Federal Democratic Republic Of Ethiopia

National Food Safety Strategy

DRAFT

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1. Introduction

Foodborne illness is a major threat to human health and much attention is being placed on the safety of Ethiopia's food supply. Before a food product reaches the ultimate consumer, the food or its ingredients have likely passed through many steps in the food supply chain. Beginning at the farm level where raw food is grown and then harvested, through primary processing, manufacturing, distribution, and retail markets, there are many opportunities where biological, chemical, or physical hazards can enter. With the globalization of the food supply, imported food also poses concerns about sources from other countries.

Historical control of the safety of food has largely relied on end-product testing. Many standards exist that require certain chemicals or pathogens be below a tolerance level – in some case zero tolerance. But reliance on laboratory testing of final food products has limitations. Opportunities exist however, to add a proactive – or preventive - approach in looking at the way food is controlled for safety.

Through advances in science, we are learning more about how to link an illness to a specific food, and then to trace that food back through the supply chain to investigate the root cause of the introduction of the hazard. With this knowledge, along with formal assessments of risk, interventions can be employed by food business actors and new standards or regulations can be implemented by government that focus on controls for the prevention of hazard introduction at each step.

Ethiopia desires to modernize its food safety systems and increase the level of safe food offered to consumers. To do that, a coordinated approach will be needed since there are many agencies at the national, regional, and wereda levels that regulate or touch different points in the food supply chain. Integration of agencies to better communicate and coordinate their efforts will go a long way in increasing food protection, maximizing efficiency, eliminating redundancy, being fiscally responsible, and serving consumers to the best of their abilities.

The Government of Ethiopia will be called upon to prioritize new resources, look at new funding models, and promulgate new laws and regulations to support the renewed public health effort. Overarching bodies can be created to help coordinate the re-engineering of the food safety system and to coordinate efforts between agencies. Strengthening communication channels by connecting data systems and creating new networks will provide information needed for all stakeholders to make food safety decisions.

We cannot ignore the important roles of other stakeholders in the food safety system. Food business actors (whether farmers, processors, manufacturers, distributors, or retailers) have the ultimate responsibility to place safe food in the marketplace. Therefore, food business actors must be a full partner in developing new strategies to increase safety in the food supply chain. Academia and institutes can also play an important role in providing scientific resources to support the food safety system. Ethiopia's modern system will require the science of Risk Analysis to identify the likely hazards present in the food supply and how to manage food safety controls to control those hazards. Laboratories will continue to play a critical role in providing the scientific and legal evidence needed to make both food manufacturing and regulatory decisions.

In the end though, consumers require confidence that the food they eat is safe and free from harm. Consumers must be provided accurate information about the safety of their food to make healthy choices. The Ethiopian National Food and Nutrition Policy of 2019 lays the foundation for a healthy and safe food supply in Ethiopia. The National Food Safety Strategy builds upon that important foundation to strengthen food safety systems in Ethiopia. Since food safety is a public health priority, implementing a National Food Safety Strategy will contribute to health security, contribute to sustainable development goals, give consumers a voice, and help create a new culture of food safety in Ethiopia.

2. Rationale of the Strategy

The burden of foodborne illness on society can take many forms. First and foremost, foodborne illness remains a major threat to human health. The World Health Organization estimates that annually, 600 million foodborne illnesses (1 in 10 people) and 420,000 deaths occur. Thirty percent of the foodborne disease burden is among children under 5 years of age and the equivalents of 33 million of healthy lives are lost each year. From an economic standpoint, the World Bank finds that the impact of unsafe food costs low- and middle-income economies about US$110 billion in lost productivity and medical expenses each year. Food safety issues can affect the health of a population faced with food insecurity. If the only available sustenance is unsafe, that food could have a devastating impact.

Food safety is a highly complex health issue involving multiple domestic and international stakeholders. Over recent years, new developments including the introduction of new technologies used in food production and processing, including genetic engineering, the increasing internationalization of the food chain, and demographic changes have affected food safety in the country, making consumer safety of paramount importance.

People with weak immune systems are especially prone to the effects of foodborne illness. Infants and young children, pregnant women, the elderly as well as those who are immunocompromised, are particularly at risk of death from common foodborne illness. Malnourished infants and children who are exposed to foodborne hazards and are at higher risk of developing serious forms of diarrheal diseases which creates a vicious cycle of debilitation and mortality. Certain chronic diseases, such as cancer, kidney, or liver failure, that result from contaminated food appear long after the ingestion of the food.

Food can become unsafe in any number of ways. At the primary production level, unsafe water used for irrigation or cleaning can be a source of microbial contamination. Inappropriate use of agricultural chemicals can result in the contamination of produce that finds its way to formal and informal markets. The storage of grain under certain conditions may result in the presence of fungal toxins. If this contaminated grain then is used to feed animals, the toxin can be transferred to the meat or milk of the animals. Overuse of antibiotics or hormones in food animals can create concerns that pass on to humans.

Lack of adequate infrastructure for the movement of food through the supply chain can impact food safety. If the availability of an adequate transportation system or an adequate cold chain in the country is lacking, not only will food waste be high, pathogenic bacteria can multiply to

unsafe levels and reach consumers. Intentional acts of fraud or intent to cause harm can have severe health impacts and food value chains can be disrupted or manipulated.

Hazards can exist at the food processing and manufacturing stages. Biological hazards can be introduced into a food product from ingredients and other raw materials, from food processing equipment, from improper processing (e.g., not reaching a temperature that would kill pathogens), and cross contamination within environments used to prepare the final product.

Handling of food by ill workers at all stages of the supply chain can result in widespread illness, especially at the retail level, including food service restaurants. Risk factors for foodborne illness at the retail and food service levels include improper hot/cold holding temperatures of potentially hazardous food, improper cooking temperatures of food, dirty and/or contaminated utensils and equipment, poor employee health and hygiene, and food from unsafe sources.

Ethiopia's access to food export markets will depend on its capacity to meet international regulatory requirements, thus providing another incentive to modernize the food safety system.

3. Vision, Mission, and Goal

3.1. Vision

Safe food for all populations in Ethiopia.

3.2. Mission

Strive to ensure safe food through integrated national systems for food safety; and timely response to food safety incidents and emergencies.

3.3. Goal

Establish a food safety culture in the food system of the country.

4. Strategy Background and Scope

This strategy is referred to as the "National Food Safety Strategy". The Strategy emanates from legal and ethical tenets related to the public health enshrined in the country's constitution and it is aligned with the national and sectoral policies and strategies of the country. The Strategy is formulated with a broader scope to provide a foundation for multi-sectoral collaboration as well as internal organizational goal-setting and strategic planning. This Strategy encourages the development of specific tactics by individual organizations as well as multi-sectoral groups to achieve an integrated approach and to address high priority actions to address public health. The Strategy provides an overarching framework covering the key elements of effective food control programs within a country including foundational elements, management and oversight, resources and staffing, control elements, science and technical applications, and communications.

The Strategy will also give emphasis to food safety capacity building at national, regional, woreda, institutional, and private sector levels. In addition, based on the principles of a farm-to-table approach, the Strategy will give a framework to motivate stakeholders in the value chain to implement strategies on parts of the system within the span of their control – thus achieving

integration.

Foundational work for the Strategy comprised a Situational Analysis, whereby food regulatory experts from the International Food Protection Training Institute (IFPTI) hired by Sustaining and Accelerated Primary Health in Ethiopia (SAPHE) project which is funded by Foreign, Commonwealth & Development Office (FCDO) met with and interviewed regulatory staff and stakeholders in Ethiopia in November 2019. Participants included EFDA management staff; EFDA Directorates (Inspection, Registration, Quality Control, Port of Entry); the Ministry of Trade and Industry; (Food, Beverage, and Pharmaceutical Development Institute, Import & Export Goods Quality Control Directorate, Trade Competition & Consumer Protection Authority); the Ministry of Agriculture (Plant Protection Directorate, Food and Nutrition Coordination Department, Ethiopian Veterinary Drug and Feed Administration); Bless Agri Food Laboratory (private laboratory); Hilina Enriched Foods PLC (food manufacturer); the Addis Ababa Food, Medicine and Health Care Administration; the Ethiopian Standards Agency; the Ethiopian Conformity Assessment Enterprise; and Teji International PLC (importer).

Findings from the Situational Analysis were grouped into high-level themes, including but not limited to: the need for coordination between and among agencies; workforce competencies (knowledge, skills, and abilities); on-farm practices; traceability; laboratory capacity; the role of industry; regional support; and field practices. These findings then formed the basis for a comprehensive literature review on the elements of a national food safety regulatory system, with specific focus on any efforts already conducted in relation to the Ethiopian context. Findings from the literature review were synthesized into a Best Practices Synthesis report submitted earlier in 2020. In that report, the researchers identified the following core categories: Regulatory Foundations, Management & Oversight Elements, Resources & Staff Elements, Control Elements, Science & Technical Applications, and Communication. These core categories were broken down into approximately forty elements, which were then contextualized for the Ethiopian food safety system and broken down into a series of overarching objectives and strategies aimed at satisfying each objective. During the next phase of the project, the Implementation Plan, a series of tactics and activities narrowly tailored to each strategy will be developed to allow for the implementation of the National Strategy.

5. Strategy Framework

The National Food Safety Strategy is based on concerns that the burden of foodborne illness on public health and the economy is severe and that a modernized food control strategy must be implemented to reduce illness and death. The use of international best practice guidance in developing this strategy is important not only from the standpoint that science and risk-based food control principles have evolved to address specific risks in the food chain, but the food supply is increasingly becoming global and for partners to trade, markets require adherence to accepted regulatory standards. The strategy framework focuses on medium- and long-term strategies (5 years to 10 years) due to the incremental effort needed in bringing about change. For example, when regulatory controls exert pressure too soon, the system cannot respond quickly and can be disrupted. However, in the interest of public health, short term tactics need

to be identified under each strategy and the implementation schedule of the overall strategy needs to become a priority. It is recommended that annual effort be measured against an overall goal of reaching major progress toward food safety objectives by the Year 2030. At that point, new strategies should be set for 2040.

6. Strategy Values

The National Food Safety Strategy upholds the following key values in all endeavors of implementation.

- Consumer centered - the ultimate purpose of the National Food Safety Strategy is to ensure that Ethiopian citizens have safe food.
- Coordination - making all stakeholders involved in implementation in an organized way.
- Continuous improvement – creating and maintaining mechanisms that allow for ongoing enhancement, learning and improvement.
- Cross-sectoral collaboration – mainstreaming and interlinkage of different food safety related agencies to maximize effectiveness.
- Participatory – being involved alone or as a group from planning to monitoring and evaluation to influence decisions at all levels.
- Accountability – being committed to and responsible for actions taken and to disclose the results in a transparent manner.
- Professionalism – combining all the qualities of trained and skilled people.
- Equity - being fair and impartial and avoiding inequalities that are avoidable.
- Excellence - the quality of being outstanding or extremely good.
- Equality - the right of different groups of people to have similar social position and receive the same treatment.
- Respect – due regard for the feelings, wishes, or rights of others.
- Responsiveness - Responding positively, quickly, and well to demands mirroring the public interests and changing societal needs and problems.

7. Guiding Principles

7.1. Safe food is a human right

Assurance of safe food is the human and constitutional right of all citizens. The provision of safe foods shall consider the human rights of all citizens. Therefore, this National Food Safety Strategy stipulates that all Ethiopians should have access to safe food.

7.2. Farm-to-table approach

In order to ensure safe food, the implementation of various strategies across the food supply chain: on farm, primary processing, manufacturing, transportation and storage, retail, food catering services, street vended foods, food preparation, and serving at household levels will be developed to reduce foodborne illness. Additionally, it is necessary to consider other side line sectors such as companies that produce packaging materials and others. The goal of providing safe food along the food supply chain calls for development of a comprehensive national integrated food safety system in which government, producers, processors,

transporters, vendors, retailers, and consumers all play a vital role in assuring safe food for consumption and reducing foodborne illness.

7.3. Food business actors' primary responsibility

Food business actors are ultimately responsible for the safety of food they produce, handle, or place on the market. Government's role is to coordinate, provide guidance, and monitor food business actors on food safety. Therefore, food standards as well as farm, processing, manufacturing, handling, and retailing standards must all set a framework that allows for the assurance that compliance will help ensure food safety.

7.4. Integrated food safety system

Within a multi-agency food safety framework, the coordination of roles and responsibilities is imperative to assure the most effective and efficient regulatory system. Benefits of this approach include increased ability to assess potential risks, consistent coverage of operations across the entire food supply chain, greater food surveillance through integration of food facility inspection and sampling information, and improved capacity to respond to food safety incidents and emergencies – all leading to increased public health protection.

8. Food Safety Objectives and Strategies

8.1. Regulatory Foundations

8.1.1. Protection of Consumers

The ultimate reason for having a national food safety system is to protect the health of consumers. The intent of a strong national food safety system is to ensure that food produced, processed, handled, and offered to consumers is protected from hazards. With this understanding, protection of consumers is identified as a component of a national food safety strategy.

Objective:

Ensure the overarching goal to protect consumers and the public health.

Strategies:

i. Strengthen food safety public health goals.
ii. Strengthen the public health priority of food safety agencies.
iii. Strengthen laws and regulations to enhance food safety interventions.
iv. Reinforce food business actors' responsibility to produce and place safe food on the market.
v. Establish strong mechanism to prevent food fraud.
vi. Create effective and efficient surveillance and vigilance systems.
vii. Establish a public awareness system about food safety.
viii. Establish a public food safety alert system.
ix. Strengthen food business actor, professional, and consumer associations and involvement.

8.1.2. Transparency

Since food business actors, government, consumers, academia, and other stakeholders have

roles in ensuring safe food, it is imperative that government policy decisions and actions are open to the scrutiny of all stakeholders. Access to records and proactive outreach to stakeholders is paramount to instill confidence in the shared responsibility for safe food. With this understanding, transparency is identified as a component of a national food safety strategy.

Objective:

Ensure consumer and stakeholder confidence in the food safety system.

Strategies:

i. Establish criteria for the protection of proprietary and confidential information.
ii. Strengthen simplified processes for obtaining government food safety records.
iii. Provide compliance expectations and enforcement policies to the public.
iv. Strengthen the creation and maintenance of documentation of official activities of food safety agencies.
v. Strengthen labeling requirements aimed at providing consumers with information about food sources.

8.1.3. Food Supply Chain Controls

Introduction of hazards to the food supply chain can occur at each step of the farm-to-table continuum. Therefore, comprehensive control programs must exist at every step in the food supply chain. With this understanding, whole food supply chain controls are identified as a component of a national food safety strategy.

Objective:

Prevent opportunities for the introduction of food safety hazards throughout the food supply chain.

Strategies:

i. Use a whole systems approach to food safety from farm-to-table
ii. Coordinate food safety agencies' oversight to ensure a unified approach along the food supply chain.
iii. Define the responsibilities of food business actors to implement controls to keep food safe.
iv. Establish appropriate preventive approaches across the food supply and value chains.

8.1.4. Food Control Legislation

The laws and regulations that enhance protection of consumers against unsafe food must be comprehensive and effective at establishing modern food safety controls for the agencies to protect the food supply. The legislative foundation must provide for the necessary authority for a strong national food safety system. With this understanding, food control legislation is identified as a component of a national food safety strategy.

Objective:

Provide a foundation of legal authorities and responsibilities of food safety agencies to conduct food control activities.

Strategies:

i. Harmonize food safety laws and regulations.

ii. Align legal authorities between food safety agencies along the food supply chain.
iii. Ensure that the legislative process is responsive to emerging technologies and science that provides new information about the control of hazards.

8.1.5. Roles and Responsibilities

In a multi-agency food safety system attention must be paid to assuring that duplication of effort is minimized and that agencies collaborate to further the protection of public health. Common food safety goals must be identified so that alignment among food safety agencies exists. With this understanding, roles and responsibilities is identified as a component of a national food safety strategy.

Objective:

Coordinate activities to maximize efficiency and eliminate redundancy of food safety agencies.

Strategies:

i. Encourage food safety agencies to participate in a national integrated food safety system.
ii. Differentiate food safety agencies' roles and responsibilities.
iii. Create incentive mechanisms for food safety agencies to comply with program standards and to collaborate and coordinate activities.
iv. Strengthen data sharing networks among food safety agencies.
v. Promote memoranda of understanding between food safety agencies.

8.1.6. System Framework

A strong national food safety system requires careful attention to capacity needs of the participants of the system. As such, a national framework allows for system-wide efficiencies in the provision of resources. With this understanding, system framework is identified as a component of a national food safety strategy.

Objective:

Ensure the system framework of food safety agencies operates at an effective level.

Strategies:

i. Establish a system-wide mechanism to address food safety capacity needs.
ii. Utilize strategic planning to identify capacity needs and to set and achieve system-wide food safety goals.

8.1.7. Consistency and Impartiality

Government's responsibility is to ensure that in its protection of consumers, regulatory responsibilities are administered fairly and equitably. This approach provides assurance to consumers and food business actors that the government has their interests in mind. With this understanding, consistency and impartiality are identified as a components of a national food safety strategy.

Objective:

Ensure fair and equitable treatment of all stakeholders.

Strategies:

i. Build principles of equal protection and due process into regulatory policies and regulations.

ii. Apply administrative procedures consistently and impartially.
iii. Implement quality system standards

8.1.8. Science-Based and Risk Analysis Approach

Protecting consumers from biological, chemical, and physical hazards requires attention to scientific interventions. A strong scientific foundation for instituting protective measures is necessary to achieve the goal of public health protection. Modern food safety systems are built on the foundation of risk analysis. To manage the risk to the food supply, food safety agencies must possess the capacity to conduct scientific risk assessments and use those assessments to manage and communicate risks. With this understanding, science-based and risk analysis approach is identified as a component of a national food safety strategy.

Objective:

Reduce the risk of hazards in the food supply using science based approaches.

Strategies:

i. Strengthen scientific infrastructure and technological capacity to support risk analysis decisions.
ii. Build flexibility into laws, regulations, policies, and procedures to accommodate new or emerging scientific information.
iii. Build scientific capacity in food safety agencies and other institutions (academia & institutes).
iv. Disseminate scientific findings and direction to relevant bodies.
v. Use scientific inquiry to assess the safety of food business actors' food handling practices.
vi. Incorporate risk assessment, management, and communication controls through the food safety system.

8.1.9. Risk-Based Preventive Approach

Food safety agencies must shift from being reactive to food safety problems to being proactive by instituting preventive measures along the food supply chain. By using a hazards analysis approach risk can be minimized when applied to each step in the food supply chain. With this understanding, risk-based preventive approach is identified as a component of a national food safety strategy.

Objective:

Reduce the opportunities for hazards to enter the food supply chain.

Strategies:

i. Enhance the ability to conduct hazard analyses throughout the food supply chain.
ii. Establish tools and control measures to support the application of preventive approaches.
iii. Create incentive mechanisms for food business actors to apply preventive control measures.

8.2. Management & Oversight Elements (overall organization)

8.2.1. Food Control Policymaking

Food control agencies have the responsibility to assure that policies derived from laws and regulations fulfill the intended purpose. Therefore, the process of policy development must include recognition of how policy may impact stakeholders and the food safety system. With this understanding, food control policymaking is identified as a component of a national food safety strategy.

Objective:

Ensure that food safety agencies have the ability and the capacity for policy development.

Strategies:

i. Build food safety agencies' capacity to develop policies.
ii. Utilize a participatory process with stakeholders for policy development.
iii. Ensure food safety policies are comprehensive, clear, and science based.
iv. Communicate policy through stakeholder-specific guidance and outreach.

8.2.2. National Food Safety System Structure

Coordination of a multi-agency food safety system is expected to ensure that stakeholders are not adversely impacted in fulfilling their responsibilities for assuring safe food. All efforts need be made to allocate government resources in the most responsible manner possible. With this understanding, national food safety system structure is identified as a component of a national food safety strategy.

Objective:

Ensure that the national integrated food safety system is structured to function efficiently and effectively.

Strategies:

i. Ensure the national integrated food safety system is structured to cover the supply chain from farm-to-table.
ii. Align food control approaches among the food safety agencies within the national integrated food safety system.
iii. Review current national food safety system for gaps in food safety coverage of the supply chain.
iv. Adopt a One Health approach linking stakeholders who impact the health of people, animals, plants, and their shared environment including climate.

8.2.3. Staff Motivation

Accomplishment of any organizational goals takes place at the individual staff level. Therefore, investment must be made in assuring that food safety professionals are recognized for the essential jobs that they perform in protecting public health. With this understanding, staff motivation is identified as a component of a national food safety strategy.

Objective:

Ensure professionals perform effectively within the food supply chain, so that food safety agencies achieve food safety goals.

Strategies:

i. Establish qualifications for hiring and promoting competent food safety

professionals.

ii. Ensure incentive mechanisms for food safety professionals.
iii. Ensure food safety professionals feel valued.
iv. Provide training for food safety professionals for career advancement.
v. Empower food safety professionals to take responsibility for their decisions and actions.
vi. Strengthen performance evaluation mechanisms for food safety professionals.

8.2.4. Program Assessment

Consumers have the right to expect that the government food safety system achieve the intended goal of protecting consumers. As such, period review of programs against established standards is necessary to ensure high level performance in the protection of the food supply. With this understanding, program assessment is identified as a component of a national food safety strategy.

Objective:

Evaluate the effectiveness of food control programs for continual improvement.

Strategies:

i. Identify performance standards for food control agency programs.
ii. Conduct external program assessments against the standard.
iii. Make improvements to food control programs based on the outcome of program assessments.

8.2.5. Self-Assessment

A critical means of achieving program goals is to conduct frequent internal program assessment against established national standards. Agency policies must include frequent and comprehensive continual improvement processes. With this understanding, program self-assessment is identified as a component of a national food safety strategy.

Objective:

Ensure that food control programs meet program performance standards.

Strategies:

i. Establish a system for assessing food safety regulatory programs.
ii. Align policies and procedures with program standards.
iii. Make improvements to food control programs based on the outcome of self-assessments.
iv. Establish organizational culture.
v. Develop personal assessment culture.

8.2.6. Inspection Audit Program

A critical component of every food control program is frequent review of field staff performance against established policies. Audit programs assure uniform application of agency responsibilities for the protection of stakeholders. With this understanding, inspection audit program is identified as a component of a national food safety strategy.

Objective:

Ensure that the inspection program is adhering to its written policies, procedures,

and guidelines.

Strategies:

i. Establish scientific-based written procedures for field inspections, sampling, report writing and review, and gaining compliance from food business actors.

ii. Review training records and conduct periodic field assessments of inspection staff.

8.3. Resources & Staff Elements

8.3.1. Infrastructure

To support an environment for the successful achievement of food safety responsibilities, the national infrastructure must address essential resources needed in a modern food safety system. Resources must be allocated to strengthen this supportive infrastructure. With this understanding, infrastructure is identified as a component of a national food safety strategy.

Objective:

Ensure appropriate national infrastructure to support the food supply chain.

Strategies:

i. Strengthen the national transportation system to support a robust food distribution system.

ii. Strengthen an unbroken cold chain throughout the food supply chain.

iii. Strengthen governmental food safety agencies' facilities.

iv. Expand national network of food safety laboratories.

v. Strengthen intra-agency, interagency, food business actor, and consumer physical communication channels.

vi. Strengthen intra-agency, interagency, food business actors, and consumer physical communication channels.

8.3.2. Equipment

Agencies must provide the essential tools to food safety professionals to carry out food safety responsibilities. From basic job equipment, personal safety equipment, and specialized detection devices, food safety professionals require adequate resources to be effective. With this understanding, equipment is identified as a component of a national food safety strategy.

Objective:

Ensure that agencies have the necessary and appropriate equipment to support their food safety responsibilities.

Strategies:

i. Acquire necessary inspection equipment for field staff to carry out their activities.

ii. Obtain and maintain vehicles and gear necessary for field food safety-related activities and personal safety.

iii. Identify, procure, and maintain the necessary laboratory equipment to support food safety analyses.

8.3.3. Personnel Qualifications and Capacity

An effective food protection workforce is one that is competent and performs comparable work through the food safety system. Food safety agencies must hire, train, and retain highly professional and competent workers to achieve food safety goals. With this understanding, personal qualifications and capacity is identified as a component of a national food safety strategy.

Objective:

Ensure food safety agencies have sufficient qualified personnel to carry out agency responsibilities.

Strategies:

i. Identify and maintain appropriate staffing levels needed to conduct food safety activities.
ii. Establish food safety qualifications and competencies for food safety professionals to conduct food safety activities.

8.3.4. Training and Certification

Food safety agencies have the responsibility to ensure that their workforce is highly trained and effective. As such, comprehension training and certification systems are essential to ensuring a competent workforce to achieve food safety goals. With this understanding, training and certification of food safety professionals is identified as a component of a national food safety strategy.

Objective:

Ensure that food safety professionals are competent and doing comparable work.

Strategies:

i. Create a career spanning national curriculum standard for food safety professionals.
ii. Build training against the national curriculum standard.
iii. Create a national training infrastructure.
iv. Assess competence against the national curriculum standard.
v. Create credentialing programs for food safety professionals based on the national curriculum standard.

8.3.5. Financial Resources

Protection of the food supply requires a commitment to providing adequate resources, and funding, to carry out food safety activities in an integrated food safety system. Protection of the food supply is a critical government service that requires priority attention from a resource allocation standpoint. With this understanding, financial resources are identified as a component of a national food safety strategy.

Objective:

Obtain financial support to build a national integrated food safety system.

Strategies:

i. Determine financial support needed to build out the national food safety system.
ii. Establish appropriate governmental funding.

iii. Obtain private and international development funding where appropriate.
iv. Establish opportunities to provide funding to the private sector to encourage food safety practices and infrastructure.

8.3.6. Sustainable Financing

A commitment to national food safety is an ongoing responsibility. As such, ongoing funding to support food safety activities throughout the nation must be predictable and prioritized. With this understanding, sustainable funding is identified as a component of a national food safety strategy.

Objective:

Ensure national, regional, and woreda food safety agencies have ongoing adequate financial support to carry out their responsibilities.

Strategies:

i. Maintain base governmental funding levels.
ii. Allow food safety agencies to retain and utilize revenues collected through agencies' services and activities.
iii. Expand fee for service model for food safety agencies' services and activities.

8.4. Control Elements

8.4.1. Inspection Program

Food safety policy is embracing the shift from the traditional approach of end-product testing for standards toward food safety management of the production process. Current best practice for inspection programs includes a multi-faceted risk-based approach including sanitary inspection of food establishments and an emphasis on preventive measures for food safety. With this understanding, inspection programs are identified as a component of a national food safety strategy.

Objective:

Employ risk-based inspection programs.

Strategies:

i. Apply a risk-based inspection approach throughout the food supply chain.
ii. Establish a sanitary inspection program for food establishments.
iii. Enhance food standards programs for consistency with international food safety criteria (Codex Alimentarius and ISO).
iv. Enhance the regulatory food safety approach to include preventive measures.
v. Evaluate food processing practices using a hazard analysis approach.
vi. Establish a control system to address food safety in informal markets.

8.4.2. Compliance and Enforcement

The attainment of food business actors' compliance with food safety requirements is paramount for a fully functional national food safety system. As such, food safety agencies have a responsibility to ensure food business actors compliance for the protection of the food supply. With this understanding, compliance and enforcement is identified as a component of a national food safety strategy.

Objective:

Ensure effective, fair, and balanced enforcement approaches to obtain compliance with food safety regulations.

Strategies:

i. Utilize a progressive enforcement approach.
ii. Establish appropriate enforcement penalties.
iii. Create incentive or reward mechanisms for voluntary compliance of business actors.
iv. Employ the principle of due process when applying enforcement actions.

8.4.3. Emergency Response

The vulnerable nature of the food chain exposes it to natural and manmade disasters including foodborne illness outbreaks. As such, food safety agencies must have the capacity to prepare for, mitigate, respond, contain, and recover from emergencies. With this understanding, emergency response is identified as a component of a national food safety strategy.

Objective:

Ensure early detection and rapid response to significant threats to food safety and public health.

Strategies:

i. Establish early detection and rapid response protocols.
ii. Adopt a system to coordinate resources during a response to a food safety emergency.
iii. Develop criteria for scalability of response to an emergency.
iv. Perform joint multi-agency training exercises to prepare for emergencies.
v. Develop protocols to aid recovery from emergency events and mitigate impacts of future events.

8.4.4. Food Defense Preparedness

The vulnerable nature of the food supply exposes it to individuals who want to intentionally cause harm. As such, food defense strategies need to be employed to prevent intentional attacks on the food supply. With this understanding, food defense preparedness is identified as a component of a national food safety strategy.

Objective:

Implement plans to protect food products from intentional contamination or adulteration which aims to cause public health harm or economic disruption.

Strategies:

i. Conduct vulnerability assessments in Ethiopian food sectors.
ii. Develop sector-specific food defense plans.
iii. Develop education and training to assist food business actors with the development of food defense plans.
iv. Identify mitigation tactics that can be employed by food business actors to prevent an attack on food products.

8.4.5. Import Control

Since the food supply chain is global, food safety controls must be placed on food entering

the country. Import controls must be effective and consistent with international standards. With this understanding, import controls is identified as a component of a national food safety strategy.

Objective:

Ensure an effective and robust import control system to protect consumer and food business actors' operations.

Strategies:

i. Adopt regulations that provide incentive mechanisms for traders to move from the informal to the formal movement of goods.
ii. Design an efficient and effective risk-based regulatory process for importing food.
iii. Design an efficient and effective process for documentation requirements for imported foods.
iv. Enhance the regulatory food import system to include preventive measures.
v. Establish imported food products on-site inspection of foreign facilities.
vi. Improve partnering with other import control agencies.

8.4.6. Traceability

Given the complexity of the food supply chain, being able to trace food components to their sources is essential in the protection of consumers. Effective tracking and tracing systems must be utilized to quickly identify sources of contaminated food to prevent widespread foodborne illness. With this understanding, traceability is identified as a component of a national food safety strategy.

Objective:

Ensure the traceability of food throughout the food supply chain.

Strategies:

i. Establish a strong food supply chain traceability system.
ii. Strengthen licensing and registration systems.
iii. Establish a strong network of food database systems.
iv. Establish strong information, education, and communication (IEC) systems for food traceability.

8.5. Science & Technical Applications

8.5.1. Laboratory Services

Laboratories provide essential services to effective food control programs and food business actors. The capability and capacity of laboratories, and the validity and reliability of laboratory results, drive decision-making in the food safety system. With this understanding, laboratory services are identified as a component of a national food safety strategy.

Objective:

Ensure laboratory capacity meets the needs of food control activities.

Strategies:

i. Create a network of accredited laboratories.

ii. Strengthen the procurement system for laboratory equipment and reagents.
iii. Establish and maintain a reference laboratory.
iv. Create and maintain a pathogen reporting database.
v. Establish a laboratory information sharing network.
vi. Establish a food emergency response network to address laboratory surge capacity during emergencies.

8.5.2. Epidemiological/Surveillance Data

A science-based food safety system relies on foodborne illness data to plan and implement effective controls. Epidemiological capacity is essential for investigating and mitigating foodborne illness outbreaks and for conducting nationwide risk assessments. With this understanding, epidemiological/surveillance data is identified as a component of a national food safety strategy.

Objective:

Employ a coordinated system to monitor and respond to foodborne illnesses.

Strategies:

i. Develop a national surveillance and response program for foodborne illness response and root cause analysis.
ii. Develop a national surveillance program for zoonotic diseases, antimicrobial resistance, and other One Health system surveillance.
iii. Strengthen epidemiological capacity.
iv. Develop standardized protocols for multi-agency outbreak response.

8.5.3. Information Technology

An effective food safety system requires real time data and information exchange. An information technology infrastructure must be able to support time-sensitive gathering, compiling, analyzing, reporting, and sharing of essential data. With this understanding, information technology is identified as a component of a national food safety strategy.

Objective:

Ensure reliable means of communication and information sharing throughout the national integrated food safety system.

Strategies:

i. Develop technology tools to assist food safety professionals.
ii. Develop and maintain an electronic equipment replacement plan.
iii. Develop electronic data management systems to assist with real time information gathering and reporting.

8.5.4. Emerging Technologies

The fast pace of the development of new technologies requires food safety agencies to possess the capacity to quickly evaluate potential food safety applications. Food safety professionals with the scientific ability to conduct evaluation of such new technologies is essential. With this understanding, emerging technologies is identified as a component of a national food safety strategy.

Objective:

Evaluate emerging technologies for scientific validity and applicability.

Strategies:

i. Establish scientific review capacity to evaluate emerging technologies.
ii. Incorporate new or emerging technologies deemed appropriate through the scientific review process.
iii. Establish validation/verification requirements for the use of new technologies by food business actors.

8.6. Communication

8.6.1. Interagency Collaboration

In a multi-agency and multi-level food safety system, integration is essential to maximize efficiency and eliminate redundancy. Cooperation among all food safety agencies within the system provides for maximum protection of consumers and fiscally responsible use of resources. With this understanding, interagency collaboration is identified as a component of a national food safety strategy.

Objective:

Foster a national integrated food safety system through national, regional, and woreda food safety agencies' interagency collaboration.

Strategies:

i. Utilize interagency taskforces to deal with common regulatory food safety issues.
ii. Establish interagency networks for information sharing.
iii. Harmonize messages and advisories to consumers and food business actors.
iv. Elicit stakeholder input and feedback at regularly scheduled meetings.

8.6.2. Consumer/Community Outreach

Consumers play an important role in a food safety system. Not only is consumer protection the goal; consumers must contribute to the national food safety system through an understanding of protective measures that they can employ as part of a culture of food safety. With this understanding, consumer/community outreach is identified as a component of a national food safety strategy.

Objective:

Ensure an increased public awareness of food safety.

Strategies:

i. Promote safe food practices.
ii. Engage consumers in communication with food safety agencies.
iii. Strengthen/create a complaint handling and investigation system.
iv. Improve consumers' food safety knowledge and practices through standardized training.
v. Strengthen public information systems.

8.6.3. Engagement of Food Business Actors

Ultimately, food business actors are responsible for the safety of the food produced and placed on the market for consumption. Therefore, food safety agencies must engage food business actors in the development and application of food safety strategies. With this understanding, engagement of food business actors is identified as a component of a

national food safety strategy.

Objective:

Ensure food business actors drive a culture of food safety.

Strategies:

i. Solicit food business actors' input on regulations and policies.
ii. Engage food business actors in communication with food safety agencies.
iii. Assist food business actors by developing standardized training for food workers.
iv. Form public/private partnerships.

8.6.4. Scientific Education

Incorporating science, technology, engineering, and mathematics (STEM) throughout the education system is essential to support a scientifically based food safety system. Effort must be placed on incorporating scientific inquiry into education systems, to ensure a high level of competency in the workforce. With this understanding, scientific education is identified as a component of a national food safety strategy.

Objective:

Strengthen formal education systems in the areas of scientific and food safety knowledge.

Strategies:

i. Integrate science-based food safety and hygienic best practices in primary schools.
ii. Strengthen science, technology, engineering, and mathematics (STEM) in secondary schools.
iii. Strengthen science based curricula in postsecondary education for food safety professions.
iv. Encourage strong primary research concerning food safety subjects.

8.6.5. International Cooperation

With increased globalization of the food supply, alignment with international best practices and standards is essential for food safety and trade. Collaboration with trading partners and international standards bodies will result in strengthening national food safety strategies. With this understanding, international cooperation is identified as a component of a national food safety strategy.

Objective:

Influence, and align with, international food control best practices.

Strategies:

i. Strengthen engagement with international organizations.
ii. Strengthen memoranda of understanding (MOUs) with trading partners.
iii. Advocate for mutual recognition of food safety systems with trading partners.
iv. Lead regional collaboration on sanitary phytosanitary (SPS) measures.
v. Become a regional hub for food safety training, conferences, information exchange, and best practices.
vi. Collaborate on science, risk, and outbreak response.

8.6.6. Systems Recognition

Recognizing regulatory systems of trading partners that provide equivalent food safety controls can reduce the regulatory burden of assuring the safety of imported food. Systems recognition establishes a framework for regulatory cooperation in a variety of areas that range from scientific collaboration to outbreak response. With this understanding, systems recognition is identified as a component of a national food safety strategy.

Objective:

Reduce regulatory burdens for importing and exporting food with trading partners.

Strategies:

i. Align laws and regulations with international standards.
ii. Integrate audit policies into import programs, based on mutual recognition of trading partners' regulatory systems.
iii. Strive for equivalency of international food control practices.

9. Roles of Stakeholders

9.1. Role of Government of Ethiopia

The Government is committed to play a leadership role to mobilize resources and provide financial, technical, legal, and infrastructure support, and establish a monitoring and evaluation system for the implementation of the National Food Safety Strategy. Government representatives at all levels shall fully discharge their responsibilities indicated in the National Food Safety Strategy.

9.2. Role of non-governmental bodies

The non-governmental bodies operating in the field of food safety should leverage their human, financial, and infrastructural resources to support the Government of Ethiopia's efforts for implementation of the National Food Safety Strategy.

9.3. Role of food business actors

The food business actors involved from farm-to-table along the food supply chain are required to accept their role to develop a food safety system to ensure safe food.

9.4. Role of consumers

Provided with proper information, consumers can take steps to keep food safe in the home. Through government and extension outreach, they must be provided effective, science-based guidance that they can use to keep themselves and their families safe.

10. Implementation

To begin the process of implementing the National Food Safety Strategy, prioritization must be given to address the following items.

10.1. Capacity

Pipelines of scientifically educated and trained personnel must be identified or created to fulfill capacity needs of multiple stakeholders within the system.

10.2. Councils and committees

Due to the many objectives and strategies that require national policy decisions be made that impact individual organizations, the formation of steering committees and technical councils will be required to provide input, develop plans, and reach consensus.

10.3. Marketing

Efforts to encourage stakeholders, including consumers, to engage in the national food safety strategy will require the use of multiple modes that can effectively reach target audiences and motivate them to act.

10.4. Funding

Any strategic effort that involves system-wide changes will undoubtedly create a need to either shift funding or provide additional funds for prioritized activities or organizational capacity. New funding models will need to be considered.

10.5. Infrastructure

In order for food safety interventions applied at various points in the food supply chain to be successful, systems must be strengthened to support the rapid movement of perishable commodities throughout the country, such as transportation and electrical improvements, to create cold chain capacity. There are also communication needs such as internet access in rural areas and high-speed networks. Improvements in potable water systems are also critical to eliminate risks from unsafe water. Country-wide priorities to improve the infrastructure should be considered as part of this strategy.

10.6. Legislation

The success of many objectives and strategies will be reliant on changes and improvements to laws and regulations. Government should prepare to engage ministries' agencies in the amendment of laws and regulations

10.7. Stakeholders buy-in

The success of this strategy depends on actions taken by many stakeholders. Therefore, stakeholders must see a role for themselves in the strategy and opportunities must be created to allow maximum stakeholder participation during implementation.

11. Monitoring and Evaluation

The strategy shall impose the development of a monitoring, reporting, and evaluation framework, which will evaluate program implementation emanating from the strategies and performances against a set of pre-determined indicators. The strategy monitoring and evaluation system will be linked with other existing monitoring and information systems such as the National Food and Nutrition Policy. Other sectors will be supported to monitor their implementation of food safety strategy interventions undertaken by themselves. The monitoring and evaluation system will help to identify successful and best practices to facilitate rational revision and reprioritization of the strategy over time.

12. Glossary of Terms

12.1. Audit - A systematic examination to determine whether what is happening complies with what is documented.

12.2. Codex Alimentarius - A collection of internationally recognized standards, codes

of practice, guidelines, and other recommendations relating to foods, food production, and food safety.

12.3. Food – Any substance, whether processed, semi-processed or raw, which is intended for human consumption, and includes drink, chewing gum and any substance which has been used in the manufacture, preparation or treatment of "food" but does not include cosmetics or tobacco or substances used only as drugs.

12.4. Foodborne illness (commonly known as food poisoning) - An adverse reaction to the body caused by consuming food contaminated by bacteria and/or their toxins, parasites, viruses, chemicals, or other agents.

12.5. Food business actors – All public and private actors involved in the producing, processing, handling, transportation, storage, distribution, and consumption of food including, but not limited to, farmers, pastoralists, warehouse operators, transporters, processors, manufacturers, retailers, vendors, caterers, restaurants, food service kitchens, and other enterprises that offer food into the food supply chain, comsume food, or represent food business actors.

12.6. Food contaminant - any biological or chemical agent, foreign matter, or other substance not intentionally added to food which may compromise food safety or suitability.

12.7. Food control - A regulatory activity by a food safety authority to provide food protection.

12.8. Food hygiene - All conditions and measures necessary to ensure the safety and suitability of food at all stages of the food supply chain.

12.9. Food inspection - The examination, by a food safety agency, of food products or systems for compliance with laws and regulations.

12.10. Food safety agencies - Government agencies at the national, regional, or municipal level, which have legislative authority to control, or have indirect authority over, some part of the food supply chain.

12.11. Food supply chain - the set of linked activities required to transform raw materials into products for end consumers (farm-to-table).

12.12. Hazard - Biological, chemical, or physical agents with the potential to cause harm.

12.13. Hazard analysis - The process of collecting and interpreting information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP plan.

12.14. Integrated food safety system - A strategy of joining food safety efforts at all levels of government into one unified network.

12.15. Interventions - Actions taken to mitigate risk.

12.16. Risk analysis - A process consisting of three components: risk assessment, risk management, and risk communication.

12.17. Risk assessment - A scientifically based process consisting of the following steps: hazard identification, hazard characterization, exposure assessment, and risk characterization.

12.18. Risk communication - The interactive exchange of information and opinions concerning risks among risk assessors, risk managers, consumers, and other interested parties.

12.19. Risk management - The process of weighing policy alternatives in the light of results of risk assessment, and, if required, selecting and implementing appropriate control

options, including regulatory measures.

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