service SILC Private Service Providers (PSPs) in 39 countries have been recruited, trained, and certified to form and support SILCs.

CRS adapts program design and guidance to local needs based on the experiences and preferences of the participants. To meet the needs of Muslim participants who were self-excluding because of interest on loans, CRS adapted the SILC model to be Sharia-compliant. Similarly, building on the SILC/PSP model's success, CRS developed a last-mile Private Agricultural Service Provider (PASP) approach to supply high-quality agricultural inputs to smallholder farmers at affordable prices. Based on these experiences, this chapter illustrates how designs based on trust, flexibility, and local ownership can produce positive outcomes for the participants.

Image 2: Women take part in a SILC group meeting in Lege Bira kebele, Dire Dawa administration, Ethiopia February 12, 2019. Today, each member will put 34 birr (USD $1.20) into their social fund. There are 28 members of the group and 16 are present today. Their current loan fund is 2,170 birr ($76). Catholic Relief Services/Will Baxter

Savings and internal lending communities

SILCs are member-owned and -operated savings groups that help members access funds to take advantage of investment opportunities or overcome cash shortages for necessary expenditures such as nutritious food, health care, and school fees. CRS began piloting the SILC model in 2006 using its own funds. Over the subsequent 16 years, the agency has embraced the model as a core livelihood and economic strengthening strategy in its agricultural programming.

Each SILC comprises 15 to 30 self-selecting members and starts with the election of a management committee and the writing of a constitution. Members meet weekly to deposit flexible amounts into a pooled loan fund. Once a month members may borrow up to several multiples of their personal savings from the loan fund. Loans are then repaid with interest. When the annual cycle of saving and lending ends, the SILC holds a share-out during which they divide up the group's assets, returning each member's savings plus a proportional share of the profits. The group then starts another cycle. SILCs also operate a social fund to support members in crisis. This fund provides small grants or interest-free loans for members to cover emergency expenses.

While field agents or PSPs train group members on the SILC methodology, members adapt group operations to their own needs. Because successful functioning depends on mutual trust between members, each group decides who can join. Groups then decide how long the savings cycle will last; determine target cycle savings amounts, the loan period, and the multiple of individual savings each member can borrow; and set financial penalties for absenteeism and delinquent loans.

SILCs adapt their practices as needed to their circumstances. Those whose members are smallholder farmers may align the savings cycle with the agricultural calendar, increasing savings targets following harvest and holding share-out during planting season.[2] Loan multiples range from one to three times savings with monthly interest rates of 5 to 10 percent of the loan amount. Repayment periods range from one to three months. SILCs with more experience may have loan multiples of more than three times savings. Those in countries experiencing hyperinflation have raised interest rates, shortened loan periods, or bought tangible assets in lieu of issuing loans.[3] SILCs with members who struggle to repay their loans may extend loan periods or delay end-of-cycle share-out to help them.

Field agents and PSPs provide guidance based on prior experience but do not make decisions for the SILCs. Indeed, CRS and its local implementing partners (IPs) learn from SILCs' decisions and experiences. Initially, CRS promoted the income benefits of SILC membership, with groups setting minimum and maximum weekly savings amounts to ensure they had money to lend. However, upon observing that some communities' poorest members declined to join or withdrew from SILCs because they could not start businesses or meet minimum savings requirements, CRS altered SILC promotional efforts to be more inclusive and encouraged flexible member savings targets. This helped motivate poorer members while allowing them to save less when they could not meet the target. Many groups have since adopted this strategy, setting their own target savings amounts.[4]

The SILC model is one of CRS's crowning achievements. SILC membership provides participants with a safe place to save and, through loans and share-out, useful lump sums of cash that would not otherwise be available to them. Based on share-out data collected from 901,125 members in 45 countries[5] who joined SILCs from 2019 to 2021, an estimated US$125 million has been mobilized—about US$140 per person. Moreover, SILC membership can help smallholder farmers gain market power. In some countries, SILCs have federated into producer associations or agro-enterprises to secure bulk discounts and reliable delivery for inputs as well as better crop sale prices through collective marketing.[6]

SILC membership provides participants with a safe place to save and, through loans and share-out, useful lump sums of cash that would not otherwise be available to them.

Sharia-compliant SILCs

Even with more inclusive SILC promotional efforts and flexible savings, millions of people

worldwide remain potentially excluded from SILC because the payment of interest on loans is prohibited under Islamic law (Sharia). In Mauritania from 2016 to 2017, about 40 SILCs disbanded for that reason. Around the same time, local staff in Sudan expressed interest in providing a Sharia-compliant model because many participants did not accept SILC with interest. In response, CRS drafted guidance and piloted a Sharia-compliant approach in both Mauritania and Sudan in 2017 and 2018 using its own funds. Based on all of the SILC members' choices, critiques, and experiences, CRS revised the SILC guidance.

Sharia-compliant SILCs allow members to benefit from interest- and penalty-free cash loans. The loan policy allows—but does not obligate—groups to charge a flat, uniform loan processing fee to compensate for their efforts to mobilize and manage member savings and make them available for borrowing. Borrowers whose loan use is profitable may make a voluntary top-up payment to the group as a show of gratitude. In addition, groups may earn money by conducting group purchases with a predetermined markup. Finally, groups are encouraged to operate a separate fund for members to make charitable (*sadaqa*) contributions to address community needs.

Sharia-compliant SILCs allow members to benefit from interest- and penalty-free cash loans.

Since 2019, CRS has rolled out the Sharia-compliant SILC approach at scale in Niger.[7] A survey administered in early 2022 found that of 239 Sharia-compliant SILCs formed, 90 percent applied flat processing fees to members' loan applications, and 10 percent conducted group purchases. It also found that 64 percent of groups, members who took loans had contributed voluntary top-up payments upon repaying the principal. Finally, 98 percent of groups operated sadaqa funds and had donated money to mosques, the poor, or their communities to cover costs such as medical evacuation, water well equipment and pump repair, and funeral shrouds. While each group selected its own combination of practices to earn income and contribute to community development, 99 percent of the groups surveyed reported earning a profit.

SILC private service providers

While SILCs can and do become sustainable on their own, even experienced groups need periodic technical support. New SILCs formed after projects close require training and ongoing support during their first year. To ensure the availability of qualified trainers beyond project time frames, CRS has deployed since 2010 a market-based strategy that enables local entrepreneurs (i.e., PSPs) to expand SILC services on a fee-for-service basis throughout their catchment areas. The PSPs are paid by their SILCs, resulting in an easily replicable and self-sustaining savings-led program.

CRS IPs recruit agents from the community and train, supervise, and pay them a stipend to form and train at least six SILCs until those groups reach share-out (at 12 months or sooner). During this time, the agents build their technical skills and generate local interest in SILC. Agent certification uses a comprehensive examination process, after which the PSPs train new groups and support existing ones in return for modest, mutually agreed fees.

While the PSP training process is consistent across projects,[8] certified PSPs are independent agents who may work as they please and negotiate their own services and fees with SILCs. Surveys of 208 randomly sampled PSPs in five African countries[9] found that most PSPs list SILC work as one of their top two income-generating activities. In Madagascar 53 PSPs interviewed in 2018 said they provided on-site support to anywhere from two to 20 SILCs each week. Some had negotiated monthly or quarterly payments from the groups they supported, including fees for delivering add-on services such as financial education and marketing basics. Others charged groups per training or advisory service provided. Moreover, 81 percent said they planned to continue to work as a PSP for at least another three years. An independent evaluation in eastern Uganda confirmed the sustainability of the PSP model. It found that 19 months after project closure, PSPs were establishing new SILCs at a faster pace than during the project, resulting in 56 percent more SILCs than when the project concluded, for a total of 1,518.[10]

Private agricultural service providers

The success of the SILC/PSP model prompted CRS to develop a similar market-oriented approach

to mitigate unfavorable, cyclical issues for smallholder farm families that struggle to earn a stable income due to a lack of access to quality inputs, affordable finance, and sufficient delivery infrastructure. The Private Agricultural Service Provider (PASP) approach recruits local entrepreneurs to market agricultural inputs and technical advisory services to smallholder farmers; trains them in agriculture, business, and marketing skills; and links them to agricultural input wholesalers.

The PASP model embeds flexibility for both the PASPs and customers. For smallholder farmers, the model provides a new option for purchasing agricultural inputs and seeking technical advice. It enables farmers to buy the types and quantities of fertilizer and seeds they need while permitting them to prepay in monthly installments. It also provides delivery to their villages. As independent operators, PASPs benefit from the absence of externally imposed sales targets. They can choose their own strategies to market their services to smallholders, collect bulk orders, and negotiate fees.

The PASP model embeds flexibility for both PASPs and customers. For smallholder farmers, the model provides a new option for purchasing agricultural inputs and seeking technical advice.

CRS's PASP pilot illustrated the promise of the approach for sustainably supplying high-quality agricultural inputs at a reasonable price to smallholder farmers. From 2018 to 2021, 63 PASPs in Guatemala, Rwanda, and Senegal served 16,210 smallholder customers, of whom 48 percent were women. They generated US$148,946 in revenue and US$19,826 in profit.[11] In a late 2020 survey across the three countries of 234 randomly sampled farmers who used PASPs, 74 percent reported that their production increased after purchasing inputs and services from PASPs. Most attributed the increases directly to the PASPs' high-quality inputs. The farmers cited convenience and affordable prices among the reasons for buying inputs from PASPs. The study revealed that PASPs had reached smallholders unserved by other vendors: Twelve percent of customers had never bought agricultural inputs before from any source. Finally, 99 percent expressed satisfaction with their PASP, saying they would recommend their inputs and services to a relative or friend.[12]

Meanwhile, the PASPs adapted their operations to find economies of scale or provide better services to their customers. The PASPs in Senegal combined their customers' fertilizer orders from across the country and placed one bulk order, receiving a discount that would have been infeasible had they placed multiple smaller orders. Four PASPs—two women and two men—in Rwanda became certified as agrodealers to access the government's lower wholesale pricing and broaden their customer base. Eleven formed an agrodealer cooperative, and others opened tree seedling nurseries, using the profits to buy wholesale inputs to sell to farmers.[13]

Lessons

Market-oriented programming approaches that embed trust, flexibility, and local ownership can promote positive outcomes to ensure post-project sustainability. They permit independent service providers and participants to choose the methods, rules, and practices that best serve their needs. In the SILC, Sharia-compliant SILC, PSP, and PASP models discussed here, CRS and IPs provide training, support, and advice, but they trust the fee-for-service agent and participants to make their own decisions. Each SILC adapts its operations to its members' needs and level of comfort with saving and lending. PSPs and PASPs negotiate their services and fee schedules directly with the SILCs or smallholder farmers they serve. Given initial investments in training and guidance, each of these models is flexible enough to adapt to different country contexts and to changing circumstances in a country over time.

Endnotes

1 Lawrence G. Boakye and Li Liu, "Governance of Tomorrow's International Development Projects (IDPs): Flexible or Rigid?" *Journal of Modern Project Management* (January–April 2015): 55–61, https://www.researchgate.net/publication/273057461_Governance_of_tomorrow's_international_development_projects_IDPs_flexible_or_rigid.

2 Benjamin S. Allen, *State of Practice: Savings Groups and the Dynamics of Inclusion* (The SEEP Network, 2018), https://seepnetwork.org/files/galleries/SEEP_State-of-Practice_Savings-Groups-and-the-Dynamics-of-Inclusion_20180925.pdf.

3 Based on a 2018 CRS survey of SILCs in Zimbabwe.

4 For more details, see the CRS *SILC Pro-Poor Strategy* (2021), https://www.crs.org/sites/default/files/tools-research/silc_pro-poor_strategy-a4-22os-538901.pdf.

5 While CRS and IPs have implemented SILC in 61 countries since 2006, only 45 countries had active SILC programming from 2019 to 2021.

6 For information on smallholder group agro-enterprises in Colombia and Guatemala, see Rupert Best et al., *Developing Smallholder Group Agroenterprises through Savings and Internal Lending Communities: Experiences and Lessons from Two Coffee Development Projects in Latin America* (Catholic Relief Services, 2020). For information on CRS SILC group associations in Tanzania, see Ben Fowler and Candace Nelson, "Combining Savings Groups with Agricultural Marketing in Tanzania," AKF Savings Groups Learning Initiative, Aga Khan Development Network, June 2010.

7 The Girma project (October 2018 to September 2023), supported by USAID's Bureau for Humanitarian Assistance and implemented by CRS, seeks to improve and sustain food and nutrition security and resilience among extremely and very vulnerable households and communities in Niger. For more details about the project, see "Girma: Long-Term Food Security, Improved Nutrition & Resilience in Niger," Our Work Overseas, Catholic Relief Services, https://www.crs.org/our-work-overseas/program-areas/agriculture-and-nutrition/food-security-resilience/niger.

8 marc bavois, Private Service Provider Implementation Manual (Catholic Relief Services, 2016), https://www.crs.org/sites/default/files/tools-research/psp_manual_english_lr_8.12.16_1.pdf.

9 *Madagascar*: Benjamin S. Allen and Tatiana Christiane Tang, *Earning a Living from SILC: PSPs in Madagascar* (Catholic Relief Services, 2019), https://www.crs.org/sites/default/files/tools-research/bsa_tct_earning_a_living_from_silc_psps_madagascar_revised_10-7-19.pdf; *Burkina Faso, Senegal, Uganda, and Zambia:* Julie Lawson-McDowall et al., *Making a Living from Teaching Communities to Save: Private Service Providers' Motivations and Income in the Expanding Financial Inclusion in Africa Project* (Catholic Relief Services, 2019), https://www.crs.org/sites/default/files/tools-research/efi_psp_livelihoods_and_motivation_study_final.pdf.

10 Zöe Sutherland, Megan Gash, and Daniel Joloba, *Ex-Post Evaluation: Expanding Financial Inclusion in Africa* (Itad, June 2019).

11 Catholic Relief Services, *OverOps Innovation Fund Private Agricultural Service Provider Model Project: Last-Mile Agricultural Service Delivery for Smallholder Farmers – Final Report FY19-FY21* (Catholic Relief Services, 2021).

12 Benjamin S. Allen and Hjalmar Breit, *Private Agricultural Service Provider (PASP) Model: Last-Mile Agricultural Service Delivery for Smallholder Farm Families – Survey Report* (Catholic Relief Services, 2021).

13 Jackson Kayinamura and Benjamin S. Allen, "Private Agricultural Service Providers (PASP): A Market-Based Approach to Reaching Underserved and Unserved Farmers" (Presentation, Cracking the Nut Conference, November 16, 2021).

Mind the gap: Gender, governance, and local food systems

John Coonrod
Executive Vice President
The Hunger Project

The challenge

The COVID-19 pandemic has taught us the importance of local food systems. The ability of local communities to grow, process, store, and market nutritious food locally becomes invaluable when lockdowns or other shocks disrupt supply chains. In general, distributed systems are more resilient than centralized systems.[1] Yet there are two related barriers to transforming the food system: (1) highly centralized governments in lower- and middle- income countries (LMICs) that invest primarily in the urban capitals and (2) deeply entrenched gender discrimination.

Gender discrimination

Gender discrimination has long been acknowledged as a structural barrier to global food security. As pointed out in the wake of the 1995 Beijing Women's Conference, the source of high rates of child malnutrition in South Asia—the region with the largest number of hungry people—"lies deep in the soil of gender inequality."[2] Girls are breastfed six weeks less than boys in hopes that a woman may more quickly become pregnant again with a boy. Girls are taught to eat last and least, saving the best food for boys and men. Girls are married off before their bodies are fully developed and give birth to malnourished babies—and so the cycle continues.

Girls are breastfed six weeks less than boys in hopes that a woman may more quickly become pregnant again with a boy.

The 2008 food price crisis was a wake-up call to the agricultural and nutrition community, and increased attention to women's roles as farmers. The United Nations Food and Agriculture Organization's (FAO) State of Food and Agriculture 2010-2011 report states that women:

> *consistently have less access than men to the resources and opportunities they need to be more productive. Increasing women's access to land, livestock, education, financial services, extension, technology and rural employment would boost their productivity and generate gains in terms of agricultural production, food security, economic growth and social welfare. Closing the gender gap in agricultural inputs alone could lift 100–150 million people out of hunger.*[3]

To measure progress in closing the gap across many dimensions, the International Food Policy Research Institute (IFPRI), the Oxford Poverty and Human Development Initiative (OPHI), and the United States Agency for International Development's (USAID) Feed the Future program developed the Women's Empowerment in Agriculture Index (WEAI).[4]

When the United Nations (UN) launched the 2030 Sustainable Development Goals (SDGs) in 2015, including Goal 2: Zero Hunger, it placed special emphasis on women farmers. In addition to stronger gender equality (Goal 5), it incorporated gender issues in 11 of the 17 SDGs.[5]

Donors increasingly integrate gender issues in their aid,[6] yet estimates suggest that less than 2 percent of that aid is invested in grassroots women's organizations, which are historically critical to overcoming gender discrimination.[7]

Weak rural governance

SDG Goal 16 calls on nations to "build effective, accountable and inclusive institutions at all levels." This must start at the community level. Women farmers in low-income countries travel primarily on foot, so all public services necessary for a local food system (including agricultural inputs, food processing and storage, primary health and education, water, and public safety) need to be within walking distance. For those services to be accountable, there must be responsive governance within walking distance.

Agriculture employs 60 percent of Africa's people and accounts for 23 percent of gross domestic product (GDP).[8] Yet historically, a very small share

(well under 10 percent) of both national budgets and aid has focused on agriculture. At the United Nations Special Sessions on Africa in 1984 and 1986 following the horrific Africa-wide famine of 1983–84, the world community and African nations committed to increase aid to agriculture. However, the share of official development assistance going to agriculture steadily declined over the next 30-year period.[9]

In 2003 the Africa Union created the Comprehensive Africa Agriculture Development Plan (CAADP) in which countries would increase public investment in agriculture to at least 10 percent. Yet in the next five years only one nation—Rwanda—had done so.[10] In response to the 2008 food price crisis, G7 countries committed to reverse the decline in agricultural aid, tying it to CAADP commitments. USAID doubled agricultural aid to 5 percent of its budget, but it has not increased aid since then. Nevertheless, that donor commitment greatly accelerated Africa's own commitment, with 44 African countries having now signed CAADP compacts.[11]

A bigger challenge for Africa is decentralization. Many of Africa's relatively young governments have remained highly centralized. High-income countries typically devolve 25 to 50 percent of public resources to local governments; in most African countries, this is only 2 to 3 percent.[12] Ghana pioneered the way when its 1992 constitution mandated at least 5 percent of development funds be devolved to the districts and responsibilities became more decentralized in 2009 (although funding still was constrained). In 2012 Kenya's new constitution devolved 20 percent of the national budget along with key responsibilities to its 47 counties, overcoming decades of tribal (and therefore geographic) inequities. In 2014 the African Union established a charter on decentralization, which came into force in 2019, although it is not yet implemented in many countries.

Three pillars to build local food systems

Given these long-standing obstacles, how can progress be made in transforming local food systems? My organization, The Hunger Project (THP), has a mantra: start with women, mobilize everyone, and partner with local governments.

Starting with women requires investing in women's leadership and strengthening their own grassroots organizations. Given their multiple responsibilities, rural women have wise insights into the priorities and pathways for achieving success. And given their marginalization, the best hope they have for being heard is through collective voice and action. Sadly, of all the development assistance focused on gender, less than 1 percent goes to grassroots women's groups.

Women are mobilized as key community leaders in every THP program. All local committees are required to have at least 50 percent women. Community women's groups are formed and federated upward from the community to ensure women have a strong voice with district governments. Men gain insight into how gender discrimination holds everyone back.

Traditionally, development programs were designed by men, who then attempted to "empower" women to participate in them. This approach often fails because of the severe constraints on women's time and mobility. A key lesson we've been taught by rural women is the importance of colocation of public services so women need not spend much of their day walking from the health center to the rural bank to the day care center to the borehole to the woodlot. More than 2,000 villages across nine African countries have implemented THP's Epicenter Strategy through which clusters of villages co-locate all public services in a centralized campus constructed and managed by community members themselves.[13]

Mobilizing everyone awakens community members to their own rights and capabilities. In most cases, centuries of marginalization leave people with a mindset of dependency and resignation.[14]

Mobilizing everyone awakens community members to their own rights and capabilities.

Community mobilization happens step by step and helps people create a vision of a better future and discover that they can take immediate action to fulfill it. This builds confidence, and new leadership emerges.[15]

As part of this process, men must think through gender issues and recognize how outdated gender stereotypes hold everyone back. Male commitment to gender equity is particularly vital in halting the ever-present risk of gender-based violence, including child marriage that restricts women's full participation. An entry point to this process is THP's "HIV/AIDS and Gender Inequality" workshop.[16]

Partnership with local governments is critical to sustainability.[17] If nurses are not present at the health clinic, the well is broken, or the road is impassable, people are not going to be able to appeal to the national parliament. Even the district administration is often a multiday journey on foot.

Most countries have constitutionally mandated subdistrict government structures, yet these structures are often underfunded and lack autonomous decision-making power and adequate staff. Even the district agricultural extension agent rarely has time to reach remote rural communities, and traditional villages are often too small (50 to 100 households) to exert effective influence on the district administration. The NGO response has often been to establish parallel structures to local government. Yet this adds a new layer of dependency and further undermines government responsibility.

Successful local governments involve an active partnership among elected local officials, ministry staff such as agricultural extension agents, and grassroots civil society teams that operate in village clusters—populations of 5,000 to 25,000 people within walking distance.[18] This size population is big enough to manage local programs and exert demand on district administration while being small enough for people to know local leaders and hold them accountable.

The importance of this partnership is apparent in addressing the challenge of understaffed agricultural extension services. When communities have strong associations of women and men farmers with their own leadership structures, those community leaders can leverage the scarce time of the agriculture ministry staff and make sure that innovations reach every farmer. At THP epicenters, men and women food security animators are trained from each village and form the food security subcommittee. They meet regularly with district extension workers, manage a training farm, coordinate access to inputs (often on a warrantage loan basis), and manage the community food bank.[19]

The community-led development strategies of THP and other like-minded organizations are based on investing in communities to establish strong, voluntary committees with a passion for each key sector (food production; natural resource management; nutrition; health; education; women's rights; and water, sanitation, and hygiene). Together, they leverage existing government resources to set and achieve community-owned visions and goals.

When communities have strong associations of women and men farmers with their own leadership structures, those community leaders can leverage the scare time of the agriculture ministry staff and make sure that innovations reach every farmer.

Shift the power

The need for policy changes to fully unleash the creativity and productivity of small-scale farmers is not new. For thousands of years, relatively small rural communities were at the heart of economic activity. The rise of industrialization and strong central states in the 19th century was not seen by all as a blessing. One hundred years ago Mahatma Gandhi in India and Y. C. James Yen in China demonstrated methodologies for building self-reliant, resilient "village republics." Although communities were largely ignored in the Millennium Development Goals of 2000, civil society actors and local governments succeeded in ensuring their inclusion in the SDGs in 2015.[20]

Community-led, integrated rural development strategies work. In fact, countries that have achieved progress in reducing hunger and poverty on a large scale have followed this approach. In 1970 South Korea was poorer than Ghana, yet its Saemaul Undong (New Community movement) was credited with raising rural incomes to a level that exceeded urban incomes. The Kerala state of India achieved social indicators rivaling far wealthier countries through strong decentralization and highly participatory democratic processes. The Sarvodaya Shramadana movement of Sri Lanka improved 15,000 villages through self-reliant, community-led action. The Fome Zero (Zero Hunger) strategy in Brazil built on community-led innovations with a

package of policies ranging from providing safety nets to ensuring that food for local school meal programs was primarily sourced from local farmers.

Many people offer China as an example of the success of top-down, authoritarian approaches to reducing poverty and hunger. Yet, in her brilliant book *How the Farmers Changed China*, Kate Xiao Zhou demonstrates how women farmers led to the private-sector reforms in Chinese agriculture.[21] In rural China, women typically married outside their village while men did not, giving women a wider network of connections. Women discovered that small bribes to party officials gave them the freedom to market produce privately. Word spread quickly through women's networks. Deng Xiaoping, who is often credited with private-sector reforms, fought them tooth and nail until the economic growth it was driving was overwhelming.

The rise of ethnic and religious violence after the Cold War added an important incentive for decentralization. Indonesia, the Philippines, and most recently Kenya have all adopted national programs of funding community-led development so that marginalized communities have meaningful pathways to achieve their own aspirations short of overthrowing the national government.

To drive this change, THP and like-minded organizations launched the Movement for Community-led Development during the 2015 United Nations Sustainable Development Summit.[22] Today, more than 1,500 community-based organizations and 70 international NGOs are working together as both a community of practice and a collective voice for advocating new policies. In 2016 the United Nations World Humanitarian Summit agreed to a Grand Bargain to localize response to acute hunger. A wider Shift the Power movement has embraced a growing number of alliances.

Most recently, USAID administrator Samantha Power announced a commitment to dedicate at least 25 percent of USAID funds directly to local organizations within a few years (up from a current estimate of 6 percent).[23] The announcement further stated that "by the end of the decade, 50 percent of our programming, at least half of every dollar we spend, will need to place local communities in the lead to either co-design a project, set priorities, drive implementation, or evaluate the impact of our programs."[24]

Conclusion: Power may finally be shifting

It has long been recognized by some that gender-focused, community-led development is the best and perhaps only way to achieve resilient local food systems. Today, there are exciting signs that a critical mass of policymakers in LMICs, civil society organizations, and donors are reaching that same conclusion. Retooling long-established bureaucratic systems to be consistent with—rather than hostile to—bottom-up approaches will take years of leadership and dedicated effort. Those of us who have dedicated our lives to this power shift have our work cut out for us.

Endnotes

1 Paul Baran, "On Distributed Communications Networks," *IEEE Transactions of the Professional Technical Group on Communications Systems* 12, no. 1 (March 1964).

2 Vulimiri Ramalingaswami, Urban Jonsson, and Jon Rohde, "Commentary: The Asian Enigma," The Progress of Nations, December 6, 1996, https://advocacy.thp.org/1996/12/commentary-the-asian-enigma.

3 FAO, *The State of Food and Agriculture 2010-2011: Women in Agriculture, Closing the Gender Gap for Development* (Rome: Food and Agriculture Organization of the United Nations, 2011), https://www.fao.org/3/i2050e/i2050e00.htm.

4 "Women's Empowerment in Agriculture Index (WEAI)," International Food Policy and Research Institute, https://www.ifpri.org/project/weai.

5 United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development* (New York: United Nations, 2015), https://sdgs.un.org/2030agenda.

6 Isabela Vera and Francesca Sanders, "Words to Action: The State of ODA Funding for Gender Equality," SEEK Development, August 13, 2019, https://donortracker.org/insights/words-action-state-oda-funding-gender-equality.

7 Françoise Girard, "Women's Movements Hold the Key to Gender Equality—So Why aren't Donors Funding them?," *Philanthropy News Digest*, July 18, 2019, https://philanthropynewsdigest.org/features/commentary-and-opinion/women-s-movements-hold-the-key-to-gender-equality-so-why-aren-t-donors-funding-them.

8 Lutz Geodde, Amandla Ooko-Ombaka, and Gillian Pais, *Winning in Africa's Agricultural Market* (Denver: McKinsey & Company, 2019): 1, https://www.mckinsey.com/~/media/McKinsey/Industries/Agriculture/Our%20Insights/Winning%20in%20Africas%20agricultural%20market/Winning-in-Africas-agricultural-market.pdf.

9 Babatunde Omilola et al., "Monitoring and Assessing Targets of the Comprehensive Africa Agriculture Development Programme (CAADP) and the First Millennium Development Goal (MDG) in Africa," Regional Strategic Analysis and Knowledge Support System Working Paper no. 31 (Washington, DC: International Food Policy Research Institute, July 2010), https://www.ifpri.org/publication/monitoring-and-assessing-targets-comprehensive-africa-agriculture-development-programme.

10 Michael Brüntrup, "The Comprehensive Africa Agriculture Development Programme (CAADP): An Assessment of a Pan-African Attempt to Revitalize Agriculture," *Quarterly Journal of International Agriculture* 50, no. 1 (2011): 79-106.

11 "CAADP," African Union Development Agency, https://www.nepad.org/caadp/overview, accessed June 2, 2022.

12 Jamie Boex, *Analyzing the role of the Local Public Sector in Achieving Sustainable Development: Does More Spending at the Local Level Result in Better Development Outcomes?* (Washington, DC: Urban Institute, 2013), https://www.urban.org/sites/default/files/publication/23891/412881-Analyzing-the-Role-of-the-Local-Public-Sector-in-Achieving-Sustainable-Development-Does-More-Spending-at-the-Local-Level-Result-in-Better-Development-Outcomes-.PDF.

13 "The Epicenter Toolkit," The Hunger Project, 2018, https://epicentertoolkit.org. This includes programmatic descriptions and training manuals including those sited in this chapter.

14 Paolo Freire, *Pedagogy of the Oppressed* (New York: Continuum International Publishing Group, 2000), 36.

15 "Vision, Commitment and Action Workshop," The Hunger Project, 2001, https://epicentertoolkit.files.wordpress.com/2018/05/vca-vision-commitment-and-action-workshop-manual.pdf.

16 "HIV/AIDS and Gender Equality Manual," The Hunger Project, 2003, https://epicentertoolkit.files.wordpress.com/2018/05/hiv-aids-and-gender-equality-manual.pdf.

17 World Bank, *World Development Report 2012: Gender Equality and Development* (Washington, DC: World Bank, 2012), http://hdl.handle.net/10986/4391.

18 Richard W. Franke and Barbara H. Chasin, *Kerala: Radical Reform as Development in an Indian State* (San Francisco: Institute for Food and Development Policy, 1994).

19 The Hunger Project Malawi, *Training Materials for Food Security Animators* (New York: The Hunger Project, 2022), https://epicentertoolkit.files.wordpress.com/2022/06/food-security-training-materials.docx.pdf.

20 SDG Goal 11 (Sustainable Cities and Communities) and SDG Goal 16 (Peace, Justice, and Strong Institutions).

21 Kate Xiao Zhou, *How the Farmers Changed China: Power of the People* (Boulder, CO: Westview Press, 1996).

22 "History of this Movement," The Movement for Community-led Development, accessed June 3,2022, https://mcld.org/history-of-this-movement/.

23 USAID, "Administrator Samantha Power on a New Vision for Global Development," USAID, November 4, 2021, https://www.usaid.gov/news-information/speeches/nov-4-2021-administrator-samantha-power-new-vision-global-development.

24 USAID, "A New Vision for Global Development."

Participatory research for agricultural development

Jacqueline Ashby
Senior Adviser, Research on Gender
CGIAR; retired

Modern agriculture is facing existential threats from climate change and overreliance on extractive farming. Given the innovations required to develop resilient global and local food systems in the near future, participatory research will need to play a significant role. This brief looks at the promise of participatory research in agriculture for the challenges that lie ahead. It also pinpoints some shortcomings and explains how they are being tackled.

Participatory research in agriculture, also known as farmer-led research, is a collaborative investigation between scientists and farmers to solve a problem important to them. This collaboration must empower all participants to decide together what to research and how.[1] Since gaining scientific attention in the 1980s, participatory research has been used in thousands of farmer-centered projects across the globe for agricultural development. Farmers have assumed varying degrees of responsibility in technology design and testing for plant breeding, soil and water management, crop protection, animal husbandry, food safety, agroecology, and conservation farming. Farmer-led research has improved research relevance for farmers and contributed to better performing crop varieties, conserved biodiversity, reduced costs, and increased incomes. It has also enhanced farmers' livelihoods, collective organization, and political influence—especially among the poor.[2]

The Food and Agriculture Organization of the United Nations (FAO), the World Bank, the US Department of Agriculture (USDA), the European Union, more than 60 national programs, and innumerable NGOs have used participatory research to promote technical innovation and sustainable farming in countries as diverse as Bolivia, Cuba, Ethiopia, Honduras, India, Italy, Kenya, the Philippines, Switzerland, and the United States.[3] Farmers' own experimentation was pivotal in developing conservation agriculture in the United States, where the Sustainable Agricultural Research and Education (SARE) program has been funding farmer-led research since 1988.[4]

Participatory research in agriculture has three key benefits that are crucial for building food security through accelerated climate-smart innovation: enhancing adaptive capacity, producing innovations that farmers quickly adopt, and building capacity for scaling up collective innovation.

Enhance adaptive capacity

Improving food security during increasingly volatile change in growing conditions requires nimble innovation with farming practices tailored to local conditions. Farmer-led participatory research enables this kind of innovation by harnessing the propensity of farmers all over the world to manage risk through experimentation. Even if farmers' innovations appear small in value (e.g., just 0.5 percent of farm production), their global worth—$4 trillion —is equal to corporate investment in agricultural R&D.[5] The unique combination of expertise and skills that farmers and agricultural scientists bring to the table yields new, innovative and often unexpected solutions that would otherwise be difficult to find.[6] Participatory research strengthens farmer experimentation and multiplies the value of local knowledge for coping with drought, pests, and soil degradation.

The unique combination of expertise and skills that farmers and agricultural scientists bring to the table yields new, innovative and often unexpected solutions that would otherwise be difficult to find.

For example, SARE, a national network of farmers and scientists, supports farmer-led research on soil health. It has allowed a vast diversity of innovative cover crop species, rotations, conservation tillage, and composting practices to be adapted locally. As a result, fields with cover crops across the United States were more productive during severe drought and produced as much as $50 per acre more with soil erosion control.[7] In South East Asia, participatory research harnessed farmers' expertise in selecting locally adapted cassava varieties., This resulted in increased cassava yields and adoption of

soil conservation technologies and helped farmers better cope with drought and pests.[8] Similarly, plant breeders in West Africa involved poor women producers of pearl millet, sorghum, and rice in selecting new varieties better adapted to low soil fertility and drought, improving producers' resilience and food security.[9]

When combined with technical expertise, participatory research adds value to farmers' detailed knowledge of local conditions. The US Long-Term Agroecosystem Research (LTAR) Network on sustainable intensification uses participatory research to integrate scientific information with farmers' local knowledge for scenario modelling.[10] Participatory research has also improved highly targeted and location-specific weather forecasting that is vital for helping farmers adapt to volatile climate change.[11] In Senegal, when researchers coproduced seasonal and daily weather forecasts with farmers who provided richer data via participatory surveys, use of the weather forecasts increased and farmers' yields went up by 10 to 25 percent.[12]

Develop innovations that farmers quickly adopt

Farmers must replace climate-vulnerable practices quickly to transition to more resilient food systems. Farmers and scientists regularly achieve better results than when they work independently by working together on experimentation and investigation. The resulting research then can inform new practices farmers find credible, therefore speeding up adoption. As a result, participatory research in agriculture often leads to superior farming practices compared with recommendations scientists design on their own.

Farmers and scientists regularly achieve better results by working together on experimentation and investigation.

Without participatory research, Innovations often appear promising on experiment station, but perform poorly when used by farmers, leading to low adoption.[13] Research shows that yield gains based on scientists' innovations tested on experiment stations can drop to zero when tested in conditions more similar to those found in farmers' fields.[14] However, when farmers participate in decisions about what to research and how, In contrast, their knowledge helps to make experimental conditions more realistic and the resultant innovations more robust when used on farm. Farmers experiment with more varied and less favorable locations, levels of management, and inputs than scientists do on experiment stations. As a result, participatory research helps select varieties that perform better on farms than the breeders' "best bet,"[15] design more robust irrigation practices,[16] sustain more biodiversity,[17] invent more versatile postharvest technology, and codevelop more effective conservation practices.[18]

Participatory breeding (PB) improves food security by providing more locally adapted, diverse varieties and agile seed systems. PB has remedied slow adoption of conventionally bred varieties among poor farmers in staple crops, including cassava, sweet potato, maize, rice, barley, beans, lentils, millet, and sorghum.[19] In Canada, Europe, and the United States, over 40 university and private-sector breeding projects currently apply PB in 22 species, mainly for organic farming.[20] PB involves farmers in decisions about varietal design, testing, evaluation, variety release, and seed multiplication. PB varieties frequently include traits that breeders overlook but that farmers consider essential. For example, in the midwestern United States, PB harnesses farmer knowledge to improve baking qualities of winter wheat that breeders had not considered.[21] As a result, farmers are keen to adopt PB varieties quickly. In West Africa, farmers involved in sorghum PB were 10 times more likely to adopt new varieties.[22] These sorghum varieties improve yields and have a shorter growing cycle, a trait that breeders disregard but that farmers desire for evading early-season drought. Shorter-season sorghum with better yields reduced seasonal hunger and increased farmers' incomes.

PB has also accelerated adoption by changing consumer preferences. For example, the credibility with farmers generated by PB helped overcome the low acceptability of orange-fleshed sweet potato (OFSP) in Africa. PB was integral to the development of biofortified OFSP varieties that benefit more than 10 million consumers affected by vitamin A deficiency, including more than half the children under 5 in Sub-Saharan Africa. Farmers involved in the PB were up to 30 times more likely to adopt OFSP despite prejudice against its color.[23] PB has stimulated diversification as well as faster adoption.

In Honduras, for example, the national program *Dirección de Ciencia y Tecnología Agropecuaria*, or DICTA, formally adopted PB after national networks of 139 farmer research committees (*Comité de Investigación Agrícola Local, or CIAL*) released 32 farmer-selected varieties. More than 60 percent of farmers and their neighbors involved in CIALs adopted the more diverse PB varieties, but only 20 percent of them planted the varieties released through conventional breeding.[24]

Globally, participatory research has improved yields and yield stability as well as quality and other postharvest or agronomic traits demanded by farmers over a wide range of production conditions. As a result, it has enhanced crop biodiversity and food security. PB relies on and promotes flexibility in seed policy and decentralization of seed systems to enable rapid and inclusive dissemination.[25] These innovations will be increasingly needed for fast replacement of climate vulnerable crop varieties to bolster food security.

Promote more inclusive innovation

Unequal access to innovations undermines food system resilience. Participatory research is a proven way of overcoming social exclusion in agricultural research for development where exclusion spans gender, poverty, culture, ethnicity, religion, and especially marginal or suboptimal farming locations.[26] A global survey of 150 PB projects found that participatory research improved targeting of the poor.[27] Participatory research has improved gender equity as well as food security for poor farmers growing staple crops such as rice in India, maize in China, beans in Sub-Saharan Africa, and cassava in Nigeria.[28] For example, in West Africa breeders perceived sorghum as a "man's crop" until participatory research revealed that women also grew sorghum but in less fertile soils than men. The conventionally bred varieties performed badly in the women's less fertile plots. Breeders involved the women in PB to develop varieties that perform as well for women sorghum producers as for men.[29] Farmer participation in experimentation has precipitated changes in gender relations that improve the innovation itself as well as who benefits.[30]

Participatory research based on local knowledge and resources has been especially advantageous for the poor and for women.[31] However, serious shortcomings include susceptibility to social exclusion when the selection or facilitation processes used to engage participants are biased or when researchers dictate the research agenda. Strategies to manage these shortcomings include sampling to ensure the participants are typical of the expected users, better training, and protocols for agenda setting.[32] Although researchers recognize the extent to which scientists and farmers share power in participatory research, decision-making can vary greatly; they have not established universal standards or agreed on protocols for selecting participants, sharing research decisions, paying participating farmers, or including farmers in research funding decisions. Globally, the absence of accepted operational guidelines prevents consistency in implementation.[33]

Participatory research has improved gender equity as well as food security for poor farmers growing staple crops such as rice in India, maize in China, beans in Sub-Saharan Africa and cassava in Nigeria.

Build capacity for scaling collective innovation

Participatory research can enable the large-scale transformation needed for the sustainability and resilience of complex food systems involving diverse actors. Sustainable agriculture requires managing nutrient, water, and carbon cycles across communities with multiple stakeholders.[34] Participatory research fosters the collective engagement, learning, and coproduction of knowledge needed for innovation on a large scale. Experience that combines local and scientific knowledge in support of pest monitoring and control, soil erosion control, irrigation, and fisheries management is growing.[35] There is a well-endowed toolbox of methods for facilitating community and landscape-scale participatory modeling and scenario building, multicriteria mapping, and foresight analysis.[36]

Experience shows that scaling participatory research in agriculture is both cost-effective and impactful when done through networks of farmer groups.[37] Networking with broad geographic

coverage has taken two distinct paths: formal R&D-initiated and citizen-initiated. A formal R&D-initiated network is the West African sorghum PB program that released eight new varieties adopted by 71 percent of farmers in the target area. The network built strong farmer organizations that influenced national legislation.[38] Other formal R&D-initiated networks that cofinance farmer-led research include France's Sustainable Agriculture Network (F RAD), which involves 3,000 farmers, and the SARE and LTAR networks. Citizen-initiated networks such as the global La Via Campesina, the Philippine's MASIPAG, and Brazil's alternative technologies network (ANA) promote control of research agenda and national policy to support participatory research through farmer-to-farmer innovation.[39]

A key lesson of citizen initiatives for building capacity is that farmer-led research needs a different kind of agricultural extension. For example, about 10 million farmers across Asia, Africa, and Latin America have taken part in demonstration experiments run by farmer field schools that are largely limited to a model of extension that requires farmers to learn what experts prescribe. However, when open to bottom-up, farmer-led research, field schools have tapped the potential for upscaling participatory research.[40] "Mother-baby" trials used in more than 30 countries in Africa, Asia, and the Americas to assess new practices have combined demonstration with farmer input.[41] To ensure bottom-up farmer input, the MacKnight Foundation's agroecology networks (2015 to 2019), some of which involved thousands of farmers, adopted a formal protocol that ensured the networks always involved farmers in research design.[42]

Social computing to work with big datasets and large numbers of volunteers enable with the scaling of participatory research. For example, a software platform that collected crowdsource data from farm trials managed by farmer networks in Africa provides robust crop variety evaluations.[43] Also known as citizen science, these approaches enhance the flexibility and accessibility of participatory research on a large scale, not only for farmers but also for consumers and other stakeholders in agricultural value chains.[44]

Conclusion

Participatory research in agriculture improves farmers' capacity for nimble innovation in local circumstances, which is essential for resilient food systems. Participation does not guarantee equitable inclusion without scrupulous attention to quality standards, but is a proven way to engage and benefit women and the poor with appropriate technology. Going to scale with participatory research will be increasingly valuable for mobilizing collective engagement of farmers and consumers in the large-scale transformations of agriculture needed for future food security amid the climate crisis.

Endnotes

1 Robert Chambers and Lori Ann Thrupp, Farmer First: Farmer Innovation and Agricultural Research (Paris: Karthala Editions, 1994); Jacqueline Ashby, "What Do We Mean by Participatory Research in Agriculture," New Frontiers in Participatory Research and Gender Analysis: Proceedings of the International Seminar on Participatory Research and Gender Analysis for Technology Development (Cali: Centro International de Agricultura Tropical, 1996), 15-22; Nina Lilja and Mauricio Bellon, "Some Common Questions about Participatory Research: A Review of Literature," in Participatory Research and Gender Analysis, ed. Nina Lilja, Mauricio Bellon, and Deborah Eade (Milton Park, London: Routledge, 2013), 35-44.

2 Theresa Tribaldos, Christoph Oberlack, and Flurina Schneider, "Impact Through Participatory Research Approaches: An Archetype Analysis," Ecology and Society 25, no. 3 (September 2020), https://doi.org/10.5751/ES-11517-250315; Ian Scoones, John Thompson, and Robert Chambers, Farmer First Revisited (Rugby, UK: Practical Action Publishing, 2009); Ann Waters-Bayer et al., "Exploring the Impact of Farmer-Led Research Supported by Civil Society Organizations," Agriculture and Food Security 4, no. 17 (2015), https://doi.org/10.1186/s40066-015-0023-7; Sally Humphries et al., "Synergies at the Interface of Farmer–Scientist Partnerships: Agricultural Innovation Through Participatory Research and Plant Breeding in Honduras," Agriculture and Food Security 4, no. 27 (2015), https://doi.org/10.1186/s40066-015-0046-0.

3 Tribaldos, Oberlack, and Schneider, "Impact Through Participatory Research Approaches"; Salvatore Ceccarelli and Stefania Grando, "Return to Agrobiodiversity: Participatory Plant Breeding," Diversity 12, no. 2 (February 2022), https://doi.org/10.3390/d14020126; Waters-Bayer et al., "Exploring the Impact of Farmer-Led Research"; Scoones, Thompson, and Chambers, Farmer First Revisited.

4 Sustainable Agriculture Research and Education, Our Farms, Our Future. 30 Years of Sustainable Research and Education 1988-2018 (Washington, DC: United States Department of Agriculture, 2018); Stephen R. Gleissman and Martha Rosemeyer, The Con-version to Sustainable Agriculture: Principles, Processes, and Practices (Boca Raton, FL: CRC Press, 2009).

5 Tom MacMillian and Tim G. Benton, "Agriculture: Engage Farmers in Research," Nature 509 (2014): 25-27, https://doi.

org/10.1038/509025a.

6 Volker Hoffman, Kirsten Probst, and Anja Christinck, "Farmers and Researchers: How can Collaborative Advantages be created in Participatory Research and Technology Development?," Agriculture and Human Values 24 (2007): 355-368, https://doi.org/10.1007/s10460-007-9072-2.

7 SARE, Our Farms, Our Future.

8 Dalton et al., "Farmer Participatory Research and Soil Conservation in Southeast Asian Cassava Systems," World Development 39, no. 12 (December 2011): 2176-86, https://doi.org/10.1016/j.worlddev.2011.05.011; Lilja and Bellon, "Common Questions about Participatory Research."

9 Anja Christinck, Marthe Diarra, and Gottfried Horneber, Innovations in Seed Systems: Lessons from the CCRP-Funded Project 'Sustaining Farmer-Managed Seed Initiatives in Mali, Niger, and Burkina Faso' (Minneapolis: McKnight Foundation, November 2014).

10 Spiegal et al., "Evaluating Strategies for Sustainable Intensification of US Agriculture Through the Long-Term Agroecosystem Research Network," Environmental Research Letters 13, no. 3 (2018): 1-16, https://doi.org/10.1088/1748-9326/aaa779.

11 Jonathan Woetzel et al., Climate Risk and Response (New York: McKinsey Global Institute, 2020); Helena Wright et al., "Farmers, Food, and Climate Change: Ensuring Community-Based Adaptation is Mainstreamed into Agricultural Programs," Climate and Development 6, no. 4 (2014): 318-28, http://dx.doi.org/10.1080/17565529.2014.965654.

12 Brian Chiputwa et al., "Co-production, Uptake of Weather and Climate Services, and Welfare Impacts on Farmers in Senegal: A Panel Data Approach," Agricultural Systems 195 (2022): 103309, https://doi.org/10.1016/j.agsy.2021.103309.

13 Jeremy R. Magruder, "An Assessment of Experimental Evidence on Agricultural Technology Adoption in Developing Countries," Annual Review of Resource Economics 10 (October 2018): 299-316, https://doi.org/10.1146/annurev-resource-100517-023202; Hoffman, Probst, and Christinck, "Farmers and Researchers."

14 Rachid Laajaj et al., "Reconciling Yield Gains in Agronomic Trials with Returns under African Smallholder Conditions," Scientific Reports 10 (2020), https://doi.org/10.1038/s41598-020-71155-y.

15 Ceccarelli and Grando, "Return to Agrobiodiversity"; Humphries et al., "Synergies at the Interface."

16 Wouter Beekman and Gert Jan Veldwisch, "Supporting Farmer-Led Irrigation in Mozambique: Reflections on Field-Testing a New Design Approach," Sustainability 8, no.6 (2016), https://doi.org/10.3390/su8060580.

17 Ceccarelli and Grando, "Return to Agrobiodiversity."

18 Dinesh Abrol, "People's Technology Initiatives: Embedding Technology in Community-Based Production Systems," in Post-Harvest Innovations in Innovation: Reflections on Partnership and Learning, ed. Andrew J. Hall et al. (Patancheruvu, India: International Crops Research Institute for the Semi-Arid Tropics, 2003); Nancy Johnson et al., "The Practice of Participatory Research and Gender Analysis in Natural Resource Management," Natural Resources Forum 28, no. 3 (September 2004): 189-200, https://doi.org/10.1111/j.1477-8947.2004.00088.x; Tribaldos, Oberlack, and Schneider, "Impact Through Participatory Research Approaches."

19 Béla Teeken et al., "Cassava Trait Preferences of Men and Women Farmers in Nigeria: Implications for Breeding," Economic Botany 72 (July 2018): 263-77, https://doi.org/10.1007/s12231-018-9421-7; Graham Thiele, et al., "A Review of Varietal Change in Roots, Tubers and Bananas: Consumer Preferences and Other Drivers of Adoption and Implications for Breeding," International Journal of Food Science & Technology 56, no.3 (2020): 1076-92, https://doi.org/10.1111/ijfs.14684; Ceccarelli and Grando, "Return to Agrobiodiversity."

20 Micaela R. Colley et al., "Exploring the Emergence of Participatory Plant Breeding in Countries of the Global North – A Review," Journal of Agricultural Science 159, no. 5-6 (October 2021): 320–38, https://doi.org/10.1017/S0021859621000782.

21 Colley et al., "Exploring the Emergence of Participatory Plant Breeding."

22 Eva Weltzien and Anja Christinck, "Participatory Breeding: Developing Improved and Relevant Crop Varieties with Farmers," Agricultural Systems (Cambridge: Academic Press, 2017), 259-301; Christinck, Diarra, and Horneber, "Innovations in Seed Systems."

23 Rachel Gibson, Isaac Mpembe, and Robert Mwanga, "Benefits of Participatory Plant Breeding (PPB) as Exemplified by the First-Ever Officially Released PPB-Bred Sweet Potato Cultivar," The Journal of Agricultural Science 149, no. 5 (2011): 625-632, https://doi.org/10.1017/S0021859611000190; Barnabas Kiiza, Light Godfrey Kisembo, and Robert O.M. Mwanga, "Participatory Plant Breeding and Selection Impact on Adoption of Improved Sweet Potato Varieties in Uganda," Journal of Agricultural Science and Technology A2 (2012), https://hdl.handle.net/10568/66545.

24 Humphries et al., "Synergies at the Interface."

25 Chiaka Diallo et al., "Learning from Farmers to Improve Sorghum Breeding Objectives and Adoption in Mali," Journal of Crop Improvement 32, no. 6 (2018), https://doi.org/10.1080/15427528.2018.1531800; Fred Rattunde et al., "Involving Women Farmers in Variety Evaluations of a 'Men's Crop' Consequences for the Sorghum Breeding Strategy and Farmer Empowerment in Mali," in State of the Knowledge for Gender in Breeding: Case Studies for Practitioners ed. Hale Ann Tufan, Stefania Grando, and Catherine Meola (Lima: International Potato Center, 2018), 95-107; Christinck, Diarra, and Horneber, "Innovations in Seed Systems"; Humphries et al., "Synergies at the Interface."

26 Waters-Bayer et al., "Exploring the Impact of Farmer-Led Research"; Ghalzala Mansuri and Vijayendra Rao, Localizing Development: Does Participation Work? (Washington, DC: World Bank, 2013); Scoones, Thompson, and Chambers, Farmer First Revisited; Ceccarelli and Grando, "Return to Agrobiodiversity"; Johnson et al., "Practice of Participatory Research."

27 Jacqueline Ashby and Nina Lilja, "Participatory Research: Does It Work? Evidence from Participatory Plant Breeding," in New Directions for a Diverse Planet: Proceedings of the 4th International Crop Science Congress (Brisbane, Australia: International Crop Science Congress, 2004), http://www.cropscience.org.au/icsc2004/.

28 Hale A. Tufan, Stefania Grando, and Catherine Meola, State of the Knowledge for Gender in Breeding: Case Studies for Practitioners (Lima: International Potato Center, 2018), https://cgspace.cgiar.org/handle/10568/92819.

29 Eva Weltzien et al., "Long-Term Collaboration Between Farmers' Organizations and Plant Breeding Programs," in Farmers and Plant Breeding, eds. Ola Tveitereid Westengen and Tone Winge (London: Routledge, 2019), 29–48; Rattunde et al., "Involving Women Farmers."

30 Jacqueline Ashby and Vivian Polar, "The Implications of Gender Relations for Modern Approaches to Crop Improvement and Plant Breeding," in Gender, Agriculture and Agrarian Transformations ed. Carolyn E. Sachs (London: Routledge, 2019), https://cgspace.cgiar.org/handle/10568/101473; Vivian Polar et al., "When Is Choice Empowering? Examining Gender Differences in Varietal Adoption through Case Studies from Sub-Saharan Africa," Sustainability 13, no. 7 (2021), https://doi.org/10.3390/su13073678; Rachel Bezner Kerr et al., "Participatory Research on Legume Diversification with Malawian Smallholder Farm-

ers for Improved Human Nutrition and Soil Fertility," Experimental Agriculture 43, no. 4 (2007): 437-53, https://doi.org/10.1017/S0014479707005339.

31 Waters-Bayer et al., "Exploring the Impact of Farmer-led Research"; Ashby and Lilja, "Participatory Research."

32 Jennie Dey de Pryck and Marlène Elias, "Promoting Inclusive Facilitation of Participatory Agricultural Research for Development," Development in Practice (2021), https://doi.org/10.1080/09614524.2021.2013445; Robert Chambers, "Participatory Rural Appraisal and the Reversal of Power," The Cambridge Journal of Anthropology 19, no. 1 (1996): 5-23.

33 Olawinde et al., 2022; James Sumberg, "Future Agricultures: The Promise and Pitfalls of a (Re)turn to Nature," Outlook on Agriculture 51, no. 1 (2022): 3-10, https://doi.org/10.1177%2F00307270221078027.

34 Jules Pretty et al., "Global Assessment of Agricultural System Redesign for Sustainable Intensification," Nature Sustainability 1 (2018):441-46.

35 Tribaldos, Oberlack, and Schneider, "Impact Through Participatory Research Approaches;" Wright et al., "Farmers, Food, and Climate Change;" Bentham, 2016.

36 Scoones, Thompson, and Chambers, Farmer First Revisited; Elsa T.A. Berthet et al., "How to Foster Agroecological Innovations? A Comparison of Participatory Design Methods," Journal of Environmental Planning and Management 59, no. 2 (2016): 280–301, https://doi.org/10.1080/09640568.2015.1009627; Warong Naivinit et al., "Participatory Agent-Based Modeling and Simulation of Rice Production and Labor Migrations in Northeast Thailand," Environmental Modelling and Software 25, no. 11 (2010): 1345-1358, https://doi.org/10.1016/j.envsoft.2010.01.012; Timothy Lynam et al., "A Review of Tools for Incorporating Community Knowledge, Preferences, and Values into Decision Making in Natural Resources Management," Ecology and Society 12, no. 1 (2006): 5, https://doi.org/10.5751/ES-01987-120105; Juliette Lairez et al., "Context Matters: Agronomic Field Monitoring and Participatory Research to Identify Criteria of Farming System Sustainability in South-East Asia," Agricultural Systems 182 (2020).

37 Michael L. Morris and Mauricio R. Bellon, "Participatory Plant Breeding Research: Opportunities and Challenges for the International Crop Improvement System," Euphytica 136 (2004): 21-35.

38 Weltzien et al., "Long-Term Collaboration."

39 Leonardo Van den Berg et al., "From Managing Transitions towards Building Movements of affect: Advancing Agroecological Practices and Transformation in Brazil," Geoforum 131 (May 2022): 50-60, https://doi.org/10.1016/j.geoforum.2022.02.011.

40 Ann Braun, Graham Thiele, and Maria E. Fernandez, "Farmer Field Schools and Local Agricultural Research Committees: Complementary Platforms for Integrated Decision-Making in Sustainable Agriculture," Agricultural Research & Extension Network Paper no. 105, London, 2000.

41 Sieglinde Snapp, James DeDecker, and Adam S. Davis, "Farmer Participatory Research Advances Sustainable Agriculture: Lessons from Michigan and Malawi," Agronomy Journal 111, no. 6 (2019), http://dx.doi.org/10.2134/agronj2018.12.0769.

42 CCRP 2018; Mary Richardson et al., "Farmer Research Networks in Principle and Practice," International Journal of Agricultural Sustainability 20, no. 3 (2021): 247-64, https://doi.org/10.1080/14735903.2021.1930954.

43 Jacob Van Etten et al., "Crop Variety Management for Climate Adaptation Supported by Citizen Science," PNAS 116, no. 10 (March 2019), https://doi.org/10.1073/pnas.1813720116.

44 Jeske van de Gevel, Jacob van Etten, and Sebastian Deterding, "Citizen Science Breathes New Life into Participatory Agricultural Research," Agronomy for Sustainable Development 40, no. 35 (2020), https://doi.org/10.1007/s13593-020-00636-1.

The "Journey to Self-Reliance": More than capacity building for African NGOs

Wawira Njiru
Founder and Executive Director
Food for Education

Not enough development aid reaches the people who need it most, especially those in the Global South. Despite a shift toward decolonizing aid, which places decision making in the hands those directly impacted by the aid rather than donors, the results are yet to materialize. Donors who are far removed from local contexts often dictate program impact metrics, overriding local expertise. Funding often gets directed to capacity building and overhead rather than actual service delivery.

If sustainable development and greater self-reliance are to be attained, the availability of long-term, unrestricted financing—particularly for food security and agriculture—needs to be guaranteed.[1] Despite the globally agreed-upon Principles for Responsible Investment in Agriculture and Food Systems and a shift toward self-reliance, African- and women-led local organizations have too often been under the control of western donors.[2]

Over 400 million children live in Africa. Even before COVID-19-induced school closures, only 27 percent of these children received meals at school.[3] Despite economic growth on the continent, 90 percent of children do not benefit from a minimum acceptable diet, with lifelong effects on them and the development of African economies.[4] While Kenya has undertaken several large-scale school feeding efforts, none have been sustainable due to high costs, low accountability, poor road infrastructure, and reliance on foreign donors.[5] Enabling scalable, locally owned, tech-based school feeding programs in Kenya would help prevent the lifelong effects of undernourishment on children and improve outcomes for their families; farmers; and education, agriculture, and health systems.

Food for Education, the organization I lead, is a non-profit social enterprise at the forefront of building the school feeding landscape in Kenya.[6] We not only want to eradicate classroom hunger, but transform the local agricultural economy by empowering smallholder farmers, 75 percent of whom are women, through local sourcing.[7]

Currently serving 40,000 children across three counties, our ambitious goal is to build a replicable model that feeds all school children five years from now. We are on track to serve 100,000 children a hot, nutritious, affordable meal by the end of the year. We plan to accelerate our growth through direct and indirect service models.

Benefits in the classroom and beyond

Achieving these goals will not be easy. Our rapid post-pandemic growth includes expanding into new geographies, innovating cooking technology, refining our menu, and piloting new kitchen models. Our work will make Kenya a "center of excellence" for school feeding in Africa, establishing a model for other countries to emulate. Our toolkit will become an open-source blueprint, providing targeted technical assistance for expanding school feeding programs to millions of children across the continent.

Box 2: **Student Experiences**

In the words of Yvonne Nasike, a student enrolled in our program: "I love science, and I would like to be a neurosurgeon when I grow up. I love that I get to eat hot food at school every day." Yvonne cannot achieve this while learning on an empty stomach. Through the provision of a hot, nutritious, affordable school meal, we help students like Yvonne realize their potential. Only 5.7 percent of Kenyans consume food from all six food groups. Through ample portion sizes of 650 grams per meal (two times more than the average school feeding program meal) and our varied menu with a high protein-to-carbohydrate ratio of 1:1.5, we are reducing the prevalence of malnutrition in primary school–age children.

As a key actor in Kenyan school feeding, our simple solution—providing hot, nutritious, affordable meals—is reaping socioeconomic benefits beyond what we initially visualized. Women like Nateleng Losur, a member of Food for Education's kitchen staff,

Image 3: Naima Muhammad, a young student in the Food For Education program, says, "I love the food because it is delicious. We also get bananas so the meal is a balanced diet. We used to carry food from home but now we get to eat from school." She is smiling into the camera while holding a bowl of food. Photo by Food for Education.

have become economically empowered through stable incomes.[8] Hailing from the remote county of Samburu, Nateleng is a shining example of the transformative effect Food for Education has on the lives of women. Formerly a casual kitchen laborer earning a meager daily wage of $2, she now earns a stable income of $150 per month. She is also firmly resolved to invest in her children's nutrition as the key to unlocking their full potential.

Jackson, one of our first students, got $0.20 from his mother on some school days to buy lunch, but on most days he would learn while hungry. When he was not allowed to leave school to buy lunch, he would go hungry and could not focus or participate in class. That changed when Food for Education came to his school. Offered nutritious meals at a lower cost, Jackson shares that for the first time, "I was able to lift my hand in class." He performed well on his exams and was the first in his family to graduate from high school. After earning his college diploma, he now works at Food for Education on the team that delivers thousands of meals each day. Jackson credits Food for Education for his success.

These are just a few examples of how women-led social enterprises impact development in Africa. Through scaling deep, women social entrepreneurs have sparked collaborative movements that have been instrumental in reducing poverty and enabling economic growth.[9] Sub-Saharan Africa, which has the highest rate of entrepreneurship globally, is the only region where the majority of the entrepreneurs are women.[10] Undoubtedly, women-led social entrepreneurship is the backbone of sustainable development in Africa. With the link between social entrepreneurship and economic development already well established, the next step is to scale solutions like ours as fast as humanly possible. The most effective way to do this is by funding these programs while ensuring that local knowledge is at the heart of funding discussions.

Insufficient and paradoxical funding

According to a recent article, only 6 percent of Kenyan-led start-ups received more than $1 million in funding.[11] When compared to Nigeria and South Africa (at 55 and 56 percent, respectively), this astounding statistic paints a grim picture of the bias Kenyan-led organizations face in the philanthropic arena. Paradoxically, western funders are more likely to fund start-ups in Africa with white founders even though the majority of African founders are black and have more expertise and lived experiences in their communities. When African entrepreneurs do receive funding from western donors, it is often small, short-term, and restricted, barring them from becoming financially sustainable.[12]

A hallmark of the social enterprise scene in Kenya is youthful leadership, which often yields innovative solutions to complex societal issues. Only through investment can these new-to-the-world ideas be realized. Sadly, the gap in funding for African social enterprises constrains their ability to reach their programmatic goals. A baseline study conducted by the British Council on the state of social enterprises in Kenya found that 43 percent of participants cited limited access to grant funding as

a barrier to their growth.[13] It is therefore paradoxical that despite Kenyan social enterprises contributing 45 percent to the country's gross domestic product (GDP), they are massively underfunded.

Social enterprises play an important role in creatively tackling intractable problems like poverty, hunger, and discrimination. Unfortunately, local social entrepreneurs often miss out on the funding opportunities given to better connected, well-established organizations that have long-standing relationships with deep-pocketed funders. Those organizations can more easily navigate the complex rules and requirements expected by larger, more bureaucratic funders.

Kenya's current development agenda outlines food security as a pillar of the country's socioeconomic goals.[14] Despite this, the Food and Agriculture Organization (FAO) estimates that between 2014 and 2020 a cumulative 92 million Kenyans (roughly over half of the population) were moderately and severely food insecure.[15] These alarming statistics provide emphatic evidence of the need for social enterprises such as Food for Education.

The backdrop of limited funding greatly curtails our ability to broaden our impact and tackle this vast need. US foreign assistance can be revolutionary for long-term development when it combines a range of solutions, from grants to concessional loans to debt guarantees. However, assistance must be channelled directly to the highest need beneficiaries on the local level, with few if any restrictions.

Innovation from experience

Growing up in a lower-middle-income household in the rapidly industrializing town of Ruiru, Kenya, I witnessed how my peers in public primary schools would often struggle to fully participate in class. Most children did not have access to a meal at home or school. Even if they wanted to participate, my hungry classroom contemporaries were unable to fully focus and learn.

Most children did not have access to a meal at home or school. Even if they wanted to participate, my hungry classroom contemporaries were unable to fully focus and learn.

Food for Education was not born out of traditional donor capacity-building workshops or grant applications. It is the result of my lived experience witnessing the debilitating socioeconomic condition of many children in Ruiru. This drove me to host a fundraising dinner in 2012 where I raised $1,250. This small sum enabled me to set up a kitchen in Ruiru Primary School—where Food for Education still operates today in an improved kitchen—and serve 25 children a day. Now, we serve 40,000 children daily across Kenya.

As Food for Education grew, it was paramount that those who shared my vision could relate to the local affliction of classroom hunger. We are an African and women-led organization. Our leadership team is 100 percent based in Kenya and is 75 percent African. Our knowledge of Kenya's socioeconomic realities drives us to keep meal costs low so more kids can eat every day. As local leaders in Kenyan school feeding, we are best suited to develop impact metrics that relate to school feeding in our context.

In our fundraising efforts we are often on the receiving end of impact metrics designed by far-removed donors who may not have any knowledge of our local context. For example, a key impact metric of our program is improving the education outcomes of children.[16] We found that schools in our program recorded an average enrolment increase of 172 students since 2019. Such tangible outcomes show the effectiveness of using school feeding as an incentive in the education sector. Yet we have encountered donors for whom these results have not been deemed "catalytic" enough.

This highlights the need for greater decolonization of the donor–beneficiary relationship. Impact measurements should be developed, implemented, and monitored by those who have relevant field experience. Simply devising an impact metric without the necessary contextual background will not lead to any radical change. Sustainable development can only occur through the coordinated efforts of various actors.[17]

School feeding programs are an obvious example of a development intervention that delivers sustainable impact at scale. Why, then, have funders historically been so reluctant to back them? I don't have a short answer to this question, but based on my experience founding and growing Food for Education while simultaneously navigating

the complex requirements of donors, it's clear to me why larger, well-connected organizations succeed where smaller, locally led organizations fail. Funding needs to be outcome-focused, channelled through local leaders, and aligned with the entrepreneurial skills of the women and men we see across recipient countries.

Financial support is not enough

As someone intimately connected to the African social enterprise scene, with a team comprising mostly African women, I would like to echo the voices of thousands of African women who are engaged in social enterprises. Providing us with financial support is not enough. We need to be included in conversations on aid, as we better understand the issues affecting us and our communities. Our work is crucial in driving Africa's development and enabling Africa's most vulnerable to live in dignity and become self-reliant. We are Pan-Africanists asserting our voices on the global philanthropy scene with one petition: fund more African-led organizations.

Endnotes

1 Interagency Task Force on Financing for Development, *Financing for Sustainable Development Report 2022* (New York: United Nations, 2022), https://desapublications.un.org/file/955/download.

2 Committee on World Food Security, *Principles for Responsible Investment in Agriculture and Food Systems* (Rome: UN Food and Agriculture Organization, 2014), https://www.fao.org/3/au866e/au866e.pdf; United States Agency for International Development (USAID), "The Journey to Self-Reliance: Supporting Partner Countries to Lead Their Own Development," (factsheet, USAID), https://www.usaid.gov/sites/default/files/documents/1870/J2SR_Fact_Sheet_June_2020.pdf.

3 "Hunger, Disease, Wars: Children in Africa are Particularly Suffering," SOS Children's Villages, accessed May 22, 2022, https://www.sos-usa.org/about-us/where-we-work/africa/children-in-africa; Nane Annan, Arun Baral, and Ibrahim Assane Mayaki, "Opinion: Nutritious School Meals Are the Key for Africa's Children," Devex, March 1, 2022, https://www.devex.com/news/opinion-nutritious-school-meals-are-the-key-for-africa-s-children-102711.

4 African Child Policy Forum, *For Lack of Will: Child Hunger in Africa* (Addis Ababa: Africa Child Policy Forum, 2019), https://gdc.unicef.org/resource/lack-will-child-hunger-africa.

5 Nzoka Rose Katumbia, "A History of Schoolfeeding Programme (SFP) in Kenya, Its Impact on Education and the Challenges It Had Faced: 1966-2009" (master thesis, University of Nairobi, 2018), http://erepository.uonbi.ac.ke/bitstream/handle/11295/104230/Nzoka_A%20history%20of%20school%20feeding%20programme%20(SFP)%20in%20Kenya.pdf?sequence=1.

6 "Feeding the Future," Food for Education, accessed May 19, 2022, https://food4education.org.

7 Kamau Maichuhi, "SH700 Million to Enrich Women in Farming," The Nation, January 22, 2021, https://nation.africa/kenya/news/gender/sh700-million-to-enrich-women-in-farming-3265498.

8 Wawira Njiru, "Monthly Newsletter," Food for Education, January 20, 2022, https://docs.google.com/document/d/17mH-aSo4vDfIljqwebQP0t7z05XNAskX/edit.

9 Pavitra Raja, Jeroo Billimoria, and Claire Davenport, "The Davos Agenda: Why Empowering Female Social Entrepreneurs Is Key to Economic Recovery," World Economic Forum, January 15, 2021, https://www.weforum.org/agenda/2021/01/why-empowering-female-social-entrepreneurs-is-key-to-economic-recovery.

10 Elsie S. Kanza, "How to Empower Women Entrepreneurs to Grow Africa," World Economic Forum, March 9, 2020, https://www.weforum.org/agenda/2020/03/how-to-empower-women-entrepreneurs-to-grow-africa.

11 Larry Madowo, "Silicon Valley Has Deep Pockets for African Startups –If You're Not African," The Guardian, July 17, 2020, https://www.theguardian.com/business/2020/jul/17/african-businesses-black-entrepreneurs-us-investors.

12 Stephanie Beasley, "Even African Philanthropists Underfund African NGOs, Report Says," Devex, August 13, 2021, https://www.devex.com/news/even-african-philanthropists-underfund-african-ngos-report-says-100584.

13 British Council, *The State of Social Enterprise in Kenya* (London: British Council, 2017), https://www.britishcouncil.org/sites/default/files/state_of_social_enterprise_in_kenya_british_council_final.pdf.

14 "Home Page: Fast Tracking Our Vision," The Big 4, Office of the President Kenya, accessed May 22, 2022, https://big4.delivery.go.ke.

15 Claire Nasike, "Kenya: Wanted - Concrete Plans to Address Recurrent Hunger," Daily Nation, October 4, 2021, https://allafrica.com/stories/202110040068.html; Judith Mbula Bahemuka, "Global Food Security: Attempts to Food Security by Kenya Government" (paper presented at Global Food Security Conference, McGill University, Montreal, Quebec, Canada, September 2008), https://www.mcgill.ca/globalfoodsecurity/files/globalfoodsecurity/JMBahemuka_FoodSecurityInKenya.pdf.

16 Caitlin Wall et al., "The Impact of School Meal Programs on Educational Outcomes in African Schoolchildren: A Systematic Review," *International Journal of Environmental Research and Public Health* 19, no. 6 (March 2022): 3666, https://doi.org/10.3390/ijerph19063666.

17 Petrica Nitoaia and Gabriel Camara, "Roles of Actors in Promoting Sustainable Development," *Present Environment and Sustainable Development* 12, no. 1 (2018): 169–177, https://doi.org/10.2478/pesd-2018-0013.

Policy recommendations

While the strength and efficacy of localization efforts have varied greatly in past US development assistance, current USAID administrator Samantha Power's increased focus on funding local actors has amplified discussion of what the future of foreign assistance will look like. In food and agriculture particularly, increasingly devastating climate challenges render more support to local actors necessary. While USAID is the agency most obviously engaged in development assistance, the transfer of funding and decision-making power to local actors does not rest with USAID alone. US congressional appropriations and directives, Development Finance Corporation programs and investments, State Department diplomacy, and much more all play a critical role.

The proposed policy recommendations, not in any particular order, show how US food security and agricultural development assistance can continue moving toward an emphasis on the needs and preferences of local actors. They are based on the expertise of the authors of this brief as well as consultations with more than 20 other external experts. The recommendations rest on several principles that repeatedly emerged in these conversations, including mutual trust, stability, flexibility, and accountability to local actors. Given the complexity of this topic, these recommendations are not comprehensive but do identify critical issues at the nexus of food, agriculture, and climate.

Recommendation 1

The USAID procurement process must change for localization efforts to succeed. **As smallholder farmers confront increasingly volatile climate challenges, donors such as USAID should maintain longer-term, stable program commitments with local actors.** Longer and more flexible grant cycles aligned with longer Country Development Cooperation Strategies can help ensure greater stability and trust with local actors. For grants and contracts to be accessible to local actors, USAID can remove some financial and reporting requirements, which often place a disproportionate burden on smaller, locally led organizations. A recent Brookings Institute report[1] analyzes USAID procurement programming in greater depth and serves as a useful resource.

Since USAID and other foreign assistance efforts must follow congressional earmarks and directives, Congress should reexamine legislative requirements through the localization lens. The recent Centroamérica Local initiative, still in its early phases, has the potential to chart a new course for sector-agnostic funds to achieve longer-term success by centering on local leadership without extensive earmarks and directives.[2]

In food and agriculture particularly, increasingly devastating climate challenges render more support to local actors necessary. While USAID is the agency most obviously engaged in development assistance, the transfer of funding and decision-making power to local actors does not rest with USAID alone.

Recommendation 2

In addition to reflecting upon and shifting existing procurement processes, **USAID should explore increased investment in alternative and innovative financing mechanisms that lend themselves to greater local decision making.** Below are some potential options. Congressional earmarks and directives for USAID funding may also need to shift to allow for these opportunities.

1. **Social enterprise models**: Social enterprise models fall on the spectrum between NGOs and the private sector. They seek to achieve positive social impact, such as giving poor farmers access to inputs that the private sector is not sufficiently incentivized to provide while achieving sustainable results on a scale many NGOs struggle to reach. Based on local demand, the model provides the goods and services that naturally reflect local needs and preferences. Many social enterprises are also locally founded and operated, such as Food for Education.
2. **Pooled funding mechanisms**: To address issues with funding stability and longevity, USAID could consider piloting a program based on the UN pooled funding mechanisms. In this model contributions from various agencies are "comingled" and allocated based on decisions and guidance from a steering committee. Funding is flexible and can respond to critical or urgent

needs that arise. USAID could partner with other US foreign assistance agencies or the private sector to allocate funding to high-level priorities, with guidance from a steering committee that could include various local community actors. A pilot program could initially work at the subnational level and be adapted based on successes and challenges. While pooled funds should address a high-level priority such as food security, they could be used (as decided by a steering committee) to address the priority from multiple angles, using a full systems approach that avoids traditional foreign assistance siloes.

3. **Leveraging success from the Development Innovation Ventures (DIV) initiative**: USAID's DIV program seeks to fund innovative solutions to development challenges through an evidence-based, multistage grant mechanism. Funding catalytic ideas is critical to addressing major challenges faced by smallholder farmers as well as other development challenges. However, this grant funding structure could also benefit local actors with existing, evidence-based ideas that simply need greater scale. Rather than meeting a definition of "innovative," these ideas would instead be gleaned from best practices by local actors that need further support.

Recommendation 3

Donors, including the US government, all too often define what success looks like for local actors and communities receiving foreign assistance. For a more inclusive system of development, **USAID should engage local actors to define what success means for their community, including allowing them to set their own high-level metrics**. Although USAID often works with local partners during initial planning, asking them to define and create metrics of success further strengthens the inclusive approach, particularly in the monitoring and evaluation of programs.

Recommendation 4

While US foreign assistance spending is accountable to US taxpayers, it most directly affects non-US local actors and should be accountable to them as well. **USAID should increase opportunities for feedback on program effectiveness, challenges, and areas for improvement from local actors throughout the implementation process**. Administrator Power detailed a new Office of Behavioral Science and Experimental Economics that could potentially gather this feedback from communities and identify areas for internal reforms.

Recommendation 5

Understanding the needs and preferences of local producer organizations and cooperatives is critical in aligning priorities with research institutions, policymakers, and others, especially amid new and intensifying climate challenges. The Global Agriculture and Food Security Program (GAFSP), founded after the 2007–08 food price spikes and crisis, is a multilateral fund to address food security. GAFSP's Missing Middle Initiative (MMI) directly funds producer organizations, providing resources and much needed flexibility for them to establish their own priorities based on member needs.[3] **While the United States has inconsistently allocated funding for GAFSP in recent years, Congress should reexamine engagement with GAFSP as a mechanism to collectively strengthen smallholders globally.**

Recommendation 6

Development assistance encompasses research for tackling global hunger, malnutrition, poverty, and climate challenges. The Chicago Council on Global Affairs' report on renewing international extension for the climate crisis addresses the need to put farmers at the center of the research process.[4] That report's contribution by Jacqueline Ashby identifies participatory research as critical to ensuring research and extension efforts reflect local actors' priorities since they are most familiar with local climate conditions and challenges. **Consequently, Congress should fund participatory research centered on both the expertise and priorities of farmers at Feed the Future Innovation Labs**.

Recommendation 7

Another approach to focusing on smallholder producers is to invest in an entire system that facilitates their livelihoods. Roads, cold chain storage, and broadband access are physical infrastructure components that allow producers to successfully bring food to market. As extreme weather and natural disasters increase, adequate access to physical infrastructure is often at risk.

Increased flooding, for instance, can wipe out an entire community's ability to transport goods to market without usable roads. **To support sustainable, long-term progress that continues after project implementation, USAID should consider more efforts to create agricultural value-chain infrastructure resilient to climate challenges**. This could involve partnering with other US agencies that provide foreign assistance, including the Millennium Challenge Corporation and the International Development Finance Corporation.

Recommendation 8

Many large international NGOs (INGOs) and contractors that can navigate the complex USAID procurement process either already have or are continuing to build programs and projects centering on local actors are pushing USAID to do the same. As Administrator Power noted in 2021, 60 percent of USAID funding went to 25 partners in 2017.[5] These organizations need not wait for USAID to adopt whole-of-institution change. **Instead, INGOs and contractors can commit to acting as a network and resource, slowly transitioning from being a primary implementer to supporting local actors in implementing their own priorities. Furthermore, these organizations can pledge greater transparency regarding the components of development assistance they manage such as the proportion of subawards measured by locally set metrics.**

Endnotes

1 George Ingram, *Locally Driven Development* (Washington, DC: Brookings Institute, 2022).
2 "USAID Announces Centroamérica Local Initiative to Empower Local Partners in El Salvador, Guatemala, and Honduras," News and Information, United States Agency for International Development, November 4, 2021, https://www.usaid.gov/news-information/press-releases/nov-4-2021-usaid-announces-centroamerica-local-initiative-empower-local.
3 "UN Interagency Pooled Funds: Explanatory Note," UN Development System Repositioning Explanatory Note #6 (New York: United Nations Economic and Social Council, 2018), https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/qcpr/6_%20UN%20Inter-agency%20pooled%20funds.pdf.
4 "Development Innovation Ventures," United States Agency for International Development, updated March 3, 2022, https://www.usaid.gov/div.
5 "Small Scale Grants," Global Agriculture and Food Security Program, last accessed May 20, 2022, https://www.gafspfund.org/index.php/small-scale-grants.
6 Gloria Dabek, "Renewing International Extension to Equip Farmers for a Changing Climate" (Chicago: The Chicago Council on Global Affairs, 2021), https://www.thechicagocouncil.org/sites/default/files/2021-09/FINALExtension%20Policy%20Brief%20CCGA_2021_v4.pdf.
7 Samantha Power, "A New Vision for Global Development," filmed November 8, 2021 at Georgetown University, Washington, DC, video, 43:13, https://www.usaid.gov/news-information/speeches/nov-4-2021-administrator-samantha-power-new-vision-global-development.

About the authors

Benjamin S. Allen, Ph.D., is Technical Advisor III for Microfinance Research and Learning at Catholic Relief Services (CRS). In this capacity he's conducted operational research around CRS's savings-led microfinance model, Savings and Internal Lending Communities (SILC), in multiple countries in Africa and Latin America. Prior to joining CRS in 2016, Dr. Allen served in the Peace Corps as a Rural Health and Sanitation Volunteer in Paraguay (2004-6) and earned his doctorate in Political Science from the University of California, Berkeley.

John Coonrod is the Executive Vice President of The Hunger Project. In this role, he leads The Hunger Project's Secretariat Team at the Movement for Community-led Development, serving as the Movement's co-founder and global coordinator. John was The Hunger Project's first volunteer in March of 1977, joined its staff in 1985, and has participated in the development and implementation of all of its programs. He co-chaired InterAction's Agriculture and Food Security working group for 11 years.

Jacqueline Ashby, Ph.D., works at the interface between social behavior and agricultural science to improve innovation for sustainable agriculture. Starting as a Rockefeller Foundation-sponsored research Fellow in the international system of agricultural research centers (CGIAR), she pioneered methods for participatory plant breeding. For over thirty years, she contributed to the development and global dissemination of participatory research in agriculture, as a board trustee, research director, and teacher with various international agriculture organizations, including CGIAR's System Office, the International Potato Centre (CIP), the Centro Internacional de Agricultura Tropical (CIAT) and the international center for mountain agriculture ICIMOD. Now retired, she advises and mentors new programs that are investing in participatory research or gender analysis.

Wawira Njiru is the Founder and Executive Director of Food for Education, a Kenyan social enterprise that serves nutritious and low-cost meals to public primary school students. The organization uses cutting-edge technology to create a sustainable financial model that delivers tens of thousands of meals each day. A Stanford School alumni, she is the youngest recipient of the University of South Australia's alumni award 2017, a 2018 Rainer Arnhold Fellow, a recipient of the Builders of Africa Award 2018 and one of 2018's Top 40 under 40 women in Kenya. She is also the first recipient of the Global Citizen Youth Leadership Prize 2018 presented by Cisco, a Ford Foundation Global Fellow 2020 and a Young Global Leader (YGL) 2021. She is the 2021 United Nations Kenya Person of the Year.

Acknowledgements

The Chicago Council would like to acknowledge several staff members who brought this report to fruition. Peggy Tsai Yih, managing director of the Center on Global Food and Agriculture, provided overall direction and support for this project. Gloria Dabek, assistant director of government relations, expertly led the development of US policy recommendations and facilitated stakeholder consultations. Julia Whiting, research associate, provided project management, author support, and drafting. Samanta Dunford, research assistant, provided research and drafting support. Natalie Burdsall, communications officer, led the design and layout processes. Mallory Hebert, special assistant to the Managing Director, provided logistical support throughout the project.

About the Chicago Council on Global Affairs

Founded in 1922, the Chicago Council on Global Affairs is a nonpartisan, non-profit organization dedicated to increasing knowledge and engagement in global affairs. Our in-depth analysis and expert-led research influence policy conversations and inform the ideas we share with our growing community.

We believe expert insights aren't just for the limited few, and that we all have a role to play in the world. We put our audiences at the heart of important conversations with world leaders and leading experts. By featuring diverse, fact-based perspectives and fostering open dialogue, the Council encourages more people to take part in global affairs and empowers them to help shape our global future. Learn more at thechicagocouncil.org.

About the Center on Global Food and Agriculture

We seek to advance a more sustainable and resilient food system by addressing challenges facing our planet and the most vulnerable producers and consumers, to find solutions that inform and shape policy, and to provide leadership in America's heartland and beyond. Learn more at thechicagocouncil.org/globalagdev, and follow us on Twitter and Facebook at GlobalAgDev.

THE CHICAGO COUNCIL ON GLOBAL AFFAIRS

Chicago Council on Global Affairs
Two Prudential Plaza
180 North Stetson Avenue
Suite 1400
Chicago, Illinois 60601