

## EatSafe: Evidence and Action Towards Safe, Nutritious Food

# Nigeria Policy, Monitoring Systems Analysis and Stakeholder Mapping Report

December 2020









This EatSafe report presents evidence that will help engage and empower consumers and market actors to better obtain safe nutritious food. It will be used to design and test consumer-centered food safety interventions in informal markets through the EatSafe program.

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## TABLE OF CONTENTS

ACRONY	1S	5
EXECUTIV	E SUMMARY	8
<b>KEY FIND</b>	NGS AND RECOMMENDATIONS	8
INTRODU	CTION	1
SECTION	I: POLICY AND LEGISLATION	1
I. METHO	DS1	1
1.1. Des	k review of food safety policy documents in Nigeria12	2
1.2 Asse	essment of food safety legislation and efforts in Nigeria1	3
1.2.1	Desk Review:	3
1.2.2	Consultations with Food Safety Stakeholders, Vendors and Consumers:	3
1.2.3	Data Analysis:	4
1.2.4.	Location and Scope:14	4
2. FINDING	GS14	4
2.1 Rev	iew of food safety policy in Nigeria14	4
2.2 Asse	essment of food safety legislation and efforts in Nigeria1	7
2.2.1	Review of the Draft Food Safety and Quality Bill (FSQB) 2016	7
2.2.2 Eva	luation of Existing Legislation Relating to Food Safety1	8
2.2.3 Apj	proaches to Ensure Safe Street Food Vending Practices	9
2.2.4 Apj	proaches to improve the food safety knowledge and practices in informal markets . 20	0
3. RECO	MMENDATIONS2	1
SECTION	2: STAKEHOLDER MAPPING2	2
2.1. METH	ODS	2
2.1.1 F	ood Safety Stakeholder Mapping22	2
2.1.1.1	Identification:	2
2.1.1.2	Analysis of stakeholders:	2
2.1.1.3	Mapping:22	3
2.1.1.4	Location/Scope/Limitation24	4
2.2. FINDI	NGS	4
2.2.1 F	ood Safety Stakeholder Mapping24	4
2.2.1.1	Demographics and role24	4

2.2.1.2	Influence	25
2.2.1.3	Resources	26
2.2.1.4	Interventions	26
2.2.1.5	Gender	26
2.3. RECOI	MMENDATIONS	27
CONCLUS		27
REFERENC	CES	30
APPENDIC	ES	32
APPENDI	X I: Laws Relating to Food Safety at Federal Level	32
APPENDIX I	II: Stakeholder List	34

## LIST OF FIGURES

Figure 1: Power/Interest Grid (8)	. 23
Figure 2: Stakeholders surveyed through the questionnaire	. 24
Figure 3: Interaction with food safety stakeholders	. 25

#### LIST OF TABLES

Table 1: Location of markets and street vendors assessed	. 14
Table 2: Breakdown of MDAs related to Food Safety	. 15

## ACRONYMS

Below is a list of all acronyms and abbreviations used in the report.

AADP	Africa Agri-Food Development Program
ABP	Anchor Borrowers Program
AMAC	Abuja Municipal Area Council
ATA	Agricultural Transformation Agenda
ASFSNS	Agricultural Sector Food Security and Nutrition Strategy
CBN	Central Bank of Nigeria
СВО	Community Based Organization
CSO	Civil Society Organization
EHORECON	Environmental Health Officers Registration Council of Nigeria
FAO	Food and Agriculture Organization
FBO	Faith Based Organization
FCCPC	Federal Competition and Consumer Protection Council
FCT	Federal Capital Territory
FGD	Focus Group Discussion
FIIRO	Federal Institute of Industrial Research Oshodi
FMARD	Federal Ministry of Agriculture and Rural Development
FMBNP	Federal Ministry of Budget and National Planning
FME	Federal Ministry of Environment
FMITI	Federal Ministry of Industry, Trade and Investment
FMOH	Federal Ministry of Health
FMST	Federal Ministry of Science and Technology
FPIS	Federal Produce Inspection Services
FSAN	Food Safety & Applied Nutrition
FSQB	Food Safety and Quality Bill
FtF	Feed the Future
GAIN	Global Alliance for Improved Nutrition
GAP	Good Agricultural Practices
GES	Growth Employment in States

GHP	Good Hygienic Practices
GM	Genetically modified
GMO	Genetically modified organisms (GMOs)
GMP	Good Manufacturing Practices
НАССР	Hazard Analysis Critical Control Point
HORECA	Hotels, Restaurants and Caterers
IANWG	Inter-Ministerial Agriculture Nutrition Working Group
ILRI	International Livestock Research Institute
IMCFS	Inter-ministerial Committee on Food Safety
IPPC	International Plant Protection Convention
KATASHI	Kebbi Agricultural Transformation and Self-Help Initiative
KII	Key Informant Interview
LGA	Local Government Area
MANCAP	Mandatory Conformity Assessment Program
MBNP	Ministry of Budget and National Planning
MDAs	Ministries, Departments and Agencies
MSMEs	Micro, Small and Medium Enterprises
NABDA	National Biotechnology Development Agency
NAFDAC	National Agency for Food and Drug Administration and Control
NAQS	Nigeria Agricultural Quarantine Service
NASC	National Agricultural Seeds Council
NASS	National Assembly
NATASHI	New Agricultural Transformation and Self-Help Initiative
NCC	National Codex Committee
NESREA	National Environmental Standards and Regulations Enforcement Agency
NFSMC	National Food Safety Management Committee
NGOs	Non-Governmental Organizations
NiCFoST	Nigerian Council of Food Science and Technology
NIFST	Nigerian Institute of Food Science and Technology
NPFSIS	National Policy on Food Safety and Its Implementation Strategy
NPHCDA	National Primary Health Care Development Agency
NURTW	Nigerian Union of Road Transport Workers

OIE	Office International des Epizooties
RMRDC	Raw Materials Development and Research Council
SHESTCO	Sheda Science and Technology Complex
SON	Standards Organization of Nigeria
SPRING	Strengthening Partnerships, Results, and Innovations in Nutrition Globally
SPS	Sanitary and Phyto-sanitary Standards
TBT	Trade Barrier Treaty
USAID	United States Agency for International Development
WHO	World Health Organization
WTO	World Trade Organization

## **EXECUTIVE SUMMARY**

This report presents the summary of the findings of three sub-activities, comprising desk review of food safety policy documents, assessment of food safety legislation and efforts in Nigeria, and the food safety stakeholder mapping, undertaken as part of the Feed the Future EatSafe: Evidence and Action Towards Safe, Nutritious Food project implementation. The report is intended to inform and guide the EatSafe project in the design and implementation of appropriate intervention activities to enable lasting improvements in the safety of nutritious foods in informal markets in Nigeria. EatSafe also sees this report as a valuable resource for policy makers who can use the findings to determine the improvements required in the food safety system, and the importance of effective stakeholder engagement in project implementation, policy making and legislation.

This report consolidates three separate EatSafe reviews. The findings contained in any single review mentioned below are available upon request and are highly valuable for EatSafe as the project begins working in Nigeria:

- 1. The review of existing food safety policy documents evaluated the content, scope, structure, and institutional landscape of existing food safety policies, identified gaps in the national food safety policy and its implementation strategy, and provided recommendations for strengthening the policy and its implementation strategy.
- 2. The assessment of food safety legislation and efforts evaluated the formal adopted legislation and its implementation, together with an analysis of the extent they meet or fail to meet current needs, challenges and requirements for production and sale of safe food in Nigeria. The assessment included recommendations to enable a more efficient food safety system in Nigeria that leads to improved public health and enhanced trade in food commodities.
- 3. The food safety stakeholder mapping exercise identified and categorized stakeholders relevant to the Kebbi region into different groups and interests. A stakeholder list was generated that EatSafe will use to engage stakeholders throughout the project implementation.

## **KEY FINDINGS AND RECOMMENDATIONS**

Nigeria currently operates a multiple agency food safety system with responsibilities split across seven national agencies that focus on different sectors, such as Health, Agriculture, Food Industry, Environment and Trade, as well as State and Local governments. However, there are significant overlapping functions between States and Local Government regulatory agencies and the National Agency for Food and Drug Registration and Control (NAFDAC) for registration, licensing and inspection of Traditional Food Markets and Eateries especially in State Capitals and other peri-urban areas.

The National Policy on Food Safety and Its Implementation Strategy (NPFSIS) produced in 2014 by the Federal Ministry of Health (FMOH) was found to be the most comprehensive among the four policy documents reviewed and is considered Nigeria's central food safety policy. It addressed all the building blocks for a strong national food control system as outlined in the Food and Agriculture (FAO) and World Health Organization (WHO) reference guide "Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems" (10). It recognized that the Micro, Small and Medium Enterprises (MSMEs) food processing sub-sector have great potential to create employment and wealth for the rural and urban poor. This potential can be harnessed with improved hygienic practices and adequate infrastructure for enhancing food safety system for the consumers.

However, awareness of the NPFSIS among actors at State and Local Government levels that interface with the informal food sector seems to be highly limited. Consequently, the NPFSIS document needs to be adapted at the State and Local Government Area Council levels to enable effective implementation and achievement of its set goals and objectives across the informal food sector as well.

Nigeria has adopted Laws (Act), Regulations and Standards that establish broad principles for food safety control, and govern all aspects of the production, handling, marketing, and trade of food. Its purpose is to protect consumers against unsafe food and fraudulent practices. The Nigerian food industry is regulated through a control system dating back to 1917 and there are over 30 Food Safety Enabling Acts to this effect.

To update these laws, Nigeria's Food Safety and Quality Bill (FSQB) 2016 was developed based on the framework of the NPFSIS. The FSQB was developed to address the deficiencies and gaps identified in the existing food safety legislation in the country. However, the Bill had some inadequacies that need to be addressed by the government and relevant stakeholders. For example, the definition of "food" in both NPFSIS and the FSQB are different and does not allow for comprehensive regulation.

The stakeholder mapping, with focus on Kebbi State, identified 67 stakeholders relevant to the EatSafe goal aimed at increasing consumer demand for safe food in informal markets. These stakeholders cut across the following sectors: Government MDAs, market and trade associations, consumer associations, non-governmental organizations, private sector, research and academia, professional associations, women groups and development partners. EatSafe will engage and consult with all the relevant stakeholders at their level of influence and interest in the project throughout its implementation in Kebbi State.

The key recommendations and important background information for EatSafe include the following:

- When the National Assembly passes the Food Safety and Quality Bill into law, it will provide legal backing for the National Policy on Food Safety and Its Implementation Strategy (NPFSIS). Stakeholder advocacy will be important to ensure passage of the Bill, especially stakeholder participation at the Public Hearing stage.
- EatSafe should ensure that all relevant stakeholder groups are engaged during the project planning, design of appropriate interventions, and their implementation to facilitate our work in understanding and empowering consumers. Co-creation and design of the interventions with stakeholder input can lead to better ownership and involvement by the stakeholders in the project implementation.
- EatSafe should conduct a food safety needs assessment in Kebbi State to identify capacity building needs and assist in design of consumer- and vendor-based interventions. The assessment can be incorporated into EatSafe's Knowledge, Attitude and Practices (KAP) research and interventions, if appropriate..
- EatSafe should develop behavioral change communication (BCC) on food safety to
  engage consumers and other stakeholders in managing their own food safety risks.
  This will form part of the EatSafe interventions, and is supported by stakeholders,
  many of whom identified the need for improving food safety knowledge, perceptions,
  and general awareness on its linkage to public health issues.
- As women are important both as consumers and vendors in informal markets, EatSafe will consider the need for interventions, such as training programs, specifically targeted to empower women in Kebbi. This is based on their role in the food supply chain and from lessons learned from previous development projects.

## INTRODUCTION

In 2015, the World Health Organization (WHO) estimated that unsafe food causes one in every ten people to fall ill each year, leading to 600 million cases of foodborne-related illness and 420,000 deaths a year worldwide (1,2). In Nigeria, the challenge of unsafe food is of public health importance at the federal, state, and local government levels. This is evident from the fact that Kebbi State, an agrarian state with diverse animal and plant food sources, still battles high level of malnutrition, food insecurity and foodborne diseases (3,4). The Nigeria Demographic Health Survey (NDHS) 2018 report that 61% of children in the state suffer from malnutrition (3), making it the State with the highest level of malnutrition in the country. A recent study also reported high levels of bacterial contamination of meat and meat products from informal markets in Kebbi (5).

The United States Agency for International Development (USAID) is funding the EatSafe project implementation in Kebbi State. The overall goal of EatSafe is to enable lasting improvements in the safety of nutritious foods in informal markets by focusing on the consumer. The project will use an investigative approach to understand consumers' and food vendors' values, perceptions, and demand for safe, nutritious foods and the gendered roles that govern food safety related behaviors. Subsequently, this information will be channeled into designing appropriate interventions in the food safety system that target consumers and vendors in informal markets in Kebbi State, Nigeria.

This report is divided into two parts: Section 1 covers the review of Food Safety Policy and Legislation while Section 2 details the Stakeholder Mapping.

## SECTION I: POLICY AND LEGISLATION

## I. METHODS

The assessment was undertaken through desk review, consultations with key food safety stakeholders and vendors as detailed below. Both primary and secondary data collection methods were used. The primary data collection employed quantitative and qualitative data collection methods via face-to-face and remote/virtual consultations. The qualitative method used observations, checklists, and interview guides to conduct Key Informant Interview (KII) and Focused Group Discussions (FGDs). Secondary data collection involved desk reviews of existing project documents, national policy documents, existing laws, regulations, standards, including the National Policy on Food Safety and Its Implementation Strategy (NFPSIS) and the Nigerian Food Safety and Quality Bill (FSQB) 2016. Data analysis and visualization was done using Google forms and Microsoft Excel.

## 1.1. Desk review of food safety policy documents in Nigeria

The methodology employed secondary data collection through desk review and analysis of four national policy documents namely:

- 1. The Agriculture Promotion Policy (2015-2020) of the Federal Ministry of Agriculture and Rural Development (FMARD) (6)
- 2. The National Food and Nutrition Policy (2016) of the Federal Ministry of Budget and National Planning (FMBNP) (7).
- 3. The National Policy on the Environment (Revised 2016) of the Federal Ministry of Environment (FME) (8).
- 4. The National Policy on Food Safety and Its Implementation Strategy (NPFSIS 2014) of the Federal Ministry of Health (FMOH) (9).

The policy documents were also reviewed for alignment with the national food control system Guidelines published in 2003 by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) (10). The key guidelines include:

• Important food issues:

-Food safety, Quality and Consumer Protection

-Global considerations i.e. International trade; Codex Alimentarius Commission (CAC); and SPS and Trade Barrier Treaty (TBT) Agreements.

• Elements of a national food control system:

-Food Law and Regulations

-Food Control Management

-Inspection Services

-Laboratory Services: Food Monitoring and Epidemiological Data

-Information, Education, Communication and Training

• Strengthening national food control system:

-Principles of food control: Issues for consideration: Integrated farm-to-table concept; risk analysis; transparency and regulatory impact assessment.

-Developing a National Food Control Strategy: collection of information and development of strategy.

-Strengthening organizational structures for national food control systems: Multiple agency system; single agency system; and integrated system.

-Funding National Food Control Systems.

- Specific issues of developing countries:
  - -Food Systems
  - -Food Processing Industry
  - -Street foods
  - -Food control infrastructure and resources

-Technical Assistance: Role of International Agencies

## **1.2** Assessment of food safety legislation and efforts in Nigeria

#### 1.2.1 Desk Review:

Review of relevant literature was done to glean information on existing laws, regulations and standards related to food safety and control of foodborne diseases and to broadly indicate to what extent they meet or fail to meet current needs, challenges and requirements for producing safe and wholesome food. Nigeria's FSQB (2016) was specifically reviewed in line with its importance in food safety legislation and the need to provide legal backing for the National Food Safety Policy and Its implementation Strategy that was produced in 2014.

#### 1.2.2 Consultations with Food Safety Stakeholders, Vendors and Consumers:

This involved face-to-face and virtual meetings with critical stakeholders in relevant government Ministries, Departments and Agencies (MDAs), Food Business Operators, and relevant NGOs, involved in the development, implementation and/or enforcement of existing Food safety Legislations. These consultations were done to obtain stakeholder's views and opinions on the extent to which the existing food safety laws meet the needs and requirements of vendors and consumers using various techniques such as Focused Group Discussion (FGD), Key Informant Interviews (KII), telephone calls and internet-based interactions. The KIIs and FGDs were held with senior officials of selected federal and state government ministries, vendors, and food traders to obtain their views and opinions on how food safety regulations and implementation efforts apply to informal food markets. In addition, checklists and questionnaires were used to survey street food vendors and informal food markets to assess the extent of compliance with existing legislations related to food safety in Nigeria.

#### 1.2.3 Data Analysis:

The information was collated, and data analyzed to identify perceived deficiencies and gaps in the existing food safety legislation and make suitable and appropriate recommendations.

#### 1.2.4. Location and Scope:

Twenty-four (24) key stakeholders across the MDAs and informal markets were consulted while a total of 10 informal markets/street vending sites was utilized (comprising 5 in Federal Capital Territory (FCT), 3 in Nasarawa and 2 in Kebbi States) for the assessment (Table 1).

State		Local Government Area (LGA)	Market/Street Vendor Sites	
Federal Territory (FCT)	Capital	Kuje	Kuje	
		Abuja Municipal Area Council (AMAC)	Utako, Gosa,	
		(AMAC)	Kaura, Gwarinpa	
Nasarawa		Karu	Karu, Mararaba, Masaka	
		Birnin Kebbi	Modern Market (Central)	
Kebbi		Kalgo	Small Dubai Market	

Table 1: Location of markets and street vendors assessed

## 2. FINDINGS

The summary of findings comprising the review of food safety policy documents, assessment of food safety legislation and efforts, and the stakeholder mapping is presented below.

## 2.1 Review of food safety policy in Nigeria

The review showed that among the 4 policy documents reviewed as listed in Section 2.1, the National Policy on Food Safety and Its Implementation Strategy (NPFSIS) produced by the Federal Ministry of Health in 2014, was found to be the most comprehensive, albeit six years old. NPFSIS outlined the strategies that would improve food safety oversight and drive its effectiveness. Although several MDAs have policies with some components of food safety, NPFSIS 2014 addressed all the building blocks for a strong national food control system as outlined in the FAO/WHO Guidelines (10). Thus, NPFSIS 2014 is considered Nigeria's central food safety policy document and was therefore reviewed in more detail.

NPFSIS 2014 also showed that Nigeria currently operates a multiple agency food safety system with responsibilities split across national agencies that focus on different sectors, such as

Health, Agriculture, Food Industry, Environment and Trade. This is consistent with previous reports that Nigeria's food control system has sectorial focus and/or fragmented structure (11-14). The NPFSIS 2014 included a description of previous efforts to develop food safety implementation strategies that had been mostly sectorial in nature. As such, they were generally uncoordinated, inadequately funded, limited in scope, and did not achieve the desired outcomes (9). (See Table 2.)

S/N	Federal Ministry	Department	Agency	Policy Document	Comments
1	Health (FMOH)	Directorate of Food Safety & Applied Nutrition (FSAN)	National Agency for Food and Drug Administration and Control (NAFDAC)	The National Policy on Food Safety and Its Implementation Strategy (2014)	Outcomes of the NPFSIS: The Inter-ministerial Committee on Food Safety (IMCFS)
					The National Food Safety Management Committee (NFSMC). The Food Safety and Quality Bill (FSQB)
		National Codex Committee (NCC).	National Primary Health Care Development Agency (NPHCDA)		
2	Agriculture and Rural Development (FMARD)	Federal Department of Fisheries	Nigeria Agricultural Quarantine Service (NAQS)	The Agriculture Promotion Policy (2015- 2020)	Outcomes of the APP: Agricultural Sector Food Security and Nutrition Strategy (ASFSNS) 2016-2025 Inter-Ministerial Agriculture/Nutrition Working Group (IANWG)
			National Agricultural Seeds Council (NASC)		

#### Table 2: Breakdown of MDAs and policy documents related to Food Safety

3	Industry, Trade and Investment (FMITI)	World Trade Organization (WTO)/ Sanitary and Phyto- sanitary Standards (SPS) Federal	Standards Organization of Nigeria (SON) Federal		
		Produce Inspection Services (FPIS)	Competition and Consumer Protection Commision (FCCPC)		
4	Environment (FME)		National Environmental Standards and Regulations Enforcement Agency (NESREA)	The National Policy on the Environment (Revised 2016)	
			Environmental Health Officers Registration Council of Nigeria (EHORECON).		
5	Science and Technology		National Biotechnology Development Agency (NABDA)	National Biosafety Management Agency Act 2015	
	(FMST)		Federal Institute of Industrial Research Oshodi (FIIRO),		
			Sheda Science and Technology Complex (SHESTCO). Raw Materials		
			Raw Materials Development and Research Council (RMRDC),		

		Nigerian Council of Food Science and Technology (NiCFoST).		
6	Budget and National Planning		The National Food and Nutrition Policy (2016)	The FMBNP is not among the core 5 ministries with a mandate for food safety.

In addition to the segmentation at the national level, food safety policy legislation and implementation is also shared between the three tiers of Government (Federal, State and Local Government Area Council). This means that implementation depends on the competence and efficiency of the agencies responsible at each level.

In addition to providing the framework for the national food safety objectives, the NPFSIS 2014 developed a more coordinated approach for implementation by the Federal Ministry of Health (FMOH). Consequently, in January 2015, Nigeria inaugurated two national committees on food safety, namely: The Inter-ministerial Committee on Food Safety (IMCFS), and the National Food Safety Management Committee (NFSMC). The Committees further advanced the development of a Draft Food Safety and Quality Bill (FSQB) in July 2016, which has been presented to the National Assembly for enactment into law. The enactment of the FSQB into law will provide the legal basis for the food safety policy implementation in Nigeria.

## 2.2 Assessment of food safety legislation and efforts in Nigeria

While the assessment showed evidence of adequate legislation and agencies for the regulation of food safety in Nigeria, it also shows similarities in the subject matter covered by some of the statutes. This results in an overlap in the functions of the administering agencies, as Appendix I: Laws Relating to Food Safety at the Federal Level. The Food Safety and Quality Bill (FSQB) 2016 was developed to address the deficiencies and gaps identified in the existing food safety legislations in the country.

## 2.2.1 Review of the Draft Food Safety and Quality Bill (FSQB) 2016

The Food Safety and Quality Bill aims to protect the health of consumers from hazards which may be present in food and animal feed. It establishes the general principles of official control of food and feed safety, the obligations of food and feed business operators and defines the functions and powers of institutions of Federal and State Governments with the objective of ensuring that food and feed safety risks are effectively managed and that food is of the nature, substance and quality expected by the purchaser.

The Bill was developed based on the framework of the National Policy on Food Safety and its Implementation Strategy (NPFSIS) produced by the Federal Ministry of Health (FMOH) in 2014. Thus, the FSQB was developed to address the deficiencies and gaps identified in the existing food safety legislations in the country. For example, "food" or "foodstuff" definition has now been extended to mean any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans. "Food" includes drink and any substance, including water, intentionally incorporated into the food during its manufacture, preparation or treatment. This definition of "food" in the FSQB is now in line with best practices and current realities, to allow for comprehensive regulation (12).

Effective food safety regimes entail the existence of comprehensive laws, coupled with an effective food control infrastructure and institutional capacities, to ensure compliance in providing consumer protection and coordination of the food chain in Nigeria. Consequently, laws should adequately address the whole range of food safety concerns. In this regard, FSQB has also provided definitions of Genetically modified organisms (GMOs) and Genetically modified foods (GMF);and included the management of pesticides, and animal health/diseases, and traceability.

Its definition of "food business" means any undertaking, whether for profit or not and whether carried out by a public or private sector operator, which undertakes production, processing, storage and distribution of food, whether in the formal or informal sector but excluding activities which are of an exclusively domestic or private nature. Although the recognition of the informal food sector is of importance to EatSafe, the lack of specific guidelines for achieving food safety in informal food markets remains a gap that needs to filled to achieve effective food safety regulation of the informal food sector.

As the time of this report, FSQB had only undergone the First Reading out of the 3 Readings it should go through in the legislative process at the National Assembly. Thus, the second and third readings must be held before it can be finalized and sent to the President for his Assent. However, more work could be done in terms of consumer education, awareness creation, training and advocacy to garner greater commitment of government for food safety, especially in the areas of ensuring adequate protection of consumer health and inspiring greater consumer confidence in the safety and quality of locally produced food commodities sold in informal food sector in Nigeria.

#### 2.2.2 Evaluation of Existing Legislation Relating to Food Safety

Some weaknesses in the existing legislation are stated below:

- 14 out of the 16 (87.5%) existing legislation relating to food safety were enacted 10 to 100 years ago. They are generally characterized by obsolete provisions, specifications and requirements that are incapable of addressing current and emerging food safety risks in Nigeria.
- The legislation is not based on risk analysis, thus lacking sufficient capacity to effectively protect the health of consumers or ensure fair trade and maintain consumer confidence. Some provisions differ significantly from the Codex and other international standard setting bodies.
- The scope does not address the farm to table continuum and includes gaps in areas such as crop production; food transportation and storage; safe use of agricultural inputs, aquaculture, production of animal, and fish feedstuff.
- Poor delineation of roles and responsibilities of Competent Authorities leads to frequent confusion over jurisdiction in areas such as routine inspections, certifications, surveillance, registration and licensing of products or establishments (13-15).
- Enforcement of the laws is also hampered by a number of factors: (1) legislation and enforcement become progressively weaker from the national level, to States and LGACs; (2) the provisions prescribing enforcement responsibilities and penalties for violations are generally weak; and (3) the process of convicting offenders through Courts of competent jurisdiction is expensive, cumbersome and time wasting (13-15).

#### 2.2.3 Approaches to Ensure Safe Street Food Vending Practices

The review of the food safety policy and existing laws and regulations showed that despite the socioeconomic importance of street food vending, the present regulatory framework did not make provisions for adequate regulation of the informal sector that serves many Nigerian consumers, a finding consistent with previous studies (5,11-14). According to a recent study, the activities of the state ministries and local government authorities in the control of the safety and quality of unprocessed food should be streamlined. It found that food hazards happen more at the local or grass root level and recommended stringent measures should be enforced to curb them by empowering the local authorities to prosecute offenders, which would compel manufacturers, sellers, retailers and consumers to adhere to standards (13, 14). Creating greater and inclusive food safety sensitization and awareness programs and activities among operators of the informal street food sector to enable them to understand basic principles and significance of food safety and the need to adopt good personal hygiene practices is critical. During the consultation with different stakeholders, they expressed concerns about the lack of awareness on existing food safety regulations by the informal market providers, and described ignorance, negligence, and neglect by the street food handlers as well as inadequate oversight by the regulators. Development and implementation of relevant programs to educate street vendors and consumers on food safety and hygiene requirements will support safe street food vending practices in Nigeria.

#### 2.2.4 Approaches to improve the food safety knowledge and practices in informal markets

According to NPFSIS 2014, the Local Government Area Councils are vested with the mandate for regulating food safety of street vended foods, bukaterias, catering establishments, local abattoirs and traditional markets. Food hazards, including foodborne disease outbreaks happen at the local or grass root community level, where the population has limited knowledge of food safety and its public health implications. Thus, regulatory agencies and other relevant stakeholders should accord priority to developing public awareness on food safety and its importance to public health, especially for food business operators in the informal sector. Stringent measures should be adopted and enforced to reduce food hazards in this sector and local authorities should prosecute offenders. This would compel food sellers, retailers and consumers to adopt good hygiene practices and adhere to standards (14, 15). In the absence of strict standards, consumers cannot take advantage of the redress mechanism put in place to help them when their rights are infringed upon (13,14).

Based on the outcome of the consultations with food safety stakeholders on their opinions about ensuring food safety in informal markets, EatSafe identified the following areas for needed improvement:

- Provide training on food safety and hygiene for local government area council staff responsible for food safety regulation in informal markets
- Provide public engagement on food hygiene, safety, and nutritional quality to actors and stakeholders in informal market settings to enhance the safety and quality of food and food products purchased and consumed by Consumers.
- Support training on good agricultural practices (GAP) to famers and Good Hygienic Practices (GHP) to food handlers, vendors and consumers.
- Develop and maintain effective and symbiotic relationships with umbrella associations for effective dissemination of information and/or delivery of training programs on food safety and hygiene to:
  - improve personal hygiene of food vendors and the hygiene of sales equipment and sites by providing clean water points and toilets.
  - improve on regularity and effectiveness of removal of waste materials from markets and points of sale.

## 3. RECOMMENDATIONS

There is an urgent need to strengthen the existing food safety system at the Federal, State and Local Government level to achieve a safe and reliable food supply chains in Nigeria. Passage of the FSQB will facilitate placing food safety and quality activities under the FMOH, which is needed to prevent bureaucratic bottlenecks and inefficiencies. In addition to passing the bill into law, guidance is needed to coordinate improvements in infrastructure; training and capacity building; communication and managing responsibilities across agencies; surveillance; inspection; etc.

Current awareness of the NPFSIS among actors at State and Local Government levels that interface with the informal food sector seems to be highly limited. As such, the National Food Safety Policy and its implementation strategy should address the following gaps:

- The general understanding and needs of the informal sector on food safety.
- Education of the informal sector on the National Policy on Food Safety; what it is and why it matters.
- Training on how to comply with the policy and regulations.
- Appropriate stakeholder coordination.
- Regular and transparent communication between stakeholders, implementers, and the grass root community population.

From the assessment of food safety legislation and efforts in Nigeria, the following recommendations and needs are highlighted to strengthen EatSafe knowledge:

1. Promote attitudes and policies that are favorable to informal food operators:

- Educate relevant local government staff relating to food safety in informal markets.
- Sustain meaningful dialogue with representatives and invited them to participate in the formulation of the programs of action that affect them.
- 2. Provide Information and training:
  - Inform operators of their rights and obligations and brief them on existing food safety and other relevant programs.
  - Provide information and training on food hygiene, safety, and nutritional quality.
  - Provide training on practices that enhance safety through production (processing, packaging techniques).
  - Liaise with and act through informal vendors' associations when delivering information and/or training.

• Studies and data that show the frequency of foodborne illness should be widely disseminated to inform the public of food safety hazards. Surveillance activities should be improved.

## **SECTION 2: STAKEHOLDER MAPPING**

## 2.1. METHODS

Quantitative data collection method was employed using questionnaires. These questionnaires were uploaded on Google forms for the respondents to fill themselves. Data analysis and visualization was done using Google forms and Microsoft Excel.

## 2.1.1 Food Safety Stakeholder Mapping

The Stakeholder Mapping methodology used the three stages of stakeholder identification, analysis and mapping. A stakeholders list was generated that identified those with high potential to collaborate on the project. The location/scope of the surveys was spread across stakeholders in the Federal Capital Territory (FCT), Kebbi, Nasarawa and few other states (whose activities are relevant in Kebbi State). More details are seen below:

## 2.1.1.1 Identification:

EatSafe staff for the Nigeria GAIN office conducted a desk review of project documents and workplans to determine the objectives of the Stakeholder Mapping. In the Identification stage, there was a brain storming session of all potential stakeholders without screening them by role or importance. We then reached out to our identified contacts in Kebbi and our colleagues within and outside GAIN Nigeria office who provided us with names of relevant stakeholders. We followed up via phone calls, email and virtual chats. Thereafter, we generated a contact list of stakeholders in the different categories which informed the next stage of analysis and prioritization.

#### 2.1.1.2 Analysis of stakeholders:

Due to the COVID-19 Travel restriction, analysis was done by holding meetings virtually through phone and zoom calls with the stakeholders, while the questionnaire was uploaded on google forms for most of them to complete online. The questionnaire was designed to elicit both quantitative and qualitative information. It evaluated stakeholders' roles, interest, influence, awareness about food safety and gender issues, among others. Based on the outcome of these engagements, all stakeholders were grouped according to the Grid tool (figure 1 below) which took into consideration their level of interest and influence. Analysis of responses was also done with Google Form and Microsoft Excel to generate recurrent themes and understand contexts.

For the mapping purpose, a stakeholder is defined as any person, organization, or social group that has a stake (vital interest) in the business of food and its safety whether they are internal

or external. Generally, stakeholders are categorized based on their functional involvements and on their motive or interest such as being customers, employees, investors, suppliers and vendors, communities, and the government. Stakeholders are major implementation influencers on the perspective of food safety system in Nigeria. The groups/categories of stakeholders engaged during the mapping were:

- 1. Government Stakeholders i.e. Federal, State or Local Government Ministries, Departments and Agencies (MDAs).
- 2. Consumer and Market Associations.
- 3. Non-Governmental Organizations (NGOs) i.e. Community Based Organization (CBO), Civil Society Organization (CSO) and Faith Based Organization (FBO).
- 4. Private Sector i.e. farmer associations, food processors/manufacturers, Food Produce Transporters/Nigerian Union of Road Transport Workers (NURTW) and the Hotels, Restaurants and Caterers (HORECA).
- 5. Research and Academia.
- 6. Professional Associations.
- 7. Women Groups



Figure 1: Power/Interest Grid (8)

#### 2.1.1.3 Mapping:

The last stage of stakeholder mapping was to list and group stakeholders according to their level of influence. The output of the mapping is the Stakeholders List generated (Appendix II). In addition to other stakeholders engaged but who did not fill the questionnaire, those on the list will be contacted for stakeholder engagements during the project planning, design, launch and implementation of EatSafe activities in Kebbi State. Figure 2 below shows the different stakeholders (67) who responded to the questionnaire.



Figure 2: Stakeholders surveyed through the questionnaire

#### 2.1.1.4 Location/Scope/Limitation

Most of the respondents were based in Kebbi State where the EatSafe project will be implemented, and Abuja, the Federal Capital Territory (FCT). However, some respondents residing in other states in Nigeria were also included in the mapping. In all, 77 respondents filled the questionnaire while 67 properly completed forms were used for the analysis. A limitation of this mapping exercise was the inability to travel to Kebbi State for face to face meetings, KIIs and FGDs due to the restrictions placed on travelling within the country by the Federal Government of Nigeria and the Global Alliance for Improved Nutrition as a preventive measure to stop the spread of the COVID-19 pandemic.

## 2.2. FINDINGS

## 2.2.1 Food Safety Stakeholder Mapping

Analysis of responses received from the stakeholders mapped was based on the different question groupings in the questionnaire as presented below.

#### 2.2.1.1 Demographics and role

Demographics of respondents showed that majority were from Kebbi State as purposively selected while others were from the Federal Capital Territory and a few other States. The cross-section review of gender of respondents showed that 75% were male and 25% were female. On years of work experience, 21.1% had 10 to 19 years. For area of primary engagement, most of the respondents (29%) belong to the farmers' associations followed by Federal and State Government MDAs (25%). It was observed that the organizational roles spread broadly across the areas of food safety, agriculture, health, and nutrition.

#### 2.2.1.2 Influence

Influence is defined here as the capacity or power of a stakeholder to be a compelling force on or produce effects on the actions, behavior, opinions, etc., of others on food safety matters. The two groups with the greatest influence, based on interactions with stakeholders (Figure 3), were government (53.9%) closely followed by farmers (52.6%). Research and Development had the least level of influence while the most influential stakeholders were reported to be people in government or government MDAs. This was expected as the MDAs at the Federal, State and LGAC levels are responsible for food safety policy making, legislation and their enforcement. For the private sector in Kebbi State, several private Rice companies located in Birnin Kebbi and in Argungu were the most notable as influential. On motivation against food safety compliance, most of the respondents reported they had none, while others cited reasons like expensive food safety process, non-compliant and sub-standard products, weak legislation and policy implementation framework and ignorance of food handling measures at community level.



#### Figure 3: Interaction with food safety stakeholders

The Power/Interest Grid tool provides the basis for identification of communication, engagement, and capacity building activities. (See Figure 1.) The **key players** identified were the MDAs and development partners; **influence players** are the market/consumer associations, the private sector and women groups; **interested players** are the research/academia, NGOs and professional associations while none of the organizations was grouped as **passive players**. Consequently, the key players identified will be engaged and consulted the most, and engagement with the influential and interested players will be regular but more moderate.

#### 2.2.1.3 Resources

Concerning resources, majority of respondents (83.6%) stated that financial resources pose the greatest challenge, which was followed by training needs on food safety (75%). Most respondents affirmed a connection between food safety and food price and attributed it to expenses incurred in improving food safety practices leading to price increases. Regarding the economic consequences of food safety hazards in Kebbi State, most respondents said they were not aware of any; several cited incidences like flooding, use of hazardous chemicals in beans (cowpea) storage and challenges during implementation of iodized salt for cooking. One of the stakeholders mentioned the use of chemicals for harvesting fish in the aquaculture value chain which constitute a food safety risk. Questions that covered their interest in the design of food safety interventions, the majority (90.8%) stated they would like to be involved in relevant planning and design stages for EatSafe intervention design and implementation.

#### 2.2.1.4 Interventions

Most respondents stated the current situation of food safety in local (wet or informal) markets in Kebbi State was poor and needed improvement. On the prevalence of foodborne diseases in Kebbi State, diarrhea, typhoid, and food poisoning from agrochemicals used on cowpea storage were reported. Other food safety issues reported were aflatoxicosis, mycotoxins, bacterial contamination of rice and other grains; pesticides residue and chemicals used for fruit ripening; lack of storage and transportation facilities; use of toxic chemicals for grain storage and harvesting fish; abuse of antibiotics; and poor hygiene.

In response to questions on ideas for creating awareness about food safety and interventions design by EatSafe, they reiterated the need for advocacy, behavioral change communication, women empowerment, and capacity building. They stated that engaging additional stakeholders might generate more ideas based on lessons learned from previous projects implemented in Kebbi State: Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) by USAID; Anchor Borrowers Program (ABP) and Africa Agri-Food Development Program (AADP) by the Central Bank of Nigeria (CBN); Mandatory Conformity Assessment Program (MANCAP) by Standards Organization of Nigeria (SON); Proact by Oxfam; Kebbi Agricultural Transformation and Self Help Initiative (KATASHI) and Fadama II by the Federal Government of Nigeria and the World Bank. Engaging stakeholder organizations to be food safety champions would help address some of the identified weaknesses and promote needed legislative reforms.

#### 2.2.1.5 Gender

On gender issues, 78.4% of respondents agreed that gender did not matter in decision making on food safety matters. However, for those that said gender did matter, it was basically due to culture, religion or social norms as it relates to the northern part of Nigeria. These reasons were also reported as affecting the way local food value chains and markets work. Subsequently the men dominate production, transportation, processing, marketing, and policy making in Kebbi state.

On the relevance of gender-related barriers to food safety, the general view expressed was that it is very important as women constitute a significant proportion of the workforce. Notable among these barriers are that women in seclusion have limited access to engage with their peers in the market; patriarchal system does not support women businesses in some part of the state which limits their contribution to food safety; inability of the women to be part of decision making processes hindering their opportunity in solving food safety issues; and low level of education has a greater effect on women having access to equal opportunities.

In summary, it was clear that more advocacy should be made for gender inclusion and equality. Thus, a gender perspective in food safety research can ensure that men's and women's differential exposure to agriculture-related risks are better understood and interventions better targeted, particularly as it relates to health outcomes. It can also ensure that women and men have increased capacity to manage food safety, nutritional, and economic risks, and are more involved in their surveillance depending on their role in the supply chain (17).

## 2.3. **RECOMMENDATIONS**

Based on the Stakeholder mapping, the following recommendations are made:

- 1. If supported by additional EatSafe research, design, develop and deliver a communications strategy to provide relevant awareness programs and communication campaigns based on findings from this Stakeholder Mapping. The communications strategy should also address how to engage and collaborate with stakeholders especially the high influence high interest group
- 2. EatSafe should conduct a food safety needs assessment in Kebbi State to identify capacity building needs and assist in design of consumer- and vendor-based interventions. The assessment can be incorporated into EatSafe's Knowledge, Attitude and Practices (KAP) research and interventions, if appropriate.

## CONCLUSION

The food safety policy analysis showed that food safety affects everyone and that consumers deserve access to safe, hygienically produced food, whether fresh from the farm, food processing companies or the food service sector. The NPFSIS addressed the national objectives for the food safety system and is mostly focused on the formal sector. The policy document also recognized that the Micro, Small and Medium Enterprises (MSMEs) food

processing sub-sector has great potential to create employment and wealth for the rural and urban poor. This potential of MSMEs can be harnessed with improved hygienic practices and adequate infrastructure for enhancing safe food supply system for the consumers.

Although foodborne disease is a major public health concern in Nigeria, the existing food safety legislation is ineffective in addressing and curbing the underlying risks. Existing laws relating to food safety are operated by numerous institutions that have not adopted modern preventive control systems. The laws are marked by gaps and overlaps, lack of coordination, and adoption of outdated and obsolete provisional requirements and food safety control models.

Although the Food Safety and Quality Bill (FSQB) when passed into law is expected to address these challenges, more work needs to be done to inspire greater consumer confidence in the safety and quality of locally produced food commodities in Nigeria. Consequently, there is urgent need for greater investments in developing innovative, effective, sustainable, and scalable approaches that will address food safety challenges and concerns across the entire national food supply chain (Farm-to-Table). Special attention should be paid to the neglected traditional, informal markets where the rural and urban poor source their fresh meats, fruits, vegetables, and other high-risk foods (9).

Food safety stakeholders are an important and integral part for the EatSafe project implementation in Kebbi State. The stakeholders list generated from the stakeholder mapping is a rich resource of stakeholders to engage throughout the implementation of the project in Kebbi State. It will serve as a reference for citizen engagement and municipal roundtables for discussions on food safety, and involvement in the design and implementation of interventions by the EatSafe project. Including gender perspective in EatSafe food safety research can ensure that men's and women's differential exposure to agriculture-related risks are better understood and interventions better targeted, particularly as it relates to health outcomes. It can also ensure that women and men have increased capacity to manage food safety, nutritional, and economic risks, and are more involved in their surveillance depending on their role in the supply chain.

#### **Recommendations for Intervention Design and Future Studies under EatSafe**

EatSafe Nigeria aims to generate the evidence and knowledge on leveraging the potential for increased consumer demand for safe food to substantially improve the safety of nutritious foods in informal market settings in Nigeria. Central to EatSafe's work is understanding (and potentially shaping) the motivations, attitudes, beliefs, and practices of consumers and food vendors. While EatSafe will undertake novel primary research on consumer and vendor motivations and practices, it is essential to ensure that this work is informed by and builds on what has already been done—both in terms of methods used and results obtained. Based on the results of this review, we recommend EatSafe consider the following lessons emerging from this document in the design of its interventions going forward:

- The observed low level of public awareness on food safety in informal markets is a great concern. This requires capacity building and education of all actors and stakeholders in the food supply chain on food safety and hygiene, especially food vendors and consumers in the informal sector.
- There is need for food safety champions at the State and Local Government Levels. These are stakeholders who will use their knowledge, power and platform to raise awareness while advocating for change in negative behaviours related to food safety. In addition, the Nigerian Institute of Food Science and Technology (NIFST) has conducted street foods vending research and promotes food hygiene and safety practices through trainings. EatSafe can liaise with NIFST for this activity in Kebbi State.
- Food safety stakeholders are key for EatSafe project success. EatSafe must ensure that representatives of all relevant stakeholder groups are involved during the project planning, launch, design and implementation of interventions.
- Designing interventions and the selection of commodities for implementation are to be based on research findings in phase 1. The risk assessment should profile and rank commodities based on potential or existing hazards caused by biological (foodborne disease occurrence), and/or chemical hazards.
- Women need to be empowered in the food safety space based on evidence and lessons learned from previous projects; New Agricultural Transformation and Self-Help Initiative (NATASHI), Growth Employment in States (GES) and Agricultural Transformation Agenda (ATA), and Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project. EatSafe should ensure specific capacity building on food safety for women in Kebbi State.
- There appears to be poor communication links among food safety stakeholders. EatSafe's expertise for behavior change communication, including through Pierce Mill, will help the project to improve communication and behavioral change that enables effective communication and linkages between all stakeholders in the food supply chain with focus on vendors and consumers.
- The National Policy on Food Safety and Its Implementation Strategy (NPFIS) developed in 2014 has not been supported with an enabling Law five years after it was first developed. Before the Food Safety and Quality Bill (FSQB) 2017 is passed into law by the National Assembly, additional hearings are needed. EatSafe should monitor the Bill's progress and if food safety and EatSafe target stakeholders can participate in the public hearings.

## REFERENCES

- WHO. Estimating the burden of foodborne diseases. Available from: <u>https://www.who.int/activities/estimating-the-burden-of-foodborne-diseases</u> [Accessed 2nd October 2020].
- WHO estimates of the global burden of foodborne diseases. Geneva, Switzerland: World Health Organization; 2015. Available from: <u>https://www.who.int/foodsafety/publications/foodborne\_disease/fergreport/en/</u> [Accessed 15th July 2020].
- 3. The Nigeria Demographic Health Survey 2018. Available from: https://www.dhsprogram.com/pubs/pdf/FR359/FR359.pdf [Accessed 20th October 2020].
- 4. SPRING. 2018. Assessing Drivers of Malnutrition in Nigeria: A Report on Findings from Kebbi, Niger, Benue, and Cross River to Inform Food Security Investments. Arlington, VA: Strengthening Partnerships, Results,
- Yusuf AB, Gulumbe BH, Aliyu B, Kalgo ZM. Bacteriological Assessment of Fresh Beef Sold in Birnin Kebbi Central Market, Kebbi State, Nigeria. *International Journal of Medical Research* & *Health Sciences*, 2019, 8(1): 127-131. Available from: <u>https://www.ijmrhs.com/medicalresearch/bacteriological-assessment-of-fresh-beef-sold-in-birnin-kebbi-central-marketkebbi-state-nigeria.pdf</u> [Accessed 2nd October 2020].
- Federal Ministry of Agriculture and Rural Development (FMARD). The Agricultural Promotion Policy (2016-2020). Available from: <u>https://nssp.ifpri.info/files/2017/12/2016-Nigeria-Agric-Sector-Policy-Roadmap\_June-15-2016\_Final.pdf</u>
- Ministry of Budget and National Planning. National Food and Nutrition Policy (2016). Available from: <u>https://extranet.who.int/nutrition/gina/en/node/8238</u>
- 8. Federal Ministry of Environment. National Policy on the Environment (2016).

Available from: <a href="http://www.chm-cbd.com.ng/index.php/en/national-policy-on-enviroment">http://www.chm-cbd.com.ng/index.php/en/national-policy-on-enviroment</a>

- Federal Ministry of Health. The National Policy on Food Safety and Its Implementation Strategy (2014). Available from: <u>http://extwprlegs1.fao.org/docs/pdf/nig151436.pdf</u>
- 10. FAO and WHO. *Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems.* FAO Food and Nutrition Paper 76, ISBN 92-5-104918-1; 2003.
- 11. Omojokun J. *Regulation and Enforcement of Legislation on Food Safety in Nigeria*. Mycotoxin and Food Safety in Developing Countries. Available from: <u>http://dx.doi.org/10.5772/54423</u>

- 12. Ezrigwe J. Much Ado About Food safety: Implications in Nigeria. Afe Babalola University *J. of Sustainable Development Law and Policy*. 2018: Vol. 9
- 13. Ukwueze FO. Evaluation of food safety and Quality regulations in Nigeria. *Journal of Law, Policy and Globalization.* 2019: Vol.92, <u>www.iiste.org</u>
- 14. Nwamakamba L, Monsa P, Kwakyiye T, et al. Developing and maintaining food safety control systems: Experiences from the WHO African Region, *AJFAND* Online 2012: Volume 2 No 4
- 15. Okonkwo CO, Okonkwo, Naish. *Criminal Law in Nigeria.* 2<sup>nd</sup> ed. Ibadan: Spectrum Books Ltd; 1980
- 16. Whitworth, JJ "FERG: Global Estimates Must Drive Country Action", *Food Navigator* (22 December 2015). Available from: <u>www.foodnavigator.com/Article/2015/ 12/22/Country-studies-needed-to-guide-action-on-foodborne-diseases</u>
- 17. Roesel K. Gender Considerations In Informal Food Markets in Sub-Saharan Africa April 9, 2018. Available from: <u>https://a4nh.cgiar.org/2018/04/09/gender-considerations-in-informal-food-markets-in-sub-saharan-africa/</u>

## APPENDICES

## APPENDIX I: Laws Relating to Food Safety at Federal Level

TITLE	COVERAGE/SCOPE OF SECTIONS RELATING TO FOOD SAFETY	DATE OF ENACTMENT AND OR AMENDMENTS IF ANY	RESPONSIBLE AGENCY	
FOOD AND DRUGS ACT	An Act to make provision for the regulation of the manufacture, sale and advertisement of food, drugs, cosmetics and devices and repeal the existing State laws on those matters.	[10th February 1976]	NAFDAC	
COUNTERFEIT AND FAKE DRUGS AND UNWHOLESOME PROCESSED FOODS (MISCELLANEOUS PROVISIONS) ACT	An Act to provide for the prohibition of sale and distribution of counterfeit, adulterated, banned or fake, substandard or expired drug or unwholesome processed food; and of sale, etc., of drugs or poisons in certain premises or places.10th may,1999, 15 July 1988 NO.25		NAFDAC	
FOOD, DRUGS AND RELATED PRODUCTS (REGISTRATION, ETC.) ACT	An Act to regulate the manufacture, importation, exportation, advertisement, sale or distribution of processed food, drugs and related products and registration thereof.	[27th January 1993]	NAFDAC	
NATIONAL AGENCY FOR FOOD AND DRUG ADMINISTRATION AND CONTROL ACT	An Act to establish the National Agency for Food and Drug Administration and Control with the functions, among others, to regulate and control the importation, exportation, manufacture, advertisement, distribution, sale and use of food, drugs, cosmetics, medical devices, bottled water and chemicals.	[1993 No. 15.]	NAFDAC	
AGRICULTURAL PRODUCE (EXPORT) ACT	An Act of Parliament to provide for the grading and inspection of agricultural produce to be exported, and generally for the better regulation of the preparation and manufacture thereof.	[Act No. 44 of 1921,	FMARD	
NATONAL ENVIRONMENTAL STANDARDS AND REGULATIONS ENFORCEMENT AGENCY (ESTABLISHMENT) ACT, 2007	An act to provide for the establishment of the national environmental standards and regulations enforcement agency charged with responsibility for the protection and development of the environment in Nigeria; and for related matters.	[ 30th Day of July 2007]	NESREA	

ANIMAL DISEASES (CONTROL) ACT	An Act to provide for the control and prevention of animal diseases, with the object of preventing the introduction and spread of infectious and contagious diseases among animals, hatcheries, and poultries in Nigeria.	[24th February, 1988	FMARD
EXPORT PRODUCE (FEDRAL POWERS) ACT	An act to confer sundry powers in relation to certain produce intended for export.	[5th October 1961]	FMITIS
NATIONAL AGRICULTURAL SEEDS ACT	An Act to establish the National Agricultural Seeds Council and for matters connected therewith.	[23rd November 1992]	NATIONAL AGRICULTURAL SEEDS ACTs
EXPORT OF NIGERIAN PRODUCE ACT	An Act to repeal the Nigerian Central Marketing Board Act and to make new provision for the export of Nigerian produce	1990. Amended in 2004	EXPORT OF NIGERIAN PRODUCE ACT.
INLAND FISHERIES ACT	An Act to provide for the licensing of fishing craft and the regulation of fishing on the inland waters of Nigeria and for matters connected therewith.	[1992 No. 108.]	FMARD
LIVE FISH (CONTROL OF IMPORTATION) ACT	An Act to regulate the importation of live fish; and for purposes connected therewith.	[1962 No. 27.]	FMARD
TRADE MALPRACTICES (MISCELLANEOUS OFFENCES) ACT	An Act to create certain offences relating to trade malpractices.	[23rd November, 1992	FMITI
STANDARDS ORGANISATION OF NIGERIA ACT	An Act to establish the Standards Organization of Nigeria to standardize methods and products in Nigerian industries and to provide for other matters connected thereto.	[1st January 1970]	SON
QUARANTINE ACT	An Act to provide for and regulate the imposition of quarantine and to make other provisions for preventing the introduction into and spread in Nigeria, and the transmission from Nigeria, of dangerous infectious diseases.	(18 of 1926. 7 of 1929. L.N. 131 of 1954)	NAQS
SEA FISHERIES ACT	An Act to provide for the control, regulation and protection of sea fisheries in the territorial waters of Nigeria	[30th November 1992]	SEA FISHERIES ACT

## APPENDIX II: Stakeholder List

STAKEHOLDERS LIST - RESPONDENTS TO STAKEHOLDER MAPPING QUESTIONNAIRE				
Name	Organization	Address	E-mail	Phone
Government MDAs	-		-	
	Federal Ministry of	Federal Ministry of		
Femi Stephen	Health	Health, Abuja	femistephen@live.co.uk	08061680137
Dr. Rafi Rebecca	Department of Public Health, Ministry of Animal Health, Husbandry and Fisheries	Birnin Kebbi.	rafimeteke@gmail.com	08106881918
Adeyinka Onabolu, FMARD, FCDA Secretariat Complex, Area 11, Garki,				
Abuja,		FCDA Secretariat		
aonabolu@gainhealth.org;		Complex, Area 11,		
08034002756	FMARD	Garki, Abuja	aonabolu@gainhealth.org	08034002756
Oyewumi Adeola Omolola	FMARD	Abuja	adeomolola@yahoo.com	08062180898
	Ministry of	State Secretariat, Gwadangaji, Birnin		
Mr Joel Aiki	Agriculture	Kebbi	joelaiki82@gmail.com	08069303300.

	and Natural			
	Resources			
Abubakar M. S. Lolo	KARDA	PMB 1039, Birnin Kebbi	abubakarsmalllolo@gmail.com	08032409299
Aruwa Agonoh	FCCPC	FCCPC	aruwa.agonoh@cpc.gov.ng	07033508897
	Ministry of	Ministry of women		
Hassan Muhammad	women Affairs	Affairs, Kebbi	hassanmuhammad2020bk@gmail.com.	-
GARBA ABUBAKAR		4A Adamu Aliero Road, Gesse Phase II, B/Kebbi,		
ADAMU	NAFDAC	Kebbi State	garba.adamu@nafdac.gov.ng	08036045210
	Ministry of		nasirumusa1980@gmail.com	
Mohammed Nasiru musa	environment	sultan Abubakar Rd.		
	Kebbi State	Birnin Kebbi		08035173679
			alidakas@gmail.com	
	Standards			
	Organization	2nd floor Gwadanwaji		
Aliyu Ibrahim Dakasku	of Nigeria	Secretariat, Birnin-Kebbi		08032870635
Consumer and Market Asso		Γ	1	
	soybeans			
Siddiq usuman	association	-	-	-
	Cowpea			
	producers and			
	marketers			
	Association,			
	state			
Nura Yahaya	chairman,	Kebbi State	-	08064346936
	Kungiyar yan			
	Gwari (leafy			
	,tomatoes			
Umar Basiru	seller)	-	-	07033073591

1	Gaji chairman	I	I	1
	Fish			
	marketers,			
	processor s	central market Birnin		
Bakatara mai Kofi G	Association	Kebbi	_	08069762687
	chairman	KEDDI		08003702087
	meat sellers			
Abubakar Hassan Dangiwa	Association	Kebbi State	_	08168233956
Abubakai Hassaii Daligiwa	Grains Sellers			00100255550
	Association,			
	state			
Atiku Ciroma	Chairman	Kebbi State	-	07063691080
	Dogara ga			07003031000
	Allah Rice			
	Development	Fadama Gidan Agoda		
Muhammad Muktar	Association	Augie LGA	aljannaremukhtaru@gmail.com	07034825522
	Yaryara			07034023322
	market			
	traders			
Isah Zaki	Association	-	_	07037295286
	Chairman			0/03/235200
	market			
	Traders	Central market Birim k		
Alh umaru Dan gura	Association	Kebbi	_	08031620533
	General			
	manager			
	Birnin Kebbi			
	Central			
-	market	BirninKebbi	-	08066459622

1	Chairman			1
	Tsohowar			
	kasuwa			
	market			
	Traders			
Muhammed Bako	Association	Birninkebbi	-	08069765350
	Rice Farmers			
	Association			
	Birninkebbi,			
Kabiru Zamara	Secretary	Kebbi State	-	08068209999
	leafy and			
	okro,tomatoes			
	seller yaryara			
Nana Aisha	market	Birnin kebbi	-	09068376905
	Vegetable			
	seller, Yaryara			
Haja mai kayan miya	market	Birninkebbi	-	-
Non-Governmental Organiz	zations	-		
-	Naccaran	-	hauwa.dada@gmail.com	08037555572
	Active Support			
	for Rural	CRA, No. 2 Sokoto Road		
	People	G. R. A. Birnin Kebbi,		07066668555,
Ibrahim Abdullahi Ngaski	Initiative	Kebbi State,	kebbipap@yahoo.com	08064494292
	Gender Equity			
	Promotion			
Yakubu Mahammad Yauri	initiative	Kebbi State	gender_equity.pvsi@yahoo.com	08038446746
	Health Care			
	Support	Opposite Nagari		
Adamu Abubakar Andarai	Initiative	College, Birnin Kebbi	<u>hecsibk@yahoo.com</u>	08065554509

Private Sector				
		Murtala Muhammad		
	Shagalinku	way, Tudun wada area		
Malami Marafa Modi	Hotel Ltd	Birnin Kebbi	shagalinkuhotelbk@gmail.com	08095213235
	State			
	Chairman			
	All farmers			
Usuman D, Suru	Association	Kebbi State	-	09030175500
	Rafin Kuka			
	Farmers'	Ministry of Women		
	Cooperative	Affairs and Social		
	Association	Development Birnin		
Bashar Idris	Yauri	Kebbi, Kebbi State	Idriskwanano@gmail.com	08038301258
	Gaskia Tafi			
	Kobo Farmers'	Bayan Filin Sukuwa		
	Cooperative	Birnin Kebbi <i>,</i> Kebbi		
Ahmad Bashar	Association	State,	ahmadbashar2021@gmail.com	08163918786
	youth			
	farmers'			
	cooperative			
Abdullahi umar faruk	organization	birnin kebbi	worldbestfaruk@gmail.com	08102580774
	Ni'ima			
	Farmers'			
	Cooperative			
Aisha Abubakar Bagudu	Association	Tudun Wada B/K,	abubakaraisha283@gmail.com	08038043186
	mace ta gari			
	farmers			
Aishat usman liman	association	-	-	-

	Zumata			
	cooperative			
	farmer			
	association			
Adam Ango kamba	kamba,	Kebbi State	_	07035123747
	Zumunta			07033123747
	Indarai			
	Farmers'			
	Cooperative	Bayan Filin Sukuwa,		
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