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A Review of the USAID/BHA Food Aid Commodity Incident Management Business Process

A Report from the Food Aid Quality Review

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ACRONYMS

AMS	Agricultural Marketing Service (USDA)
BHA	Bureau for Humanitarian Assistance (USAID)
CGMP	Current Good Manufacturing Practice (FSMA)
COA	Certificate of Analysis
CRD	Commodity Requirements Documents
CSB+	Corn Soy Blend Plus
FAQR	Food Aid Quality Review
FDA	Food and Drug Administration (U.S.)
FFP	Office of Food for Peace (USAID) – Legacy office
FFPr	Food for Progress (USDA)
FGIS	Federal Grain Inspection Service (USDA)
FIM	Food Incident Management (WFP)
FIQQ	Food Incident and Quality Questionnaire
FNS	Food and Nutrition Service (USDA)
FSA	Farm Service Agency (USDA)
FSIS	Food Safety and Inspection Service (USDA)
FSMA	Food Safety and Modernization Act (FDA)
FSQ	Food Safety and Quality
FSU	Food Safety Unit (WFP)
FY	Fiscal Year
HACCP	Hazard Analysis Critical Point
IT	Information Technology
L&D	Loss and Damage
LDFSQ	Loss, Damage, Food Safety, and Quality
MGD	McGovern-Dole Food for Education Program (USDA)
OAA	Office of Agreements and Acquisitions (USAID)
POC	Point of Contact
PREPO	Prepositioning Warehouse
PVO	Private Voluntary Organization
RUSF	Ready-to-Use Supplementary Food
RUTF	Ready-to-Use Therapeutic Food
SCM	Supply Chain Management (USAID/BHA)
SNF	Specialized Nutritious Food
U.S.	United States
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
WBSCM	Web-Based Supply Chain Management (USDA)
WFP	World Food Programme

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EXECUTIVE SUMMARY

The United States Agency for International Development (USAID) is working to optimize its humanitarian supply chain for more efficient, on-time delivery of food aid. The Bureau for Humanitarian Assistance (BHA) is realigning staff responsibilities and core capabilities to modernize and support business processes and logistics to deliver food and other supplies seamlessly in humanitarian response and development activities. One component is a long-term, multi-pronged effort to build a commodity tracking system that can trace products from producer to consumer. This will be supported by a data-driven interactive Intelligent Dashboard for United States Government (USG) staff and stakeholders to monitor commodities along the supply chain in real-time and track the status of any incident that occurs.

In 2020, BHA requested the Tufts University-led Food Aid Quality Review (FAQR) project to examine its commodity incident reporting business process to inform a more efficient and effective incident resolution system in the short run, while USAID puts in place longer term end-to-end traceability and visibility solutions. The analysis draws on evidence from 26 incidents reported to BHA from October 2018 to July 2020 and best practices in food incident management from BHA's supply chain partners.

Food assistance commodities range from bulk grains and fortified vegetable oil to packaged pulses, fortified milled grains and blended flours, to specialized nutritious foods (SNF). Each commodity has vulnerabilities across the supply chain. While reported losses are extremely rare, at less than 1 percent for U.S.-sourced food, the public health risks can be high, particularly in vulnerable beneficiaries. Reported incidents may not reflect the full picture across the humanitarian supply chain. Mitigating risk through traceability, data-driven platforms, and food incident management, requires interagency cooperation between USAID/BHA and USDA, the major supplier of U.S.-sourced Title II commodities.

KEY TAKEAWAYS: INSIGHTS AND OPPORTUNITIES

COMPLEMENTARY AGENCY ROLES REQUIRE FORMAL COLLABORATION TO ENSURE EFFECTIVE INCIDENT MANAGEMENT: USAID and USDA represent two distinct parts of the commodity incident process. USAID/BHA's role, as distributor of the commodities to private voluntary organizations (PVOs) and the World Food Programme (WFP) for use in programs, is to identify and report incidents to USDA's Agricultural Marketing Service (AMS), whose role as the buyer is to manage and resolve food commodity loss, damage, food safety, and quality (LDFSQ) complaints. Each agency needs a protocol for its part in the process. Defined roles, responsibilities of staff, and points of contact (POC), as well as protocols for communication flows and feedback between USAID and USDA, are essential to operationalize and sustain an effective process.

TECHNOLOGY ALLOWS CROSS-PLATFORM INFORMATION EXCHANGE AND MODERN DATA-DRIVEN BUSINESS PROCESSES: USAID and USDA are streamlining their business processes into data-driven systems and intelligent dashboards; however, each agency has its own, distinct information technology (IT) platform. Technology is available to read/extract data between their two systems so they can communicate efficiently on supply chain and commodity incident management. With the appropriate security safeguards, cross-platform communication can extend to implementing partner systems.

OPPORTUNITIES EXIST TO LEVERAGE EXISTING SYSTEMS AND PILOT TEST SOLUTIONS:

USAID/BHA can model its food safety and quality (FSQ) incident management system on those in the USG and food industry. USDA's web-based supply chain management (WBSCM) system has an embedded commodity incident management component for domestic programs that could be adapted for USAID/BHA's commodity incident management system. USAID has an opportunity to align business processes with USDA's for a unified approach to complaints reporting and resolution. USDA has the platform and personnel in place to manage domestic complaints, adapt it to BHA needs, and provide training on the system. This can be done now, while longer-term traceability and smart dashboard initiatives come on board. The information generated can be linked with any future IT platform.

PROPOSED USAID/BHA COMMODITY INCIDENT MANAGEMENT SYSTEM

Establish a USAID/BHA LDFSQ Policy, in line with USG food safety policies and consistent with the roles of USAID and USDA in the procurement and distribution/programming of food assistance commodities; harmonize/link with WFP's FSQ policies when possible.

Formalize a Modern USAID/BHA LDFSQ Business Process and align with USDA, based on respective USAID and USDA roles in procurement and distribution/programming of food assistance commodities; interface with WBSCM for complaints management; harmonize/link with implementing partner FSQ systems when possible.

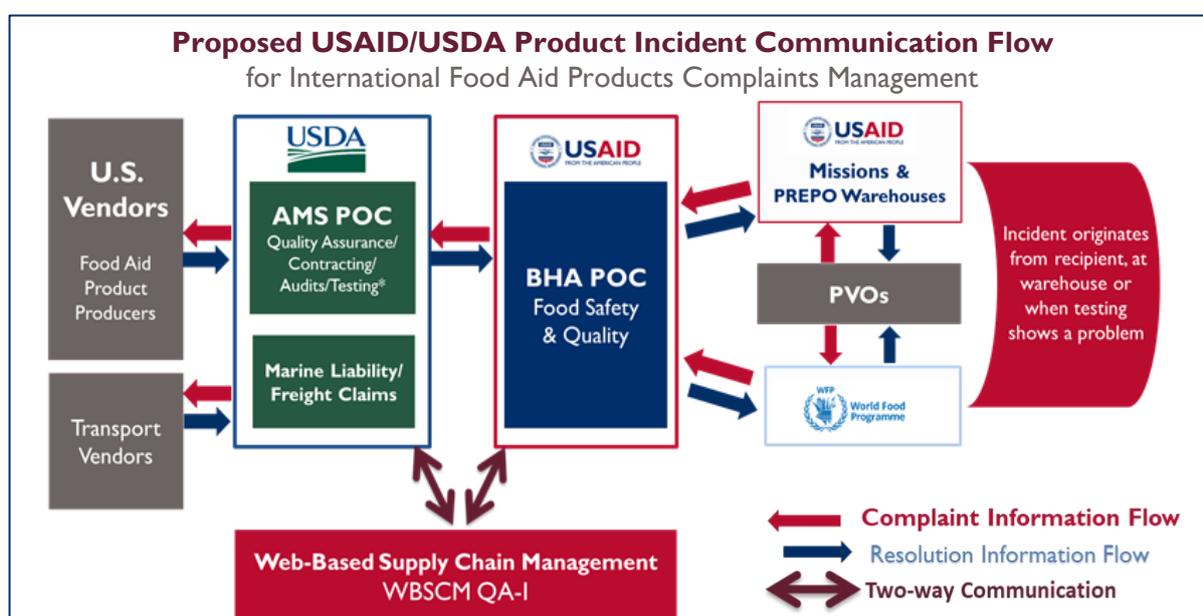
- **Establish a USAID/BHA FSQ incident management working group or task force**, including a food technologist, a supply chain management specialist and others, as appropriate, with a champion to lead the process. Include USDA/AMS food technology, analytics, and commodity procurement specialists with a USDA/AMS champion to lead USDA's part of the process.
- **Define Roles and Responsibilities** of the BHA and USDA/AMS teams handling LDFSQ. Integrate them into job descriptions for USAID and USDA staff, including agency POCs and key personnel for the incident management (reporting and resolution) process at USAID/BHA (including FSQ POCs in the missions) and USDA/AMS. This could be done by the FSQ working group.
- **Formalize Lines of Communication.** Create a direct line for reporting incidents from implementing partners (PVOs and WFP) to USAID/BHA and USDA food technologists and supply chain management POCs assigned to the process. Define a formal communication channel between the USAID/BHA food technology specialist(s) and USDA quality assurance and food safety specialists to address and resolve FSQ issues with U.S. food vendors.

Operationalize USAID/BHA LDFSQ Business Process: Task USAID/BHA FSQ working group to develop a formal Commodity Incident Management System and accompanying standard operating procedure (SOP) for handling USAID incidents that includes the following steps; harmonize with partners when possible.

- Identification:** Deploy a data collection tool to feed incident information into WBSCM; develop a training protocol for stakeholders to identify and report incidents as soon as they occur.
- Reporting:** Upgrade the current (informal) USAID/BHA reporting system and tools, including an electronic documentation system for receipt, recording and monitoring incidents, resolution, and closure. Consider using WBSCM so the BHA POC can report directly into WBSCM to initiate complaints management and resolution process conducted by USDA.
- Investigation:** Investigating incidents involving U.S. manufacturers is the responsibility of the USDA food technology and food safety experts, as assigned to the process. USAID/BHA should

consider working with the USDA/AMS team to request the WBSCM complaints management system be activated for international programs and a complaint manager be assigned to coordinate and manage USAID Title II commodity complaints through WBSCM for easy retrieval by the USAID/USDA team. The USDA complaint manager will manage the investigation with suppliers (food and freight) and ensure corrective actions are taken. All information on status, corrective actions, disposition, and closure would be entered and accessible to POCs.

- d. **Communication:** Establish a communications protocol. Make the system accessible to key personnel involved in incident management at USAID/BHA and USDA. Use WBSCM for two-way communication with the BHA FSQ POC about incident management/resolution to determine liability and to manage the resolution of shipping and transport related incidents (see **Proposed Communication Flow** on following page).
- e. **Feedback:** Establish a formal feedback procedure through USAID and USDA POCs to inform implementing partners and vendors on LDFSQ incident resolution, corrective actions, and closure.



Information Flow for BHA Commodity Incident Management (Reporting, Reporting, Resolution, and Feedback) using WBSCM Platform

1. Commodity incident reported by PVO/WFP to USAID mission FSQ POC, who communicates to USAID/BHA FSQ POC.
2. BHA FSQ POC enters the information directly into WBSCM complaints management system for quality assurance of international procurements (CMS QA-I).
3. WBSCM CMS QA-I alerts AMS and BHA FSQ POCs of FSQ issue and alerts USDA marine liability contracts/transport POC if it is a transportation-related issue.
4. All FSQ complaints go directly to BHA FSQ POC and to USDA FSQ POC via WBSCM alert.
5. USDA/AMS coordinates with vendors to obtain resolution and conduct corrective actions; AMS POC enters information on status into WBSCM CMS QA-I as the incident moves towards resolution.
6. Information is relayed back to USAID/BHA POC regarding resolution process, then back to mission FSQ POC, who relays to implementing partners (WFP and PVOs) information regarding disposition of complaint.

I. INTRODUCTION

The United States Agency for International Development (USAID) is working to optimize its humanitarian supply chain for more efficient, on-time delivery of food aid. The Bureau for Humanitarian Assistance (BHA) is realigning staff responsibilities and core capabilities to modernize and support business processes and logistics to deliver food and other supplies seamlessly in humanitarian response and development activities. One component is a long-term, multi-pronged effort to build a commodity tracking system that can trace products from producer to consumer. This will be supported by a data-driven, interactive Intelligent Dashboard for United States Government (USG) staff and stakeholders to monitor commodities along the supply chain in real-time and track the status of any incident that occurs. These initiatives align with food safety modernization across the food system in the USA.^a

In 2020, BHA requested the Tufts University-led Food Aid Quality Review (FAQR) project to examine its commodity incident reporting business process to inform a more efficient and effective incident resolution system in the short run, while USAID puts in place longer-term, end-to-end traceability and visibility solutions. The USAID/BHA business process review was conducted from May to October 2020. The analysis draws on evidence from 26 incidents reported to BHA from October 2018 to July 2020 and best practices in food incident management from BHA's supply chain partners, including the United States Department of Agriculture (USDA), the World Food Programme (WFP), private voluntary organization (PVO) implementing partners, food industry, and transport vendors.

This report provides findings from the incident review and stakeholder interviews, maps out current and proposed commodity incident systems, and offers recommendations to BHA for a commodity incident management system that could be implemented now, as a step in the continuous improvement process. This report also considers an interagency framework and options for USAID/BHA that align with USDA processes and USG policies to ensure safety and quality and to minimize loss and damage of U.S. food commodities in Title II food assistance, and offers recommendations for a BHA commodity incident management system. In-depth discussion of several agency food complaints processes and detailed recommendations to operationalize a modern, effective commodity management system are provided in the annexes.

^a *FDA New Era of Smarter Food Safety*: <https://www.fda.gov/food/new-era-smarter-food-safety/new-era-smarter-food-safety-blueprint>

2. GOAL, OBJECTIVES, AND METHODS

2.1. GOAL

The goal of this commodity incident reporting business process review is to provide USAID with the evidence they need to improve their business process around timely reporting and resolution of loss, damage, and food safety and quality incidents. Although they are rare, it is important to do due diligence and, especially, do no harm with the foods that are supplied for humanitarian purposes.

2.2. OBJECTIVES

Specific objectives include the review of USAID/BHA's current business process for incidents, identify best practices, and provide recommendations for the short-term, while longer-term, comprehensive traceability and data analytics solutions are developed. A subtask was to provide food safety and quality assurance input to the USAID commodity incident questionnaire, based on an earlier FAQR prototype.^b

2.3. METHODS

The team used a mixed methods approach, reviewing 26 incidents from October 2018 to June 2020 and interviewing 30 of USAID/BHA's supply chain partners and other USG agency staff to gain an understanding of their incident management systems. Methods are described in more detail in [Annex I](#).

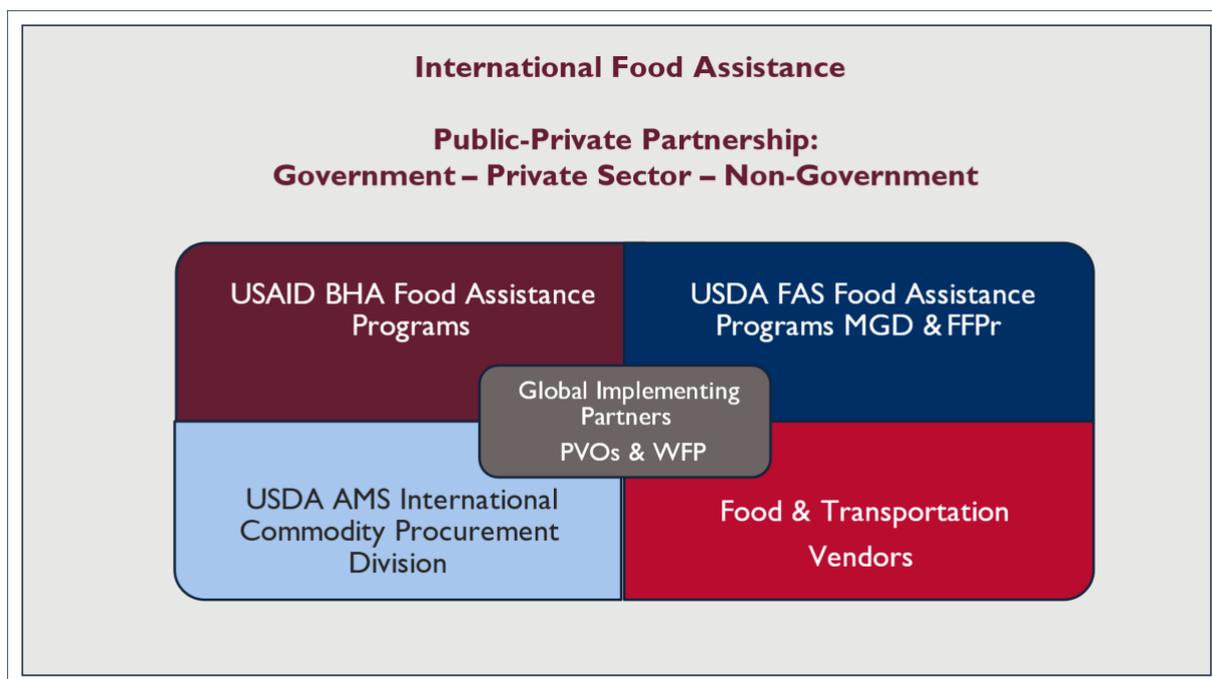
3. EVIDENCE BASE FOR THE BUSINESS PROCESS REVIEW

3.1. CONTEXT

In the United States, we have a robust set of food safety regulations to which U.S. suppliers must adhere including those that supply products for food assistance. Ensuring an efficient and safe food supply involves several agencies and branches of the USG. The Food and Drug Administration (FDA) is the norm-setting and enforcement agency for the overall food supply, ensuring that food safety regulations are met by U.S. food producers. USDA also plays a role in food safety and quality (FSQ) assurance for livestock, dairy, and other animal products. The USDA Federal Grain Inspection Service (FGIS) is responsible for FSQ of grain products, including most food assistance commodities.

^b FAQR USAID Food for Peace Food Safety & Quality Assurance Feedback Loop Analysis: [https://foodaidquality.org/sites/default/files/publications/FAQR Feedback Loop Report USAID_%28Final for FFP%29 3 Jan 2019.pdf](https://foodaidquality.org/sites/default/files/publications/FAQR%20Feedback%20Loop%20Report%20USAID_%28Final%20for%20FFP%29%2031%20Jan%202019.pdf)
FAQR Food Incident & Quality Questionnaire: [https://foodaidquality.org/sites/default/files/publications/USAIDFFP FSQA Feedback loop- A Proposed Questionnaire and Incidents DataBase %28FINAL for FFP%29 31 Jan 2019_updated 5.17.19.pdf](https://foodaidquality.org/sites/default/files/publications/USAIDFFP%20FSQA%20Feedback%20loop-%20A%20Proposed%20Questionnaire%20and%20Incidents%20DataBase%20FINAL%20for%20FFP%29%2031%20Jan%202019_updated%205.17.19.pdf)

Figure I. U.S. International Food Assistance is a Public-Private Partnership



3.1.1. FOOD ASSISTANCE AGENCIES' ROLES

As illustrated in **Figure I**, food assistance is a public-private partnership, with the implementing agencies supported by USG agencies that procure food and transportation from the private sector and distribute the food assistance through non-governmental organization (NGO) implementing partners.

USDA plays a major role as the government’s food broker linking U.S. suppliers to federal food assistance agencies to meet the needs of their food, nutrition, and safety net programs in the United States (domestic) and worldwide (international). In FY 2020, USDA’s Agricultural Marketing Service (AMS) purchased 3.6 million metric tons (MMT) for just over \$8.6 billion from U.S. food suppliers. This was a huge increase due to additional purchases for U.S. schools, communities, families, and food banks in response to COVID-19 and as part of trade mitigation measures. About 1.76 MMT was purchased for BHA Title II international programs and about 62,000 metric tons for USDA Foreign Agriculture Service (FAS) international food assistance programs (see **Box I**).

USDA has a robust complaints system for FSQ loss and damage (L&D) embedded into its web-based supply chain management (WBSCM) system, the platform it uses for food procurement, currently in use for their U.S. domestic purchases.

Food assistance commodities range from bulk grains and fortified vegetable oil to packaged pulses, fortified milled grains and blended flours, to specialized nutritious foods (SNF) for malnourished individuals. Each commodity has its own vulnerabilities across the supply chain. Factors contributing to losses and damages with food safety and quality (LDFSQ) implications include prolonged exposure to heat and humidity, extended storage and warehousing times, multiple types of transportation with several onloading and offloading nodes, insect/rodent exposure, and repackaging. FSQ issues are particularly difficult to identify post-distribution.

BHA recognizes the importance of having in place a robust, nimble, and transparent LDFSQ incident management system, with an efficient business process to identify and resolve incidents and complaints quickly, efficiently, and effectively across the supply chain. Mitigating risk through traceability, data-driven platforms, and food incident management requires a multi-pronged system and the ability to communicate effectively about product incidents no matter where they originate or from where they were purchased. This review focuses on incident management solutions for those commodities procured by USDA, the major supplier of U.S.-sourced commodities for BHA under Title II. The majority, 27 out of 30, of food assistance commodities are currently purchased from U.S. suppliers for Title II programs through the USDA international procurement system. Through its Office of Acquisitions and Agreements (OAA), USAID directly procures ready-to-use therapeutic and supplementary foods (RUTF and RUSF) from U.S. suppliers and high energy biscuits (HEB) from non-U.S. suppliers. While FSQ of food assistance products sourced outside the United States needs to be part of an effective food incident management system, it is outside the scope of this report.

Box 1: USDA/AMS Commodity Procurement Branch Bought \$8.6 Billion of Food for Domestic & International Programs in FY20

USDA's Food and Nutrition Service (FNS) is AMS' food customer for domestic school, food bank, and other safety net programs.

USAID/BHA is AMS' biggest international customer. AMS procures commodities and transportation for all U.S.-sourced Title II food assistance products for USAID and its implementing partners. Along with PVOs, WFP is a major customer delivering the bulk of Title II food purchased for emergency activities.

USDA/FAS is AMS' customer for the much smaller global school- and market-based programs, McGovern Dole (MGD) and Food for Progress (FFPr), respectively.

3.1.2. U.S. INTERNATIONAL FOOD ASSISTANCE SUPPLY CHAIN

To understand the business process for commodity incident reporting, it is instructive to review the various stakeholders responsible for food assistance products sourced in the United States as they move across the supply chain. Commodities, including SNF products, originate with U.S. commercial suppliers producing the product to USG specifications and FSQ standards, to end up in the stomachs of recipient consumers in villages and refugee camps thousands of miles away. The supply chain starts with suppliers of ingredients, premixes, and packaging, all the way through to product procurement, shipping, transportation, storage, handling, and distribution steps with many entities, with the product changing hands at various steps from producer to consumer.

Figure 2. Supply Chain Flows for USAID Commodities: Routes and Responsibilities

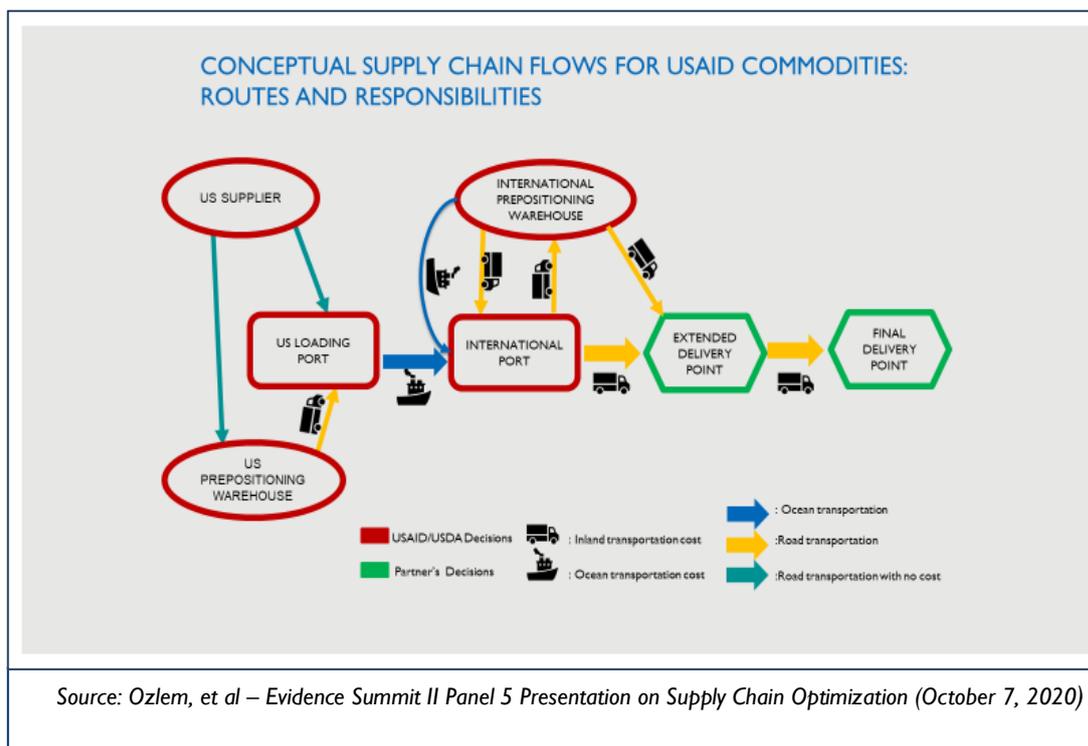


Figure 2 illustrates the key positions where product changes hands and who has responsibility for the product at any given point across the food aid supply chain.

There are many opportunities for L&D and FSQ incidents to occur. 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 foodborne illness. FSQ issues can be microbiological, chemical, or physical in nature (see **Box 2** on FSQ hazards) and are particularly difficult to identify post-distribution.

Box 2: Food Safety and Quality Hazards

- ✓ **Microbiological:** Pathogenic bacteria (i.e., Salmonella, E. Coli), molds, viruses, and parasites
- ✓ **Chemical:** Allergens, mycotoxins, heavy metals (i.e. mercury, arsenic, lead), pesticides, cleaning agents, etc.
- ✓ **Physical:** Plant debris (i.e. excess dockage), splinters, stones, bone fragments, flakes of paint, pieces of metal, plastic or glass, insects or insect parts, jewellery, hair, artificial fingernails, etc.

Incidents Are Rare. As a starting point, it should be noted that L&D are very low, less than 1 percent of 1.76 MMT purchased in FY 2020. As estimated by the FAQR supply chain optimization team, from the supplier to the first point of delivery to the implementing partners, the losses were so small that they did not include them in their optimization scenario modeling. It is likely, however, that the FSQ aspects are underreported and underestimated, and these could have costly public health consequences.

WFP documented losses in their latest annual report to the WFP Executive Board (2019).^c The total losses across the whole global supply chain (vendor in United States to recipient overseas) are estimated to be about 2 percent. This is estimated to be split evenly between the WFP, the PVOs, and the USAID supply chain. This represents a loss of efficiency and, in human terms, fewer food-insecure people being reached.

Although some of the BHA L&D incidents were FSQ issues, none of the food purchased from U.S. suppliers rose to a public health risk that would have endangered consumer health. In fact, their identification led to improvements in packaging (hybrid bags to address infestation among blended flours), increased testing and more stringent microbiological levels with DON, and other mycotoxin testing added to specifications for Corn Soy Blend Plus (CSB+) and Super Cereal.

3.2. MAPPING FOOD SAFETY INCIDENT HANDLING SYSTEMS: USAID AND COMMERCIAL

As a first step to conceptualize an improved CIR business process, we mapped the current FSQ incident handling systems used by USAID and USDA. As a comparison, we mapped the system used by the private sector in the U.S. domestic and export markets (see **Box 3**). The following sections highlight the key features of the current USAID/USDA incident flows, a private sector incident resolution flow, and a proposed way forward for BHA, with a communication flow that leverages USDA's incident management system for domestic programs and food industry best practice.

Box 3: Food Incident Systems Reviewed

- ✓ USAID/BHA incident reporting system
- ✓ USDA/AMS WBSCM-based complaints module and management system for domestic FNS programs
- ✓ FDA recall system
- ✓ WFP food safety and quality assurance system
- ✓ Private sector complaints management systems

3.3. USAID FOOD AID PRODUCT INCIDENT FLOW – CURRENT SYSTEM

Figures 3 illustrates the supply chain partners in the USAID/USDA food assistance procurement system. Food flow is shown with the grey arrows from U.S. producers to the food aid consumer.

The main supply chain partners are:

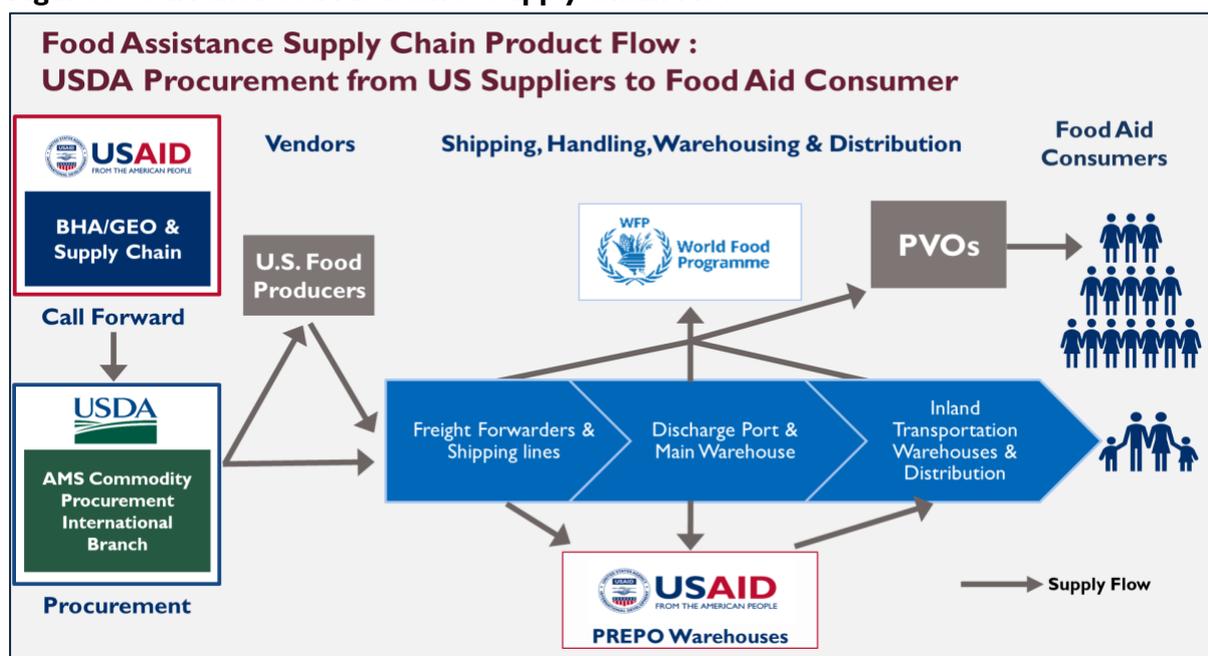
- **Private Sector Vendors:** Made up of U.S. food industry manufacturers, supported by suppliers (ingredients, packaging, manufacturing equipment, etc.), warehouse management, and transportation (freight forwarders and shipping lines).
- **USDA:** USDA provides the procurement, including product and packaging specifications (to meet the USAID's request), issues the tenders for procuring the product, and transportation of the commodities to the port of export through the USG bidding systems in place. The ownership of the food aid product is transferred to (a) USAID if it is going to be prepositioned in a USAID warehouse (e.g., Houston or Djibouti) or (b) to the recipient organization (PVO or WFP) at the point to which they are exported.^d

^c WFP Loss & Damage Report to Executive Board, 2019 <https://docs.wfp.org/api/documents/WFP-0000104719/download/>

^d For those products procured by USAID (currently RUTF and RUSF), food and freight contracts are handled by

- **USAID:** USAID acts as a go-between USDA, WFP, and PVOs, who are responsible for receipt of the product and distribution in countries. In effect, USAID acts as an agent, distributor, and in some cases, warehouse of U.S. food aid commodities and products.
- **Implementing Partners and Food Aid Consumers:** Implementing partners are the organizations that program and distribute food; food aid consumers are the recipients and program participants in food assistance programs.

Figure 3. Current Food Assistance Supply Chain Flow

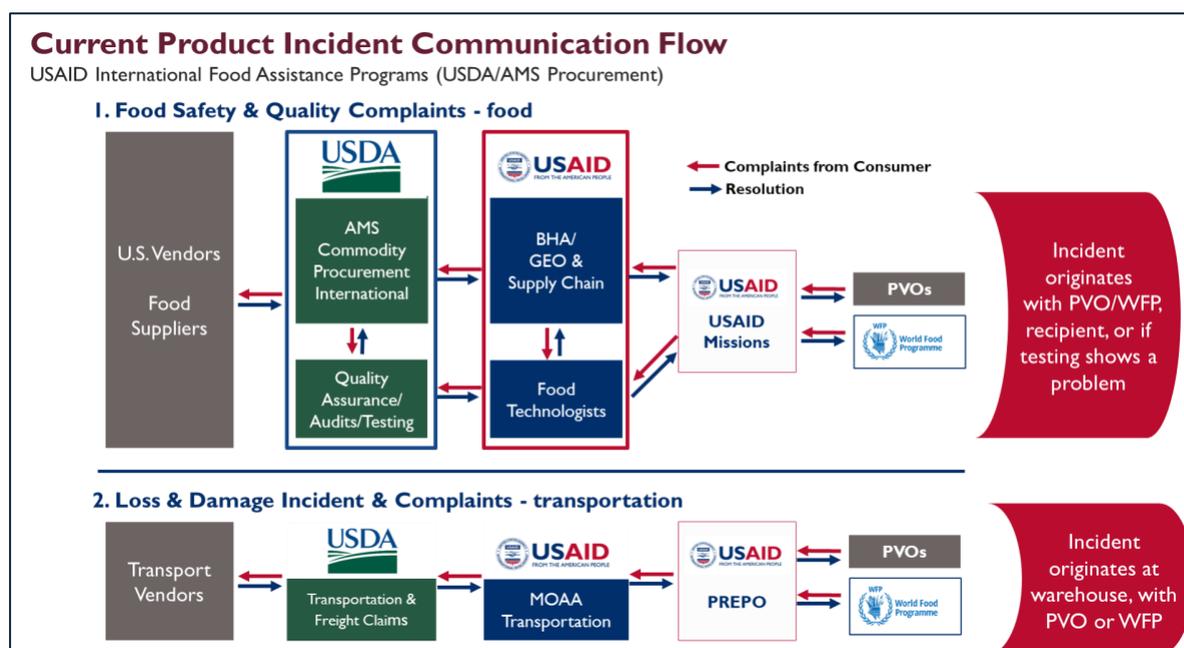


The Current Food Incident Reporting System:

Reports of incidents originating in the field or along the supply chain go to USAID/BHA and through the USAID food technologist on to USDA which interacts directly with vendors. Sometimes the USAID food technologist is part of that discussion and resolution.

As **Figure 4** shows, communication for food-related incidents goes through the top flow while L&D incidents are treated as transportation issues through the lower flow. The current communication flows from the field are lengthy when there is an incident. They go through different agencies, finally ending at the U.S.-based vendors for corrective action. Commodity incident information flows are shown in red going back to USDA via PVOs, WFP, USAID mission offices (sometimes), and on to the vendors for resolution. Information flow returns through the blue arrows.

Figure 4. Current Food Assistance Product Incident Flow



Key Features of Current System:

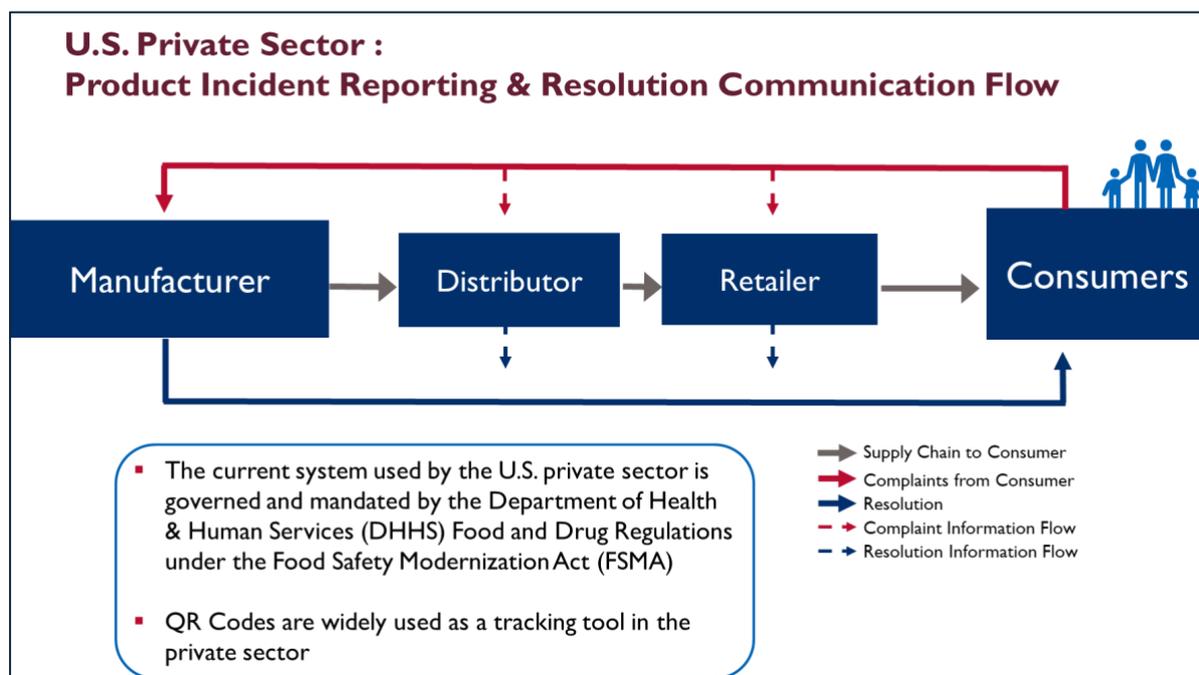
- There are two agencies involved, but the system is not unified. FSQ and L&D issues and their resolutions are in separate silos (ref: top and bottom flows).
- Currently the food technologist in USAID gets very involved in the incident reporting process and helps along the resolution process with USDA and with vendors directly.
- Communication is *ad hoc*, informal, and mostly via emails back and forth.
- The system does not have a clear point of contact (POC) or formalized lines of communication between the agencies. Incidents, which typically arise in the field, are reported first to the BHA food assistance officer in the USAID mission, who initiates the complaint/incident with BHA Supply Chain Management (SCM) in Washington, D.C., who then communicates with the USDA/AMS International Commodity Procurement Division to start the resolution process.
- Commodity Procurement then reaches out to the appropriate USDA marketing specialist (by commodity), transportation specialist (if it is a shipping/transportation issue to determine liability), or the food technology or food safety analytical testing specialist, as appropriate, for an FSQ incident.
- These USDA specialists communicate with the vendors, freight forwarders, and others to get the incident investigated, the causes identified, and corrective actions taken to address the issues.
- The resolution of a food safety incident rarely gets back to BHA, so they cannot effectively close the loop with the originator of the complaint, whether it is USAID or the PVOs via USAID.

L&D incidents are always treated now as an FSQ event in the commercial food industry. The same approach needs to apply to the food aid system.

3.4. PRIVATE SECTOR FOOD INDUSTRY PRODUCT INCIDENT FLOW

In the U.S. food industry, communication flow is simple compared to the current USAID/USDA food assistance system, as shown in the example in **Figure 5**.

Figure 5. Private Sector Product Incident Reporting and Resolution Communication Flow



The U.S. food industry is required to have a ‘consumer complaints communications and recall system’ in place under the Food Safety Modernization Act (FSMA). As a result, consumers can contact the food companies directly via internet, websites, or toll-free numbers. The packaging often has a quick reference (QR) code, which the consumer can read with a smart phone. While there are intermediary companies between the manufacturer and the consumer, such as distributors and retailers involved in the distribution of commercial foods, as shown on the diagram, a consumer complaint most often goes directly to the manufacturer.

Key Features of Private Sector Systems:

The food manufacturer is responsible for developing and managing a ‘complaints handing system’ that resolves a complaint. A complaint is frequently addressed directly with the consumer and, if needed, a food safety recall can be carried out. The manufacturer must inform all relevant actors in the supply chain from the point of production to distribution and point of sale to hold the products, isolate them, and prevent further distribution. The food manufacturer can have an information flow back to the sections of the distribution chain, as needed, while dealing directly with the consumer or buyer of the food.

The primary benefit to this simple feedback system is the real-time, rapid assessment of incidents, for both consumers and companies. Companies can track trends in product issues based on the calls

they receive, and all incident information is archived internally, feeding into their continuous improvement systems. 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.). Elements of this system are being explored in USAID/BHA's traceability workstream to see how a solution that works in the private sector could be adapted to the humanitarian food supply chain. Investment in technology infrastructure and staff, as well as upper management and stakeholder buy-in, will be essential to deploying a traceability system that can interface with the incident resolution system.

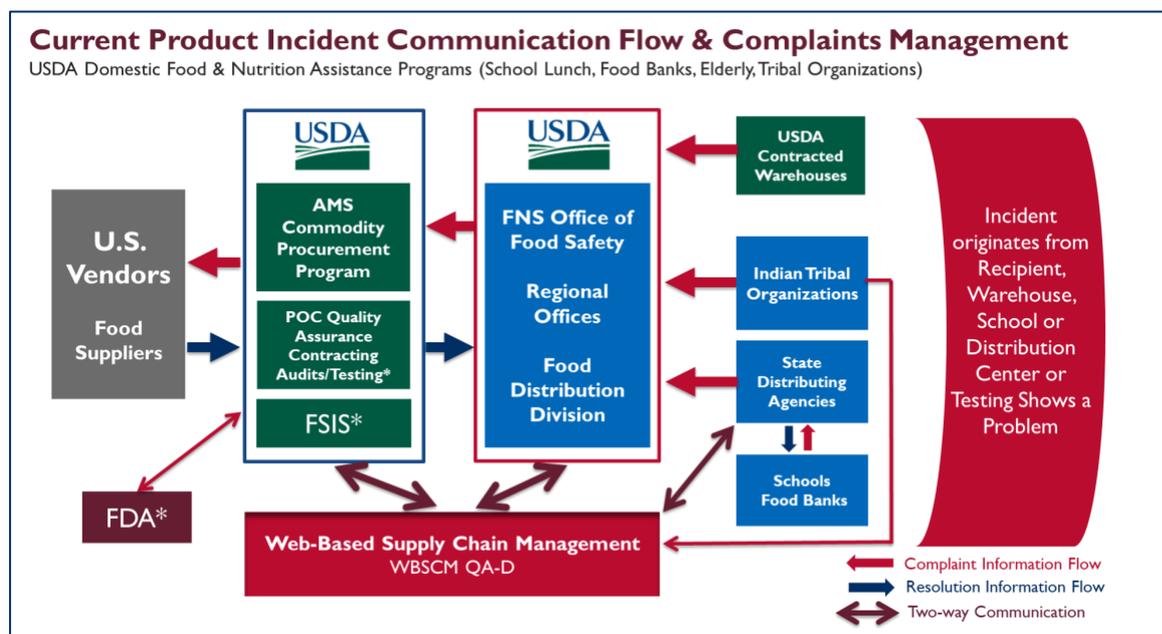
3.5. USDA'S WBSCM COMMODITY COMPLAINT MANAGEMENT SYSTEM

USDA's has a robust, customer-oriented complaints management system fully integrated in its food commodity procurement business process and in use for their domestic programs. USDA has modernized, consolidated, and reorganized in recent years. Among other restructuring, it has brought all commodity procurement and supply chain management staff and business processes under AMS, unifying procurement, aligning policies, and harmonizing processes for domestic and international food procurement. WBSCM is its information technology (IT) platform for commodity acquisition, distribution, and tracking. It includes a complaints module.

USDA Complaints Business Process:

As illustrated in **Figure 6**, once a complaint is submitted to WBSCM by the state agency from a school or food bank (a customer analogous to the implementing partner PVOs and WFP in the international food programs), a vendor (supplier of the food item), or USDA/FNS (role analogous to USAID/BHA as the customer for which the product is being purchased), the USDA/AMS complaint specialist receives an email alert from WBSCM with the information and photos. The complaint specialist then responds with recommended corrective actions and/or continues the investigation through communication with all involved parties along the supply chain. Once the incident is resolved and corrective action is taken, the case can be closed. It is all documented in the WBSCM.

Figure 6. USDA Domestic Food Aid Product Incident Flow



Key Features:

- The system is all under the control of one government agency: USDA. USDA/AMS purchases the food for USDA/FNS, which is distributed to USDA contracted warehouses, Indian tribal organizations, state agencies, and directly to schools and food banks that distribute food to the recipients.
- It has input from other important agencies, including FDA and USDA’s Food Safety and Inspection Service (FSIS), as needed, for a recall.
- The current quality unit in WBSCM is the platform for efficient, two-way communication for incident reporting and management. It could be a model for BHA international procurement.

Opportunity for USAID to Leverage USDA’s Investment:

This system has many of the features identified by USAID as crucial to an effective feedback system and is already in the WBSCM platform for international purchasing. USAID and implementing partners use WBSCM for procurement of food aid products. According to colleagues at USDA and USAID, the complaint system is available for USAID, but has not been promoted/used, and there is no complaint specialist to cover USAID/BHA complaints.

Recommendations:

- ✓ USAID should request USDA to activate and implement the complaints management system within WBSCM for international procurements.
- ✓ USDA should invest in a complaint specialist (or part of one if not needed full time) for the International Commodity Procurement Division, since it is procuring a significant volume of food commodities for USAID/BHA programs,

3.6. USAID FOOD AID PRODUCT INCIDENT SYSTEM FLOW – PROPOSED SYSTEM

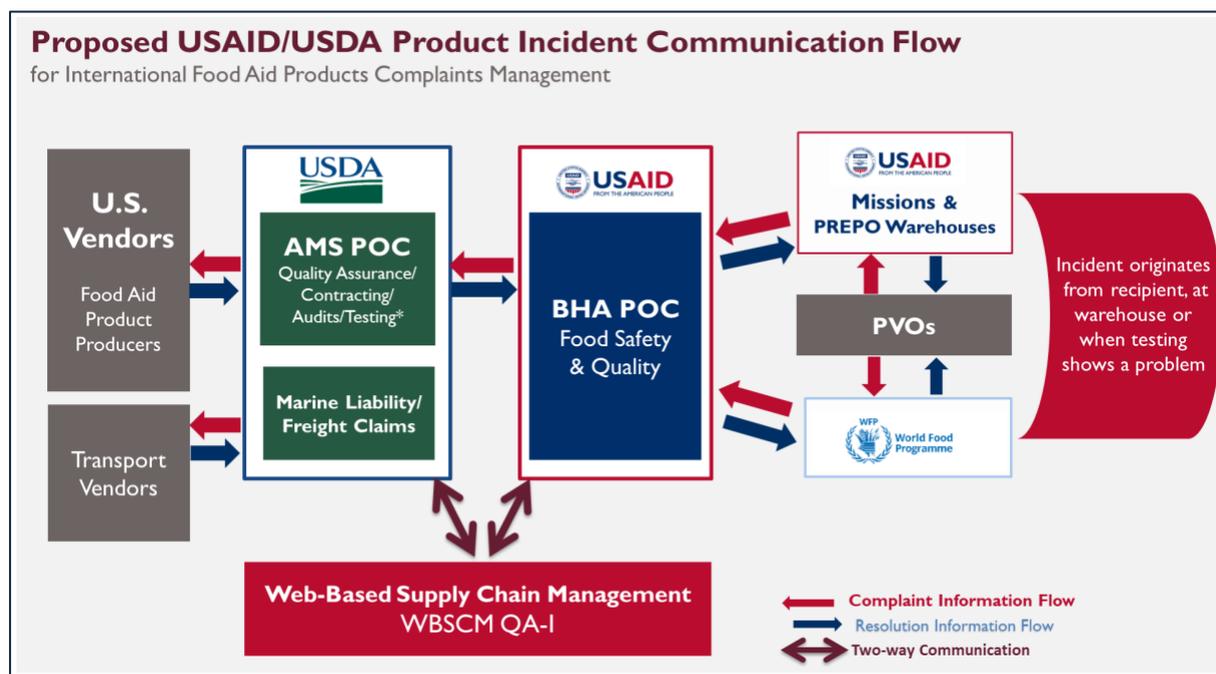
An effective commodity incident management process must start with early detection, continue with timely resolution of commodity loss, damage, and food safety incidents with corrective actions and closure reported back to the originator. The system should have a defined workflow and allow documentation and analysis of trends for continuous improvement in product packaging, manufacture, delivery, storage, handling, and preparation.^e

Figure 7 illustrates a proposed incident flow to conceptualize the way forward for BHA. It is based on a unified communication flow for USAID and USDA, designed using the private sector model described above, and the USDA model for domestic food incident complaints management. Incident reports would flow directly to the USDA food technologists and USDA quality management teams and then on to the vendors directly. It leverages the domestic experience with food assistance product incident communication flow using IT systems already in place in the USDA WBSCM.

As discussed above, in the current situation, the role of the USAID food technologist is as an active conduit in the chain of the receipt, corrective action, and resolution of the product incidents. While the role of the USAID food technologist is important in the process of food aid to provide information back to USDA, the supplier of U.S. food assistance products to USAID remains USDA, the purchasing agent. Therefore, issues regarding FSQ should be handled and managed by USDA food technologists and quality assurance personnel dealing directly with the vendors or freight forwarders as appropriate to the incident. There must be a step for feedback to USAID on resolution of the incident and from USAID back to the originator of the incident.

^e FAQR USAID Food for Peace Food Safety & Quality Assurance Feedback Loop Analysis:
[https://foodaidquality.org/sites/default/files/publications/FAQR Feedback Loop Report USAID_%28Final for FFP%29 3 Jan 2019.pdf](https://foodaidquality.org/sites/default/files/publications/FAQR%20Feedback%20Loop%20Report%20USAID_%28Final%20for%20FFP%29%203%20Jan%202019.pdf)

Figure 7. Proposed Food Aid Product Incident Flow



Key Feature of the Proposed USAID/USDA System:

- Direct communication from WFP and PVOs to USAID/BHA mission POC and USAID food technologist to USDA food technology and quality assurance personnel.
- USDA food technologists and quality assurance personnel are responsible for the complaint investigation and direct communication with the vendors' food safety specialists, quality assurance personnel, and technologists. USDA food technologists are also responsible for assessing the effectiveness of the proposed resolution and corrective actions by the vendors.
- The role of the USAID food technologist should be an advisory role only and not an investigative role, because USDA is responsible for the procurement and food quality requirements under the current contracting system.
- USDA procurement specialists advise the contractors on requirements for compensation and changes to the contract terms, as needed.

Recommendations for USAID/BHA:

Implement the proposed revised USAID Food Aid Product Incident System Communication Flow:

- ✓ The USAID food technologist's role should be to act as a conduit on food safety, food quality complaints, and/or recalls from the field to the USDA food technology groups.
- ✓ The USDA food technology group should be responsible for the investigation, actions, and resolution of food quality incidents.
- ✓ Reports on resolution and corrective action for food quality incidents should be relayed back to USAID by USDA food technologists and to originators of the complaint.

3.5. SYSTEMATIC REVIEW OF FOOD AID COMPLAINTS FY 2019 THROUGH JUNE FY 2020

Serious incidents are apparently quite rare, making it difficult to estimate the nature and frequency of actual occurrences; often they are not recorded or resolved. In 2018, legacy USAID Food for Peace (FFP) staff estimated that they were informed about and responded to approximately 10 incidents per year out of the more than \$3 billion of food distributed annually.^f With the new L&D tracking system in place since October 2018, over 26 reported incidents were documented through email communication or phone calls, as warranted. While incidents/questionnaires are now archived and saved systematically, there is still no requirement of the implementing partner to report an incident and fill out the commodity L&D template. The L&D template does help narrow the focus to when, where, and why an incident might have occurred.

To better understand the nature and scope of incidents that the system currently captures, we conducted a systematic review of complaints that USAID/BHA had received from 31 October 2018 to 1 June 2020. We took a deep dive into the 26+ incidents that USAID/BHA had in their archive of cases. They had been collected and compiled based on incidents that came to their attention, using their current system and L&D template as the tool to describe and summarize the steps in the process of identifying and keeping track of resolutions. We mined the information and documents that USAID graciously provided, to identify any patterns, trends, and/or issues that emerged. USAID provided access (under a confidentiality agreement) to their database of complaints, and the tables below show the number of complaints and percentages of the totals in descending order of frequency and/or occurrence. The review shows the following patterns in 23 of the incidents.^g

Table 1. Product Type and Frequency of Occurrence (FY 2019 to FY2020 through June)

Food Item	Number of Complaints	% of Total
CSBs (10) & flours (1)	11	47.8%
Legumes (soy, pea, bean)	4	17.4%
Vegetable Oil	4	17.4%
Grains (sorghum, wheat)	3	13.0%
RUTFs	1	4.4%
Total	23	100%

Table 1 shows that approximately 78 percent of the complaints were for blended flours, flour, and grains (sorghum and wheat). Twenty-two percent were for vegetable oil and RUTF. It should be noted that the bulk of U.S. in-kind food assistance is grain-based. Within the categories listed in the table, CSB+ and flours comprised almost half (47.8 percent) of the complaints. Grains and legumes combined^h made up 30.4 percent.

^f FAQR USAID Food for Peace Food Safety & Quality Assurance Feedback Loop Analysis: https://foodaidquality.org/sites/default/files/publications/FAQR_Feedback_Loop_Report_USAID_%28Final_for_FFP%29_3_Jan_2019.pdf

^g Note: There was not enough data on three of the cases.

^h Grains and legumes (beans, peas soybeans) are raw materials and apart from intensive cleaning they are unprocessed. Essentially, they have the same challenges in the supply chain.

Table 2. Complaints by Type of Issue

Complaint Issue	Number	% of Total
Infestation – insects	9	39.1%
Packaging – poor seal, slippery bags, illegible print, mislabeled	6	26.0%
Water damage & mold	3	13.0%
Handling -Leaking cans, broken bags, storage, stock rotation	3	13.0%
Infestation – rodents	2	8.9%
Total	23	100%

Table 2 shows a breakdown of the types of complaints recorded. The majority of incidents were related to insect infestation and packaging issues originating at the point of production, representing 65.1 percent of the total number of complaints received. Water damage and mold, and damaged products due to handling issues in the supply chain, represented 26 percent of the total complaints. Rodent infestation in the supply chain represented 8.9 percent of the total complaints.

Table 3. Frequency of Complaints by Supplier

Supplier ID	Products	Number of Incidents	% of Total
Unknown	Vegetable Oil (2), CSB (2), Grain (1), Peas/Beans* (1)	6	26.2%
1	CSB	5	21.1%
2	CSB	2	8.7%
3	Vegetable Oil	2	8.7%
4	Cornmeal	1	4.3%
5	CSB	1	4.3%
6	Grains	1	4.3%
7	RUTF	1	4.3%
8	Split Peas	1	4.3%
9	Split Peas	1	4.3%
10	Vegetable Oil	1	4.3%
11	Vegetable Oil	1	4.3%
	Total	23	100%

* Note: Cannot determine if it was beans or peas from reports.

Table 3 shows over a quarter (26 percent) of the complaints did not identify the supplier/manufacturer by name, so it was difficult to find the connection between the vendor and the incident, let alone identify the cause. Of note is that 21.7 percent of the complaints were associated with one supplier. These were all identified as CSB products; however, it was not clear when/where the incident had occurred and/or if the supplier was responsible for the incident, (i.e., did it occur in the plant, in transit, or in a prepositioning warehouse (PREPO) or further along the supply chain?).

Overall, the following observations point to areas that warrant adjustment in the procedures for a more effective business process:

- The system picks up incidents in the first few steps, from supplier to first or second stop in the country to which it is exported, but it does not pick up incidents closer to the “last mile.”
- There was not enough information to determine the origin of the infestations or the steps that would be necessary to address them at their root.
- The L&D reports are more than loss and damage reports; they are food safety reports, as well.
- There were several incidents that involved Houston and Djibouti PREPOs, and/or specific shipping lines, but the data available did not allow us to identify where in the supply chain the incident originated – at the manufacturing facility, loading at supplier, or transportation (trucking or shipping or warehouse) – which makes it difficult to assign responsibility for resolution, restitution (monetary loss), or replacement (quantity loss).
- Several incidents were reported for the same producer, but we could not tell if the incident stemmed from the origin (manufacturer) or from mishandling in storage or transportation.
- Several incidents pointed to improper fumigation practices that also included PREPO warehousing.
- Several incidents involved shipping containers. Were they appropriately cleaned prior to loading? Were they suitable for transporting foods for human consumption? How long did the products stay in the containers? Had that container been loaded at the plant, or was it transferred after being in PREPO? Was it the same product lot when it left PREPO? Is there a proper fumigation procedure in place for the grains and blended flours at every stage?

It is not clear who is the responsible party based on the information available, so it would be difficult to assign responsibility (manufacturer, PREPO, shipper) and require corrective actions for conclusive resolution. The observations that emerged from the review of incidents in the USAID archive support what we learned from key informant interviews with officials at USG agencies, suppliers, freight forwarders, and other partners who interfaced with the system. The top four FSQ incidents they raised were:

1. **Damages** to commodities (e.g., products and packaging) detected at the discharge port or primary storage facility. These included water damage and 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 but will result in the cooked foods made with them not being eaten.

Recommendation:

- ✓ Systematically mine the information on the L&D reports to identify who was involved and what were the steps taken, and formalize into a flow chart or checklist for how the issue was resolved; this might be by commodity type or nature of the incident.

4. CURRENT COMMODITY INCIDENT REPORTING SYSTEM AND TOOLS

It was not possible to identify the business process conclusively through our systematic review of the incidents, so the team examined the reporting tools and system (procedures) USAID was using to determine whether or not they captured the information necessary to get a complete picture of the LDFSQ incidents and their resolutions. Recommendations were then provided on how the tools/system might be adjusted to track the process of commodity incident reporting and resolution more effectively. Refer to [Annex 2](#) for a complete analysis of the current commodity incident reporting system and tools.

4.1. LOSS AND DAMAGE REPORTING SYSTEM

The commodity incident reporting system we reviewed was based on the L&D report and template developed by USAID in 2018 to gather and record incident cases systematically. Information comes from emails, survey reports, photos, and certificates of analysis (COA) combined with other information, which may be obtained through phone calls with colleagues at USAID and USDA and is manually included as part of the incident file. This initial documentation process is an important first step to documenting L&D. However, the current reporting system does not comply with the FSMA requirements pertaining to compliance of the original food manufacturers, distributors, and transporters. Under the current CGMP regulations under FSMA, it is a requirement for both food manufacturers and food logistics vendors to have an L&D tracking system in place to ensure that unsafe or contaminated foods are removed from the supply chain to ensure the health and safety of the consumer. This requirement covers all vendors including those supplying food assistance markets.

Recommendation for USAID/BHA:

- ✓ USAID/USDA should modernize and align their business processes for food aid vendors and procurement with standards and regulations of the FDA Food, Drug, and Cosmetic Actⁱ and FSMA.^j

ⁱ <https://www.fda.gov/regulatory-information/laws-enforced-fda/federal-food-drug-and-cosmetic-act-fdc-act>

^j <https://www.fda.gov/food/guidance-regulation-food-and-dietary-supplements/food-safety-modernization-act-fsma>

4.2. USAID LDFSQ COMMODITY INCIDENT INVESTIGATION AND FEEDBACK REPORTING

Key Features: The current investigation and feedback reporting system is an informal arrangement of noting and monitoring L&D incidents as they get reported through the supply chain. While there are no formal job descriptions for the staff roles and responsibilities in L&D reporting, we were able to determine the *de facto* roles of several staff members who are the main players today.

4.3. USAID LOSSES AND DAMAGES - STAFF ROLES AND RESPONSIBILITIES

One USAID/BHA staff member (currently the SCM acting director) is the *de facto* POC who receives the complaint and initiates reporting of the incident and logs the receipt of loss and damage. She also notifies the BHA food technologist and a program operations specialist (who has been instrumental in setting up the system), who then assigns the incident logging to an assistant, who starts the incident recording. This small team then notifies USDA/AMS International Commodity Procurement Division, who assigns the incident to the AMS marketing specialist in the Commodity Procurement team of nine, who covers that commodity or product. The marketing specialist in turn interfaces with vendors along the supply chain to alert them that there is an issue and requests a response on what caused the issue and any corrective action that will or has been taken. Again, this is carried out on an informal basis, feedback to USAID does not take place systematically, and there is no complete record.

Recommendations for USAID/BHA:

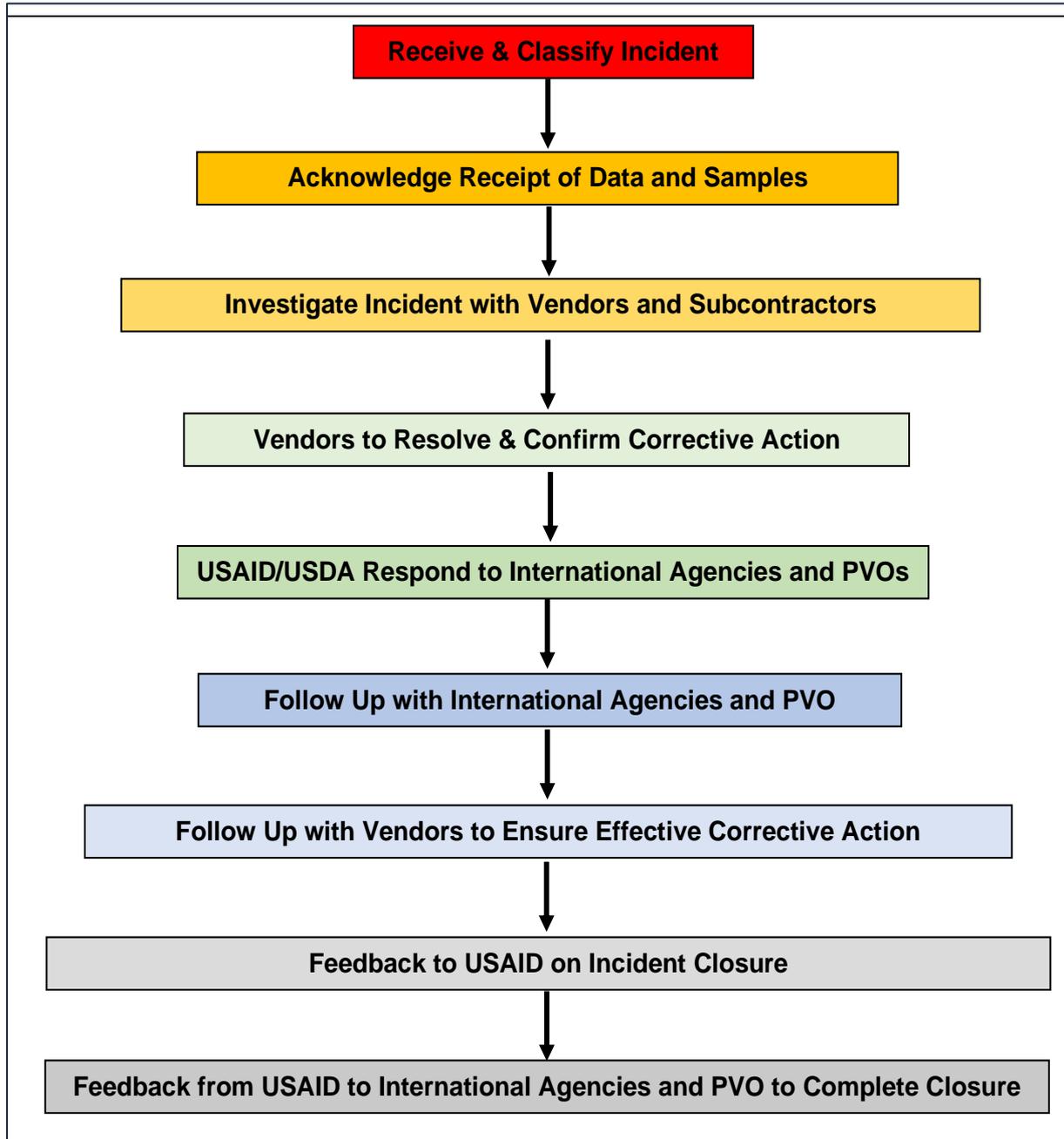
- ✓ Even in the absence of using the WBSCM, formalize the current system and link to an electronic documentation system for the receipt and recording of food aid product losses and damages.
- ✓ Clearly define roles and responsibilities of the team handling losses and damages, and include in scopes of work.
- ✓ Officially identify and assign one POC to coordinate input and communicate with USDA, transportation, and legal departments to follow the flow of incident resolution. While this activity does not require a full-time position, it does require an existing employee (and alternate) to manage the L&D and food quality process.
- ✓ The formalized system should be made accessible to the key personnel involved in FSQ in USAID.
- ✓ Establish a formal system to inform the vendors of the FSQ issue and its resolution. For example, there could be a data dashboard on the USAID or USDA website with a section that lists issues and resolutions. This could be public for transparency sake or it could be internal as part of the interagency business process between USAID and USDA.

The current commodity incident process *de facto* POC is in USAID/BHA headquarters in the SCM Division. With the upcoming Intelligent Dashboard, the POC should be able to receive incident reports from anywhere on the supply chain in real time to initiate a timely response with USDA.

5. OPERATIONALIZING THE PROPOSED COMMODITY INCIDENT MANAGEMENT SYSTEM

Figure 8 describes a nine-step business process for LDFSQ incident management, adapted from those common in the private sector, that could be adopted by USDA and USAID.

Figure 8: Proposed Management System for USAID LDFSQ Incidents Business Process



The steps are based on the requirements and systems in place for domestic food manufacturers, vendors, distributors, and food importers to comply with USG requirements^{k,l} with respect to food safety and quality assurance. As discussed in **Section 3.6** on the proposed revised incident reporting flow, the role of USAID should be to serve as a conduit to the USDA food technology and quality complaints system.

Recommendations for USAID/BHA:

- ✓ Set up a similar nine-step commodity incident management system, with relevant modifications for all LDFSQ incidents received by USAID and USDA from UN agencies (UNICEF, WFP, etc.) and other international PVO implementing partners (**Figure 8**).
- ✓ 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.

5.1. OTHER FSQ COMPLAINTS MANAGEMENT SYSTEMS REVIEWED: WFP FSQ BUSINESS PROCESS: RAPID INCIDENT MANAGEMENT

We reviewed other LDFSQ complaints management business processes for lessons as to how they could be leveraged to support and/or provide examples that directly align with USAID's systems modernization goals (see details in **Annex 3**). In addition to the USDA complaints management system (see **Figure 8**), we reviewed the FDA recall business processes (see **Annex 3**) since they are directly relevant for FSQ of the U.S. food supply (see above). In particular, we looked to WFP, which is USAID/BHA's partner and major user of USG food assistance commodities (mainly for emergency programs) to see how USAID/BHA could harmonize with WFP. WFP has upgraded and tightened up its FSQ system and protocol for risk and incident management as a result of recent food safety incidents with a Turkish supplier of Super Cereal Plus. WFP FSQ business processes are detailed in **Annex 4**. The main elements are presented here to inform our recommendations.

WFP has an FSQ policy in place, operationalized through a questionnaire-based, rapid incident identification and analysis system posted on the WFP website. It is accessible to the WFP FSQ specialists spread across the operational regions of the world, and first responders to any FSQ and L&D incident. It is designed to allow WFP staff to assign the risk level of a L&D incident. There is a standard operating procedure (SOP) to halt distribution and recall a product if it has a high FSQ and health risk, as well as a business process to resolve the issues, and mitigate or prevent any further damage (public health or public relations). WFP has invested in its IT platform and its capabilities to (a) collect accurate data to analyze LDFSQ incidents and drive changes to overall production and handling of products (continuous improvement) and (b) prevent and mitigate any immediate public health or food safety issue that may arise in their global food supply chain. The policy and system are detailed in **Annex 4**. As BHA upgrades its business process for commodity incident reporting, there are win-win opportunities to harmonize and align with WFP's system.

^k U.S. Food Drug and Cosmetics Act: <https://www.fda.gov/regulatory-information/laws-enforced-fda/federal-food-drug-and-cosmetic-act-fdc-act>

^l Food Safety Modernization Act: <https://www.fda.gov/food/guidance-regulation-food-and-dietary-supplements/food-safety-modernization-act-fsma>

Recommendations for USAID/BHA:

- ✓ Develop an L&D FSQ policy and management system, similar in scope to WFP's with specific SOP.
- ✓ Update data collection instrument (questionnaire) for input into the system, similar in scope to WFP's rapid incident questionnaire.
- ✓ Develop an L&D report or summary in the annual USG International Food Assistance Report to Congress.

6. PUTTING IT ALL TOGETHER: RECOMMENDATIONS FOR USAID/BHA COMMODITY INCIDENT MANAGEMENT SYSTEM

This business process review drew on a variety of evidence and experience from the USG, WFP, and private sector food industry to develop recommendations and offer a way forward for USAID/BHA to work with USDA, its partner in the procurement of U.S.-sourced food commodities for its Title II food assistance programs. Insights from this review highlight a unique opportunity for USAID/BHA to align its business process with USDA's for a unified approach to continuous quality improvement in the USG food assistance supply chain (see **Box 4**).

Box 4: Key Insights and Opportunities

International USDA procurement aligns with USDA domestic procurement processes in WBSCM, including the proposed BHA incident management system.

- ✓ **Complementary Agency (USDA, USAID) roles require formal collaboration.**
 - USAID responsible for distribution and programming.
 - USDA responsible for purchasing and resolution.
- ✓ **Technology and data-driven business processes allow cross-platform information exchange across agencies and with implementing partners.**
- ✓ **Opportunities to leverage existing systems – USDA and USAID:**
 - Adopt WBSCM complaints management system and adapt for international food procurements.
 - Harmonize FSQ business processes with implementing partners (WFP, PVOs).

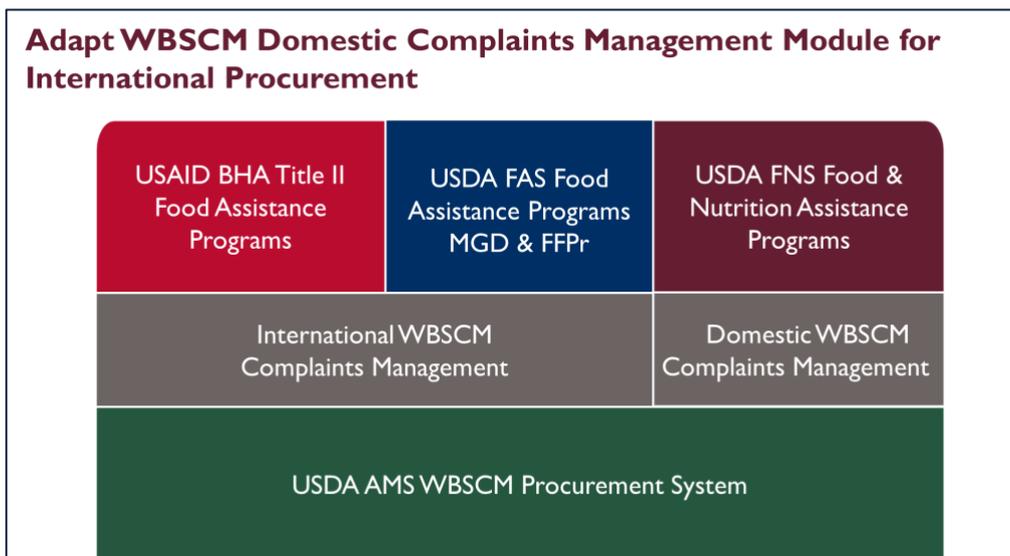
USAID and USDA are two complementary and interlocking parts of the commodity incident process: USAID's role, as customer and distributor of the commodities to PVOs and WFP, is to identify and report the incidents; USDA's role as the buyer includes managing and resolving food commodity LDFSQ complaints; clear roles and responsibilities of staff, clear communication flow and feedback are essential to complete and close the process.

Leverage and Improve Current System and Resources in the Short Term While Longer Term Solutions are Developed.

The WBSCM complaints module and management system should be activated and adapted for USAID/BHA’s international food procurements. In this way, USAID/BHA can leverage the considerable resources and investment USDA has made over the years to modernize and streamline its food incident management business processes and its procurement IT platform (see illustration in **Figure 9**).

We provide the following overall recommendations for a joint commodity management system, as a framework for USAID/BHA to move from an *ad hoc* system of commodity incident reporting, to a complete, modern business process from incident identification to resolution, feedback, and closure. More specific, granular recommendations are detailed in **Annex 5** as a road map for how to upgrade the current reporting system and tools in the short term, while putting in place longer-range traceability and intelligent dashboard IT solutions for end-to-end visibility.

Figure 9: Extending USDA WBSCM Complaints Management to International Procurement



6.1. RECOMMENDATIONS FOR A MODERN BHA/USAID COMMODITY INCIDENT MANAGEMENT SYSTEM

The following three-part, recommended FSQ commodity incident management system is an upgrade that formalizes existing communication channels to document, report, resolve, and track trends in FSQ issues and incidents within USAID and USDA, while leveraging existing processes and IT platforms. It provides a policy and modern operational framework for BHA to streamline the capture of the data and feedback to decision makers who can resolve the issues, while requiring minimal staff to run the system. It aligns with the roles of USAID/BHA and USDA in the reporting and resolution of FSQ incidents and takes advantage of the systems in place and the IT advances in data-driven systems.

1. **Establish a USAID/BHA LDFSQ policy**, in line with USG food safety policies and consistent with the roles of USAID and USDA in the procurement and distribution/programming of food assistance commodities; harmonize or link with WFP's FSQ system when possible.
 2. **Modernize USAID/BHA LDFSQ business process** and align with USDA, based on the respective roles of USAID and USDA in the procurement and distribution/programming of food assistance commodities; interface with WBSCM for complaints management; harmonize or link with WFP's FSQ system when possible.
 - a. **Establish an FSQ incident management working group or task force within USAID/BHA**, including a food technologist, a supply chain management specialist, and others, as appropriate, with a champion to lead the process. Include USDA/AMS food technology, analytics, and commodity procurement specialists with a USDA/AMS champion to lead the USDA part of the process.
 - b. **Define roles and responsibilities** of the BHA and USDA/AMS teams handling LDFSQ. Integrate them into job descriptions for USAID and USDA staff, including identification of agency POCs and key personnel for the commodity incident reporting and resolution process at USAID/BHA and USDA/AMS. This could be done by the FSQ working group.
 - c. **Formalize lines of communication.** Create a direct line for reporting incidents from implementing partners (POVs and WFP) in the field to both USAID/BHA and USDA food technologists and supply chain management POCs assigned to the process. Define a formal communication channel between the USAID/BHA food technology specialist(s) and USDA quality assurance and food safety specialists to address and resolve FSQ issues with U.S. food vendors
 3. **Formalize the USAID/BHA LDFSQ business process with an SOP:** Task the USAID/BHA FSQ working group to develop and implement **a formal commodity incident management system and an accompanying SOP** for handling USAID commodity incidents that includes the following steps. Develop a checklist tool for different types of incident management as part of the SOP. Harmonize with WFP and UNICEF when possible.
 - a. **Identification:** Deploy a data collection tool to feed incident information into WBSCM (as an interim approach); develop a training protocol for stakeholders to identify and report incidents as soon as they occur.
-

- b. **Reporting:** Upgrade the current (informal) USAID/BHA reporting system and tools, including an electronic documentation system for the receipt, recording, and monitoring of commodity incidents and their resolution. Consider using WBSCM so the BHA POC can report directly into to WBSCM to initiate the complaints management and resolution process conducted by USDA.
- c. **Investigation:** Investigating incidents involving U.S. manufacturers are the responsibility of the USDA food technology and food safety experts, as assigned to the process. USAID/BHA should consider working with the USDA/AMS team to request the WBSCM complaints management system be activated for international programs and a complaint manager be assigned to coordinate and manage USAID Title II commodity complaints through WBSCM for easy retrieval by the USAID/USDA teams. The complaint manager will manage the investigation with suppliers (food and freight) and ensure corrective actions are taken.
- d. **Communication:** Establish a communications protocol and make the system accessible to the key personnel involved in incident management at USAID/BHA and USDA. Consider using WBSCM for two-way communication with the BHA POC about incident management and resolution and to determine liability and manage the resolution of shipping- and transport -related incidents.
- e. **Feedback:** Establish a formal feedback procedure through USAID and USDA POCs to inform implementing partners, WFP, and vendors on LDFSQ incident resolution, corrective actions, and closure, as appropriate.

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ANNEXES

ANNEX I. METHODS

The FAQR team conducted a mixed-methods review of USAID/BHA's commodity incident reporting business process. The scope of this report is limited to a major portion of U.S.-sourced foods procured by USDA. It was a combination of document review, key informant interviews, and an examination various component of the USG and WFP supply chain procurement process, complaints reporting, and resolutions systems. We also looked at best practices in the private sector. We broke the review into the following buckets:

1. **Detailed Review of USAID L&D Incidents:** The FAQR team reviewed the original 25-plus loss and damage (L&D) incidents archive, plus additional ones which USAID shared in August 2020. We conducted a thorough review of the relevant emails, documents, survey reports, and photos to identify unique or recurring issues. Using these as trigger points, we took a deeper dive into the most significant cases to seek insight into the process and steps for reporting and resolution with an eye towards developing key recommendations.
2. **Key Informant Interviews to Probe into Issues and Analyze the Business Process:** The team conducted the bulk of our interviews from mid-June through October 2020. We discussed emerging questions, issues, and/or findings we uncovered with USAID during our biweekly meetings and in separate interviews with key POCs in the process, USDA, WFP, suppliers, and/or freight forwarders, as appropriate. Our interviews with key informants were conducted under complete confidentiality to allow for open and direct discussion. We interviewed over 20 people in individual or joint discussions.
3. **Mapping the Business Process:** From what we learned in the detailed incident investigation, the key informant interviews, and the systems review, we brought together the pieces of the process to begin mapping the incident reporting and resolution process and to identify points where it fits into the procurement and supply systems of the two agencies involved in the USG food assistance supply chain (USAID and USDA). We looked for points where the business process interfaced or overlapped with WFP's. We examined the USDA WBSCM complaints system for USDA domestic procurement and WFP's process for L&D incident reporting, which is embedded into its FSQ system. Both systems have key elements that could be adapted or embedded in USAID's business process.

ANNEX 2. CURRENT USAID/BHA COMMODITY INCIDENT REPORTING SYSTEM AND TOOLS

We were not able to identify the business process conclusively through our systematic review of the incidents. So, in the next sections, we examine the reporting tools and system (procedures) USAID used at the time. We then recommend how the tools/system might be adjusted to track the process of commodity incident reporting and resolution more effectively.

Serious incidents are apparently quite rare, making it difficult to estimate the nature and frequency of actual occurrences; often, they are not recorded or resolved. In 2018, legacy USAID/FFP staff estimated that they were informed about and responded to approximately 10 incidents per year out of the 3.1 MMT of food distributed annually.^m With the new L&D tracking system in place since October 2018, over 26 reported incidents were resolved through email communication or phone calls, as warranted. While incidents/questionnaires are now archived and saved systematically, there is still no requirement of the implementing partner to report an incident and fill out the commodity L&D template. The L&D template does help narrow the focus to when, where, and why an incident might have occurred (see [Section 4.1](#)).

A.2.1. LOSS AND DAMAGE REPORTING SYSTEM

The current commodity incident reporting system is based on the L&D report and template developed by USAID in 2018 to gather and record incident cases systematically. The template has several sections to be filled out for each incident to become the report. Each L&D report (incident case) gets a unique ID number and provides a summary of the relevant information gathered for that case.

Report information comes from emails and survey reports, photos, COAs combined with other information which may be obtained through phone calls with colleagues at USAID and USDA and is manually included as part of the incident file. This initial documentation process is an important first step to documenting L&D. However, the current reporting system does not comply with the FSMA requirements pertaining to compliance of the original food manufacturers, distributors, and transporters. Recognition that any L&D is in fact a food safety issue is critical. This is because L&D of packaging of all types will expose the food to one or more of three contaminants: foreign material, biological contamination, and/or chemical contamination.

It should be noted that under the current CGMP regulations under FSMA, it is a requirement for both food manufacturers and food logistics vendors to have an L&D tracking system in place to ensure that unsafe or contaminated foods are removed from the supply chain to ensure the health and safety of the consumer. This requirement covers all vendors including those supplying food assistance markets.

Recommendation:

- ✓ USAID/USDA should modernize and align their business processes for food aid vendors and procurement with standards and regulations of the FDA Food, Drug, and Cosmetic Act and FSMA.

^m FAQR USAID Food for Peace Food Safety & Quality Assurance Feedback Loop Analysis:
[https://foodaidquality.org/sites/default/files/publications/FAQR Feedback Loop Report USAID_%28Final for FFP%29 3 Jan 2019.pdf](https://foodaidquality.org/sites/default/files/publications/FAQR%20Feedback%20Loop%20Report%20USAID_%28Final%20for%20FFP%29%203%20Jan%202019.pdf)

A.2.2. CURRENT LOSS AND DAMAGE TOOLS: REPORT TEMPLATE AND QUESTIONNAIRE

This section takes a deeper dive into the specific tools and procedures that USAID/BHA currently uses to implement the commodity incident reporting system and provides some recommendations. The following table shows key features of the template and some proposed changes (See **Table 4**).

Key Features of L&D Report Template	Proposed Changes to the Template Tool
<ul style="list-style-type: none"> • The L&D template in its current format only quantifies losses and damages through the first few steps in the supply chain, e.g. to prepositioning warehouse, port of delivery, warehouse, or next stop. • The template and subsequent report do not consider the important link between L&D and food safety. • The report was developed to identify, quantify, and describe losses as they are reported to USAID from development partners, including WFP, PVOs, etc. • The system as it stands only covers documenting losses, with rare mention of actual resolution. • The current version acts as an informal procedure for the quantification of losses and damages. • There is no formal structure in place to manage and administer L&D reporting and corrective action steps. • The current version of the report does not consistently record any corrective actions that may need to be, or may have been, carried out by organizations, PVOs, vendors, logistics, etc. • The current system does not have an incident questionnaire that can be used to rapidly assess the severity of the incident based on current hazard analysis and critical control points (HACCP) or automatically populate a database for trend analysis. 	<ul style="list-style-type: none"> ✓ USAID should consider a revision to the template, with additional sections added to identify the root causes (e.g., the type of insect can inform the quality system if the incident was caused by cross-contamination or at the manufacturer or PREPO). ✓ The L&D report should include an assessment of the potential contamination and hazard to health of the beneficiaries at the end of the supply chain should the food be exposed. ✓ The L&D report should include a section that covers the corrective action that has been taken to reduce the risk of an incident in the future. ✓ The L&D report needs to be formalized within the USAID and USDA management and supervision structure to define personnel positions responsible for receipt of incident reports, coordination with USDA counterparts (supplier and other vendor interaction), and management and resolution of L&D, as well as FSQ, issues. ✓ There is an opportunity to link an updated USAID L&D report system with the current system that is in place with WFP so that information from the field under WFP's control can be received seamlessly into the USAID system.

Commodity Incident Questionnaire:

USAID/BHA has recently streamlined and updated a food commodity incident questionnaire designed to gather pertinent L&D information from food aid implementing partners, so BHA can obtain information from anywhere in the field on L&D. Recognizing the need to incorporate FSQ risk analysis in the commodity incident reporting system, USAID/BHA incorporated several FSQ questions provided by the FAQR team, which aim to classify the severity and scale of the FSQA issue

(e.g. diarrhea post-consumption 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 questions are designed to harmonize with WFP's rapid incident questionnaire.

A.2.3. USAID LDFSQ COMMODITY INCIDENT INVESTIGATION AND FEEDBACK REPORTING

Key Features: The current investigation and feedback reporting system is an informal arrangement of noting and monitoring L&D incidents as they get reported through the supply chain. While there are no formal job descriptions for the staff roles and responsibilities in L&D reporting, we were able to determine the *de facto* roles of several staff members who are the main players today.

A.2.4. USAID LOSSES AND DAMAGES - STAFF ROLES AND RESPONSIBILITIES

One USAID/BHA staff member (currently the SCM acting director) is the *de facto* POC, who receives the complaint and initiates reporting of the incident and logs the receipt of L&D. She also notifies the BHA food technologist and a program operational specialist (who has been instrumental in setting up the system), who then assigns the incident logging to an assistant, who starts the incident recording. This small team then notifies USDA/AMS International Commodity Procurement Division, who assigns the incident to the AMS marketing specialist in the Commodity Procurement team of nine, who covers that commodity or product. The marketing specialist in turn interfaces with vendors along the supply chain to alert them that there is an issue and requests a response on what caused the issue and any corrective action that will or has been taken. Again, this is carried out on an informal basis, feedback to USAID does not take place systematically, and there is no complete record.

Recommendations:

- ✓ In the absence of using WBSCM, the current system should be formalized and linked to an electronic documentation system for receipt and recording of food aid product L&D.
- ✓ The roles and responsibilities of the team handling L&D should be clearly defined.
- ✓ One POC needs to be officially assigned to coordinate input and communicate with USDA, transportation, and legal departments to follow the flow of incident resolution. While this activity does not require a full-time position, it does require an existing employee (and alternate) to manage the L&D and food quality process.
- ✓ The formalized system should be made accessible to the key personnel involved in food safety and quality in USAID.
- ✓ A formal system to inform the vendors of the FSQ issue and its resolution should be established. For example, there could be a dashboard on the USAID or USDA website with a section that lists issues and resolutions. This could be public for the sake of transparency, or it could be internal as part of the interagency business process between USAID and USDA.

ANNEX 3: U.S. GOVERNMENT COMPLAINTS MANAGEMENT & RECALL BUSINESS PROCESSES

A.3.1. USDA WEB-BASED SUPPLY CHAIN MANAGEMENT (WBSCM) COMPLAINT SYSTEM

Like the merging of functions within USAID and BHA, USDA has modernized, consolidated, and reorganized in the last few years. The USDA mandate is to improve the customer experience through more efficient systems, including IT systems to make “fact based, data-driven and customer focused decisions” (from USDA Mission Statement.ⁿ) Among other restructuring, USDA has brought all commodity procurement and supply chain management staff and business processes AMS, unifying procurement, aligning policies, and harmonizing processes for domestic international procurement. International food aid products had previously been purchased by the Farm Service Agency (FSA), which was reorganized, and the international procurement function brought under AMS, since both international and domestic food products are procured using the same WBSCM system for commodity acquisition, distribution, and tracking. WBSCM includes a built-in complaint system and module for data collection and trend analysis, as well as the management of complaint resolution, corrective actions closure, and feedback.

USDA Complaints Business Process

Once a complaint is submitted to WBSCM by the state agency, school, or food bank (a customer analogous to the implementing partner PVOs and WFP in the international food programs), a vendor (supplier of the food item), or USDA/FNS (role analogous to USAID/BHA as the customer for which the product is being purchased), the USDA/AMS complaint specialist receives an email alert from WBSCM with the information and photos. The complaint specialist then responds with recommended corrective actions and/or continues the investigation through communication with all involved parties along the supply chain. Once the incident is resolved and corrective action is taken, the case can be closed. It is all documented in WBSCM.

Opportunity for USAID to Leverage USDA’s Investment

USAID and implementing partners use WBSCM for procurement of international food aid products. According to colleagues with whom we spoke at USDA and USAID, the complaint system is available for USAID but has not been promoted/used, and there is no complaint specialist to cover USAID/BHA complaints. This system has many of the features identified by USAID as crucial to an effective feedback system and is part of the procurement system. It is currently set up and embedded in USDA’s WBSCM procurement platform for international purchasing.

USDA/AMS/International Commodity Procurement Division Structure

The complaint specialist is part of AMS/Operation Support Division’s Domestic Outreach and Small Business Team. The Operations Support Division handles marine and financial liability through the Finance and Analysis Branch, as well as communications and outreach through the Communications and Stakeholder Branch. This branch has three teams: a Domestic Outreach and Small Business

ⁿ USDA FY 2019 Annual Performance Report and FY 2021 Performance Plan <https://www.usda.gov/our-agency/about-usda/performance>

(DOSB) team, the International Outreach and Small Business (IOSB) team, and the Workforce Support team. While there has been some harmonization and alignment between international and domestic procurement processes, it is of note that the IOSB has just one AMS who handles USG contract data, new vendor registration, and onboarding, training, and research. The DOSB team has four members, including a team lead. One member is dedicated to assisting and helping on-board new vendors and small businesses (which have rapidly expanded due to increased procurements and food products in USDA's COVID-19 response for domestic nutrition, food and safety net programs). One marketing specialist is responsible for posting and debits, while a second is responsible for complaints arising through the domestic food assistance supply chain. These functions are all part of the larger commodity procurement business process.

Domestic Complaints Specialist

On the domestic side, the complaint specialist addressed about 1,000 complaints filed per year in 2018 through WBSCM, up from 500 in the two years prior. A newly-hired complaint specialist using the system could address approximately 400 complaints per year. Compare this to the 25-30 L&D incidents that have been documented by USAID under their current business process over two years (since October 2018), and it is clear that one person, even part of a full-time staff member, could effectively manage USAID complaints if the business process were aligned with the AMS domestic complaints process. It bears repeating that AMS does not have a complaint specialist for its international procurements, even though it purchased 1.76 MMT in FY 2020—a significant amount of food, albeit a much smaller variety of items than the domestic programs.

Stakeholder Input

There is a place for all participants along the supply chain to submit feedback on FSQ issues, as long as they are a registered user within the supply chain. USDA reported that the feedback system has been effective, after some work to onboard the system and eliminate system issues. With the upgrades to the USDA IT system and WBSCM system in recent years, it now allows USDA to obtain real-time feedback, pictures of incidents, and complaints by supply chain stage, and to identify causes and trends of complaints. It is embedded in the database, and a variety of reports can be generated to explore trends, identify problem vendors, or points in the supply chain where incidents occur. This is a significant part of USDA's continuous improvement system for the foods purchased.

USDA's WBSCM System

WBSCM 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 BHA's data collection instruments. USDA already uses WBSCM and its complaint module for FSQ incident/issue reporting for all domestic food aid programs (e.g., the USDA FNS school meals, Temporary Emergency Food Assistance Program, and other safety net programs that purchase food). It has been successful in gathering data to accurately identify the causes of FSQ assurance issues.

USDA's Customer Focus

USDA has a collaborative customer focus to its procurement system and supply chain management, meaning complaints are welcomed and encouraged. The complaints 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 (e.g., food bank managers, school nutrition directors, distribution center managers), training of customers (e.g., USDA/FNS staff, school food purchasers, food bank program staff), and contact with suppliers and vendors to resolve issues have been critical to ensuring FSQ and improving the system in USDA domestic food aid programs.

Opportunity for USAID to Leverage USDA's Investment

USAID and implementing partners use WBSCM for procurement of international food aid products. According to colleagues with whom we spoke at USDA and USAID, the complaint system is available for USAID but has not been promoted/used, and there is no complaint specialist to cover USAID/BHA complaints. This system has many of the features identified by USAID as crucial to an effective feedback system and is part of the procurement system. It is currently set up and embedded in USDA's WBSCM procurement platform for international purchasing.

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/BHA office in Washington, D.C. This staff member would not need to dedicate all of his/her time to the system, given the low frequency of incidents. 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.

A.3.2. FOOD AND DRUG ADMINISTRATION RECALL BUSINESS PROCESS

The 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 removes all the affected product from the marketplace for the safety of the consumer.

FDA Recall System

Recalls are classified based on the severity of the situation and the health risk to the public. For example, food companies often call for a voluntary recall to protect consumers and their reputation. Alternatively, the FDA can order a recall. But more frequently FSQ systems that manufacturers 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/or 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. FDA has a hotline phone number on its website. Anyone can call or submit an online complaint, which will be responded to within 24 hours. The system is transparent in that FDA issues notices of recall disseminated through its listserv to anyone who has signed up.

FDA Food Recall Business Process

The FDA recall procedure involves a small number of highly-engaged stakeholders, e.g., 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. However, it is important that USAID and USDA meet the requirements of the FDA, which is the food safety regulating agency for the bulk of the U.S. food supply, including food assistance commodities. WFP has recently put in place an FSQ incident process that has some of these elements (see next section).

Recommendation:

- ✓ USAID/USDA should align their business process for food aid vendors and procurement with FDA standards.

ANNEX 4: WORLD FOOD PROGRAMME (WFP) FSQ BUSINESS PROCESS: RAPID INCIDENT MANAGEMENT

While incidents that require a product recall in the international food aid supply chain are very rare, WFP has had a couple in the last several years that originated with a Turkish supplier with fatal public health consequences that received public attention through the media.^o WFP has a rapid incident identification and analysis system in place now that is transparent (questionnaire posted on WFP website), well-known to the WFP FSQ specialists spread across the operational regions of the world who typically are WFP's first responders to any FSQ and L&D incident and are responsible for assigning the risk level. There is a process to halt distribution and recall a product if it has a high FSQ and health risk, as well as a business process to resolve the issues and mitigate or prevent any further damage (public health or public relations).

WFP has invested in its IT platform and has been honing its capabilities to (a) collect accurate data to analyze LDFSQ incidents and drive changes to overall production and handling of products (continuous improvement), and (b) to prevent and mitigate any immediate public health or food safety issue that may arise in their global food supply chain. As BHA upgrades its business process for commodity incident reporting, there are win-win opportunities to align with WFP's system.

A.4.1. WFP GLOBAL POLICIES AND FOOD SAFETY AND QUALITY MANAGEMENT SYSTEM

WFP has prioritized FSQ by building up systems and personnel in relevant units (see **Box 5**).^p WFP has an official, comprehensive FSQ management policy, enacted at the Executive Policy Council (30 June 2010), applied across the supply chain up to the final delivery supported by a ten-step FSQ management system, which is now in place.

The WFP Food Safety Unit (FSU) is a global team of approximately 25 people dealing with food and packaging. Unit priorities include specifications development, innovation, and research and development. For insurance purposes, a WFP country office must report the monetary value of losses over \$10,000. Losses are reported to the WFP Executive Board annually. This high threshold leads to some underreporting, and data on losses may be underestimated.

Food Incident Management (FIM) System and Protocol

When a food safety incident is detected, WFP activates the food incident management (FIM) system which is based on these five principles:

^o Haughey SA, Chevallier OP, McVey C, Elliott CT. Laboratory investigations into the cause of multiple serious and fatal food poisoning incidents in Uganda during 2019. *Food Control*. 2021;121:107648. doi:10.1016/j.foodcont.2020.107648

^p WFP Supply Chain Annual Report 2019 in Review. June 2020. https://docs.wfp.org/api/documents/WFP-0000117081/download/?_ga=2.32019000.725069844.1604434515-1919705036.1604434515

1. **Initiate** - Prepare for and prevent incidents.
2. **Detect** - Identify incidents and notify appropriate stakeholders.
3. **Estimate** - Assess the incident and 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.

WFP Rapid Incident Questionnaire SOP

As part of the FIM protocol, 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 defined in its FSQ SOP, in the event of a food safety issue, with governments, implementing partners, the media, and others. The full questionnaire is available on the WFP website: https://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp254767.pdf.

The questionnaire consists of three pages. A number of the questions are specific to WFP operations once the food aid in is the supply chain in their regions of operation. However, the rapid incident questionnaire could be modified for use by USAID to address potential food safety and public health issues related to foods in the U.S. food aid basket. The WFP questionnaire's categories are similar to those found in BHA's questionnaire. In fact, many of the questions are in the process of being harmonized.

WFP FSQ Rapid Incident Reporting System

It is an effective means to identify, with a very short questionnaire, high, medium, and low risk incidents and allows for immediate staff involvement in assessing incidents. WFP has invested in the system and strengthened it in the 10 years since its inception, working to make sure that incidents are identified as soon as possible and resolved quickly. The system has become more transparent, with FSQ and L&D information posted on WFP's website and available to the public. An L&D report

Box 5: WFP Food Safety and Quality Assurance

Working with other supply chain units, the school feeding and nutrition functions in WFP, as well as private sector partners, the unit identifies and mitigates risks, establishes product specifications, audits suppliers, guides inspection, develops protocols to better manage the storage and transportation of foods, and troubleshoots food-related incidents.

The unit is also involved in food and packaging-related research and development, with a view to increasing the shelf-life of products and creating more sustainable and user-friendly packaging.

ACTIVITIES IN 2019

- ✓ Rolled out the food incident management (FIM) protocol.
- ✓ Upgraded controls for weed seeds for suppliers of Super Cereal.
- ✓ Enhanced supplier audits and upgraded the scope of work of inspection companies.
- ✓ Increased nutritional value and shelf life of high energy biscuits through improved micronutrients and better packaging, respectively.

is submitted every year to the WFP Executive Board. In 2019, less than 1 percent of the supply was affected.⁹

Opportunities for Harmonization with WFP's System

There is an opportunity to link up with the WFP system and harmonize the two systems as much as feasible. The rationale is that the transfer of information on FSQ incidents can be seamlessly achieved from the beneficiary, through the PVOs, WFP, USAID, and USDA to the original vendor. It should be noted that such a system would align with current global food industry policies and quality management systems. WFP publishes a global losses report on an annual basis. The latest report was released and published in July 2020 by the executive director of WFP. The 41-page report covers a lot of ground and could be a potential model for information USAID would include in a similar report.

Recommendations:

- ✓ USAID should update and develop a rapid incident questionnaire similar in scope to WFP's.
- ✓ USAID should develop an L&D FSQ policy and management system, similar in scope to WFP's with standard operating procedures spelled out.
- ✓ USAID should develop a similar L&D report and/or include a section on L&D in the annual International Food Assistance Report that USDA/USAID is required to provide to Congress.

⁹ Reference to the 2019 Annual Loss & Damages Report to the Executive Board <https://docs.wfp.org/api/documents/WFP-0000104719/download/>

ANNEX 5: A ROADMAP FOR USAID/BHA TO OPERATIONALIZE ITS COMMODITY INCIDENT MANAGEMENT BUSINESS PROCESS

Leverage and Improve Current System and Resources in the Short Term While Longer Term Solutions are Developed

The recommended FSQ system update leverages already-existing communication channels to document, report, resolve, and track trends in FSQ 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.

The following set of principles and recommendations is provided to guide USAID/BHA to move from an *ad hoc* system of commodity incident reporting and resolution to a complete, modern business process that meets FDA requirements.

A.5.1. OPPORTUNITIES TO UPGRADE CURRENT BUSINESS PROCESS AND TOOLS

Overarching Principles

Having an effective L&D reporting and management system including FSQ elements is now a requirement of all U.S. manufacturers under FSMA. USAID needs to upgrade its commodity incident reporting business process to meet modern LDFSQ requirements. The following recommendations can be made to the current system and tools, while longer term recommendations can be put in place, like integration with the USDA WBSCM complaints management system or development of end-to-end traceability solutions.

Recommendations:

- I. *Upgrade the Commodity Incident Reporting System:*** The L&D system should incorporate FSQ and become an LDFSQ reporting system of recording incident information.
 - As an immediate action:
 - Rename the system, “Loss & Damages Food Safety and Quality Reporting System (LDFSQ Reporting System)”.
 - Update the current L&D data collection instruments used to record incidents to capture LDFSQ information and resolution should make the following changes: The L&D FSQ report should include a section that covers the corrective action that has been taken to reduce the risk of an incident in the future and feedback to the source of the complaint about closure of the incident.

Over the long term, the LDFSQ Reporting System can be adapted as needed and integrated into a comprehensive traceability system when that comes online.

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2. **Upgrade the LDFSQ Report:** It should include an assessment of the potential contamination and hazard to health of the beneficiaries (consumers) at the end of the supply chain should the food be exposed, and it should be linked to a database to capture the information for resolution, trend analysis, and continuing improvement.
 3. **Finalize and Deploy the Latest Commodity Incident Questionnaire:** Including instructions, dissemination of information about the new process, and embedding the requirement to fill out for any incidents in the request for applications (RFA) and implementing partners' Title II approved agreements (include incentives, not penalties, for reporting LDFSQ incidents). (Note: This questionnaire was conceived as a web-based input mechanism on a Google platform, which would automatically populate a database with the information from the questionnaire, so data entry is automated. Whatever platform is chosen as compliant with USG cyber security requirements, the questionnaire should be able to be filled out anywhere, on a mobile device or a computer, and auto-populate a database with the information).
 - In the short term,
 - Make sure that FSQ questions are included in the commodity incident questionnaire, and harmonize as possible with WFP's rapid incident questionnaire to consistently classify FSQ risk and direct the incident to the appropriate first responder for action and to determine next steps.
 - Develop check list or flow chart for incident action.
 4. **Upgrade the Commodity Incident Archiving System:** USAID should continue to systematically archive their LDFSQ cases, currently housed on the Google Docs platform, compiling all the relevant incident documentation, photos, survey reports, COAs, resolution flow, and identification of cause, as well as the completed LDFSQ case report using the updated LDFSQ template for each incident.
 - As an immediate action,
 - Systematize the filing system and nomenclature for easy access to the relevant information.
 - Consider digitizing the information in the LDFSQ templates to create a database to mine for trends and identify elements of a resolution process, which may vary by product type and nature of incident (e.g., whether it is a shipping, microbiological, or manufacturing issue).
 - As a short-term action,
 - Consider a pilot test of USDA's WBSCM-based complaints business process, already in place and in use for domestic product complaints.
 - Over a 12-month period, document the incidents that arise to see if this business process can be permanently adopted (and adapted as needed) for international procurement incidents and integrated into USAID's incident reporting and resolution business process.
 - Over the long term,
 - Interface or integrate the LDFSQ incident identification and resolution system with the digital platform USAID is considering for end-to-end traceability.
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- 5. Formalize the Commodity Incident Report and Resolution Business Process, Define Staff Responsibilities:** The L&DFSQ report and related business processes need to be formalized within the USAID and USDA management and supervision structure including an SOP, and define personnel positions responsible for receipt of incident reports, coordination with USDA counterparts (supplier and other vendor interaction), and management and resolution of L&D and FSQ incidents also need to be defined.
- Immediately,
 - Officially identify (a) one main POC at USAID/BHA to receive the L&D FSQ incident reports and (b) one main POC at USDA/AMS to direct the resolution management and communication depending on whether it is a food/commodity FSQ issue (AMS market specialist) or a shipping/transportation/warehouse issue (AMS transportation).
 - The current line of communication on LDFSQ from the USAID field offices, PVOs, and WFP to USAID, USDA, and the U.S.-based vendors is not formalized, and there is no feedback or closure of incidents.
 - The roles and responsibilities of the different agency personnel involved in the receipt of food safety corrective actions should be defined.
 - In the short term,
 - Identify an LDFSQ incident working group or task force involving both USAID and USDA to develop an SOP for the report and resolution business processes, including formalizing lines of communication, communication flow and feedback, and responsibilities.
 - Work within USAID/BHA and USDA/AMS to define skill sets and capabilities needed to cover the elements of the business process and communication flow/feedback for timely resolution.
 - Determine when and how to activate input from FDA (e.g., a public health risk involving a U.S. manufacturer of foods that are under FDA FSMA jurisdiction) and other USG agencies/departments (e.g., legal department if there is an L&D claim that rises to that level) if needed; incorporate into the business process SOP.
 - Develop a memorandum of understanding (or other appropriate official mechanism) between USAID/BHA and USDA/AMS/International Commodity Procurement Division outlining the reporting and resolution process and responsibilities (job descriptions).

A.5.2. USAID COMMODITY LDFSQ REPORTING BUSINESS PROCESS – COORDINATION AND HARMONIZATION WITH WFP

Overarching Principles

WFP is USAID's major customer in terms of volume of U.S. food aid commodities and products under Title II, and a fair share of the incidents occur under their control, but the USG and WFP's business processes do not overlap effectively. There is an opportunity to link an updated USAID L&D FSQ report business process with the current WFP business process and system so that information from the field under WFP's control can seamlessly be received into the USAID system.

Recommendations:

- **Streamline Incident Questionnaire for Risk Assessment:** USAID should have a rapid incident questionnaire similar to the WFP one (FAQR provided relevant FQS questions that can be/are being integrated into the commodity incident questionnaire on which USAID is currently working as mentioned above).
- **Develop an Official LDFSQ Policy:** USAID should have an official policy requirement to include L&D reporting similar to that which WFP produces annually for their Executive Board.
 - As a first step, until and if USAID makes a policy change to require a separate report to WFP's, a section on LDFSQ could be included in the annual USAID/USDA International Food Assistance Report that is already a requirement from Congress.
- **Harmonize with WFP System:** Harmonization of feedback loops, food safety incidents, and L&D with other agencies results in more seamless communication and faster responses with corrective action plans and implementation. Look for immediate opportunities to harmonize with WFP.
 - Identify a WFP POC to interface with USAID and USDA on LDFSQ issues.
 - Include this WFP POC as a member or affiliate member of the USAID-USDA commodity incident reporting and resolution working group or task force (recommended above).
 - Work with IT teams at USAID/BHA, USDA/AMS, and WFP/FSQ to determine how to “talk to each other” and set up digital interface systems and permissions to communicate more seamlessly about LDFSQ incidents.

A.5.3. USAID COMMODITY LDFSQ REPORTING BUSINESS PROCESS – LEVERAGE AND INTEGRATE WITH USDA'S BUSINESS PROCESS AND COMPLAINTS MANAGEMENT SYSTEM

Organizing Principle

USAID/BHA should align its business process to leverage investments in those of USDA for complaints management for a unified business approach.

Recommendations:

- **Align USAID and USDA Business Processes:** Introduce systems adjustments at USDA/BHA, within the parameters of its IT platform and systems modernization, to align with USDA systems and business processes in place for food importers and exporters, and align with continuous improvement programs systems, already in place at USDA and in the U.S food industry and globally. This will be more important as USAID's food assistance supply chain goes global with local and regional purchasing.
- **Develop Unified USAID/USDA Business Process:** BHA should work with USDA to develop a unified business process that comprises reporting, resolution, feedback, and closure, including an MOU and job descriptions.
 - This could require high-level buy-in from senior management of both USAID/BHA and USDA/AMS.

- **Integrate with USDA WBSCM Complaints Management System and Business Process:** USAID/BHA should adopt the current USDA WBSCM complaints reporting system, which has already vetted by the USG for cyber security, has been in use successfully for several years, and is modernized to meet current requirements through its continuous improvement program.
 - *In the Short Term, Determine Next Steps for Alignment:* USAID should work with USDA/AMS WBSCM complaint managers to determine the steps to immediately adopt and activate the system with a database adapted to the needs of USAID/BHA food assistance. While WBSCM does not go all the way through to the last mile in the international food supply chain, it would provide an immediate, embedded system for USAID to obtain real-time information from the WBSCM system without having to request it whenever they need it.
 - *In the Short Term, Activate the WBSCM Complaints Module for International Purchases:* The WBSCM complaints system 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 United States, 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.
- **Remove Dollar Threshold for L&D Claims:** BHA should adopt a new streamlined LDFSQ reporting system with a reporting threshold of zero dollars.
- **Continue Long-Term Technology Improvements and Traceability:** Continue efforts to provide end-to-end product tracing to identify the product when an incident occurs. Incident identification is the first step in incident resolution.
 - Continue to take advantage of rapid advancements in technology that make it possible to capture data and track FSQ incidents that may occur at any point along the supply chain. The use of QR codes on products together with 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.