

Food Quality and Safety

P4P Experiences in Systemic Change

Supporting smallholder farmers to engage in value addition and ensure the safety of their produce is a key element to enhancing their access to formal markets and their ability to profit from their work. Improving value addition and quality control requires substantial knowledge and resources on the part of smallholder farmers, as well as strengthened food quality standards and enhanced access to inspection companies and laboratories at national and local levels.

P4P and Food Quality and Safety

During the Purchase for Progress (P4P) pilot, procurement from smallholder farmers played an integral role in changing the way WFP approaches food quality and safety. These purchases illustrated the importance of addressing the root causes of quality issues through prevention and early detection, and have enabled WFP to take a leading role in advocating for better food quality standards. WFP supports smallholder farmers and their organizations to produce higher quality crops, and partners with national and local governments to improve quality control infrastructure and regulation.

WFP food quality and safety

- WFP procures only high quality food commodities to ensure beneficiaries receive nutritious food safe for human consumption. While procuring food from P4P-supported farmers' organizations, delays and defaults were incurred due to crops not meeting quality standards. This highlighted a need to address the root cause of quality control problems and resulted in the establishment of a WFP Food Quality and Safety unit.
- Thanks to activities addressing crop quality, smallholder farmers have benefited from improvements in crop quality and public health, while also gaining better prices for value addition to their crops.

Capacity development

- WFP has seen significant improvements in smallholder farmers' quality control and post-harvest handling practices. This has occurred thanks to WFP's insistence on crop quality standards, as well as P4P's investment in capacity development of farmers and their organizations.



Achievements

- Over time, smallholders capacity to meet WFP quality standards has increased, with **defaults due to quality issues decreasing** from 5 percent of quantities purchased under P4P in 2010 to only 0.5 percent in 2014.
- The Blue Box was invented by WFP Guatemala in 2009, to check and improve the quality of maize produced by the P4P-supported farmers' organizations. Since 2011, **26 WFP Country Offices, of which 14 are P4P pilot countries**, have incorporated the Blue Box in their programming.
- In South Sudan, the Blue Box launch, as well as dialogue around aflatoxin, catalysed **improvements in the national laboratory capacity**, and initiated systematic screening of local maize produce.
- In Kenya, following severe aflatoxin outbreaks, WFP collaborated with the government to increase public awareness, improve post-harvest handling and storage, and increase testing capacity.

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- P4P has supported FOs to access training and equipment to improve crop quality and add value to their crops. Based upon their context and need, P4P provided farmers' organizations with tools such as tarpaulins, moisture tests and storage structures. Farmers were trained on harvesting, threshing, shelling, drying, bagging, fumigation, quality control, silos usage, and transportation of commodities.

Health and safety

- Aflatoxin is a poisonous chemical compound which usually develops on foods such as maize and groundnuts which can cause liver cancer and may also be linked to stunting in children. A field testing kit for aflatoxin, called the Blue Box, was developed by WFP in collaboration with P4P in Guatemala. The Blue Box screens grain quality and detects problems such as the presence of aflatoxin at an early stage, allowing farmers to address the problem and thereby reduce rejections. The Blue Box is both portable and easy to use. Farmers' organizations and others using the kit have received appropriate training in order to use it most effectively.
- Many smallholders and their families previously consumed the low quality grain they were unable to sell. However, thanks to awareness-raising campaigns, P4P has observed that this practice has reduced.

Government policy and advocacy

- The lack of food quality standards or their enforcement is a major constraint in most developing countries. Increased advocacy for the enforcement of national quality standards, the establishment of quality monitoring protocols, and the adoption of best practices have allowed WFP to contribute to the global agenda for addressing major food quality and safety issues.
- P4P has supported governments to improve their food quality inspection procedures, by equipping and supporting the creation of public or university food quality control labs, training government staff on good practices, and strengthening Bureaux of Standards.

Further reading

- Article: [P4P triggers further investments in food quality and safety](#)
- Article: [How Can Reducing Post-Harvest Losses Support Food Security?](#)
- Factsheet: [Zero Loss for Zero Hunger—WFP's Work to Prevent Post-Harvest Food Losses](#)
- Factsheet: [The Blue Box—The tool for assessing quality at the field](#)
- Factsheet: [Reducing Food Loss in Sub-Saharan Africa—Preserving Harvests and Eradicating Hunger](#)



Bornwell Kaunga, manages the Mwandama farmers' organization in Malawi. For him, an increased awareness about food safety has been beneficial for the entire community. He shared the story of one mother from his village who has benefitted from the best practices in post-harvest loss reduction. She previously sold the healthy part of the grain while feeding the diseased parts to her children. After learning about the dangers of this practice, Bornwell quoted her as saying: "This is one of the most important things we have learned, I am now able to keep clean grain in my house and that gives me happiness in my heart."

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Post-harvest handling and storage

Poor post-harvest handling is a major cause of low quality crops which have a negative impact on health and nutrition. Comprehensive support is required to improve post-harvest handling, including improving storage facilities and equipment and enhancing smallholder farmers' skills.

P4P has provided smallholder farmers and their organizations with a variety of support to enhance their post-harvest handling practices, improving crop quality.

- Storage is a critical element of post-harvest handling, which is often lacking in rural areas. P4P has improved smallholder farmers' access to storage facilities at the household, community level and even regional level.
- In countries such as Burkina Faso, Guatemala, Mozambique and Uganda, focus was placed on household-level storage. Technologies for household storage help farmers retain more of their harvest, store their crops for longer periods, gaining more control over when and where they choose to market their crops.
- WFP has provided post-harvest loss training for smallholder farmers in topics such as improved techniques for harvesting, threshing, shelling, drying, bagging, fumigation, quality control, silos usage, and transportation of commodities. WFP has also played a major role in providing post-harvest loss training for extension workers, government and NGO partners.
- P4P has supported warehouse receipts systems and warrantage schemes to provide opportunities for farmers to access professional storage and handling facilities, improving the post-harvest handling of their produce. Warehouse receipts systems or warrantage schemes are in different phases of implementation in Burkina Faso, Ghana, Kenya, Malawi and Uganda.



Achievements

- Since 2008, P4P and partners have supported **166,000 smallholder** farmers in improving post-harvest handling and storage.
- Amongst the smallholders trained in post-harvest loss reduction, **43 percent were women**.
- By the end of 2014, **534 P4P-supported farmers' organizations** had access to storage warehouses.
- In Zambia, some farmers' organizations began building their own storage space funded by the FO membership, and engaging the community to collect locally available building materials.

Case study: Locally-designed storage in Burkina Faso

In Burkina Faso, P4P and partners, including local entrepreneurs, are working together to support the development, manufacture and sale of equipment that can reduce post-harvest losses. These efforts are improving the tools available to smallholder farmers and supporting the growth of local businesses. P4P-supported farmers' organizations participated in a WFP action research trial, providing specialized training and access to storage equipment. Today, P4P is building on the success of the trial in collaboration with a variety of partners, including local entrepreneurs, to provide smallholders with equipment for the post-harvest treatment of crops. Tools such as threshers and blowers can decrease the time and effort farmers spend treating their harvests, as well as improving crop quality and reducing post-harvest losses.