

# USAID Food for Peace Food Safety & Quality Assurance Feedback Loop Analysis

A Report from the Food Aid Quality Review

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# **Acronyms**

AMS Agricultural Marketing Service (USDA)
CRD Commodity Requirements Documents

FACG Food Aid Consultative Group
FAQR Food Aid Quality Review
FAR Federal Acquisition Regulations

FBFs Fortified Blended Foods

FDA Food and Drug Administration (US)
FIQQ Food Incident and Quality Questionnaire

FFP Office of Food for Peace (USAID)
FGIS Federal Grain Inspection Service
FIM Food Incident Management
FNS Food and Nutrition Service

FSQA Food Safety and Quality Assurance FSA Farm Service Agency (USDA) FSMA Food Safety and Modernization Act

FSU Food Safety Unit (WFP)
GF&N Global Food & Nutrition Inc.
GMP Good Manufacturing Practices
HACCP Hazard Analysis Critical Point

KCCO Kansas City Commodity Office (USDA)
POD Program Operations Division (USAID/FFP)

POC Points of Contact

PVO Private Voluntary Organization

QWICR Quarterly Web-Interfaced Commodity Reporting (System)

RUF Ready-to-Use Food

U.S. United States

USAID United States Agency for International Development

USDA United States Department of Agriculture

WBSCM Web-Based Supply Chain Management (System)

WFP World Food Programme

# **Executive Summary**

In 2017, approximately \$2.9 billion was spent on 3.1 million metric tons of international food aid by the United States Agency for International Development (USAID) Office of Food for Peace (FFP) to support global emergency and development activities, and international food assistance programming in 53 countries. The food aid supply chain is long and often harsh on products. Maintaining safety and high quality of products throughout is paramount and historically has been done effectively. USAID is focusing on making its food safety and quality assurance (FSQA) measures even more effective as part of its food aid quality improvement activities.

FSQA controls in place during production ensure that food and ingredients are safe (handled hygienically, securely packaged, and free of microbes, pests and defects) and of high quality (appearance, taste, and flavor) as part of food safety regulations for manufacturers in the United States (U.S.) and abroad. To meet these standards, food production facilities are required to have systems in place throughout the production and manufacturing process, such as, Good Manufacturing Practices (GMP) and Hazard Analysis Critical Point (HACCP) plans, to ensure that safe food reaches consumers. FSQA Feedback Loops are an essential tool to report and address incidents that may arise anywhere along the supply chain: from the producers and suppliers, to the consumers/end users, and back to U.S. Government Agencies. While incidents are rare, the information generated and how they are resolved become part of the evidence base and promote the continuous improvement of products and systems.

This report reviews FSQA systems already in place to inform FFP's efforts to improve the FSQA system in the food aid supply chain. A detailed analysis of six FSQA feedback loop systems was conducted through a desk review and 20 key informant interviews as part of a broader activity to review, recommend, and modernize systems for commodity users based on evidence and findings. These Feedback Loops include those currently used by USAID/FFP, the U.S. Department of Agriculture (USDA), World Food Programme (WFP), and the U.S. commercial food Industry. Ease of use, timeliness, questionnaire and data type, data and trend analysis, storage, reporting threshold (U.S. dollar amount), and staff requirements were among the criteria used to evaluate each system.

The analysis found that once food aid products are no longer under USAID title, often once international food aid products leave manufacturing plants, control is lost over feedback. How products perform throughout the rest of the supply chain is largely unknown due to the lack of information gathered in-country and reported back to USAID. The current USAID/FFP FSQA feedback system and its accompanying questionnaire are underutilized and inefficient without a

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Food for Peace Year In Review. https://www.usaid.gov/sites/default/files/documents/1866/FY17 Annual Report FINAL 508 compliant.pdf

database of stored data. There is little evidence to drive continuous improvement of the food aid supply chain or provide relevant feedback on vulnerable points along the supply chain.

The findings from this assessment indicate the need for a modern, streamlined, and easily accessible Feedback Loop using a simple, multiplatform tool and questionnaire to capture and transmit the data. A simple tool for reporting incidents along the supply chain is an important element to include in the FSQA system. The proposed Feedback Loop would have a low reporting threshold (\$1), ability to collect and store data, allow for quick transmission of information pertaining to FSQA incidents, have an established workflow by type of incident leading to prompt resolution, involve one dedicated staff member to manage the system, and be user-friendly without stigma or ill-consequences for reporting incidents. It is recommended that USAID/FFP adopt a simpler FSQA Feedback Loop with a Food Incident and Quality Questionnaire (FIQQ) and pilot test the system with a couple of food aid products. Eventually a simplified feedback loop should be embedded in the commodity management system currently used for procurement and distribution of US food aid commodities in emergency and non-emergency settings.

#### I. Introduction

The United States Government, under the mandate of the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA), has been protecting and monitoring the U.S. food system since the early 1900s. These U.S. Government agencies put regulations in place based on legislation to ensure the U.S. food supply system continues to be one of the safest and most productive in the world. The latest food safety and quality assurance (FSQA) controls are preventive measures enacted through the Food Safety Modernization Act (FSMA) of 2011. This system identifies and prevents non-compliant materials and goods from spreading through the food supply, including the international food aid supply chain. Over the last eight years, FSMA has gradually transformed FDA food safety and quality assurance regulations and practices for farmers, manufacturers and importers by shifting focus from responding to cases of foodborne illness to the prevention of foodborne illness. The system must catch problems before they enter the food supply. And if they do, the system must be able to rapidly identify the issues and provide feedback to key decisionmakers who can trigger immediate product recall and/or other preventive or curative public health measures.

FSMA also applies to the international food aid supply chain. The Food Aid Quality Review (FAQR)<sup>2</sup> team is working with USAID to improve the FSQA Feedback System for all food aid products. This includes timely identification of incidents and provision of information upstream about issues detected after in-country arrival, including from the consumer. A simple and efficient FSQA system is crucial to ensure that USAID delivers high quality, safe, and effective products to consumers/end users, providing positive nutritional gains for recipients while maintaining successful partnerships with food aid suppliers, local governments, Private Voluntary Organizations (PVOs), and other stakeholders. The FAQR team assessed USAID's experience with the existing USAID/FFP FSQA Feedback Loop and Questionnaire for reporting food aid commodity incidents,<sup>3</sup> and compared it with other FSQA feedback loops<sup>4</sup> that might be relevant to food aid. The systems were reviewed to identify best practices and to see if one

<sup>&</sup>lt;sup>2</sup> To maximize impact and cost effectiveness in food aid efforts, the United States Agency for International Development (USAID) commissioned Tufts University to review of the nutritional quality of U.S. food aid products. The Food Aid Quality Review (FAQR) Project provided recommendations on improved product formulations and specifications; product programming; and the processes of the food aid supply chain, from production and procurement through delivery (FAQR, *Improving the Nutritional Quality of U.S. Food Aid.*, 2011). As a result, USAID updated or introduced 21 products to the food aid basket during 2011-2015. The FAQR team also analyzed lessons learned and proposed ways to improve the process for introducing and updating U.S. food aid products (FAQR, FAQR Phase II Food Aid Basket Modernization: New & Updated Food Aid Products Rollout Report, 2016), from the U.S.-based portion of the supply chain, (i.e., production and transportation), yet many issues arose upon arrival in the destination country. FAQR is now working on supply chain optimization including improving food safety and quality assurance (FSQA).

<sup>&</sup>lt;sup>3</sup> This report falls under activity C.3.3.5: Food Safety and Quality Assurance Feedback Loop of the FAQR Phase III project and is part of Global Food & Nutrition Inc.'s (GF&N) subcontract with Tufts University Friedman School of Nutrition Science and Policy.

<sup>&</sup>lt;sup>4</sup> This report is one of the deliverables under Global Food & Nutrition Inc.'s (GFN) subcontract with Tufts University Friedman School of Nutrition Science and Policy for FAQR Phase III Project Activity C.3.3.5: Food Safety and Quality Assurance Feedback Loop.

could be applied or adapted to the food aid supply chain or if components from different systems could be integrated to improve and streamline the USAID/FFP Feedback Loop.

This report details the U.S. International Food Aid Supply Chain and use of the current Feedback Loop, followed by the methods and results of a comparison of four relevant Feedback Loop Systems, and concludes with recommendations on how the USAID/FFP FSQA feedback loop could be enhanced to facilitate continuous improvement of products and the supply chain as a whole. A pilot project is recommended to field test a simplified FSQA approach and explore the possibility of developing it into a digital application for phone, tablet, or other handheld device, as part of USAID/FFP's overall food safety improvement efforts.

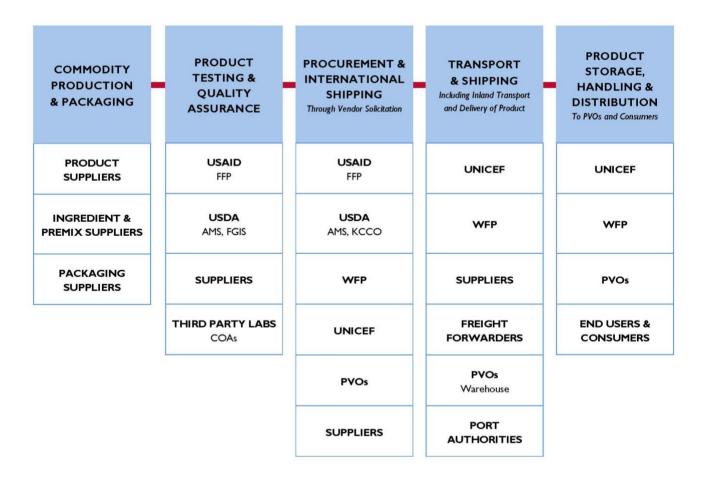
# II. The U.S. International Food Aid Supply Chain

Food aid stakeholders range from manufacturers, suppliers, U.S. Government agencies and departments, to freight forwarders, truckers and shippers, local government authorities, international partner PVOs, their staff and consumers. For a more detailed description of stakeholder involvement in the food aid supply chain, see Annex A. Information on food aid incidents is easily tracked during manufacture and early steps, but as the products move along the supply chain, it is more difficult to obtain feedback on FSQA incidents. As shown in Figure 1, there are five broad steps in the supply chain, with multiple stakeholders at each step.

Conditions within the supply chain often expose food aid products to extreme and harsh circumstances. Settings in which food aid products are stored and handled in-country vary widely. Each stage of the supply chain poses different challenges (see Figure 2). Factors include but are not limited to: prolonged exposure to heat and humidity, extended storage and warehousing times, multiple types of transportation with several onloading and offloading points, insect/rodent exposure, and repackaging in often unsanitary conditions. These factors can increase the risk to consumers for food safety and public health incidents, namely food borne illness.

Food safety and quality issues are particularly difficult to identify post-distribution. Most consumer accounts are self-reported and anecdotal. The issues often go unaddressed, as the incountry system for recording incidents does not adequately communicate to those with the ability to make decisions and address the problems.

Figure I: Broad Food Aid Supply Chain with Corresponding Stakeholders



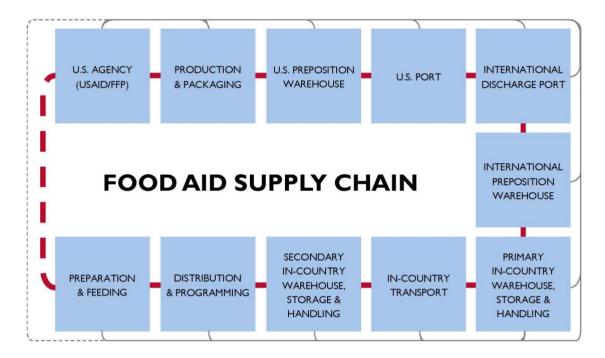


Figure 2: U.S. International Food Aid Supply Chain

# III. Methods for Analysis of FSQA Feedback Systems

The team used qualitative methods to gather information about the components and applications of the USAID/FFP FSQA Feedback Loop and other feedback loop systems. We conducted a desk review to identify current systems and best practices in the FSQA field and promising FSQA feedback systems that could be applied to the food aid supply chain. We held 20 key informant interviews with U.S. agency and partner staff about their experience with the FSQA feedback systems. We identified and analyzed six systems most in line with and relevant to USAID/FFP's needs (see <u>Table I</u>) and conducted in-depth analysis on four.

Table I: FSQA Feedback Systems Analyzed

AGENCY	FSQA FEEDBACK SYSTEM	ANNEX
USAID/FFP	Current FSQA Feedback Loop (POD)	Annex B/C
USAID	Quarterly Web-Interfaced Commodity Reporting System (QWICR)	Annex D <sup>5</sup>
USDA	Web-Based Supply Chain Management <sup>6</sup> Complaint System (WBSCM)	Annex E
FDA	Recall Procedure <sup>7</sup>	Annex F
WFP	Rapid Incident Management & Assessment <sup>8</sup>	Annex G
U.S. Industry	U.S. Commercial Industry Food Incident Procedure	Annex_H

<sup>5</sup> https://www.fsnnetwork.org/commodity-management-toolkit Section B. QWICR Users' Guide 2013

<sup>6</sup> https://www.fns.usda.gov/fdd/how-file-complaint

<sup>7</sup> https://www.fda.gov/downloads/ICECI/ComplianceManuals/RegulatoryProceduresManual/UCM074312.pdf

<sup>8</sup> http://foodqualityandsafety.wfp.org/incident-management

The key informant interviews with officials at U.S. Government agencies and partners who presently use FSQA feedback systems, helped us understand how users' interface with the systems, their ease of use and effectiveness. An interview guide was developed to collect accurate information on the specific system assessed.

The top four reported FSQA incidents were:

- 1. **Damages** to commodities (e.g. products and packaging) detected at the discharge port or primary storage facility. These included water damage, torn and dented packaging which occurred during international transport.
- 2. **Loss of product** detected at the discharge port (e.g., inaccurate quantity/weight of bulk or packaged commodity compared to the amount listed on the Bill of Lading).
- 3. **Infestation** of unopened commodities detected in warehouses. This can occur in any grain product that is not adequately protected by previous fumigation.
- 4. **Organoleptic changes** detected during or after distribution. The affected characteristics include changes in flavor, frequently presenting as bitterness, color change, or "off" odor. This is likely due to prolonged exposure to extreme conditions during product storage and inland transport, and in extended distribution sites. These changes do not pose a health hazard.

The team identified seven categories in consultation with USAID/FFP that should be part of an effective FSQA Feedback System – so as to capture issues and incidents across the supply chain, be useful for trend analysis to identify root causes of incidents/issues and provide resolutions. This framework is provided in <u>Table 2</u>.

Table 2: FSQA Feedback Systems – Seven Pillars of an Effective Feedback Loop System

EASE OF USE	Accessibility and user-friendliness for all stakeholders and users		
TIMELINESS	Amount of time required for information to be submitted into the feedback loop, from the point at which the incident/issue occurs to the time a response is received from the agency (USAID, FDA, WFP) and/or commodity/product suppliers		
DATA TYPE	Collection of relevant information to input in the system and be available to users:  • What, Where, When, Why, and Who?  • Photographs  • Information appropriate for trend analysis and to identify root causes of issues/incidents such as lot or contract number, infestation, bag condition, location, etc.		
DATA STORAGE	Ability of the system to automatically store and archive the data     Data should be easily retrieved as needed by those responsible for the system		
DATA ANALYSIS	Ability of system to combine data, transform it as appropriate and use for trend analysis		
REPORTING THRESHOLD	<ul> <li>Minimum product value required for a firm to report an incident</li> <li>Lowering value increases likelihood of incidents/issues being reported</li> <li>Communicating to those potentially reporting that reporting is required (i.e. include in agreements with PVOs), there is no stigma to reporting, and reporting is encouraged</li> </ul>		
STAFF REQUIREMENTS  Number of staff members needed to ensure resolution of incident/issue  Staff needed to manage data and provide necessary feedback for incident resolution			

# IV. Findings

Six feedback loop systems were analyzed. Four systems had elements making the adaptable to the international food aid supply chain. The benefits and challenges to these systems are outlined below. Two systems which did not seem adaptable to tracking and resolving FSQA incidents in the international food aid products supply chain were eliminated as inappropriate: the <u>FDA Recall Procedure</u> and the <u>U.S. Commercial Industry Food Incident Procedure</u>. These feedback systems do not translate well to extended supply chains which are exposed to extreme conditions with very different causes of incidents than those found in the domestic supply.

# A. The USAID/FFP FSQA Feedback Loop System and Questionnaire

USAID Office of Food for Peace (USAID/FFP) Program Operations Division (POD) currently uses a Food Safety and Quality Feedback Loop Guide and Questionnaire as its FSQA system to identify, track and report food safety and quality-related incidents in the food aid supply chain, such as product infestation, spoilage, or leakage.

The Quality Questionnaire is designed to gather pertinent information from the food aid implementing organization (hereafter referred to as Awardee) so USAID/FFP can identify, analyze, and resolve FSQA incidents. The questions aim to classify the severity and scale of the FSQA issue (e.g. diarrhea post consumption of Product X among 50 beneficiaries from a certain distribution site, bitter taste as reported by consumers), collect information quickly to contain and address incidents, and identify the source/root cause.

The current FSQA Feedback Loop Guide identifies steps and instructions for all involved to follow when an incident is identified (see Annex B for complete list of stakeholders and a diagram of the simplified Feedback Loop). At the onset of an event, the Awardee field staff completes the Food Aid Commodity Quality Report Questionnaire to describe the incident/issue and notify USAID (see Annex C for the complete Questionnaire). The Questionnaire is lengthy, and the feedback process can take 70-90 days for a complete resolution.<sup>10</sup> It should be noted that each incident is different, and the steps to resolve it vary from case to case.

The **USAID/FFP FSQA Feedback Loop**, with the accompanying Quality Questionnaire as the source for input, is a complicated, tedious process involving many stakeholders. It does not provide real-time feedback. It does not result in continuous improvement in the supply chain and/or food aid products because there is little data aggregation. Data are not stored systematically and are not easily retrieved. The system is used infrequently, making it difficult to estimate the nature and frequency of actual occurrences; often they are not recorded or resolved. FFP staff estimate that they are informed about and respond to approximately ten

<sup>10</sup> The timeline is based on an average scenario <a href="https://www.fsnnetwork.org/commodity-management-toolkit">https://www.fsnnetwork.org/commodity-management-toolkit</a> Section B. Internal Losses (B.I.I)

<sup>&</sup>lt;sup>9</sup> https://www.fsnnetwork.org/commodity-management-toolkit Section B. Internal Losses (B.I.I)

incidents per year out of the 3.1 million metric tons of food distributed annually. While FSQA incidents and issues are expected to be rare based on the safety regulations in place, ten reports are likely a gross underestimate.

Reported incidents are resolved through email communication or phone calls as warranted. This does not allow for generation of institutional memory of incidents and resolutions, or for trend analysis of the root causes of incidents. There is no requirement of the Awardee to complete questionnaires and incidents/questionnaires are not archived or saved systematically. Generally, the feedback loop gives stakeholders an idea of who should be involved in resolving an incident. The Questionnaire helps narrow the focus to when, where and why an incident might have occurred. With its existing Questionnaire, the current FSQA Feedback Loop is underutilized, does not provide feedback in a timely manner or allow for feedback to suppliers, nor does it have the ability to identify trends. See Table 3 for a detailed analysis of the USAID/FFP Feedback System.

Table 3: Analysis of USAID/FFP Feedback Loop System and Questionnaire

EASE OF USE: POOR	<ul> <li>31-question Quality Questionnaire is lengthy, complicated, time consuming (specifically during time- sensitive incidents), vague, unclear, and therefore unhelpful for gathering information regarding incidents/issues.</li> </ul>
	<ul> <li>Includes multiple questions in various sections that do not aid in the identification of food safety or quality assurance incidents/issues.</li> </ul>
	<ul> <li>Requires information to be filled out which is not pertinent or well understood; leads to incomplete questionnaires.</li> </ul>
TIMELINESS:	<ul> <li>Lengthy process, with a 30 to 90+ day timeline</li> </ul>
POOR	<ul> <li>Many incidents go unreported. Actual timeliness of the system is unknown because it is not being used to report incidents consistently.</li> </ul>
	<ul> <li>Lack of clarity about who is responsible for reporting incidents, managing the system, and reporting resolution.</li> </ul>
	<ul> <li>No automated procedure and no consistency regarding what needs to be done to resolve an issue; there is no flow chart or check list of steps to be taken to resolve an issue once it is defined; emails are forwarded from stakeholder to stakeholder to relay information and find actionable authority, there is not a clear reporting workflow.</li> </ul>
DATA TYPE:	Quality Questionnaire and email communications collect monetary and food-loss data.

CURSORY	<ul> <li>System attempts to capture photographs, lot numbers, and other information useful for tracking and identifying products to resolve the issue.</li> </ul>
	<ul> <li>Data not captured in easily accessible or consistent format.</li> <li>Data are not automatically entered – they have to be entered manually, which does not consistently or completely happen.</li> <li>Questionnaire data has to be transferred into a report to be passed back through the system as part of the feedback loop</li> </ul>
DATA STORAGE:	Data not automatically stored.
POOR	<ul> <li>Requires information from Questionnaire or email communication to be entered into a spreadsheet for data tracking.</li> </ul>
	<ul> <li>Data entry and storage are not often completed because questionnaires are incomplete; issues are addressed and resolved personally through phone and email communication; there is no database or system into which the data are to be entered; no one person is responsible for the process.</li> </ul>
DATA ANALYSIS:	<ul> <li>No Questionnaire has been filled out with enough detail</li> </ul>
POOR	for FFP to identify the cause or determine how to address the root cause without further investigation and
	communication.
	<ul> <li>Because there is no database built of reported incidents, the system as currently used does not allow for data aggregation or analysis and identification of trends in complaints or incidents/issues.</li> </ul>
	<ul> <li>The procedure of entering data into a spreadsheet is not followed consistently, making it difficult to know what happened previously to inform current decision-making or to identify long term root causes of issues.</li> <li>Data are collected in ways that make it hard to aggregate, i.e.,</li> </ul>
	reporters do not fill out the data consistently or completely.
STAFF	The system is the responsibility of many different staff
REQUIREMENT:	members without clear definition of workflow.
UNKNOWN	<ul> <li>Number of team members required to fully implement the system is not known since the system has not been fully optimized.</li> </ul>
REPORTING THRESHOLD:	The feedback loop and Questionnaire Guide include a step to complete the Quality Questionnaire when \$500
\$500	<ul> <li>or more of damage or loss of commodities is detected.</li> <li>Smaller scale (below \$499) FSQA incidents do not require use of the system; although they can be voluntarily reported they are seldom reported, if at all.</li> </ul>

# **B.** Other FSQA Feedback Systems

Table 4 compares the four analyzed systems on the key factors identified for effective FSQA feedback systems which could be adapted to the international food aid context.

Table 4: Comparison of FSQA Feedback System Features

	USAID/FFP FEEDBACK SYSTEM	USAID QWICR	USDA WBSCM	WFP FEEDBACK LOOP
EASY TO USE	×	<b>~</b>	<b>~</b>	×
TIMELY	×	<b>~</b>	<b>~</b>	?
FSQA INCIDENTS	×	×	<b>~</b>	<b>~</b>
MONETARY LOSSES	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>
PHOTOS	<b>~</b>	×	<b>~</b>	<b>~</b>
DATA STORAGE	×	<b>~</b>	<b>~</b>	?
DATA ANALYSIS	×	×	<b>~</b>	×
DEDICATED STAFF	×	×	<b>~</b>	<b>~</b>
REPORTING THRESHOLD	\$500	\$500	<b>\$0</b>	\$10,000

The USAID QWICR (Quarterly Web Interface Commodity Reporting) system tracks claims of losses and payments over the course of a fiscal quarter. This system was not designed to track food safety and quality issues. Even though the system allows for the tracking of such incidents, it is seldom used and does not collect useful data for incident resolution or cause analysis. The system does not allow for data aggregation or real-time reporting, as data are reported quarterly. While this system is already in use by FFP to track gross commodity losses and pipeline status, it does not allow suppliers to be incorporated into the feedback loop; communication is strictly between FFP and PVOs. WFP is a large recipient of USAID food aid and is not required to submit any report of losses through QWICR. This leads to a large portion of food safety and quality incidents or issues not subject to being reported.

USDA's **WBSCM** (**Web Based Supply Chain Management**) system is a fully integrated, web-based system which is already in use for U.S. Government food aid product procurement. It accounts for products, lot numbers, and other relevant information to be selected from a drop-down menu during data entry, in contrast to some of the more open-ended questions that make up the FFP Questionnaire. USDA already uses WBSCM and its complaint module for food safety and quality incident/issue reporting for all domestic food aid programs (i.e., the

USDA Food and Nutrition Service School Meals, Temporary Emergency Assistance and other safety net programs that purchase food). It has been successful in gathering data to accurately identify the causes of food safety and quality assurance issues. USDA has a collaborative customer focus to its procurement system and supply chain management; meaning complaints are welcomed and encouraged. The complaint module is not currently used in international procurements, but it could potentially be implemented in the international food aid supply chain. A limitation is that obtaining access to WBSCM is difficult for a PVO, supplier or other third parties unless it is already being used as part of their food aid program. Interviews with the WBSCM Complaints System Manager and other stakeholders identified that user training at the outset is critical to its success. Continued advocacy with stakeholders and users of the system (i.e., food bank managers, school nutrition directors, distribution center managers), training of customers (e.g., USDA/Food and Nutrition Service (FNS) staff, school food purchasers, food bank program staff) and contact with suppliers and vendors to resolve issues have been critical to ensuring FSQA and improving the system in USDA domestic food aid programs.

The WFP Food Safety & Quality Feedback Loop and Questionnaire is an effective means to monitor incidents when the loss is greater than \$10,000, with a questionnaire that requires immediate involvement in identifying and assessing incidents. WFP currently allocates 25 staff members specifically to this system. The systems are costly and does not provide real-time feedback. Data are not aggregated, and the system is underused because reporting is not required and potentially problematic because of negative perceptions associated with losses.

#### C. Discussion

The questionnaire associated with a FSQA Feedback Loop System is the core of the system; it must be simple and easy to use in order to be employed consistently and effectively. Key informants all identified the need for a database of incidents and how they were resolved, not only to catalogue what happens and create institutional memory, but also to inform future decision making. They also emphasized the need for a succinct "rapid assessment" tool which could be used immediately after discovering an incident to report crucial information back to decision makers with clear responsibility for incident resolution. Due to the time-sensitive nature of some commodity incidents, they supported the creation of a decision tree or flow chart tool clearly identifying actions PVOs and others should take, and in what order, in response to different FSQA incidents.

The WBSCM Complaints System is the most promising of the four with respect to the international food aid context. It is already embedded in the WBSCM system for international food aid procurements. It is not utilized at this time, but it could easily be adapted and implemented. It generates real-time feedback including the use of barcoding from vendors in the U.S., storage facilities, transporters, and all stakeholders along the supply chain, as long as they have access to the system.

The WBSCM system allows for photographs to be uploaded and information to be shared with all authorized members involved in the specific product supply chain. WBSCM saves all complaint information in the system (this is easier to track than a chain of emails), and complaints are identified by trends such as product, supplier, and complaint type. Data by trend or other breakdowns can be downloaded in spreadsheet format and analyzed. All data are automatically saved in the WBSCM system, creating institutional memory for incidents and resolutions.

Rapid advancements in technology make it possible to capture data and track FSQA incidents that may occur at any point along the supply chain. The use of applications on mobile phones, tablets, and other devices capable of collecting and organizing data in real time throughout the supply chain allows for immediate feedback to identify and rapidly correct food quality deficiencies. It provides data to isolate root causes through trend and data analytics, while building a minable database for long term quality improvement.

#### V. Recommendations for USAID/FFP

The recommended FSQA system is based on timely communication, ensuring that USAID has all pertinent information to take action quickly and effectively. This will allow for continuous improvement of products in all segments of the supply chain as well as ensuring a safe food aid supply. The recommended database is designed to track incidents, provide institutional memory, and identify trends anywhere along the supply chain. The data will be entered automatically into the database as it is uploaded through software. By using a system that allows for consistent reporting and prompt resolution, the information gathered will help streamline the food assistance feedback process. Table 5 shows the six factors identified in the analysis which inform our recommendation for an updated FSQA Feedback Loop.

Table 5: Components of Proposed FSQA Feedback Loop

Category	Description of FSQA System Component
TYPE OF TOOL	<ul> <li>Multiplatform questionnaire (printed, online, and app forms)</li> </ul>
	· Transfer of information using tool, module, or instrument
	· Simple, streamlined, and user-friendly
EASE OF USE	<ul> <li>Easy to complete incident reports with short questions and ability to provide additional commentary when necessary</li> </ul>
	<ul> <li>Ability to upload relevant information (in-house reporting documents, photos, etc.)</li> </ul>
TIMELINESS	<ul> <li>Incidents and/or issues reported quickly after occurrence</li> <li>Instant notifications when issue or incident reported</li> <li>Able to have information flow quickly throughout supply chain</li> </ul>
DATA TYPE	<ul> <li>Monetary and food loss data</li> <li>Photographs</li> <li>Lot numbers</li> <li>Volume of affected product</li> <li>Other information critical for tracking and identifying products to resolve the issue</li> </ul>
DATA STORAGE, RETRIEVAL AND ANALYSIS	<ul> <li>Data collected, stored automatically, and disseminated easily</li> <li>Trend analysis to identify root causes and complete corrective actions</li> <li>Database of FSQA incidents/issues automatically populated with data fields filled out using online form</li> <li>Incidents/issues reported using PDF version of form and sent through email must be entered into Google Form by FFP team member</li> </ul>
REPORTING THRESHOLD	<ul> <li>Little to no reporting threshold</li> <li>Lowering value increases likelihood of incidents/issues being reported</li> </ul>
STAFF REQUIREMENT	<ul> <li>At least one dedicated staff member to fully implement system, manage data, and provide necessary feedback for incident resolution (FSQA may be included among other responsibilities)</li> </ul>

**Multiplatform Tool** We propose the use of Google Forms as the platform for a reporting module that can eventually be adapted into a mobile application for use with cell phones and tablets. It should also be available as a printable PDF that can be emailed, faxed, or submitted by mail, making it available to those in the field with unstable internet connection.

**Staffing Requirements** With the availability of an online questionnaire, or mobile application it should be possible to create a simple system that can be managed easily by one-point person at the USAID/FFP office in Washington, D.C. This staff member would not need to dedicate all of his/her time to the system—it would only require a percentage of their time after rollout and scaleup. Responsibilities would include monitoring the database for new entries, contacting key decision makers following a developed protocol for responding to incidents, and also producing periodic summary reports based on the aggregated data and perceive trends. The responsible person could also use the growing database to improve response protocols and timeliness.

**Questionnaire** A major change is proposed to the Quality Questionnaire. The updated questionnaire, called the Food Aid Incident & Quality Questionnaire (FIQQ), is a form that can be filled out easily on any computer, cellphone, tablet, or hard-copy print-out. We have designed a prototype that requests only essential information, based on interviews and feedback from key informants, to identify the cause of issues. This includes: product lot code, product packaging, photographs, product losses, incident type, and point of contact. A mockup is available <a href="here">here</a>. The updated complaint questionnaire can be posted to the USAID/FFP website, so it is available to anyone who needs to report an incident.

Advocacy and Training These are key elements to starting and promoting the use of the new feedback loop system. Stakeholder interviews revealed that adoption of the WBSCM system, after a few months of advocating for the system with customers and vendors, has been widespread and increasing. The system yielded great results, with the ability to identify the cause of any food safety and quality issue. This allows for improved products, packaging, transportation and storage practices, and any other issue related to food safety and quality for the domestic product. The Food Aid Consultative Group (FACG), the USAID/FFP website, and other communication channels could be leveraged for sensitization prior to launch and could include training modules on how to use the new FSQA system.

Leverage and Improve Current System and Resources The recommended FSQA Feedback Loop and tools (FIQQ and database) leverages already-existing communication channels to document, report, resolve and track trends in food safety and quality issues and incidents. It streamlines the capture of the data and feedback to decision makers who can resolve the issues, while requiring minimal staff to run the system. One tool that should be created is a flowchart or decision tree based on the common types of incidents and the steps that are needed to resolve each one. The system should have a zero-dollar value threshold so it can be triggered by a large or small event to capture and collect different types of data in real-time.

<sup>·</sup> 

https://docs.google.com/forms/d/e/IFAIpQLSdIgnMPutlI9OSS84NShnL4kI4I29gXXn3UkWQuLBrBygqHRA/viewform

# VI. Conclusion

We suggest adapting the current WBSCM system because it is an easy to use, effective feedback system which is already in place. It produces and stores retrievable data to allow USAID/FFP and its food aid partners to analyze incidents and prioritize potential solutions. This will help decisionmakers determine where to invest time and money for product research and development, leading to improved, safer products delivered more cost-effectively. We make the following recommendations to FFP:

- Adopt a new streamlined FSQA feedback loop and reporting threshold of zero dollars.
- Implement simple data collection and storage tools—a Questionnaire of approximately ten questions, allowing data collection and database creation on a cloud-based platform for real-time entry and feedback.
- Incorporate monitoring and reporting incidents in the responsibilities of one USAID/FFP staff member who can interface with the key decisionmakers for speedy resolution of issues.
- Identify staff to "champion" the system and include a requirement in the Awardee guidelines and agreements to use the system for any incident, loss or issue (no dollar value threshold) without penalty. Engage all appropriate levels of USAID/FFP and their partners in this effort.

The proposed Feedback Loop is made up of modules built on the industry's easiest-to-use interface. It streamlines the data collection and reporting process. Identification, confirmation, reporting, investigation, tracking, and remediation are easier from a single multiplatform dashboard — regardless of whether you are a supplier or an international consumer.

FAQR proposes that USAID pilot test the feasibility of the approach with PVO implementing partners and FFP at key points along the supply chain such as secondary warehouses, extended distribution points, and the community where the recipients are living. If successful, USAID should determine how to scale rapidly. Below is an outline of the pilot steps. FAQR has completed Steps I and 2 below, laying the groundwork for a pilot test of the tools.

# VII. Next Steps

The pilot test will allow USAID/FFP to determine whether the simplified Feedback Loop System and Questionnaire is a viable option for gathering FSQA incidents in real time. If this system is implemented and used as intended, it could have a significant impact on the way that food safety and quality issues in international food aid are currently handled. The system will engage key individuals such as storehouse managers, food aid monitors, community volunteers to identify FSQA issues at any point in the supply chain. It will facilitate reporting in a speedier and more efficient manner throughout the supply chain, improve traceability, provide photo evidence, be easy to use, and ensure faster and more efficient reporting and resolution.

- **Step 1:** As a first step FAQR has designed a streamlined Food Aid Incident and Quality Questionnaire (FIQQ)<sup>12</sup>, as a prototype for FSQA data collection to identify and collect accurate data on incidents and issues in a multiplatform system (see Annex for Questionnaire and database).
- **Step 2:** FAQR also developed a Feedback Spreadsheet to gather the information collected and build a database to establish institutional memory of food aid incidents. This will allow USAID/FFP to identify trends and areas responsible for most incidents and to accurately report incidents to food suppliers and other stakeholders so they can take the appropriate corrective action.
- **Step 3:** Review the FIQQ and data collection tools with key informants at critical points of the supply chain to confirm its ease of use and ability to capture relevant and accurate information about food aid incidents.
- **Step 4:** Develop a decision tree or flow chart with the steps and responsible decision makers for resolving the top five FSQA incidents/issues. Pilot test the simplified FSQA system using the FIQQ to collect the data and improve where necessary. This pilot test could focus on following one shipment of a specialized food aid product through the supply chain or deploy the tool more broadly to critical points along the supply chain to see what incidents are captured with the improved tool.
- **Step 5:** Review the quality and relevance of information collected via the new feedback system in the pilot and develop a method to implement and scale up the system. This includes technologies to expand its use, such as hosting an online version of the Quality Questionnaire on the USAID/FFP website and exploring the ability for the Form to be translated into a mobile app suitable for handheld devices.

<sup>12</sup> 

#### VIII. Annexes

#### Annex A:

# **United States Government Food Aid Supply Chain Components and Stakeholders**

#### I. Production

The production process relies on commercial manufacturers who are registered with the U.S. Government as vendors to supply approved products. While specifications serve the same purpose for food aid products as they do for commercial ones, the demand for food aid products differs. U.S. Government purchase contracts are intermittent, commodity amounts per contract are lower, and specifications are externally derived by food aid stakeholders. Different types of adjustments in the production process are required for food aid product production and scaling up to full capacity. For example, plants may be required to have special certifications so products and plant facilities can meet more extreme food safety and quality requirements. Additionally, shelf life and packaging requirements for food aid products are more stringent and shipping deadlines are stricter.

#### II. Product Testing and Quality Assurance

Product testing and quality assurance processes serve to ensure that products meet the requirements of the specifications at the time of production and throughout the products' shelf life. The results of these tests provide feedback for both the specification development and production steps. Suppliers test their own products and also provide third-party testing results on sourced ingredients, as required by the buyer. The USDA Federal Grain Inspection Service (FGIS) makes available third-party testing results for grains and cereal blends, including fortified blended foods (FBFs), and the USDA Agricultural Marketing Service (AMS) provides third-party testing for Ready-to-Use Food (RUF) products.

#### III. Procurement

Procurement is the purview of the USDA Kansas City Commodity Office (KCCO), which purchases all the food aid commodities and products for the USAID and USDA food assistance programs. The process includes the following the steps:

- I. A Private Voluntary Organization (PVO) implementing partner, responsible for implementing an FFP activity, is approved to request commodities for a specific period.
- 2. Awardees/partners enter their request(s) (call forwards) in the Web-Based Supply Chain Management (WBSCM) System as sales order(s).
- 3. FFP/Program Operations Division (POD) reviews, approves and routes sales order(s) to USDA/Farm Service Agency (FSA)/Washington, D.C.
- 4. USDA/FSA/Washington, D.C. reviews, approves and routes sales order(s) to USDA/FSA/KCCO.

- 5. USDA/FSA/KCCO issues a solicitation for the commodity based on approved sales order(s).
- 6. USDA/KCCO issues a companion solicitation for registered freight forwarders in regard to shipping the commodity.

USDA/KCCO procures the requested commodities according to Federal Acquisition Regulations (FAR) by issuing a tender to commodity suppliers and processors. All food aid commodities are purchased on the open market by this method. Prospective bidders submit offers electronically through WBSCM. Bids are selected based on the lowest price offer that meets product specifications and other terms of the solicitation. Shipping tenders follow a parallel process. All commodity bids must have a companion shipping bid, or the commodity bid will not be eligible for purchase. The product specification (commodity requirements document—CRD) production and shipping dates are included in the tenders and the awards.

# 4. Shipping and Delivery

Once the shipping tender has been awarded, the PVO implementing partner arranges with its freight forwarder (who is already registered with the U.S. Government) for the cargo to be picked up at a scheduled time (as specified in the tenders) from the manufacturer's plant for transportation to a U.S. port (or a loading port if already prepositioned) and finally shipped to the recipient country. On arrival, the shipment clears country customs and sometimes is required to pass additional local food safety and phytosanitary requirements. Finally, the implementing partner takes possession of the goods and transfers them to its warehouse. For landlocked countries, cargo is delivered to nearby ports and then transported inland to the country of final destination.

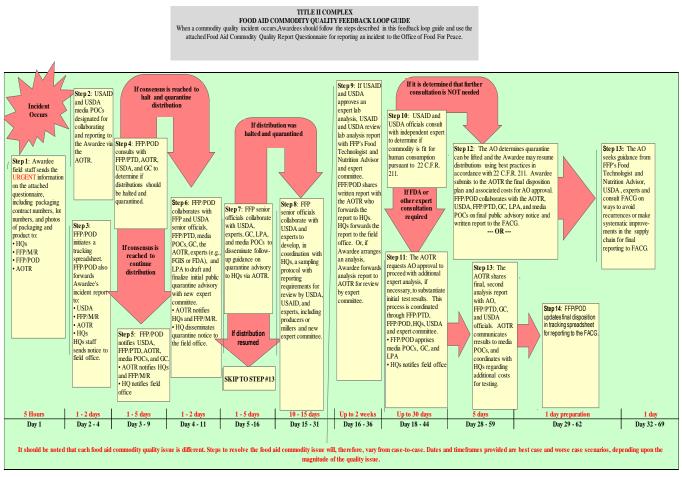
#### 5. Storage, Handling, and Distribution

Implementing partners take possession of the commodity at the delivery port and are responsible for storage, handling and delivery of food aid commodities to the recipient consumers— "to the last mile." Stakeholders in this phase include:

- In-country officials—those involved in customs, local standards and testing;
- PVO program implementers and logistics staff, such as warehouse staff and truck drivers; and
- **Beneficiaries**—the consumers and final end users of food aid products.

End user issues for implementing partners or beneficiaries, such as in-country product spoilage, deterioration, or infestation during storage, handling, and delivery can result in feedback affecting any previous phases of the supply chain.

Annex B:
United States Agency for International Development Food for Peace Title II
Complete Food Aid Commodity Quality Feedback Loop Guide



When reporting commodity quality concerns, please describe the concern by completing and submitting the attached Food Aid Commodity Quality Report Questionnaire.

#### LEGEND:

AOTR - The Agreement Officer Technical Representative for the Office of Food for Peace

AO - The Office of Food for Peace Agreement Officer

 $FFP/M/R - Designated\ Office\ of\ Food\ for\ Peace\ staff\ in\ the\ Mission\ or\ Embassy\ and/or\ Regional\ Office\ for\ non-presence\ countries$ 

FFP/POD - The Office of Food for Peace/Program Operations Division in Washington, D.C.

 $FFP/PTD - The\ Office\ of\ Food\ for\ Peace/Policy\ and\ Technical\ Division\ in\ Washington, D.C.$ 

HQs - The Awardee's Headquarters Office

POC - Point of Contact

GC - The U.S. Agency for International Development's (USAID) Office of General Counsel

DOCID:commodity quality feedback loopfinalSept202010V5.xls

LPA - USAID's Bureau for Legislative and Public Affairs

FACG - The Food Aid Consultative Group

FDA - The U.S. Food and Drug Administration

POCs in U.S. Department of Agriculture's Offices in Washington, D.C. and Kansas City, Missouri:

FGIS - The Federal Grain Inspection Service

 $FSA/DACO-The\ Farm\ Service\ Agency's\ (FSA), Deputy\ Administrator\ for\ Commodity\ Operations/Kansas\ City\ (816-926-6325)$ 

FSA/COD - FSA's Commodity Operations Division/Washington, D.C. (202-720-7398)

#### **Annex C:**

United States Agency for International Development Food for Peace Title II Food Aid Commodity Quality Report Questionnaire

# **USAID/FFP Food Aid Commodity Quality Report Questionnaire Section:**

1. **Urgent Information**: identified issue with commodity, adverse health event following consumption, safety or health risks concerns, distribution status.

# Food Aid Commodity Quality Report Questionnaire

PURPOSE. Under the authority of the Food for Peace Act of 2008, as amended, the purpose of the food aid commodity quality feedback loop is to document and report potential commodity quality issues, or as necessary, associated packaging quality issues for Title II programs after receipt of food aid commodities overseas by Awardees. The information reported herein does not necessarily indicate a problem with the food aid commodity or packaging, but does indicate a potential problem may exist which either requires future monitoring and/or a response. This form should be completed and submitted by Awardee field offices. Awardee field office should submit the report via e-mail to the Awardee's Headquarters and FFP's AOR, and where applicable, FFP/M/R and USDA/AgAttache. Spreadsheet cells contained in this questionnaire can be expanded for lengthy responses.

#### URGENT!! URGENT!!

INSTRUCTIONS: Please fill out the section in red below and return immediately to the AOR in FFPW to ensure appropriate steps are taken to ensure quality and safety.

- What issue has been identified with the commodity?
  - a. Packaging (also advise the contract number on packaging and purchase order number with digital photos of packaging and product).
  - b. Appearance of commodity
  - c. Adverse health event following consumption (describe type of adverse reaction and approximate of number affected)
  - d. If safety or health risks are of concern, describe whether hospitalization has occurred and results, if applicable?
  - e. Other (describe):
- Has the food aid commodity been distributed? YES or NO
  - a. If yes, to approximately how many beneficiaries in what geographic location of the country?
  - b. If yes, have you halted distribution?

# **USAID/FFP** Food Aid Commodity Quality Report Questionnaire Section:

2. **General Information**: awardee contact information, food aid program and commodity/supplier information, vessel/land transportation dates and other information, storage conditions, and amount of time in vessel/land transportation, gathered from bill of lading and other procurement documents procurement.

	General Information
3	Date form is completed (mm/dd/yyyy):
4	Type of food aid program (example: Title II, or USDA programs, i.e., Food For Progress, McGovern-Dole, etc.):
5	Host country:
6	Contact information of Awardee:
	a. Awardee Name:
	b. Point of contact:
	c. Telephone number:
	d. Fax number:
	e. Email:
7	Food aid commodity:
8	VEPE and/or Purchase Order Number#:
9	Additional numbers/codes printed on the packaging:
10	Best If Used By Date, if available (mm/dd/yyyy):
11	WBSCM commodity request #:
12	Date of arrival in country:
13	Name of discharge vessel and date (mm/dd/yyyy):
14	Did discharge survey document any findings or anomalies?
	a. If so, describe the findings. If available, please provide survey documents immediately.
15	Estimated metric tonnage affected:
16	Food aid commodity shipment size (in metric tonnage):
17	Amount of shipment already distributed (in metric tonnage):
18	When problem was identified, who was in possession of the commodity (e.g., Awardee, beneficiary, transportation company, etc.)?
	a. If the problem was identified by the beneficiaries, how many were affected?
	b. If food aid distribution was halted or food aid commodity was recalled, what message was provided to beneficiaries?
19	Who is currently in possession of the affected food aid commodity?
20	Where is the affected food aid commodity located (city, country)?
	a. What are the affected food aid commodity's current storage conditions?
	b. If food aid commodities were destroyed by beneficiaries, how much was destroyed (in metric tonnage)?
	c. If food aid commodities were destroyed by host country government, how much was destroyed (in metric tonnage)?
	d. If food aid commodities were recalled to the warehouse, how much was recalled (in metric tonnage)?

# **USAID/FFP Food Aid Commodity Quality Report Questionnaire Section:**

3. **Detailed Description of Food Aid Commodity**: beneficiary comments, number of beneficiaries affected, pre- and post-cooking assessment of color, taste, texture, odor, spoilage, mold, temperature upon opening packaging, and infestation status, gathered from discussion with beneficiaries and product samples.

21	Total time from date of departure from the US (Bill of Lading date) to reporting date:				
	a. Amount of time on vessel (in weeks):				
	b. Date of arrival at destination Port (mm/dd/yyyy):				
	i. Amount of time in container (in weeks):				
	ii. Ammount of time in a warehouse (in weeks):				
	c. Amount of time in transit (	,			
	d. Amount of time in central	. ,			
	e. Amount of time at extende		'		
22	How were the storage con	iditions in each loca	tion (i.e., dry, cool, wet, hot, etc.):		
	a. Port:				
	b. Transit:				
	c. Central warehouse:				
	d. Extended delivery points:				
		Desc	cription of affected food aid commodity		
Plea	ase mark all that apply with an	ı "X". In the right-hand	column below, provide a brief description of the problem. If discoloration occurred, note		
colo	r and shade and any variable	s affecting color. If ode	or, note any specifics or comparisons. If unexpected texture, please note if clumpy, large		
gran	ules, etc. Please note when	changes were identifie	ed (i.e., upon initial receipt of commodity, after having been stored, after having been cooked		
by b	eneficiaries, etc.)				
23	Description of problem	Check, if YES	Additional description		
			Prior to cooking		
	a. Discoloration				
	b. Unusual texture of				
	product				
	c. Odor				
_	d. Spoilage				
	d. Spoilage				
	d. Spoilage e. Mold				
	d. Spoilage e. Mold f. Unusual heat of product				
	d. Spoilage e. Mold f. Unusual heat of product upon opening bags				
	d. Spoilage e. Mold f. Unusual heat of product upon opening bags g. Insect infestation h. Other		Post cooking		
	d. Spoilage e. Mold f. Unusual heat of product upon opening bags g. Insect infestation h. Other		Post cooking Post cooking		
	d. Spoilage e. Mold f. Unusual heat of product upon opening bags g. Insect infestation h. Other  i. Discoloration j. Unusual texture of produ		Post cooking		
	d. Spoilage e. Mold f. Unusual heat of product upon opening bags g. Insect infestation h. Other		Post cooking Post cooking		

m. Other

# **USAID/FFP** Food Aid Commodity Quality Report Questionnaire Section:

- 4. **Detailed Description of Food Aid Commodity Packaging**: packaging status (wet, stained, torn, leaking, insect infestation, etc.).
- 5. **Miscellaneous:** status and results of local testing commodity, any previous reports filed regarding commodity issue, photos of packaging, commodity pre-and post-cooking, details on outcome (destruction of commodity, used for animal feed, etc.) and destruction costs.

24	Have any other complaints been reported by beneficiaries after consuming the product? Yes or No			
	a. If so, when?			
	b. Can you estimate how many complaints there have been?			
	c. Can you estimate how many beneficiaries have consumed affected product?			
	d. Please describe the problem(s) and include, if possible, how soon after consumption of the product the problem developed and the			
	location(s) of affected bene	eficiaries:		
25	Are there any observ	able problems wit	th the packaging? Yes or No	
		Desc	ription of food aid commodity packaging	
Mar	k all that apply with an "X." I	n the right-hand colum	n below, provide a brief description of the affected packaging. Please note when problems	
wer	e identified (i.e., upon initial	receipt of the food aid o	commodity, after having been stored, after having been cooked by beneficiaries, etc.)	
26	Packaging	Check, if YES	Additional description	
	a. Intact with no			
	discernable problems			
	b. Wet			
	c. Stained			
	d. Torn			
	e. Dented			
	f. Leaking			
	g. Insect infestation			
	h. Other			
27	Has any local testing or	curred? Yes or No		
	a. If so, please note the dat	e, testing agency and fi	ndings. Please attach report if available.	
28	Are there any previous reports filed with regard to the problem? Yes or No			
a. If so, with whom and on what date(s) (mm/dd/yyyy)?			nm/dd/yyyy)?	
29	Please attach pictures of affected food aid commodity to this report. Include pictures of the package, and the commodity before			
23	and after cooking.			
30	If commodity is deemed unfit for human consumption, note date, samples maintained, and manner of destruction, or if deemed			
30	appropriate for other uses (e.g., animal feed).			
31	Please provide FFP/M/R, the AOR, and USDA/FAS (for FAS shipments), and USDA/FSA/DACO and COD offices for Title II			
JI	shipments, with a description of related destruction costs.			

#### **Annex D:**

# Quarterly Web-Interfaced Commodity Reporting (QWICR) System

QWICR is a web-based system used by USAID/FFP to monitor claims, beneficiaries reached, and how commodities are used. FFP cooperating sponsors use the system to submit quarterly commodity reports for claims tracking, processing, and payment. Submitted reports ensure compliance with monitoring, oversight, and accountability requirements under Regulation II of Title II Food Aid, as applied to food aid products and programming. USAID/FFP has a standardized format for submission to QWICR. Submitted reports are archived, but the data are not aggregated, rendering trend analysis very time consuming since the data are not exportable to data management software. The system also documents non-loss issues (packaging, spoilage, etc.) with commodities through the use of Commodity Complaint reports. The Commodity Complaint report is used to report on non-loss issues with commodities, such as packaging problems or discolored commodities. However, this report is optional and is rarely filled out since it is not required. Since reporting is required quarterly, food safety and quality incidents are not being provided in real-time and trends are not easily identified within this system.

#### Annex E:

# Web-Based Supply Chain Management (WBSCM) Complaint System

The Web-Based Supply Chain Management (WBSCM) system is an integrated, web-based commodity acquisition, distribution and tracking system used by USDA, Food and Nutrition Service (FNS), Farm Service Agency (FSA), Agriculture Marketing Service (AMS), and Foreign Agricultural Service (FAS) and USAID, including FFP. WBSCM includes a built-in Complaint System and module.

The Complaint System is a real time, web-based system used successfully for foods purchased and distributed for the domestic food and nutrition programs. Data are stored, aggregated, and used to resolve issues. Once a complaint is submitted by the state agency, vendor, or USDA, the USDA FNS Complaint Specialist receives an email with the information and any attached photos. The Complaint Specialist then responds with recommended corrective actions and/or continues the investigation with continued communication with all involved parties along the supply chain. On the USDA domestic side, one Complaint Specialist addresses approximately 1,000 complaints filed per year through WBSCM, up from 500 in the two (2) years prior. At the onset of using the system or a newly hired Complaint Specialist, and depending on the complexity of complaints, the Complaint Specialist can address approximately 400 complaints per year.

There is place for all stakeholders along the supply chain to submit feedback on food safety and quality issues. USDA reported that the feedback system has been effective, after some work to onboard the system and eliminate system issues. It now allows USDA to obtain real-time feedback, pictures of incidents, complaints by supply chain stage, and identify causes and trends of complaints. The WBSCM Complaint System is not used and has not been used by USAID nor by the Awardees for tracking incidents and complaints with food aid products, although USAID/FFP and Implementing Partners use WBSCM for international food aid product procurement. According to stakeholders, the complaint system is available for USAID but has not been promoted/used, and there are no identified Complaint Specialists at USAID/FFP. This system has many of the features identified by USAID as crucial to an effective feedback system.

#### Annex F:

# **Food and Drug Administration Recall Procedure**

The Food and Drug Administration (FDA) regulatory authority is very broad; FDA oversees 80 percent of foods in the U.S market. Recalls can be conducted through a company's own initiative, FDA request or FDA order. A recall is an instance where the FDA or food company will remove all the affected product from the marketplace for the safety of the consumer. Recalls are classified based on the severity of the situation and the health risk to the public. For example, food companies or firms often call for a voluntary recall to protect consumers and their reputation. Alternatively, the FDA can order a recall. But more frequently FSQA systems that firms are required to have in place identify food safety or quality issues before the FDA does. The FDA orders a recall only when there is a reasonable probability that the product has been adulterated, contaminated, or misbranded and its consumption will cause serious health problems among consumers. Company-conducted food recalls can be based on a range of causes from the reasonable probability that the use or exposure will cause serious health problems, to a situation in which use or exposure is not likely to cause health problems but the product is not up to the company's required quality standards. Once a company has identified any class of incident, it must be reported to FDA within 24 hours.

The FDA recall procedure involves a small number of highly-engaged stakeholders, i.e. individuals at the FDA and the company who collaborate throughout the process to make sure there is a speedy and complete resolution. The FDA oversees the entire process, with feedback from the company. This procedure would not easily adapt to food aid commodity incidents due to the complex nature of the supply chain, different causes of incidents, and the number of stakeholders involved. We are not aware of many issues which required a product recall in the international food aid supply chain.

#### Annex G:

# World Food Programme (WFP) Rapid Incident Management & Assessment Questionnaire Description

The WFP food safety and quality management system operates within the same food aid context (stakeholders, supply chain, types of incidents) as the FFP system. Like FFP, WFP is interested in collecting accurate data to analyze incidents and drive changes to overall production and handling of products.

WFP has prioritized Food Safety and Quality by building up systems and personnel in relevant units. The WFP Food Safety Unit (FSU) is a global team of approximately 25 people. Unit priorities include specifications development, innovation, and research and development. For insurance purposes, a WFP country office must report monetary value of losses over \$10,000. Losses are reported to the WFP Executive Board yearly, yet most are not food safety or quality related (e.g. fire damage or stolen products). This high threshold leads to underreporting and inaccurate data on losses. Additionally, there are many disincentives to reporting (e.g. blame directed at implementing partner organizations for storage and transport conditions, time required to report losses).

When a food safety incident is detected, WFP uses the Food Incident Management (FIM) system which is based on these five (5) principles:

- 1. Initiate Prepare for and prevent incidents.
- 2. Detect Identify incidents and notify appropriate stakeholders.
- 3. Estimate Assess the incident, assign actions, and responsibilities to contain the incident.
- 4. Act Execute, check, restore, and inform stakeholders of ongoing work.
- 5. Learn Review incident to improve prevention and FIM process.

As part of FIM, WFP utilizes a Rapid Incident Assessment Questionnaire. The type of incident reported can be identified using the procedure above. The WFP Food Quality Manager uses the questionnaire data to quickly identify the type of incident. Once shared with the WFP Country Director, in the event of a potential food safety risk or WFP reputation risk, the WFP Country Director sends the questionnaire to the WFP Regional Director, WFP Director of Operations and to the WFP Director of Communication within 24 hours. WFP also utilizes a specific communication strategy in the event of a food safety issue with governments, implementing partners, the media and others. The full questionnaire can be found below. The primary categories of the questionnaire are: General information, product information, traceability and value of the food, origin of food/name of supplier, delivery status, incident information, actions between incident detection and notification, and support requested from WFP headquarters or elsewhere.

The WFP questionnaire's categories are similar to those found in FFP's questionnaire and it is a similarly lengthy tool. Questions on the WFP questionnaire indicates more immediate multi-department WFP involvement. This happens when identifying and assessing incidents and decisions which can be made prior to higher-level WFP involvement, and assessments to contain or address the issues. The FIM questionnaire follows:

#### Rapid Incident Assessment Questionnaire

The present SOP concerns notification, recording & initial identification of food safety and/or food quality issues. The following data should be use by WFP Food Quality Manager for a rapid identification of the type of incident.

In the case of nonconformity with POTENTIAL FOOD SAFETY or WFP'S REPUTATION risks, the WFP Country Director should also send this log to WFP Regional Director, to WFP Director of Operations and to WFP Director of Communication WITHIN 24 HOURS.

In the case of PUBLIC HEALTH INCIDENTS and/or of serious ALLEGATIONS PUBLICLY LAUNCHED by Governments, implementing partners, civil rights groups, or the media, also refer immediately to Standard Operating Procedure 'WFP Communication Strategy in the event of Food Safety Issue'

Date, time of incident		
Place of incident		
Complaint numbers		
Beneficiaries		
Partners		
Authorities		
WFP staff (internal)		
In case of illness, how many people are affected?		
In case of illness, what are the symptoms?		
In case of illness, were the symptoms confirmed by a doctor (local or UN doctor)?	Yes	No
Product type		
SI number		
Lot number (if available)		
Best Before (or expiry date)		
Total quantity of the lot (in MT)		
Traceability of the food:		
Quantity at partners w/h		
Quantity in WFP w/h		
Quantity in transit		

Quantity already consumed			
Estimated value of the food (US\$/MT x total quantity at stake)			
Origin of the food			
Supplier name (if known or printed on packaging)			
Was the product already delivered to beneficiaries			
When was it delivered?			
By whom? (cooperating partner name or WFP)			
To whom? (targeted beneficiaries)			
Default(s), including apparent severity and potential food safety risks:			
(frequent defaults involve insect infestation; adulteral foreign matter contamination; improper composition & defects; low technical functionality; faulty packaging; r with contractual specifications and/or with local fo acceptability and other customer complaints)	nutritiona nislabeling	al value; j, non co	sensorial mpliance
If possible, give your views on the probable cause of $default(s)$ :			
If possible, give your views on the probable stage at which the default occurred in the food supply chain:			
Proposed incident hazard category (Note: the final classification is FQSU responsibility)	Α	В	С
<ul> <li>A= Beneficiary safety,</li> </ul>			
<ul> <li>B = WFP's reputation,</li> </ul>			
<ul> <li>C= Internal incident</li> </ul>			
Decision taken between detection and notification:			
Holding the non conforming product:	Yes		No
Isolating the product (physical separation to avoid mixing, contamination, use or delivery):	Yes		No
Labelling the product(s)/stack "not for use":	Yes		No
Taking samples (according to the specific sampling SOP for this given food product):	Yes		No
Has the CD been informed?	Yes		No
Name			
Has the RD been informed?	Yes		No
Name			

Has the Regional or HQ quality officer been informed?

Name		
Has the Regional procurement officer been informed?	Yes	No
Name		
Has the Regional communication off. been informed?	Yes	No
Name		
Has the Legal officer been informed	Yes	No
Name		
Who else knows outside of WFP?		
Authorities (type & name)		
Media (Press and/or TV and/or radio & name)		
Other third parties (type & name)		
External expert (function & name)		
Is support from RB or HQ required?	Yes	No
If yes, please explain:		
Date of reporting:		
Name of reporting officer:		
Tel number of the reporting officer:		
Email of the reporting officer:		
Signature		

Other remarks (e.g. description of the incident, etc.):

#### **Annex H:**

# **United States Commercial Industry Food Incident Procedure**

Commercial foods in the U.S. are much less likely to face exposure to extreme conditions that cause incidents like those found in the international food aid supply chain. Food safety and quality incidents do occur and companies are responsive to incident reporting in order to protect their customers and to preserve the reputation of the company and the brand.

Most large commercial food companies catalogue and address food incidents from consumers by using a "I-800" number helpline. After an occurrence, the consumer contacts the company, where the call is immediately sorted by product type and the consumer is directed to a company representative. If the consumer reports illness brought on by the product, the representative administers an injury survey to record detailed product information and the consumers symptoms. The food companies act quickly on reported incidents as part of their internal FSQA systems and as required by U.S. Food Safety Regulations.

The representative asks whether the consumer sought medical care, and if so, collects information on that as well. Then the consumer customarily is offered a replacement product and, often, coupons for discounted or free products. The representative directs the information collected to the company quality assurance department and also the claims department (if the consumer would like to make a claim). For other incidents, such as a packaging problem, the representative passes along consumer comments to the quality assurance department and the development team for them to identify issues and develop solutions. As per company policy, commercial companies contacted were not able to talk about incident database management or more specific details, but they do save consumer data on product incidents to track and identify issues and create institutional memory.

The primary benefit to this simple feedback system is the real time, rapid assessment of incidents, for both consumers and companies. Additionally, companies are able to track trends in product issues based on the calls they receive, and all incident information is archived internally. The larger-scale operation for commercial food companies, in both product volume and variety, allows them to absorb the high costs associated with a phone-based incident reporting system (phone operator staff, calling system and equipment, database management, etc.). This system could not be adapted easily to the international food aid supply chain due to the length of the supply chain, staff, and investment requirements in order to implement the system.