

Feed The Future Evidence and Action Towards Safe, Nutritious Food: EatSafe

Food Safety Training Manual for Vendors in a Traditional Vegetable Market

July 2024

This FTF EatSafe report presents practical advice, and a curriculum for training vegetable vendors in traditional markets on food safety.

Recommended Citation: Global Alliance for Improved Nutrition. 2024. Food safety training manual for vendors in a traditional vegetable market.

Agreement Type

Cooperative Assistance

Agreement Number

7200AA19CA00010

Period of Performance

June 31, 2019 – July 30, 2024

Geographic Scope

Global Food Security Strategy Countries

USAID Technical Office

Bureau for Resilience, Environment and Food Security (BREFS)/ Center for Nutrition

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This document was made possible through support provided by Feed The Future through the U.S. Agency for International Development (USAID), under the terms of Agreement #7200AA19CA00010. The opinions expressed herein are those of the Global Alliance for Improved Nutrition (GAIN) and do not necessarily reflect the views of USAID or the United States Gov.



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ACRONYMS AND ABBREVIATIONS

EatSafe	Evidence and Action Towards Safe, Nutritious Food
GAIN	Global Alliance for Improved Nutrition
LMICs	Low- and middle-income countries
KAP	Knowledge, attitudes, and practices
WHO	World Health Organization

1. EXECUTIVE SUMMARY

Feed the Future's EatSafe: Evidence and Action Towards Safe, Nutritious Food (FTF EatSafe) aimed to boost consumer demand for safe, nutritious foods in traditional markets in low- and middle-income countries (LMICs), specifically Nigeria and Ethiopia. Utilizing a two-phased approach, FTF EatSafe's Phase I combined global evidence with local situational analyses to understand the context, and Phase II involved designing, testing, and implementing interventions to empower consumers.

Insights from formative research guided the development of interventions, including the Vendor Training Initiative in Hawassa, Ethiopia. The Vendor Training Initiative, piloted in the Aroge Gebeya market in Hawassa City, focused on hands-on vendor training to enhance food safety practices.

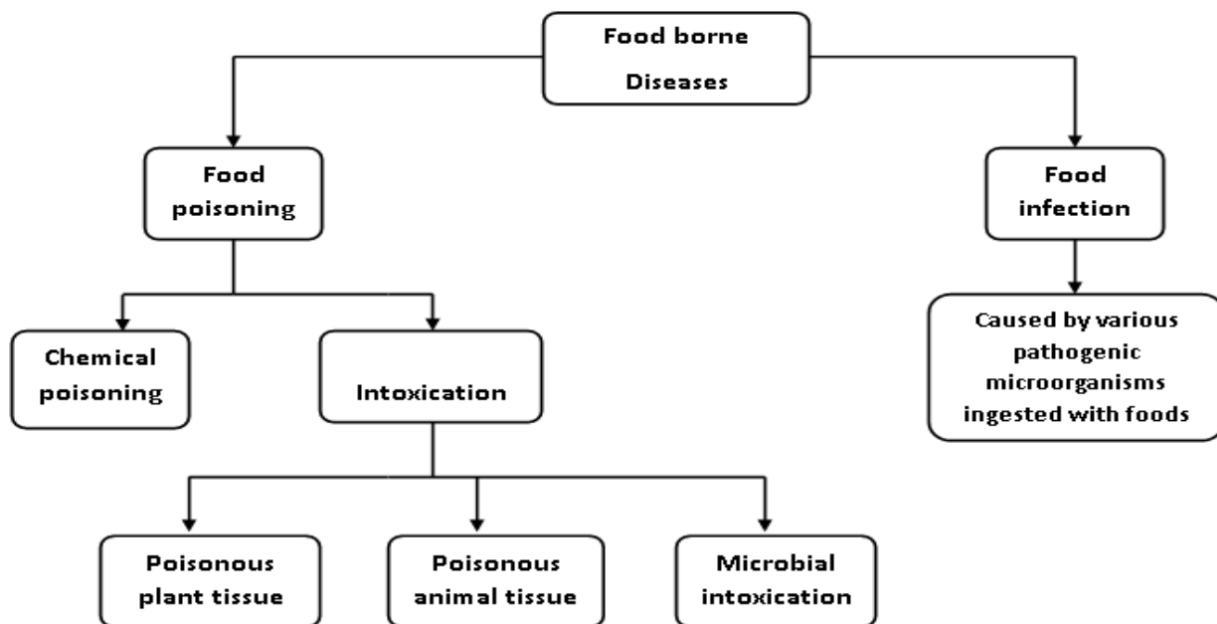
1.1. *Purpose of this document*

This manual is designed to equip Health Extension Workers, Health Science students, and Training Facilitators working in the food system with the knowledge and skills to provide basic food safety training to vendors in traditional markets. It consists of eight modules based on the 5 CLEANS and 4 SAFES framework, with each module incorporating both discussion and hands-on demonstration exercises. The training promotes peer interactions as well as input from trainers. The manual also gives guidance on the use of simple technologies, practices, and training aids to reinforce the training content. It is based on a vendor training initiative implemented in Hawassa, Ethiopia.



2. INTRODUCTION TO FOOD SAFETY, WHY IT MATTERS?

Food safety remains a burden to public health and national development due to the increasing prevalence of foodborne illnesses. Unsafe food containing harmful bacteria, viruses, parasites or chemical substances causes diseases – ranging from diarrhea to cancers. An estimated 600 million in the world fall ill after eating contaminated food and 420, 000 die every year, resulting in the loss of 33 million healthy life years (DALYs)¹. Children under 5 years of age carry 40% of the foodborne disease burden, with 125,000 deaths every year. Foodborne illnesses are usually infectious or toxic in nature and are caused by bacteria, viruses, parasites or chemical substances entering the body through contaminated food or water.



Food safety is often neglected due to several factors: a significant knowledge gap and lack of understanding of best practices that promote food safety, insufficient diligence and commitment from stakeholders, and a poor reporting system. Capacity building in food safety training is essential to address the existing knowledge gaps, enhance commitment to best practices, and enhance food safety behavior. This training equips market actors with the necessary skills and understanding to ensure food safety in traditional markets, ultimately protecting public health and building trust in local food markets.

¹ [FERG Report](#). WHO. 2015.



3. TRAINING VENDORS ON IMPROVED FOOD SAFETY PRACTICES

3.1. Goals

This training aims to motivate participants by demonstrating the benefits of improved practices, such as protecting their customers, and growing their business.

Specifically:

- Motivating vendors to adopt safer food handling and preparation practices.
- Increasing vendors' awareness of their responsibility in ensuring the sale of safe food.
- Raising awareness among other trained market actors about the importance of safe food handling.
- Cultivating new habits that promote improved food safety behaviors both in markets and homes.
- Enabling trained vendors to engage in food safety programs such as brand initiatives that enhance visibility to buyers.

3.2. Preparations

Key Elements

The considerations that FTF EatSafe worked through in preparing for the vendor training in Ethiopia were as follows:

- **Content:** What are the essential practices and knowledge that vendors need to know to maintain high standards of food safety and hygiene in traditional markets.
- **Audiences:** Understand the characteristics of the primary audience. Are there other audiences? While the primary focus group of this training was food vendors, there were other relevant stakeholders such as market management, health authorities, and suppliers, and community groups that could engage and benefit from this training.
- **Audience Motivations:** Tailor the framing of the training to the motivations of the audiences - such as attracting customers, being a respected community member, or avoiding fines.
- **Need for Preliminary Research:** Training is most effective when it is tailored to the target audience. To achieve this, information on the audience needs to be collected for the design and implementation of the training. This includes audience demographics, current knowledge, appetite for training, and literacy/language considerations.



Practical Design Considerations

Given that vendors in traditional markets operate as micro-businesses, it's essential to design and implement the training schedule in a way that respects their livelihoods and minimizes disruption to their business activities. FTF EatSafe recommends the following components for effective food safety training tailored to traditional market vendors:

- **Flexible Scheduling:** Offer training sessions during off-peak hours or times that least impact vendors' business operations.
- **Short, Intensive Sessions:** Condense training modules into shorter sessions that can be completed within limited timeframes, such as 45 minutes to 1 hour per session.
- **Hands-on Demonstrations:** Incorporate practical demonstrations that vendors can immediately apply to their daily operations, reinforcing learning through direct application.
- **Peer Learning:** Foster a supportive environment where vendors can learn from each other's experiences and best practices, promoting engagement and shared knowledge.
- **Localized and Relevant Content:** Tailor training content to address specific challenges and contexts of each market, ensuring relevance and practical applicability.
- **Continuous Support:** Offer ongoing support and resources beyond initial training sessions, such as post training follow up and periodic refresher courses.

Offer Training Toolkit: Food safety starter kits that provide simple equipment (e.g. bowls & waste bins) and supplies (e.g. hand soap) are a good way to reinforce learning and stimulate the adoption of best practices. The kit materials should be locally sourced for on-going accessibility.

Select Appropriate Trainers: In the case of FTF EatSafe, the training was conducted by health extension workers and local university students who were familiar with market dynamics, language, and culture, which ensured effective engagement and delivery.

Training Methodology: Engaging vendors with practical, participatory, and motivational techniques ensures success. Hands-on activities in the market enhanced understanding and application of food safety behaviors, including discussion, demonstration, market walks, and peer learning.



Carefully choose the training location and duration: With FTF EatSafe, the market vendors received on-site training at their stalls in groups of no more than five, with each session lasting 45 minutes to 1 hour, which allowed them to continue their business activities; the training spanned 5-6 weeks, with three sessions per week. Trainers remained flexible, and adjusted where necessary to ensure vendor attendance, and engagement, while minimizing interruptions to their work.

Training Plan: It is recommended that the training plan is formalized into a written document. The plan should provide trainers with the training content, methods, and approaches to guide the training on the ground. It should also give some background on why the training has been designed the way it has, and give insights into the audience, to help orientate and guide their efforts.

Sustainability Efforts: Training outcomes are improved when training messages and information are reinforced. The FTF EatSafe vendor training accomplished this in two ways. The first, was the sharing of laminated cards at the end of each training session. The cards summarized each training module's key messages and information. Together, the cards represented a quick reference guide on food safety best practices that could be keep at the market.

The second sustainability element was the implementation of follow-up training by health extension workers. The initial training was given by university students as part of their community outreach activities. This was followed up, some months later, by health extension workers in another round of training. Having different community stakeholders give the training demonstrated to the vendors, the importance of the food safety messages and materials.

3.3. Terminology

Food: A substance consumed for nutritional support, typically from plants, animals, or fungi, containing essential nutrients like carbohydrates, fats, proteins, vitamins, and minerals.

- Perishable foods - eggs, meat, fish, poultry, vegetables; milk; creamy cake.
- Semi-perishable- bread, fruits.
- Non-perishable - dry foods; canned foods; food oil

Food Hygiene: Conditions and measures ensuring the safety and fitness of food from production to consumption, covering production, processing, storage, distribution, preservation, and service (WHO/FAO).

Food Safety – assurance the food won't cause harm when consumed.

Safe Foods – free from physical, biological and chemical hazards.



Clean Foods – free from physical hazards or visible dirt.

Sanitation – cleaning of market areas, utensils, personnel to reduce germs

Hygiene – behavior's that improve cleanliness



Personal Hygiene – keeping the body clean and healthy

Food Quality – properties and attributes of a food that are accepted and favored by consumers.



4. TRAINING CURRICULUM

4.1. Module One: Food Safety and My Business

MODULE 1	
Food safety and my business	
BACKGROUND	
Learning Objective	Develop trust relationship between trainer and vendor. Prepare vendors for the scope and approach used in training and how food safety affects their business and their customers.
TRAINING CONTENT	
Discussion	<ul style="list-style-type: none"> Introductions and icebreaker (What's your favorite food in the market and how do you prepare or eat it?) Explain to vendors: Training over the next weeks will discuss some easy-to-implement food safety practices to help attract customers Provide information on: What germs are and where do they live. Describe range of food safety risks in the market (microbial, chemical, physical) to be addressed in the training Discuss why is handwashing important, and hands as a vehicle for cross contamination
Exercise	<ul style="list-style-type: none"> Create a soapy water bottle for use at the stall Demonstrate proper hand washing at the stall using Glow Germ
Incentive	<ul style="list-style-type: none"> Soap (dry detergent), clean water, and water bottle (students to bring plastic water bottles for each vendor) Card holder and first laminated card <p>ስም:</p> <p>_____</p> <p>_____</p>  <p><i>Laminated card</i></p>
Training Materials	<ul style="list-style-type: none"> Glow Germ 



Key Information

1. Importance of Food Safety

Definitions of Food Safety

- Is the assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use
- Producing, handling, storing, and preparing food in a manner that prevents infections or diseases .
- Non-compliance to food safety practices poses great risk to the health of the consumers

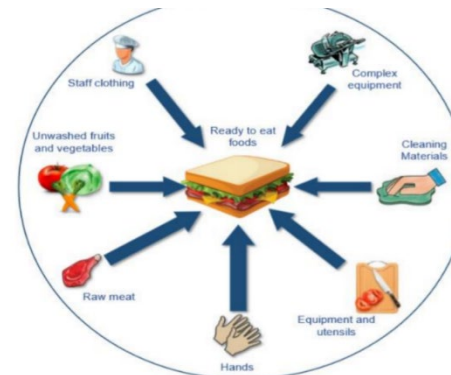


Importance of Food Safety to Vendors

- Prevents loss of:
 - Time and effort in resolving complaints
 - **Patronage** from customers
- Prevent food-related diseases and death
- Protect against false allegations and loss of reputation
- Reduce costs and allow better resource utilization
- Help meet standards and technical regulations

2. Sources of Food Contamination

- Food-to-Food
- Utensil-to-Food
- Person-to-Food
- Pest-to-Food
- Waste-to-Food
- Water-to-food
- Dust/Air-to-Food



Possible Sources of Food Contamination

3. Food with Contamination Risks

- Raw foods of animal origin – meat, fish, poultry, eggs, unpasteurized milk
- Fruits and vegetables – through fecal contamination through irrigation water, or non-composted manure used as fertilizer)
- Any food in contact with unsafe or contaminated water through irrigation or washing.



4. Impacts of Foodborne Illnesses

- **Acute** – diarrhea with or without vomiting, abdominal cramps, nausea, fever, joint/back aches, ‘stomach flu’, and fatigue.
- **Chronic** – brain damage, cancer, poisoning, and death
- **Growth** – infectious including from food can stunt children’s growth

5. WHO Five Keys to Safer Food

- Keep Clean** – utensils, surfaces, hands, food area, foods covered
- Separate Raw and Cooked Foods** – use separate utensils and store separately
- Cook Thoroughly** – cook foods above 70°C, reheat cold foods
- Keep Food at Safe temperature** – refrigerate all perishables
- Use Safe Water and Raw Materials** – fresh and wholesome, sorting, trusted safe or treated water, wash fruits and vegetables only with safe water

6. Utilizing Glo Germ Oil for Handwashing Demonstration

- Shake the bottle of Glo Germ oil well and place a small amount, about the size of a coin, into the palm of one hand and spread over both hands completely as if applying hand lotion. Be sure to cover your hands completely, particularly under nails, around cuticles and between fingers. Wipe off excess with paper towel.
- Do not let oil contact clothing as staining may result. When using white Glo Germ gel, use the same procedure with a pad of gel about the size of a small coin. Wiping off excess gel is usually not necessary
- Place hands under UV lamp to view “glowing germs” that exist before hand washing. Demonstration works best in a darkened room.
- Perform the FDA-recommended hand wash using soap and warm water. The amount of effort required to remove the simulated germs is equal to that of removing most






bacteria. Again, place hands under UV lamp, paying special attention to thumbs, areas around nails and between fingers, The UV lamp reveals the remaining “germs” as proof of improper hand washing.

- Complete removal of Glo Germ with normal washing is more difficult

if skin is chapped or cracked, indicating that bacteria is also harder to remove. This will require a hand care regime with a quality lotion twice daily and judicious use of a hand sanitizing gel.



4.2. *Module Two: Personal Health and Hygiene of Handlers*

MODULE 2	Market conditions can help or hurt food safety
BACKGROUND	
Learning Objective	Review the impact of various market conditions on food safety (often beyond the control of the vendor) and how to reduce risk.
TRAINING CONTENT	
Discussion	<p>Ask vendors:</p> <p>How do they keep animals and insects away from food?</p> <p>What do they do if the product has insect infestation?</p> <p>How do they manage waste around their stall?</p> <p>How do they deal with mud after it rains?</p> <p>Share Information on:</p> <p>Drainage and the importance of avoiding mud and rain runoff contact with food.</p> <p>Best practices for waste management at the market.</p> <p>How to advocate for better market conditions</p> <p>Discuss actions vendors can take collectively in the market.</p> <p>Discuss the objectives of the Market improvement Initiative and who to contact if they want to get involved.</p>
Exercise	<ul style="list-style-type: none"> • Write cards to county leaders, managers, or market improvement initiative leaders to recommend changes in the market. • Walk around the market to view conditions (time permitting).
Incentive	<ul style="list-style-type: none"> • Laminated card with reminders for keeping products safe from animals, insects, waste management and other market conditions. <div data-bbox="354 1581 792 1843" style="border: 1px solid black; padding: 5px;">  <p>The laminated card features the FEED THE FUTURE logo at the top left and the USAID logo at the bottom right. The main title in Amharic is 'ገጽ-ሀ ገበያ' (Market Stall). Below it, there are icons of a person, a stall, and another person. The text on the card reads: 'ደህንነት የተጠበቀ ምግብ በየቀኑ ሙሉ ቀን አገድ ላይ!' (Safe food every day!). To the right of the card, there is a list of bullet points in Amharic: '• ስለ ገጽ-ሀ አካል ደህንነት የተጠበቀ ምግብ ከአቅራቢዎቹ ጋር ይገናኙ', '• ሌሎች ሽያጭኞችን ይርዱ', '• ጥያቄዎቹን ይጠይቁ', '• አርዳታ ሲያስፈልግዎ ይጠይቁ', '• ምግብዎን አገዱት ገጽ-ሀ አካል ደህንነት አገድተው ለደህንነቱ ይገኙ'.</p> </div> <p><i>Laminated card</i></p>

Key Information

1. Good Handling Practices (GHPs)

These are activities that ensure the safety and suitability of food at all stages from primary producers through to handling of the final product (final consumer).

Good Handling Practices (GHPs) should be implemented in:

- Farm cultivation
- Transportation, storage, and display in market
- Construction of stalls and stands
- Cleaning and disinfection (surfaces, tools, containers)
- Preventing cross-contamination from other foods
- Pest control measures
- Personal hygiene
- Use of water

Benefits of proper handling include:

- Increases customer satisfaction and builds trust
- Ensures that there is full compliance to regulatory standards
- Ensure better relationship with regulators and other partners

Good Hygiene Practices (GHPs)

Practices to DISCOURAGE



Vendors and market management should mandate the availability and use of washing hand basins at markets. The practice of routine hand washing should be encouraged as cross-contamination will be reduced while hygiene will be promoted... customers and consumers should also be made to practice this as a major behavioral change to promote food safety.

Personnel	<ul style="list-style-type: none"> • clean and healthy • understand the importance of hygiene for food safety
Environment	<ul style="list-style-type: none"> • clean and tidy • waste disposal bins • sanitary and water system • cleaning equipment
Fish	<ul style="list-style-type: none"> • appearance of freshness and firm flesh • fins that are intact and wet
Beef	<ul style="list-style-type: none"> • Net covered cubicle • water for cleaning purposes • refuse disposal bins • clean and unblemished
Vegetables	<ul style="list-style-type: none"> • use of raised platform for display of wares • separate types of vegetables • guaranteed freshness
Grains	<ul style="list-style-type: none"> • whole • free of indications of rottenness or spoilage • clean and practically free of visible foreign matter (stones, pieces of metal, rodent excreta, etc.) • free of foreign smells and/or flavors • free of attack from pests, especially weevils and other parasites that can present a hazard to consumer health.



2. Personal Cleanliness

- Always exhibit a high degree of personal cleanliness
- Wear suitable Personal Protective Equipment (PPE) - e.g. aprons, hair, nets, face masks, etc.
- Do not wear jewelry that could fall-off
- Do not wear false nails or polished nails
- Keep fingernails short
- Do not eating, drinking, or chewing gum during selling activities
- Vendors should always wash their hands immediately after using the toilet; and after handling raw food or any contaminated materials.

3. Hand Hygiene

- i. Wash hands under running water with soap
- ii. Scrub hands for 20 Seconds.
- iii. Rinse hands under running water.
- iv. Dry hands with a clean towel. Air drying is also acceptable. Do not rub hands on the body or clothes.
- v. Wear gloves if available, and affordable (so that they can be changed regularly).

How Food Handlers Can Contaminate Food

Actions that can contaminate food:

- A. Scratching the scalp
- B. Running fingers through hair
- C. Wiping or touching the nose
- D. Rubbing an ear
- E. Touching a pimple or infected wound
- F. Wearing a dirty uniform
- G. Coughing or sneezing into the hand
- H. Spitting in the operation





4. When Vendors Should Not Handle Food or Take Extra Precautions

Illnesses and Wound Injuries

People with these health symptoms may contaminate food while handling it:

- Diarrhea
- Vomiting
- Stomach cramps or pain
- Jaundice
- Sore throat with fever
- Visibly infected skin lesions (boils, cuts, etc.)
- Discharges from the ear, eye, or nose
- Coughing and Sneezing




Avoid exposure of wounds to food contact

CASE STUDY

A study (2020) revealed that most workers spending little hand washing time (< 20 seconds), and many others rub their hands directly on their PPEs, after washing. Workers who used less time for handwashing showed higher counts of bacteria (aerobic mesophiles and Staphylococci) than those who spent longer time. Similarly, it has been found that washing in-between fingers is not common. Yet this is necessary to significantly decontaminate the hands. The study also revealed the need for drying hands after washing, as wet hands can readily transfer microorganisms to foods or contact surfaces. Food centers in the markets should therefore consider installing posters on hygiene practices expected to be practiced promoting compliance with guiding principles on hand washing.

4.3. *Module Three: Clean Stands, Environment and Utensils (Including Waste Management)*

MODULE 3		5 CLEANS and 4 SAFES	
BACKGROUND			
Learning Objective	Introduce 5 CLEANS and 4 SAFES and how improved food safety can attract more customers.		
TRAINING CONTENT			
Discussion	<ul style="list-style-type: none"> • Introduce the 5 CLEANS (Hands, Water, Tools, Surfaces, Clothes/Cloths) • Introduce the 4 SAFES (Storage, Sorting, Separating, Sanitizing) • Review steps for effective handwashing <p>Ask vendors:</p> <ul style="list-style-type: none"> ○ How do physical contaminants enter food? ○ How do chemical contaminants enter food? ○ How do microbial contaminants enter food? 		
Exercise	<ul style="list-style-type: none"> • Demonstrate effective handwashing procedures • Glow germ use to test handwashing effectiveness 		
Incentive	<ul style="list-style-type: none"> • Laminated card on steps for proper hand washing 		



Key Information

1. Cleaning utensils and surfaces

- Food outlets and market stalls must be always kept clean
- Dirty environment and surfaces pose serious threat to food safety
- Wash utensils after each use
- Use suitable and appropriate cleaning method capable of removing dirt and residue
- Use only food grade cleaning products
- Keep rubbish/waste area clean and tidy and remove rubbish/waste daily.
- Clean and dry all utensils and the cleaning equipment as germs can grow fast in damp places.

Standard Operating Procedures for Cleaning – Utensils

Activities necessary to complete cleaning tasks. Great way for food vendors in ensuring the utensils used are thoroughly clean to promote food safety.	UTENSILS	GUIDELINE FOR CLEANING
	Cloths and sponges	Washing materials such as clothes and sponges can harbor bacteria. They must be washed daily in warm water to kill the bacteria. Allowed to dry. Also, change sponges as often as possible.
	Cutting tables/slabs	The repeated use of cutting tables/slabs allow bacteria to hide and makes cleaning difficult. Wash cutting slabs with warm water mixed with dish detergent. In places where jute bags are used, use different jute bags daily and wash after the day's use.
	Knives	<ol style="list-style-type: none"> 1. Wipe it clean right after each use to prevent staining. 2. Lather a sponge in warm, soapy water. 3. Soak it for 1 or 2 minutes if food is stuck on it or stained. 4. Dry it with clean towel as air drying may cause rustiness

2. Food Packing Materials: Filling/Wrapping Selection, Closures, Storage, Handling

Selected packing materials or containers should:

- Provide adequate protection for product integrity
- Prevent contamination and damage
- Accommodate proper labelling
- Adopt the use of reusable packaging and easy to clean
- Packaging should bear manufacturer's name and serviceable period



Hold products in appropriate packaging e.g., grains in jute bags

Inappropriate or indiscriminate use of packaging materials contribute to health hazards and risk.



3. Pest and Domestic Animal Control & Prevention

Good hygiene practices should be followed to avoid pests

- Good sanitation, & proper storage of supplies will minimize the likelihood of infestation
- Potential pest food sources should be stored in pest-proof containers
- Dispose all trash/refuse daily and appropriately
- Use preventative controls such as mesh, baits, traps, poisons (only if allowed by local authority)
- Food, water, and shelter are the three main sources that pests need to thrive, ideal habitat conditions in retail foods and production facilities
- Knowing what specifically attracts different types of pests can help reduce the likelihood that they will enter your premises (e.g., rats and mice are drawn to food supplies and like to nest near food sources).
- Thoroughly cleaning facility after food preparation, at the end of the business on daily basis, and disposing all wastes properly, prevents attracting pests.



Prevent pests and pets from food areas

4. Waste Management

Vendors must have a waste bin at their stall, and they should encourage other market actors to use it.

- Dispose all refuse at designated area after daily activities
- While carrying waste, ensure foods are kept away to prevent contamination
- Ensure waste bins are always closed



5. Importance of Continuous Cleaning

- Clean surfaces and utensils on a regular basis & make it a routine
- Clean after each round of activities
- Ensure the stall area is clean, hygienic, and clutter free
- Wash or wipe away spills promptly; disinfect when needed.

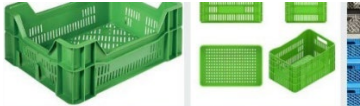




CASE STUDY

Mr. Bala Mohammed is a successful butcher in a daily market, with many customers and a reputation for always selling meat of high quality and taste. He built a culture where sanitation is a priority commitment. His environment is always spotlessly clean because he has recognized sanitation as an essential attraction to his customers.

Mohammed asked market authorities to build a concrete floor near his stall, because of the constant flooding that prevents easy access for customers when it rains. This initiative is yielded great results and his investment in cleanliness improved his immediate environment and boosted his customer base within a short time.

Discuss other simple initiatives in your own market experience that can bring about such huge impacts in both the market environment and your business.

4.4. *Module Four: Food Sourcing and Handling*

MODULE 4 Proper handling of vegetables can maximize safety	
BACKGROUND	
Learning Objective	Explain how to protect vegetables from contamination; store, and display in conditions to minimize pathogen growth; avoid pathogen movement and cross contamination; properly wash dirty vegetables
TRAINING CONTENT	
Discussion	<ul style="list-style-type: none"> The goal is to avoid microbial, physical and chemical contamination. Provide information on: How do germs grow? Introduce “danger zone” temperatures and conditions for pathogen growth. Avoiding cross contamination (separate vegetables from animal foods, manure, animals in the market) Conditions to strive for (clean, cold, low moisture) Conditions to avoid (dirty, hot, wet – danger zone) <p>Ask vendors:</p> <ul style="list-style-type: none"> How do they sort their food to ensure good quality? How do they ensure that animals and insects don't get in their food? How do they wash their food at the stall? How do they protect their food from physical contaminants? How do they protect their food from chemical contaminants? What are improper uses of pesticides (e.g., direct application onto food)?
Exercise	<ul style="list-style-type: none"> Equipment washing demonstration using Glow germ (e.g. knife or board), Demonstrate effective methods to clean surfaces Review use of the soap bottle for cleaning hands and surfaces
Incentive	<ul style="list-style-type: none"> Give colored crates/bowls to help separate good and bad produce Laminated card on tips to properly handle fresh vegetables      <p>ከተከፈቶችን - በገንጾህ - ከጸሐይ ብርሃን የራቀ - ከመጋቢት ላይ - ተለያይተው እና ተደርገዋል - ከአገሳት እና ከሚከሰቱት የራቀ ቦታ ላይ ያስቀምጡ።</p>

Key Information

1. Food Sourcing to Ensure Food Safety

Select a supplier that:



- Has the capacity to understand and consistently deliver to agreed food safety and quality specifications
- Is open to new ideas that will enhance food safety, such as changing from woven raffia baskets to durable plastic crates
- Sees him or herself as a long-term partner in the business relationship by constantly paying close attention to safe food handling practices
- Answers your questions about the food with honesty

2. Receiving and Transporting Food Commodities to Market

- Sort the food
- Separate out material unfit for human consumption
- Dispose rejected material appropriately
- Protect foods from contamination
- Clean the vehicle and disinfect when necessary
- Perishable foods: use temperature regulated vehicles or ice cubes/boxes
- Do not transport non-food items unless separated
- Do not use same vehicles for animals
- Transporting materials should be marked and designated
- Wear PPE when handling food
- Practice GHPs always



Avoid cross contamination of foods during transportation

3. Separating Raw Food from Cooked Food to Prevent Contamination

- Some raw food materials can contain dangerous microorganisms that can be transferred during food transportation, preparation, and storage
- Separate raw meat and fish from fruits, vegetables, or grains at all stages from cleaning, storing, preparation to cooking
- Do not use utensils, containers, or cutting boards that have held raw food materials unless they have been washed in-between
- Store foods in covered containers to avoid cross contamination between raw and prepared foods



Avoid mixing raw or cooked plant and animal products together

4. Selecting appropriate packaging material



4. Appropriate Temperature Control: Transportation, Preparation, and Storage

Controlling the temperature of foods, especially perishable, is important to ensure the foods are safe:

- Control ambient temperatures
- Control humidity
- Keep coolers closed
- Place perishable food in a cooler with ice or frozen packs; display on ice
- Don't cross-contaminate in coolers,
- Clean your produce
- Control odors in cold stores
- Fill empty spaces with frozen water bottles



Use cooling boxes for storage in the market

Where possible, encourage the use of temperature-controlled delivery vans for all perishable food items.

5. General Good Handling Practices

- All cutting tables and surfaces must be cleaned thoroughly
- Allow air drying of surfaces or use clean wipes
- Disinfect when necessary
- Have replacement table spreads
- Use separate or different utensils for meat and fish
- Observe a 'Clean as you use' procedure
- Avoid use of chemicals to preserve meat or fish
- Store fish and beef properly under cold storage as recommended
- Avoid the use of personal jewelry during food handling

6. Food handling: Vegetables

- Wash fruits and vegetables with fresh and clean water
- Avoid use of dirty and/or contaminated water
- Do not scrub fruits and vegetables
- Limit exposure of fruits and vegetables to sunlight
- Avoid fecal contamination
- During display for sale in the marketplace, use only clean water to wet leafy vegetables as may be required



Display of green leafy vegetable on wooden stands above the ground in the marketplace




CASE STUDY FOR VENDOR DISCUSSION

A vendor purchased locally grown fresh green vegetables, fruits and spices regularly from a nearby farm to a traditional market. The products were usually harvested in the early hours of the morning, wetted and transported in 20kg packs either in wooden boxes or wrapped in clothes and transported in a wheelbarrow. Each consignment is usually visually examined for acceptance based on quality of the leaves or absence of spots and blemishes, as well as level of visible dirt. Following acceptance, the products are wrapped in bulk and transferred into storage from where small lots are removed for display and sale. However, the shared bulk storage at the back of the stall contains other types of foods such as grains, meat, and fish which had also been checked for integrity and smell before acceptance. It has now been discovered that frequent customer complaints about strange odors from different products come from taints arising from cross-contamination. This has been traced to the delivery trucks used to transfer the produce from location into bulk storage in the market. It has been found that when these trucks are not washed free of animal waste, they impart odors to the produce which are carried into storage. Discuss your experience and outline what standard procedure must be put in place to overcome this problem as a food vendor, both in your business and in the market.



4.5. Module Five: Use Of Clean and Potable Water

MODULE 5	Unsafe water can spread germs, safe water can help destroy germs
BACKGROUND	
Learning Objective	How to make and maximize the use of safe water in the market
TRAINING CONTENT	
Discussion	<p>Provide information on:</p> <ul style="list-style-type: none"> • What is unsafe water. • How unsafe water spreads germs. • <p>Ask vendors:</p> <ul style="list-style-type: none"> • What are the vendors' safe water sources? • What steps do they take to make unsafe water safer?
Exercise	<ul style="list-style-type: none"> • Demonstration of different water sanitation techniques (boiling water, bleach/chlorine drops and dropper or Aqua tabs, and filtration). • Cleaning strategies for the stall using clean water • Review uses of the soapy bottle from earlier modules
Incentive	<ul style="list-style-type: none"> • Bleach/chlorine drops and dropper or Aqua tabs, buckets • Laminated card on water sanitation techniques 



Key Information

1. Water Quality is Affected by its Source, Storage, and Handling

Water Sources (dug well, streams and rivers, borehole, public supply)

Water remains a significant component in achieving and ensuring foods are safe. Clean water is required for all processes involved in food value chain including cleaning.



Access to improved and potable water is key to food safety at markets

Dug Well

- Use one fetcher
- Ensure the well is totally covered
- Ensure well is in a safe environment
- Treat water – use filter cloth. Use alum (coagulation) or lime



Use only covered wells

Borehole

- Relatively safe
- Safer with a filtration system
- Storage tank emptied 2x/year
- Faucet area should be clean
- Observe any change in taste, odour, appearance or color

The use of water from streams and rivers should be discouraged as this poses high risk



Don't compromise quality and safety for money;
Health is wealth, Food safety is a worthy investment



Alternatives of water in markets

- Containers used for fetching water should be properly washed, clean and covered
- Use stored water that is clean and potable or from reliable reservoirs
- Use only Truck-pushed water vendors from reliable source
- Truck-pushers should be educated on the need to wash their kegs regularly and provide lids



A water reservoir is a good alternative storage especially in the rainy season – this is very important at an abattoir






2. Use of Clean/Potable Water for Washing/Hydrating

- Wash fruits and vegetables, produce and products, utensils with clean water only
- Wash under running water
- Use only clean water to wet vegetables

3. Liquid Waste and Disposal

- Adequate drainage and disposal system must be used (do not create puddles or mud)
- Market design must include safe water sources and drainage
- Drains should be located away from areas where food is handled, displayed or stored
- Drains must be covered and cleaned when required

4.6. *Module Six: Hands, Stalls Surfaces and Tools Can Spread Germs*

MODULE 6	Hands, stalls surfaces and tools can spread germs
BACKGROUND	
Learning Objective	Describe how germs can spread easily on anything that touches food (hands, tools, surfaces) and how to wash and sanitize hands, tools, and surfaces.
TRAINING CONTENT	
Discussion	<ul style="list-style-type: none"> • Provide information on the difference between washing and sanitizing <p>Ask vendors:</p> <ul style="list-style-type: none"> • How to clean and sanitize hands at the stall, • How to clean and sanitize tools and surfaces at the stall • How to separate dirty cloths after cleaning at the stall • Provide information on: Safe uses of chemicals around the stall to avoid food contact/contamination
Exercise	<ul style="list-style-type: none"> • Making a sanitizing water solution with disinfectant and use it to clean surfaces and tools at stalls
Incentive	<ul style="list-style-type: none"> • Disinfectant • Multi-colored cloths • Cleaning bucket • Laminated card with recommended cleaning schedule for stall, counter surfaces and food handling tools (knives, tongs, etc.) <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div data-bbox="391 1360 597 1633" style="border: 1px solid black; padding: 5px;">  <p>FEED/FUTURE ገጽ-ህ የአትክልት መሸጫ ቦታ የአትክልት መያዣ ምግብ በየቀኑ መሥራቅ USAID</p> </div> <div data-bbox="673 1360 755 1465" style="text-align: center;">  </div> <div data-bbox="617 1480 812 1591"> <ul style="list-style-type: none"> • ቅሻሻን ለይተው ያስቀምጡ • ጠረጴዛውን በሳሙና ውሃ ያጽዱ • የአትክልት መያዣዎችን እና ዕቃዎችን በገጽህና ይያዙ • ገጽ-ህ ጨርቅን ብቻ ይጠቀሙ </div> <div data-bbox="844 1291 1258 1480">  </div> <div data-bbox="1079 1312 1258 1459">  </div> <div data-bbox="844 1491 1161 1627">  </div> </div>



Key information

'Red Flags' in Market Conditions

- Environment in very poor shape, muddy, waterlogged
- Heavily congested
- Lack of physical facilities and infrastructure (electricity, potable water, adequate waste disposal facilities to handle large volume of waste)
- Dirty food handling areas



Avoid poor sanitation in market



Heavily congested market



Unhygienic food handler



Untidy food handling area

1. Market Scale Food Safety Practices to Adopt

- Use specified waste collection centers
- Schedule market closure days exclusively for cleaning and maintenance of infrastructure
- Wash and sanitize all surfaces and utensils used for food preparation and practice good hand and personal hygiene
- Wash with clean water and/or sanitize your hands between handling money and food
- Separate raw foods of animal origin from other areas, especially those where ready-to-eat foods are sold to the public
- Protect market stalls and food from environmental hazards
- Maintain foods intended to be sold hot at a temperature above 60°C and foods intended to be sold cold/chilled to below 5°C
- Wear and maintain suitable clean PPEs while handling foods

2. Registration of Vendors for Easy Identification and Traceability

- Register with appropriate local government authorities (LGA) for easy identification
- Routine inspection by LGA Health Authorities for compliance
- Market leaders should support local authorities in promoting food safety
- A simple documented system is recommended for promote traceability



- Market stalls may be marked or numbered with vendors wearing identification badges to ensure consumer recognition and product traceability
- Food handlers should seek medical evaluation occasionally to handle food

3. Pesticide Use in Food Production and Preservation

- Used to control pests that damage produce along the value chain
- If used correctly, they can be useful for improving growers' yield, improve quality, and elongate shelf life
- Prevailing issues associated with abuse or overuse
- Affects trading opportunities
- Awareness creation and sensitization on the use of chemicals
- Adopt GAPs, GHPs, and GMPs




4. Before Using a Pesticide

- Read the label thoroughly and the direction of use including the dosage for intended use
- Be familiar with all precautions required for its use.
- Be familiar with First Aid information in case of accidental contact with the body
- Put on the proper PPE


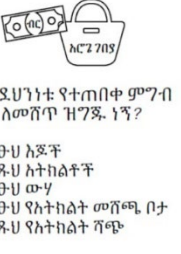
5. Alternatives to the Use of Chemicals in Food

- Destruction of insect habitats to reduce numbers
- Creation of barriers/meshes that stop pest invasion
- Use of hermetic containers- i.e., drums, jars, bags.
- Locating traps with baits in strategic places around the stalls
- Natural preservatives include turmeric, clove, garlic, ginger, cinnamon
- Plants such as neem leaves, dried chili peppers, mint leaves, can be added in few quantities to grains
- Sun drying, roasting, smoking, salting, are other methods that have proven effective
- Natural preservatives have added benefits including antioxidants properties

4.7. *Module Seven: Food Safety Requires That Vendors Are Clean and Healthy*

MODULE 7	Food safety requires that vendors are clean and healthy
BACKGROUND	
Learning Objective	Explain how germs can spread from sick or infected food handlers, and from unclean hands, clothes, or practices. Share best practices and review unsafe practices.
TRAINING CONTENT	
Discussion	<p>Provide information on:</p> <ul style="list-style-type: none"> international standards on vendor/food handler health and personal cleanliness: hands, nails, no uncovered wounds. <p>Ask vendors:</p> <ul style="list-style-type: none"> Can germs spread if they are sick? Discuss handwashing. How do dirt, chemicals and other contaminants get onto food at the stall? Can germs spread from their hands if they have an uncovered wound? How do they keep their hands clean after handling money or anything dirty?
Exercise	<ul style="list-style-type: none"> Show how to wrap an open cut or wound and use gloves to safely handle food. Discuss ways to help or support vendors who are ill
Incentive	<ul style="list-style-type: none"> Provide toolkit for wound care Laminated card with health and hygiene tips for vendors <div data-bbox="488 1373 1425 1625">    <p>· ንፁህ ልብስ እና ጋምን · ንጹህ አጃቸ · ንፁህ እና አጭር ጥፍር · የተሸፈኑ ቁስሎች: ዲም መፍሰስ የሌለው · ምራቅ መትፋት: አፍንጫ ወይም ጆሮ መነካካት የለም · በአትክልቶቹ ላይ ማስጠነቅቅ ማለፊያ የለም::</p> </div>

4.8. *Module Eight: Applying The 5 CLEANS and 4 SAFES To Help Your Business Grow*

MODULE 8	Applying the 5 CLEANS and 4 SAFES to help your business grow
BACKGROUND	
Learning Objective	Review 5 CLEANS and 4 SAFES and discuss how vendors can talk to consumers about food safety.
TRAINING CONTENT	
Discussion	<p>Discuss record keeping strategies to help vendors achieve food safety goals (management plans; cleaning and sanitizing records; pest control records)</p> <p>Share information on:</p> <ul style="list-style-type: none"> The FTF EatSafe consumer motivational campaign and discuss what customers are looking for in the market and how vendors can respond to their demands. <p>Ask vendors:</p> <ul style="list-style-type: none"> What are the recommended techniques to talk to customers about food safety?
Exercise	<ul style="list-style-type: none"> Have each vendor demonstrate a new procedure for cleaning stalls, handling vegetables, washing hands, etc. and linking those practices to the 5 CLEANS and 4 SAFES.
Incentive	<ul style="list-style-type: none"> Certificate and blank laminated card (with space for vendors to write or draw) <div style="display: flex; align-items: center; justify-content: space-around;">  <div style="text-align: center;">  <p>ከዚህ ደህንነት የተጠበቀ ምግብ ለመሸጥ ዝግጁ ነኝ?</p> <ul style="list-style-type: none"> ✓ ገፁህ ስጽቻ ✓ ገጽህ ስትክልቶቻቸው ✓ ገፁህ ውሃ ✓ ገፁህ የስተከልት መሽጫ በታ ✓ ገጽህ የስተከልት ሻጭ </div> <div style="font-size: 2em; font-style: italic;">Certificate of completion</div> </div>



ANNEX 1: TRAINING FACILITATOR FEEDBACK FORM

To ensure that the training is being properly implemented and received, it is recommended to request feedback from the trainers after each of the training modules. Below is an example of a short trainer survey that can be used to collect this information.

1. Were all your vendors available for the training during the arranged time? If not, who was missing?
2. Were you able to get through the discussion and exercises within 30 minutes (as described in the training plan)? If not, how much time was required?
3. What questions or concerns were raised by the vendors during the training? If none, please say "none"?
4. Did you encounter any challenges during the training? If so, what were they?
5. Any lessons or insights you'd like to share from your session with the vendors?