P4P triggers further investments in food quality and safety

Procurement from P4P-supported smallholder farmers has played an integral role in changing the way WFP approaches food quality and safety. These purchases have 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 sets quality requirements for the commodities it procures to ensure that beneficiaries receive food which is safe for consumption. The same standards are applied to purchases from all suppliers, be they smallholder farmers or large companies, without exception. This has posed a challenge for P4P, as smallholder farmers often lack the knowledge and resources to produce crops that meet these standards. Plus, smallholders are sometimes located in difficult-to-access rural areas where inspection companies and local laboratories may have a limited presence.

The prevalence of aflatoxin, a poisonous chemical compound linked to liver cancer if consumed regularly over an extended period, poses a particular threat to food safety. Aflatoxin generally develops on crops such as maize or groundnuts due to insufficient drying, as the presence of excess moisture allows the growth of aflatoxin-producing moulds. This can be prevented through appropriate post-harvest handling techniques. At an early stage of the P4P pilot, purchases from P4P-supported smallholders highlighted the need to address the root cause of quality control problems. This triggered the creation of WFP’s Food Quality and Safety unit in November 2009.

Preventative and proactive approaches
Aflatoxin poses a concern because of the large volume of maize procured through P4P. In order to address this problem, a field testing kit called the Blue Box was developed in collaboration with P4P Guatemala. The project was launched after several incidents in which commodities supplied by P4P-supported smallholders in Guatemala were rejected by WFP because they did not meet quality requirements. The Blue Box was designed to screen grain quality and detect problems such as the presence of aflatoxin at an early stage, therefore reducing rejections.

Some basics on aflatoxin:
- Aflatoxin is a type of mycotoxin, which result from fungal growth. This is normally caused by the improper drying or re-wetting of crops.
- Aflatoxin usually develop on food such as maize and groundnuts, in regions or countries with climates of high temperature and humidity.
- Once aflatoxin occurs, it cannot be eliminated without making food unsafe for human consumption.
- High aflatoxin levels can be prevented by improving farming, storage and transportation practices.

A session training smallholders to use the Blue Box field testing kit for quality control practices is held in Burkina Faso. Copyright: WFP
Each Blue Box contains grain sampling and grading equipment, a moisture metre, an aflatoxin test kit and other supplies to allow on-the-spot screening of food quality parameters and grading at any stage of the supply chain. The Blue Box has been effectively used by farmers’ organizations, storage facilities, and WFP procurement. Since 2011, 26 WFP Country Offices, 14 of which are P4P pilot countries, have begun incorporating the Blue Box into their programming.

In order to address quality issues, both early detection and prevention are necessary. While the Blue Box facilitates early detection, capacity development is vital to preventing the development of food quality problems. Along with training on how to use the equipment, P4P and partners have provided training sessions in post-harvest handling. Topics include drying, sorting, storage and transport, as well as inspection and testing. Additionally, P4P has supported the provision of equipment and infrastructure to improve post-harvest handling, such as improved storage facilities and drying equipment on a cost-sharing basis.

**Positive results for farmers and governments**

The early detection of quality problems has reduced the number of rejected deliveries and led to savings for farmers, who then do not pay unnecessary transportation costs for commodities that might ultimately be rejected. In addition, the Blue Box, as well as related food quality and safety initiatives, have raised awareness about the risks of aflatoxin. When Bornwell Kaunga, a farmers’ organization manager from Malawi, spoke at P4P’s fifth Annual Consultation, he described how increased awareness about food safety has been vital to his community. He shared the story of one mother, who 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.”

Through these efforts, more farmers have also learned that quality crops can generate higher prices.

WFP’s increased advocacy for the enforcement of national quality standards, the establishment of quality monitoring protocols, and the adoption of best practices contributes to the global agenda to address major food quality and safety issues. This also enables WFP to take part in broader discussions about global health policies. 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. The Blue Box also enabled WFP to increasingly influence and contribute to local policy design and execution. For example, in Ethiopia, aflatoxin testing is not required by national standards, but thanks to WFP's extensive collaboration with the government, it has been endorsed systematically through support to Cooperative Unions. Similarly, in Kenya following severe aflatoxin outbreaks, WFP has collaborated with the government to increase public awareness, improve post-harvest handling and storage, and increase testing capacity.

**Lessons learned about equipment & training**

The challenges faced by the WFP Food Quality and Safety unit, and the Blue Box initiative in particular, have generated lessons and technical knowledge about how to deliver training effectively, and what kind of equipment is most suitable in the field. Comprehensive guidance has been developed to increase the effectiveness of Blue Box training sessions. The Food Quality and Safety unit has found that in order to be most effective, hands-on training should be carried out by WFP staff in the local language immediately after the delivery of the kit. Lessons learned indicate that participants benefit most when specific individuals are assigned to take responsibility for quality control, undergoing training and using the Blue Box tools. Efforts to improve food quality were most effective when combined with pre-existing national policies, standards and market infrastructure. Incentives, such as higher margins for quality crops, proved particularly effective.

**Read more:**
- WFP Food Quality and Safety
- Aflatoxins: Finding solutions for improved food safety - IFPRI Series
Soya production in Afghanistan supports P4P efforts to improve nutrition

In order to reduce malnutrition in Afghanistan, P4P works with Nutrition and Education International to support smallholder farmers and agronomists to produce soya for use in locally-produced nutritious foods. These products will enter into the market in Afghanistan to increase the protein intake and micronutrient absorption of vulnerable populations.

In Afghanistan, micronutrient deficiency is widespread, with 55 percent of children stunted due to malnutrition. In order to improve nutrition, P4P facilitates the local production of fortified flour and other nutritious food using staple crops grown by P4P-supported smallholders whenever possible. One vital component of this work is the development of a market for soya and soya-based products in partnership with Nutrition and Education International (NEI), with financial support from the Republic of Korea. P4P and NEI are engaged at all levels of the soya value chain, working with farmers to expand production, assisting processors to increase capacity and implementing an awareness-raising campaign in order to educate the public about the benefits of fortified soya and wheat blended flour.

Nutritious food from smallholders’ crops
The initiative emphasizes soya because it is rich in protein and amino acids, and adding soya flour to micronutrient-fortified wheat flour can also increase vitamin and mineral absorption. In Afghanistan, fortified flour is produced by local millers using the wheat grown by smallholder farmers, who are supported by P4P in collaboration with the Agency for Technical Cooperation and Development (ACTED). This flour is also used to process high energy biscuits for use in WFP’s emergency programme.

As soya production expands, it too will become a vital component of high energy biscuits, as well as a fortified wheat and soya flour mix. This will boost the effectiveness of these nutritious foods, and provide P4P-supported farmers with a market for their crop. An advocacy campaign carried out in collaboration with NEI aims to raise awareness on the importance of micronutrients and increase demand for locally-produced fortified foods, which will help to develop a sustainable market. The campaign is being carried out in collaboration with the government’s Ministry of Public Health (MoPH).

Increasing production of soya
NEI and P4P have supported smallholder soybean farmers with the provision of pre- and post-harvest agricultural equipment to increase their yields and improve crop quality. Over 10,000 smallholder farmers have been organized into associations and trained in soybean cultivation by NEI, including topics such as pre- and post-harvest handling and storage. In 2012, P4P-supported smallholders produced 1,700 metric tons (mt) of soya, which was purchased by NEI, private sector soya flour processors and soybean seed producers. It was also used to supplement nutritional intake at the household level. In order to more effectively utilize their land, farmers will be trained to diversify crop production by producing both soya and wheat. This will allow them to benefit from soya’s capability to enrich soil after it has been depleted by the wheat harvest. At the moment most smallholders produce only one of the two crops. Women’s involvement has been encouraged by P4P and partners, with over 3,200 women farmers supported to grow wheat and soya. Women are also trained to utilize soya flour as well as wheat when preparing naan bread for household use in order to improve nutrition.

In February 2014, a workshop was held to train agronomists on soybean research and production in order to facilitate the development of soybean seed varieties suitable for the climate and soil conditions in Afghanistan. This is expected to have a ripple effect as

Read more about P4P’s work with nutrition:
Guatemalan smallholders support improved nutrition
From food beneficiaries to food suppliers
P4P West Africa: Boosting smallholders’ sales of local bean

Continues on page 4
the agronomists share their learning with the farmers they support. One participant, Mr. Nasrullah, a research agronomist at the Kapisa Farm Service Center, says, “we were given important tools that will help the Kapisa team better train and oversee the 200 farmers producing seeds for the coming season.” Sixty agronomists from 13 provinces participated, including members of the Agriculture Research Institute of Afghanistan (ARIA), which has worked with NEI to develop and release five new climate-suitable soya varieties since 2005.

**Reduced WFP demand encourages sustainable solutions**

Though the project has already made significant achievements, challenges still remain. WFP’s reduced demand for high energy biscuits has made for a slow start, as the project lacks the catalyst of an assured buyer procuring large quantities. However, steps towards a more sustainable solution are being taken: it is planned that these nutritious foods, produced by local processors from soya and wheat grown by smallholder farmers, will enter directly into local markets in Afghanistan.

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**Role of P4P in WFP shift from food aid to food assistance**

At this year’s Feeding the World forum, WFP Executive Director Ertharin Cousin provided Farming First with an update on P4P. She discussed the role P4P has played in WFP’s move from food aid to food assistance, and explained how WFP’s institutional demand provides a catalyst market which enables smallholder farmers to reap the benefits of capacity development activities.

“We shouldn’t always buy from them [smallholders] because the reality is that if WFP is the only purchaser then it’s only a programme. It only becomes a sustainable and durable economic change for those farmers if we can substitute WFP with either a commercial market buyer or a government buyer, and that’s what we’re seeing,” Cousin says.

View the video [here](#).
In Kenya, over 13,000 farmers and other small-scale suppliers have been trained in topics including best agricultural practices, post-harvest handling and marketing. While significant progress has been made, some challenges remain, such as food quality and safety issues primarily caused by the prevalence of aflatoxin. This is currently being addressed in collaboration with FAO and the Partnership for Aflatoxin Control in Africa (PACA). Read the P4P in Kenya fact sheet to learn more.

In Kenya, P4P has strengthened small-scale farmers’ and traders’ capacity to engage with the agricultural market. P4P and partners assist farmers’ organizations (FOs) to increase their access to storage and facilitate their access to credit. They carry out capacity development in best agricultural practices, post-harvest handling and quality assurance. P4P has also connected FOs to rural agro-dealers to increase their access to inputs, production assistance, conditioning services and markets. Currently, 74 FOs are registered as WFP suppliers, and P4P has supported 132 additional FOs to access other markets, such as government-run home grown school feeding. P4P has also engaged 35 small-scale traders and village level agro-dealers with the capacity to bulk grain and sell to WFP. In rural areas, the programme’s procurement strategy encourages resilience through diversification, emphasizing the commercialization of drought-resistant crops. This approach aligns with government strategies to promote high value nutritious crops grown in rural agricultural areas. P4P is currently being mainstreamed in Kenya, and emphasizes government ownership through links with home grown school feeding and nutrition.
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P4P NEWS

Warehouse lease to benefit smallholders
Click here to read about WFP’s recent lease of a warehouse in Gulu town, Uganda to private company Afgri-Gulu Ltd. The lease will expand and improve Uganda’s warehouse receipts system. It will also provide smallholders with the option to trade in their produce through the normal trading business for immediate payment. The lease aims to assist more than 9,000 smallholder farmer groups.

Radio: P4P Guatemala on the importance of quality control
Click here to hear P4P country coordinator Sheryl Schneider discuss P4P Guatemala’s efforts to improve food quality and safety, including the Blue Box initiative. [In Spanish]

Capacity development workshop held by P4P Ghana
Click here to learn about P4P Ghana’s efforts to improve smallholder farmers’ agricultural practices and organizational skills.