

# HOW STANDARDS CAN IMPROVE AGRICULTURE, FOOD SAFETY AND FOOD SECURITY



In many parts of the developing world a majority of people rely on local agricultural production for their food supply and income. Recent studies suggest that increasing agricultural income by 1% reduces the number of people living in poverty by between 0.6 and 1.8%, making it one of the most effective development interventions.

Governments, donors, and industry recognize the development benefits of investments to help developing country agriculture become more efficient. At the same time, global food markets are requiring increasingly stringent requirements on the food supply in order to meet expectations of food safety.

Adopting and implementing science-based international food safety standards and food production techniques can assist the agriculture sector in developing countries by helping farmers expand their output to meet local food security requirements and to supply global markets.

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## THE POTENTIAL OF STANDARDS FOR DEVELOPING COUNTRIES

### **CASE STUDY:** GOOD AGRICULTURAL PRACTICES IN KENYA

Kenya has traditionally been a niche supplier of horticultural products to export markets. Local producers adapted growing and packaging processes to meet the changing requirements of their main customers, as specified in private contracts.

In the 1990s, the adoption of Good Agricultural Practices (GAPs) by importers in developed country markets compelled Kenyan farmers to upgrade food growing and handling processes to maintain access to these markets. GAPs have since evolved to encompass additional requirements, including pesticide management and environmental sustainability.

Kenya's local industry group, the Fresh Produce Exporters Association of Kenya implemented a Code of Practice designed to translate the standards of GAPs into local requirements. Although such investment has significant up-front costs, estimated at about \$1800 per smallholder, the return on investment is recognized by farmers. Despite these more stringent GAP requirements in the EU market for example, Kenya's global agricultural exports rose from \$284 million in 2002 to \$785 million in 2010. *Source: World Bank, Standards and Trade Development Facility Project Completion Report 2011*

**A**doption of effective consensus standards can play a key role in helping developing countries enhance agricultural productivity and address food security.

### **FOOD SECURITY THROUGH DOMESTIC FOOD SAFETY STANDARDS**

More food production and consumption in developing countries is taking place outside the household in small and medium sized processing facilities, much as in the developed world. This trend means safety standards are increasingly important in ensuring the health of communities. Improvements in food availability will not enhance health unless food is safe. Government supervision of the food system through standards enforcement, particularly standards harmonized around internationally recognized processes such as Good Manufacturing Processes (GMPs) and the Hazard Analysis Critical Control Point (HACCP) approach, can reduce food safety risks and improve governance of food systems at low costs to government and consumers.

### **BETTER DISTRIBUTION PRACTICES RESULT IN SAFER FOOD AND REDUCED WASTAGE**

Standard procedures ensure that food distribution agencies undertake processes proven over time to minimize risks of introducing pests or diseases that compromise safety. Standards incorporate lessons learned from experience in other countries and offer tools to reduce the losses governments and firms would otherwise suffer through inefficient experimentation to try to improve the performance of their systems.



## REDUCING POST-HARVEST LOSS

Losses from spoilage and spillage of commodities after harvest (post-harvest loss) reduce the availability of food in poorer countries, with detrimental impact on the affordability and availability of food. Up to 15% of Africa's grain harvest is lost in distribution. Many governments in developing countries operate official grain handling and distribution facilities, so standardizing grain handling to minimize post-harvest loss can increase the availability of basic foods from existing harvests, particularly for foods consumed by the most vulnerable populations.

## IMPROVED FOOD SAFETY, EXPORT OPPORTUNITIES, AND INCOMES FOR FARM COMMUNITIES

Producing food products to standards accepted in foreign markets removes potential technical barriers to trade and enables farmers to compete on price and reliability. Many farmers in developing countries have preferential access to major developed markets through reduced tariffs. Investing in techniques to assure safety and reliability ensures they can capitalize on those preferences.

## IMPROVED DOMESTIC FOOD SAFETY CERTIFICATION

Ensuring importers accept the reliability of exporters' safety tests for exported food is a key to maintaining the openness of those markets. The joint Food and Agriculture Organization of the United Nations/World Health Organization (FAO/WHO) Codex Alimentarius Commission sets standards for methods of analysis for food safety testing to ensure reliability of tests for potential contaminants. Adhering to Codex methods of food safety testing can ensure that prospective import markets have confidence in developing countries' exports.

## CASE STUDY: PERUVIAN SEAFOOD EXPORTS

In 1997, Peru introduced a system to ensure its laboratories testing the quality and safety of its fisheries products were accredited as conducting testing according to methods set by international standards. Over the decade after this system was introduced, the number of export market "sanitary alerts"—incidences where Peruvian fish products failed tests for microbiological, chemical, and other risks—fell. At the same time, Peru's global fisheries exports to major markets increased from approximately \$1.4 billion to \$2.4 billion. In one specific instance where Peru's lab methods were not harmonized to international standards, a contamination incident led to a temporary international ban on clam exports until it resolved the contamination risk. Not using an accredited test method to measure a relevant risk reduced Peru's clam exports by 47% over the period of the ban. *Source: APEC 7th Conference on Good Regulatory Practices*





## OPPORTUNITIES TO ENGAGE

**S**tandards, and regulations based on standards, play an important role both in ensuring consumers have access to safe food and facilitating market access for agricultural producers in developing countries while enhancing domestic food security. Governments can use standards to accomplish these important objectives.

Interventions that can assist governments in this respect are:

- Facilitating better access to safe food through implementing transparent, non-discriminatory, and harmonized food standards. National standards and regulations should be based on international standards to avoid higher costs due to the duplication of effort and to ensure they reflect the expertise of the international community and do not create unintended consequences. Use of Codex standards ensures producers can use globally accepted standard methods to produce foods and test for contaminants, avoiding duplication and higher food costs. Food and food production standards should be created with input from stakeholders to ensure they reflect state-of-the-art thinking and consensus.
- Capacity building to administer food standards based on sound science, in accordance with WTO obligations. The World Trade Organization's Sanitary and Phytosanitary (SPS) Agreement sets out requirements for countries to govern food imports based on scientific assessment of risk. Using SPS-consistent methods can enhance food safety and availability. Food standards should be based on sound science to prevent regulation that unintentionally impedes consumers' access to safe food.
- Encouraging participation of developing countries in food standards development in Codex—the WTO SPS recognized body for developing food safety standards—can ensure that international standards will be relevant to their needs.

For more information on USAID assistance related to standards please visit [standardsalliance.ansi.org](https://standardsalliance.ansi.org) or contact us at [SA@usaid.gov](mailto:SA@usaid.gov)