The food processing sector in Africa is essential for driving economic growth, rural development, gender equity, and improving diets, making it a crucial element in strategies to transform food systems. The Alliance for Inclusive and Nutritious Food Processing (AINFP) positions food processors as the catalysts for transforming food systems. AINFP, funded as a Global Development Alliance (GDA) with USAID and Partners in Food Solutions (PFS), creates a competitive food-processing sector in Ethiopia, Kenya, Malawi, Tanzania, and Zambia, working with over 225 food processors and 1,000 other public and private sector actors. In this brief, we present strategies, results, and recommendations for enhancing the competitiveness of the sector and positively affecting the food system. We share insights on the influence of AINFP’s activities across different components of the food system, as outlined in USAID’s Food Systems Conceptual Framework. Leveraging this framework, we pinpoint the specific areas within the food system where AINFP’s initiatives have likely made an impact, illustrating the far-reaching impact the food processing sector can have on food systems. We also share the various private sector engagement (PSE) strategies implemented and highlight the lessons learned to contribute to the collective knowledge base for future programming in this space.
A healthy food system is one that is sustainable, inclusive, provides safe and nutritious food for all, supports local economies, and adapts to and mitigates the effects of climate change. However, food systems in Africa and much of the world are under scrutiny. Key messages from the 2023 State of Food Insecurity and Nutrition report from the United Nations noted that food systems largely do not support the consumption of healthy diets. For example, in sub-Saharan Africa, the cost of a healthy diet in 2021 was $3.58, which was a 6.6% increase from 2020. Furthermore, despite a large portion of the population in sub-Saharan Africa depending on the food system for their livelihoods, 35% of those living in sub-Saharan Africa were living in extreme poverty in 2019. Improving incomes and diets has been a key focus of development programming in Africa, with a specific emphasis on increasing productivity as a means to achieve these goals. This approach is logical, as 52% of the population employed in sub-Saharan Africa work in agriculture. Additionally, consumers in the region have traditionally relied on local food production for their dietary requirements, and therefore, improved agricultural productivity is critical. Nonetheless, evidence suggests that investing in other parts of the food system—beyond agriculture—is important to spur inclusive economic growth, improve resilience, and support the consumption of diverse diets. Investment in food processing, in particular, can have upstream and downstream impacts on incomes, inclusion, and diets. Recent evidence and experiences from AINFP point towards the importance of private sector engagement (PSE), particularly in the processing sector, to positively affect food systems.

**Working through food processors to positively affect food systems**
—Alliance for Inclusive and Nutritious Food Processing (AINFP):

As of the end of 2023, AINFP was working with 225 food processors and over 1,000 other public and private sector actors in Ethiopia, Kenya, Malawi, Tanzania, and Zambia. Over the last five years, AINFP has implemented a range of activities with its food processing clients, including customized technical assistance (CTA), sector-wide training (SWT), market linkage and network development, business development and access to finance support, strengthening distribution channels, and promoting women’s economic empowerment to strengthen the food processing sector.

**AINFP’s Core Support to Food Processors**

- **Customized Technical Assistance (CTA):**
  Through PFS volunteer technical assistance and local consultants, AINFP provides CTA on product development, product reformulation, shelf-life improvement, label design or re-design, process development, food safety, fortification, inclusive business planning and marketing, gender-responsive business practices, and opportunities to access finance, among others.

- **Sector Wide Training (SWT):**
  AINFP provides SWT on good manufacturing practices, food safety, fortification, operational excellence, local leadership and organizational behavior, and gender-responsive business practices.

- **Strengthened market linkage and network development:**
  AINFP facilitates the establishment and strengthening of linkages between food processors and smallholder farmers to source raw materials and provides CTA to food processors to conduct cost-efficiency analyses, improve logistics, and establish linkages with other food systems actors, including cooperatives, aggregators, and financial institutions, to improve procurement processes of raw materials.

- **Strengthened distribution channels:**
  AINFP implements base-of-the-pyramid (BOP) activities—including BOP marketing bootcamps, forward linkage business-to-business forums, and trade fairs/exhibitions—to increase food processors’ capacity to develop business market canvasses and inclusive business plans towards expanding where they sell their products.

- **Business development and access to finance support:**
  Through access to finance bootcamps and CTA, food processors learn to develop bankable business plans and investor pitch decks. Additionally, through the Initiative for Smallholder Finance (ISF) Advisors, a sub-partner on the program, processors are supported to access different financial instruments.

- **Promoting women’s economic empowerment:**
  AINFP implements gender business leadership courses for women-owned, women-led, and women-managed businesses working with AINFP. As well as networking, and internships for women in the industry, and sector-wide training for the industry to address specific gender constraints and building gender responsive business practices in the sector.
AINFP’s Impact on Food Systems

Building off USAID’s Food Systems Conceptual Framework, AINFP has taken a food processor-centric approach to have a broader effect on the food system and improve incomes, inclusion, and diets. We present results and hypothesized impacts by components of the food system—including food supply, food environment, and food utilization—as well as the PSE approaches AINFP has used to elicit these results and learnings.

Food Supply

**Agricultural Production and Loss**

Increasing procurement of raw materials from smallholder farmers (SHFs) can boost farmers’ incomes through access to a reliable market that pays premium prices and by reducing food loss from production not sold to an output market, further contributing to increased incomes for SHFs. AINFP facilitates increased procurement from SHFs by encouraging food processors to develop inclusive business plans, which provides the roadmap for increasing or improving their sourcing of raw materials from SHFs, and by facilitating business-to-business forums to facilitate linkages between SHFs and food processors.

As of 2023, AINFP has supported 225 food processors to source 167,727 metric tons of raw materials from 174,171 SHFs. Rapid surveys show that SHFs have viewed these partnerships as beneficial. To understand the challenges and successes of these partnerships, AINFP contracted 60 Decibels to conduct rapid phone surveys with 521 SHFs that sell their raw materials to three AINFP-supported food processors. According to the survey, 67 to 91 percent of SHFs saw an increase in their income after partnering with AINFP-supported food processors.
We have shifted the model from working with individual farmers to registering farmers in cooperatives where we support collective growth through training in areas such as production handling, cleaning, quality checks and management, animal care and basic accounting. We have also encouraged the farmers to start a savings scheme where they access funds to purchase seeds, fertilizers, animal feed, and other yield-supporting inputs. This has increased trust with the farmers, and we have seen tremendous growth to their farms as well as in their livelihoods. We started with 500 farmers before the partnership with AINFP, and through their support to improve our relationship with farmers, we are currently working with 1,537 farmers (direct) and 10,000 aggregating farmers (indirect) for the supply of milk at Wimmsy dairy.

PSE Spotlight—Scaled Impact for SHFs: AINFP understood that supporting food processors to improve their procurement processes was an important leverage point for scaled change amongst SHFs. By demonstrating the business case to invest in SHFs, training food processors on business planning tools, and providing initial facilitation support, food processors could have wide-reaching effects on SHFs’ productivity and incomes. The CEO and Founder of Wimmsy Dairy Kenya commented on these shifts:

Food Processing and Packaging
AINFP has worked with 225 food processors ranging from small to medium-sized in scale and working across 14 value chains. As a result of AINFP’s suite of activities, AINFP-supported food processors have produced 324,041 MT of value-added products and seen a 26% increase in sales since engaging with AINFP. These improvements are a result of AINFP’s CTA, SWT, linkage and distribution development, business development, and access to finance activities, as well as food processors’ own investments in their businesses. AINFP put its PSE principles into action when collaborating with food processors. For example, AINFP has leveraged $13.34 million of food processors’ own investments since 2018—demonstrating food processors’ commitment to their own success. AINFP places a strong emphasis on ownership throughout its activities, aiming to promote sustainability. For instance, in AINFP’s CTA on inclusive business planning, technical advisors guide food processors on the significance of inclusive business planning and assist them in developing plans. AINFP food processing clients then implement the plans as they see fit, utilizing their own resources. In Kenya, Delish and Nutri, for example, co-created their inclusive business plan with AINFP but then carried out pilot activities independently to test whether business adaptations were feasible—such as establishing a hub procurement model, linking SHFs with cooperatives to improve access to information, inputs, and supply Delish and Nutri with high-quality raw materials.

Results of AINFP’s Core Support to Food Processors
- **Improved food processing through CTA:** 225 food processors have participated in CTA with AINFP and local service providers. 68% of food processors have adopted an improved food processing and/or business practice.
- **SWT for wider reach in the processing sector:** AINFP has facilitated 8 SWTs, reaching 3,248 individuals from the food processing sector.
- **Linkage and network development to connect food processors and SHFs:** Since 2018, AINFP-supported food processors have sourced raw materials from 174,171 SHFs.
- **Business development and access to finance support:** 70% of the AINFP’s food processors in need of financing have successfully accessed financing, amounting to $12.12 million in new finance mobilized ($10.2 million in formal/debt financing, $1.9 million in grants).
- **Strengthening distribution channels to reach consumers:** AINFP has supported food processors to reach 8,285 new markets, resulting in $26.1 million in value of sale of nutritious products in new markets.
Food trade and distribution

Food systems and consumer demand are shifting, and rural consumers are opting for foods that are value-added to be more nutritious, desirable, convenient, shelf-stable, and safe. Accounting for these shifts, AINFP supports food processing clients to better understand and reach different end markets, which allows them to diversify their revenue streams, contributing to business growth and resilience. AINFP has a strategic focus on BOP market channels and supports food processors to define an effective market and distribution strategy to target lower-income consumers with nutritious foods. Specifically, AINFP has implemented BOP marketing bootcamps, where food processors work on business model canvasses and develop inclusive business plans, facilitated forward linkage business-to-business forums to link food processors with logistics and distribution service providers serving BOP markets, and supported food processors to participate in trade fairs and exhibitions to showcase their products to attract new buyers and retailers. To date, AINFP has facilitated the establishment of 8,285 linkages between food processors, food traders, distributors, and end-market retailers.

Supporting Food Processors to Increase Food Availability

“The BOP training was very helpful to us in defining our value proposition and a better understanding of our target customers. Since the training, we have managed to grow our customer base consistently, and we successfully started using Facebook to reach some of our target customers. The positive was that we really learned a lot about marketing, and we were able to successfully implement it, especially in terms of brand development and value proposition.”

- Cristoph Lindinger, Founder Yumi Milling, Zambia
Food Availability

Food availability is an important driver of food purchasing and consumption, and recent trends illustrate that nutritious foods—particularly fruits and vegetables and animal-source foods—are insufficiently available. Food processing can increase the availability of foods by producing products that are more shelf-stable, therefore extending the period they are available to the consumer, or processing and packaging food into a form that is more readily transported to markets where that food product is not produced. To support food processors to increase food availability and better reach BOP consumers, AINFP provided CTA to processors to understand their various output market opportunities and develop new marketing strategies, as well as linkage facilitation to link food processors with food traders, distributors, and end-market retailers. Since 2018, AINFP-supported food processors have sold $264,870,000 in value-added products across the five supported countries. Seventy-six percent of the total volume sold was sold to BOP markets, therefore enabling increased availability of these processed food products. Mach Milk, a dairy processor in Malawi, recently noted the benefit of AINFP’s linkage and CTA support: “There has been improvement in sales as the BOP market training has now assisted us to find new markets and increase our sales by 13%”.

Food Prices

Food prices influence what consumers are able to afford and purchase for consumption. AINFP has supported food processors to consider food affordability by adapting their packaging sizes, improving business efficiencies, and adapting their marketing and pricing strategies. Following SWTs on BOP marketing, 29 AINFP-supported food processors have adopted specific strategies to consider the affordability of their products. For example, to maintain stable profits for food processors and prices for consumers—which were negatively affected by Russia’s war in Ukraine—AINFP assisted food processors in substituting imported wheat with locally available tubers, such as cassava and orange-fleshed sweet potatoes, which helped to stabilize the price of their product. Additionally, AINFP worked with Fisenge Dairy in Zambia to carry out a cost-based price model to ensure that their products targeting BOP consumers are sold at an affordable price while still achieving their desired profit margins. In Malawi, following a BOP training, Homes Industries—a peanut processor—introduced a smaller package (250 grams) for groundnut powder to better fit the price needs of consumers in BOP markets.

Food Quality and Safety

Ensuring the safety of our food is crucial for promoting optimal nutrition and health, as foodborne illnesses afflict an estimated 91 million people annually in Africa, resulting in detrimental effects on well-being and economic productivity. AINFP, in cooperation with local private sector food safety experts, diligently works towards empowering the food processing sector through a combination of in-person and online trainings. These trainings are designed to enhance food safety for both AINFP-supported clients and other interested food processors across the five countries. With over 2,000 successful participants, AINFP’s food safety trainings cultivate champions who possess the necessary skills to foster a culture of food safety in their respective industries. One food processor in Tanzania noted that their whole team pledged to adopt the targeted food safety and hygiene behaviors from the training: “Every employee is now committed to ensure and ascertain that food safety is not compromised anywhere along the production chain.” To drive wider change across the food system and enhance access to valuable food safety and standards modules, AINFP developed a free digital course, and has so far issued more than 650 certificates to learners completing the online course.
Behavior and Preferences

What consumers can and want to purchase and consume is influenced by a myriad of factors, including food availability, access to the market, affordability, gender and social norms, as well as consumers’ preferences. Food processors can consider consumer preferences, including consumer tastes, the convenience of a particular food, as well as other product properties—such as packaging—that can make the food product more desirable. AINFP works with food processors to increase the desirability of foods to better meet the needs of their consumers. Through CTA, AINFP provided individualized mentoring on product development, product re-formulation, and product labeling to 49 food processors, made possible by the support of PFS with volunteer experts of seven multinational food companies—General Mills, Cargill, DSM, Bühler, The Hershey Company, The J.M. Smucker Company, and Ardent Mills. These efforts resulted in the development of 74 new or improved food products and/or packaging or labeling for their food products. For example, AINFP provided CTA to Yumi Milling to conduct consumer assessments and adapt their Super Cereal Product according to customer feedback.

A more intensive food safety approach is taken with a sub-set of AINFP food processing clients. Specifically, AINFP emphasizes the implementation of food safety standards at the processing plant, including good manufacturing practices, HACCP (hazard analysis critical control points) certification, ISO 22000 certification, traceability, laboratory assistance for aflatoxin testing, pest control and pesticide management, and fostering a food safety culture. Following the SWT and CTA, 68% of participants have reported adopting at least one food safety practice, with handwashing being the most common.

PSE Spotlight – Enabling Environment: AINFP facilitated increased dialogue between food processors and regulatory agencies and supported food processors to navigate the standards and regulations processes in food safety. These efforts are important to enable food processors to certify and ensure their food processing plants and products are meeting standards, but also to increase dialogues between the public and private sector. Specifically, AINFP-supported dialogues have resulted an increased awareness amongst public sector actors in the challenge food processors face in going through certification processes.

“Every employee is now committed to ensure and ascertain that food safety is not compromised anywhere along the production chain.”

Food Utilization

Behavior and Preferences

What consumers can and want to purchase and consume is influenced by a myriad of factors, including food availability, access to the market, affordability, gender and social norms, as well as consumers’ preferences. Food processors can consider consumer preferences, including consumer tastes, the convenience of a particular food, as well as other product properties—such as packaging—that can make the food product more desirable. AINFP works with food processors to increase the desirability of foods to better meet the needs of their consumers. Through CTA, AINFP provided individualized mentoring on product development, product re-formulation, and product labeling to 49 food processors, made possible by the support of PFS with volunteer experts of seven multinational food companies—General Mills, Cargill, DSM, Bühler, The Hershey Company, The J.M. Smucker Company, and Ardent Mills. These efforts resulted in the development of 74 new or improved food products and/or packaging or labeling for their food products. For example, AINFP provided CTA to Yumi Milling to conduct consumer assessments and adapt their Super Cereal Product according to customer feedback.
Recommendations for Future Programming

As AINFP nears the conclusion of the program in 2024, the project aims to communicate lessons learned and recommendations that can inform future programming in the food processing sector. Drawing from its experiences and learnings, AINFP have developed recommendations that prioritize addressing the root causes of poor performance in the processing sector, fostering local leadership, and optimizing client ownership.

► Business basics are critical for improving food processor’s operations: At the beginning of the project, AINFP co-created numerous activities with its food processing clients ranging from support on new product development, access to finance, diversifying distribution channels, etc. However, AINFP has found that improving cost-efficiency and other business-wide activities have been the most impactful interventions, as these lead to improvements that cut across the food processors’ activities, enabling them to be more profitable, competitive, and sustainable. For example, the majority of clients benefited from food processing plant diagnostics, which outlined how the plant could be run more efficiently. AINFP recommends that projects working with food processors consider activities to improve food processors’ efficiencies and operations, alongside niche technical enhancements.

► Intentionally program for crowding in of other actors to build sustainability and scale: In the last two years of its programming, AINFP has emphasized crowding in of other actors that can support food processors moving forward. Specifically, AINFP has found that strategically engaging sector associations, incubation centers, and other business development service providers is a critical program activity to build the sustainability of the program. AINFP engages these actors to facilitate, attend, and/or provide services to the food processors during SWTs, CTA, and business-to-business linkage meetings in order to build relationships with the food processors. For example, following being trained as trainer-of-trainers, the Micro, Small and Medium Industry Development Agency (SMIDA) in Zanzibar, Tanzania has committed to continue providing AINFP-developed food safety training to their members beyond the program.

► Implementers should move on from unfruitful partnerships: Effective PSE that leads to lasting change requires working with actors in the private sector who are willing to change and adapt their approaches. Some clients were unwilling to adapt their strategies without explicit support from AINFP. The most successful clients were those who were committed to improving their business and investing their own resources (e.g., time, resources) into the partnership.

► Developing close and trusted relationships is critical for success: Developing close and trusting relationships with food processors is essential, as food processors are providing sensitive business information to the program. AINFP found that remote relationships are feasible, but that in-person interactions result in much more meaningful relationships and that food processors are willing to share more information during in-person interactions.
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