

Review of policies related to food safety in Nigeria

OBADINA Adewale Olusegun Department of Food Science and Technology, Federal University of Agriculture, Abeokuta, Nigeria

1.0 Introduction

In a country where food insecurity, communicable diseases, natural disasters, and other major concerns dominate the government agenda and news media, the importance of food safety appears to often be underappreciated. However, food safety is of critical importance to Nigeria and failure to adequately address food safety concerns can severely undermine the efforts to achieve stated goals associated with the current dominant areas of focus mentioned above.

The 2021Food Systems Summit recognized the importance of food safety, as it defined food security as: "...when all people ... (have) access to sufficient, safe and nutritious food ...". Furthermore, food-borne illnesses contribute to decreased worker productivity, disability, and even early death, thus lowering incomes and access to food. During the 2022 World Food Day, the minister of health confirmed that the consumption of unsafe or contaminated food was causing the country and other low-income economies estimated \$95 billion in productivity decline,

Food safety systems¹ encompasses the scientific discipline of production, handling, preparing, distribution and storage of food in a way that will prevent foodborne disease outbreaks and illnesses. Food safety involves not only the avoidance of foodborne pathogens, chemical toxicants, and physical hazards, but also includes nutrition, food quality, labelling, and education (IMNRC 1998). The foundation of food safety is built upon a quality-safety culture, compliance with existing food laws, regulation and policy, traceability and food safety management systems encompassing documentation, training, auditing and reporting, corrective action.

Food borne diseases (FBDs) are common in Nigeria for several reasons. These reasons include prevailing poor food handling and sanitation practices, inadequate food safety laws, weak regulatory systems, insufficient financial resources to invest in safer equipment and infrastructure, and a lack of knowledge about food safety practices and importance by food handlers at multiple levels (Obadina, 2021; Ezirigwe 2018; Olalekan et al. 2019; Grace et al. 2018; Omojokun 2013, Ukwueze 2019).

¹Private sector or businesses food safety management System is a systematic approach to controlling food safety hazards within a food business to ensure that food is safe to eat (FAO & WHO 2007).

Food safety concerns in Nigeria include biological, physical and chemical contamination, adulteration, misbranding, aflatoxin contamination, illegal food trading, and weak controls over the quality of imported and exported foods (Ezirigwe 2018; Olalekan et al. 2019; Grace et al. 2018; Omojokun 2013). Poor food hygiene and limited oversight along food supply chains lead to widespread FBDs: there are an estimated 173 million cases of diarrhoea caused by foodborne illness annually in Nigeria, and about 33,000 deaths from these illnesses (Grace et al. 2018). The costs of treating these illnesses are estimated at USD 1.7 billion annually—with a considerably larger economic toll if the cost of lost labor hours and productivity are considered (Grace et al. 2018).

An effective food safety policy for Nigeria should include the principles, values, priorities, and strategies necessary to enable the development of actions to address the main food safety concerns in the country. Such a policy would provide the framework for the establishment of national food safety objectives and requirements and offer guidance for application to specific segments of food supply chains (production, processing, storage, transportation and marketing). However, the food safety policy situation in Nigeria remains insufficient and this is despite several efforts in the country, including the formulation of the National Policy on Food Safety in 1999 (NPFS) and the National Policy on Food Safety and Implementation Strategy (NPFSIS) in 2014. It is also important to note that the development of policies is not enough. They must be accompanied by the political will to ensure their implementation.

2.0 The National Policy on Food Safety (NPFS)

The National Policy on Food Safety was approved in 1999 at the 44th Meeting of National Council on Health in Nigeria. The National Policy on Food Safety is intended to assign roles and responsibilities for all relevant parties for ensuring food safety in Nigeria. It also provides official guidelines on the minimum food safety practices which should be adhered to, in order to assure consumers about the safety of food and food products meant for human consumption. Among the provisions of the National Policy on Food Safety is the establishment of a National Committee on Food Safety that draws its membership from the public and private sector as is relevant to the production, storage, processing/preparation, distribution, transportation, and sale of food intended for consumption.

2.1 Membership from the Public Sector includes:

Federal Government Ministries Federal Government of Food Control Agencies State Government Ministries of Health State Government Ministries of Agriculture Local Government Departments of Health Local Government Departments of Agriculture

2.2 Membership from the Private Sector includes:

Non-Governmental Organizations (NGOs) International Development Partners Universities and Research Institutes Professional Bodies/Associations Consumer Associations

3.0 Legal Framework of the National Policy on Food Safety (NPFS)

Since 1958, various laws and regulations had been promulgated to ensure the safety and wholesomeness of food supply in Nigeria. Such legislations include the following:

• The Public Health Ordinance Cap 165 of 1958 previously known as the Public Health Laws (1917)

• The Standard Organization of Nigeria Decree No. 56 of 1971

• The Food and Drug Act No 35 of 1974 (now Food and Drug Act Cap F_{32} Laws of the Federal Republic of Nigeria, 2004)

• The Animal Disease Control Decree No. 10 of 1988

• The Marketing of Breast Milk Substitute Decree No. 41 of 1990 (now Marketing (Milk) Act Cap M₅ LFN 2004

• The National Agency for Food and Drugs Administration and Control Decree No 15 of 1993 (now NAFDAC Act CAP N1 Laws of the Federal Republic of Nigeria, 2004)

• The Food, Drug and Related Products (Registration etc.) Decree No $_{19}$ of 1993 (now Food, Drug & Related Products (Registration etc.) Act Cap F_{33} Laws of the Federal Republic of Nigeria (LFN), 2004

• The Counterfeit and Fake Drugs and Unwholesome Processed Food Act No $_{25}$ of 1999 (now counterfeit & Fake Drugs and Unwholesome Processed Foods (Miscellaneous Provisions) Act Cap C₃₄ LFN 2004

• Various byelaws enacted by various LGAs in the country.

3.1 Goals of the National Policy on Food Safety (NPFS)

The overall goal of the National Policy on Food Safety is to establish a national institutional framework that consolidates all existing food safety and control systems in the country and ensures the attainment of a high level of food safety standards that will achieve the following:

• Promote the availability and consumption of safe, wholesome and nutritious foods

• Improve public health and reduce/eliminate incidences of food borne and related diseases throughout the country

• Protect the health of consumers by the reduction of exposure to hazards through producing, processing, and distributing safe food

• Meet consumers' needs and preferences in addition to facilitating international trade in food

3.1.1 Specific sub-goals of the National Policy on Food Safety (NPFS)

• To review, update and promote all government policies, laws and regulations concerned with the control and safety of food during production, storage and handling, processing/preservation, trade, transportation and marketing, preparation and consumption.

• To improve the quality of healthcare delivery by ensuring that only foods that are safe, wholesome and of good quality are produced and/or marketed in Nigeria in accordance with prescribed food safety management systems such as, but not limited to HACCP (Hazard Analysis and Critical Control Point) and are accessible to the consumer at affordable price.

• To update, strengthen, harmonize, integrate and publicize all existing laws/regulations, standards and codes of practice with respect to control and regulation of food safety practices;

eliminate areas of duplication/conflict and make them more relevant to the needs of the country and create a national data base needed for future planning.

• To establish a risk-based food control system that will assist in setting appropriate level of protection for the consumers, prioritization of food safety programmes and monitoring safety trends in the national food supply.

• Food safety activities are sometimes fragmented and compounded by overlap of functions of the government regulatory bodies with roles along the farm-to-fork. The National Policy on Food Safety aims to integrate and harmonize all existing laws, standards and codes that regulate food safety practices in Nigeria, redefine and coordinate existing food control infrastructures at various levels of government and eliminate areas of overlap and conflict. Implementation of the National Policy of Food Safety (NPFS) would minimize the risk of outbreak of diseases arising from poor safety practices and reduce the prevalence of food-borne and related diseases.

4.0 Bodies with stipulated roles in the National Food Safety Policy towards achieving food safety

4.1 Government bodies

4.1.1 The Federal Ministry of Health (FMoH)

In the NPFS, the Federal Ministry of Health is responsible for the formulation of national policies, guidelines and regulations on food safety including monitoring and evaluation. It is also responsible for the assessment of the nutritive value of food, environmental sanitation, food environment and handlers, control of food borne disease, quality of public water from taps, as well as national and international matters relating to food.

4.1.2 The National Agency for Food and Drug Administration and Control (NAFDAC)

The National Agency for Food and Drug Administration and Control (NAFDAC) is responsible for the registration and control of the importation, exportation, manufacture, advertisement, distribution, sale and use of food, drug, cosmetics, medical devices, chemicals, packaged water and detergent at Federal and State levels in Nigeria. Appropriate tests are conducted and compliance with standard specifications for the control of the quality of food, bottled water and the raw materials as well as their production processes in factories and other establishment is ensured. The agency undertakes appropriate investigations into production premises and raw materials for food and establishes relevant quality assurance systems including certification of the production sites and the regulated products and pronounces on the quality and safety of food, bottled water and chemicals. The role of the Agency also includes the inspection of imported food facilities to ascertain relevant quality assurance systems necessary for certification of the imported food product.

4.1.3 The Standards Organization of Nigeria (SON)

The Standards Organization of Nigeria is responsible for the formulation and enforcement of set standards on the composition of imported and locally manufactured food.

4.1.4 The Federal Ministry of Agriculture and Rural Development (FMA&RD)

The Federal Ministry of Agriculture and Rural Development is responsible for formulating policies on primary agricultural production and practices which cover plants, animals, pests

and diseases etc.; supervising and overseeing its departments and parastatals i.e., research institutes, colleges of agriculture, colleges of fisheries etc.

4.1.5 The Federal Department of Fisheries

The Federal Department of Fisheries has the responsibility for ensuring that fish and fishery products produced, imported into or exported from Nigeria conform to international quality standards of wholesomeness as stipulated in the Sea Fisheries (Fish Inspection and Quality Assurance) Regulation of 1995. The aim of all of which is to ensure compliance with the Fish Quality and Quarantine Services Regulation of 1995.

4.1.6 Nigeria Plant Quarantine Service (NPQS)

The NPQS was established in 1960 with an Act of Parliament "The Agriculture (Control of Importation) Act No.28 of 1959" which gave the Division the mandate to put in place quarantine regulations, infrastructural facilities, trained personnel and scientific equipment and regulations that would enable her to meet the objective of preventing the introduction of dangerous and destructive foreign plant pests (insects, fungi, bacteria, virus, nematodes and weeds) of plants and plant products into the country and prevent the establishment and spread where introduction occurs despite all preventive measures. This mandate is in line with the text of the International Plant Protection Convention (IPPC) of the Food and Agriculture Organization (FAO) of 1959 and revised in 1979 which Nigeria is a signatory. There has been a review of the NPQS enabling laws and drafting of the Nigeria Plant Protection Act also known as The Agricultural Control of Importation and Exportation Act Amendment 2003 to conform with international standards. Nigeria is one of the founding members of Inter-African Phytosanitary Commission and is being represented by Nigeria Plant Quarantine Service.

4.1.7 Consumer Protection Council

CPC is established under Consumer Protection Council Act, Cap 25, 2004 Laws of the Federation of Nigeria, to **promote and protect the interest of consumers over all products and services**. In a nutshell, it is empowered to; Eliminate hazardous & substandard goods from the market.

Consumer Protection Council is the government agency responsible for protecting consumers from unwholesome practices and assisting them seek redress for unscrupulous practices and exploitation. The agency encourages trade, industry and professional associations to develop and enforce quality standards designed to safeguard the interest of the consumer.

4.1.8 Federal Ministry of Environment

The Federal Ministry of Environment has a role to play in the control of environmental food contaminants, persistent organic pollutants, environmental pollution, waste disposal, etc.

4.1.9 Federal Ministry of Trade and Investment

The Federal Ministry of Trade and Investment is the Notification Authority on World Trade Organization (WTO) Sanitary and Phytosanitary rules in Nigeria and therefore has a role to play in international trade in safe food.

4.1.10 Federal Ministry of Education

Federal Ministry of Education has a role to play through enlightenment and manpower development by incorporating subjects on safe food handling in the school curriculum and courses on Food Safety Management Systems i.e., Good Agricultural Practices (GAP), Good

Hygienic Practices (GHP), Good Manufacturing Practices (GMP), Hazard Analysis Critical Control Points (HACCP) etc. in tertiary institutions necessary for manpower development.

4.1.11 Local Government Areas (LGAs)

The Local Government Areas are responsible for Street Vended Foods, Bukaterias, Catering establishments, local abattoirs and traditional markets.

4.1.12 Universities and Research Institutes

Tertiary and Research Institutes are responsible for research and will provide scientific basis for policy development and programme design in addition to relevant training programmes for capacity building and manpower development.

4.2 Private sector

The food processing/service industry applies the various standards, regulations and guidelines to ensure that food manufactured, imported, exported, distributed and sold for human consumption comply with the relevant food safety laws/regulations. They should maintain appropriate internal Quality Assurance based on the Hazard Analysis Critical Control Point (HACCP) principles to ensure product safety and consumer protection. The private sector is also expected to collaborate and complement government efforts in specific areas of education and awareness creation on the need to adopt and cultivate safe food handling habits by all categories of employees. It is recommended that small and medium scale entrepreneurs complement the efforts of the regulatory bodies by forming umbrella associations (e.g., packaged water producers, cocoa farmers association etc.) that will employ self-regulation of their practices. This enables the group to easily arrange consultative meetings with the regulatory bodies during which their views, issues of concerns and capacities are discussed and considered during decision making. Forming such associations also enables the regulatory bodies organize targeted capacity building training programmes for the group.

The global trend in food safety control emphasizes a multifaceted and multidisciplinary approach with effective co-ordination and collaboration between the regulatory bodies, the industry, academia, research institutes, professional bodies, consumer associations and the public. A national food safety policy (which spells out the roles and responsibilities of all stakeholders) and the political will to implement the same is essential for achieving an effective food safety control system.

5.0 Other National Policy Documents with Food Safety Components

In Nigeria, multiple government bodies play a role in ensuring the safety of foods along the farm to table continuum. The policies government actors implement are directed at farm production, safe food processing, consumer health protection, food standards, preservation of the environment, and regulations to meet safety and quality requirements in international trade. The national policies with food safety components are listed below:

- 1. The Agriculture Promotion Policy (2015-2020) of the Federal Ministry of Agriculture and Rural Development (FMARD) which has been replaced by the National Agricultural Technology & Innovation Policy-NATIP
- 2. The National Food and Nutrition Policy (2016) of the Ministry of Budget and National

Planning (MBNP)

- 3. The National Policy on the Environment (Revised 2016) of the Federal Ministry of Environment (FME)
- 4. The National Policy on Food Safety and Its Implementation Strategy (NPFSIS 2014) of the Federal Ministry of Health (FMOH)

It should be noted that the first three policies above are not food safety policy documents per se, but mainly sectorial policy documents focused on agriculture, food and nutrition, and the environment, with only small sections addressing food safety and health. The NPFSIS, however, outlined the policy and implementation strategies that would improve food safety oversight and drive its effectiveness. Thus, NPFSIS 2014 is the central food safety policy document reviewed in detail in this review. It was examined in detail according to the following 9 areas: scope, institutional arrangement, policy targets, merits, gaps and limitations, implementation strategy, monitoring and evaluation, sustainability and policy modification. While a comprehensive review was only done of NPFSIS, I have still reviewed other related policies below to understand the extent to which they consider food safety and the extent to which and provision for collaboration across relevant ministries and agencies and actors is articulated.

5.1 The Agriculture Promotion Policy (2016-2020)

The Federal Ministry of Agriculture and Rural Development (FMARD) has an important role to play in food safety. Its Nutrition and Food Safety Division is dedicated to this purpose. The goal of the Agriculture Promotion Policy (APP) (FMARD 2016-2020) was aimed at building a high-quality brand for Nigerian foods based on rigorous data and processes that protect food safety for both domestic and export market consumers. One of the specific objectives is building the government's capacity to meet its obligations to Nigerians in food security,

food safety and quality nutrition. Thus, FMARD's Agriculture Sector Food Security and Nutrition Strategy (ASFSNS, 2016-2025) was developed to support the APP goals. The Strategy has eight inter-related priority areas, one of which is focused on improving food safety along the value chain. The APP provided for programs and activities to introduce and enforce quality standards for inspection, grading, food safety and traceability for both large and small-scale growers. FMARD also recognized to submit, in coordination with the Federal

Ministry of Health, the Food Safety and Quality Bill to the National Assembly for legislation.

5.2 National Food and Nutrition Policy

In 1990, a National Committee on Food and Nutrition (NCFN) was set up in the then Federal Ministry of Science and Technology (FMST) to formulate a National Food and Nutrition Policy. This mandate was later transferred to the Federal Ministry of Health (FMOH) in 1993. However, in 1994 the NCFN and emerging programs were relocated to the National Planning Commission (NPC), now known as the Ministry of Budget and National Planning (MBNP), because of its unique position as the government agency responsible for

coordination, budgeting and monitoring of all national policies and programs related to food and nutrition.

The National Food and Nutrition Policy (NFNP) provides the framework for addressing the problems of food and nutrition insecurity in Nigeria at the individual, household, community and national levels. It guides the identification, design, and implementation of intervention activities across relevant sectors. The National Food and Nutrition Policy recognizes the importance of promoting food safety during production, processing and storage while addressing the issue of availability, accessibility, and affordability of food. It promotes the

development and enforcement of minimum standards for food quality and safety both for imported and locally produced foods, including street-vended foods. This includes strengthening the mechanisms for detection, monitoring, and control of chemical residues in foods.

5.3 National Policy on the Environment

The National Policy on the Environment (FME 2016) recognizes that environmental pollution has grown considerably in Nigeria. With the advent of modern agricultural production, farmers have increasingly relied on chemical inputs, such as herbicides and pesticides, which pose great concerns about environmental health. The pollution of air, water and soil comes from extensive use of fertilizers on farms, dumping of expired and contraband chemicals and pesticides in the country, and improper storage and handling of chemicals.

Policy statements relating to food safety in the National Policy on the Environment indicate that the government will manage and control farmers' reliance on artificial inputs, including herbicides and pesticides that are harmful to the environment

6.0 The National Policy on Food Safety and its Implementation Strategy (NPFSIS 2014)

The NPFSIS was drafted in 2014 by the Federal Ministry of Health (FMOH) and is Nigeria's most comprehensive food safety policy document. Its implementation was to be supported by a Food Safety & Quality Bill to be introduced as legislation. However, the Food Safety and Quality Bill (2016) is still awaiting enactment into law by the National Assembly almost four years after it was drafted - a major setback for NPFISIS 2014. The Bill would give legal, budget, and enforcement authority to the policy when passed into law. One measure of the quality and comprehensiveness of a food safety policy is how well it aligns with the building blocks for Strengthening National Food Control Systems as outlined in the FAO/WHO guidelines on Assuring Food Safety and Quality (FAO & WHO 2003). A review of the NPFSIS 2014 by a group of experts showed that it encompasses all the components known to strengthen national food safety systems, including Food Law and Regulations; Food Control Management; Inspection Services; Laboratory Services; Food Monitoring & Epidemiological Data and Information, Education, Communication and Training. The policy consists of four chapters: Policy Framework, Institutional Arrangement, Implementation Strategies, Monitoring and Evaluation. The policy also identifies the roles of both public and private bodies relevant in food safety, including farmers, processors, professional bodies, private laboratories, the academia and research institutes.

NPFSIS 2014 aims to integrate and harmonize all existing laws, standards and codes that regulate food safety practices in Nigeria, redefine and coordinate existing food control infrastructures at various levels of government and reduce areas of overlap and conflict. It is widely felt by thought leaders and practitioners that the implementation of the policy would minimize foodborne disease outbreaks attributed to poor safety practices and reduce the overall prevalence of foodborne illness. The policy is predicated on the adoption of Hazard Analysis and Critical Control Point (HACCP) system principles during the preparation, production, handling, storage, processing/preservation, transportation, and distribution of foods. It recognizes that food safety in the agricultural sector begins with risks associated with the inputs to agricultural production, such as pesticides, fertilizers and veterinary drugs.

6.1 Scope of NPFSIS

NPFSIS 2014 provides a framework for the identification of national food safety objectives and the formulation of suitable laws, regulations and guidelines aimed at achieving international best practices in all sectors of the food supply chain. It also establishes an early warning system to detect, trace and prevent outbreaks of foodborne illnesses before they spread. NPFSIS 2014 outlines a food safety mandate in Nigeria spread among 13 Ministries, Departments & Agencies (MDAs). It also articulates roles of the State Ministries and the Local Government Areas (LGA) in reaching the nation's majority rural population.

6.2 Institutional Arrangements under NPFSIS

The government's objective in producing the NPFSIS 2014 policy document was to achieve a comprehensive, effective collaboration and coordination of nationwide, farm-to-table food safety practices through the adoption of an integrated food safety management system approach. Towards this end, the NPFSIS established the National Food Safety Management Committee (NFSMC) as the entity that coordinates the NFSS. Previous implementation strategies had been mostly sectorial in nature, generally uncoordinated, inadequately funded and limited in scope and did not achieve the desired outcomes. The Policy provides for an Inter-Ministerial Committee on Food Safety (IMCFS) to oversee the NFSMC with its functions clearly described. The IMCFS consists of five Honorable Federal Ministers of Health; Industry, Trade and Investment; Agriculture and Rural Development; Science and Technology and Environment (see figure 1). NPFSIS provides for the establishment of a thirty-one-member National Food Safety Management Committee (NFSMC) by the IMCFS consisting of the relevant MDAs, the private sector, research institutes, food professional bodies, public analysts and trade groups to implement the NPFSIS and to report to the IMCFS. The NPFSIS manages the relationship between Nigeria's national regulatory agencies and various international standards organizations, such as the Codex Alimentarius Commission (CAC), World Organization for Animal Health (OIE), International Plant Protection Convention (IPPC) and the Sanitary and Phytosanitary (SPS) Committee of the World Trade Organization.

6.3 Policy Targets of the NPFSIS

NPFSIS 2014 outlined succinctly defined targets in tandem with international practice and guidelines. Partial achievement of the policy targets was realized through the adoption of the 2014 NPFSIS and inauguration of the National Food Safety Management Committee (NFSMC), marginal reduction in foodborne disease outbreaks, and some improvements in the safety of imported and exported food products. However, targets remain unfulfilled with respect to coordination of food control infrastructure, reduced food wastage, increased food security, and the adoption of food safety management systems such as HACCP. The public-private stakeholders' partnership and interface has not been effective and the unspecified targets for food safety education and communication have been of limited success.

7.0 Critical review of the existing policies

General:

The goals and objectives of the reviewed food safety policies are generally not well coordinated. There is also need for a re-composition of these goals and objectives because they are too broad and not specific. Foodborne illnesses and deaths cost Nigeria billions of naira yearly and this can be linked to lack of proper government agencies responsible for the execution of the different policies under review. For example, there are no adequate officials to direct or carry out diverse functions under the multiplicity of statutory mandates associated with most of these policies. There are also very few personnel at state and local levels. Even though the few available perform remarkably well, given their budgetary and statutory constraints, they operate within an institutional framework that is out of date and poorly designed to accomplish the critical goals that regulation in this field must achieve.

Lack of collaboration and coordination is a weakness in all the policies reviewed. Nutrition and food safety are inextricably interconnected. Achieving optimal human health and wellbeing requires that people be both well-nourished and free from foodborne diseases — and that depends on them having access to diverse nutritious foods that are also safe to eat.

The **National Food and Nutrition Policy** scored well when evaluated against the FAO/WHO Guidelines on Strengthening National Food Control Systems. However, it did not emphasize food safety training for control system enforcement by agency personnel as prioritized by FAO/WHO guidelines on Assuring Food Safety and Quality (FAO & WHO 2003). Therefore, this should be considered during the policy's next revision in order to help achieve the national food safety objectives.

The National Policy on the Environment indicates that the government will manage and control farmers' reliance on artificial inputs, including herbicides and pesticides that are harmful to the environment. However, actual implementation of this appears to be weak and/or non-existent. To provide the desired effect of these statements, we recommend that a national pesticide policy in Nigeria prohibit the use of banned chemicals globally and specify approved chemicals and limits of use for the production and storage of food products, especially legume and cereal grains. In addition, the Policy should also prohibit the use of hazardous chemicals to harvest and preserve fish as practiced by some artisanal fish farmers and aquaculture farmers.

The Agriculture Promotion Policy (APP) emphasized the coordination of efforts between concerned government bodies to improve efficiency. This is commendable. However, it still fails to address some important aspects of a strong food control system, such as laboratory services, Information, Education, Communication (IEC), and Training, which are included in the FAO/WHO Guidelines on Strengthening National Food Control Systems. This is not surprising as the policy was not designed as a food safety policy document.

National Policy on Food Safety (NPFS)

No single federal official can be said to be responsible for the government's food safety efforts. Instead, several officials have responsibility for parts of the system that are organizationally separate. Sometimes they compete for resources and for public attention. None of the heads of these agencies has direct access to the head of administrations.

The federal role in protecting the food supply requires central management which is essential if resources are to be allocated in accord with science-based assessments of risk and potential benefit. It is necessary to assume cooperation among dispersed, sometimes competing, programs. It is important for coordination among the states and between the states and localities and the federal government. It is also the only way to ensure that a focused federal entity is responsible for food safety policy.

The major shortfalls in the document are:

• There is no single federal entity that is both responsible for the government's efforts and that has the authority to implement policy and designate resources toward food safety activities.

- There is a lack of a unified mission among the various agencies with regard to food safety.
- lack of adequate integration among the primary federal agencies that are involved in regulating food safety;

• inadequate integration of federal programs and activities with state and local activities;

National Policy on Food Safety and its Implementation Strategy (NPFSIS 2014)

The strength of this document is to integrate and harmonize all existing laws, standards and codes that regulate food safety practices in Nigeria, redefine and coordinate existing food control infrastructures at various levels of government and reduce areas of overlap and conflict as observed in NPFS. Moreso, it provides opportunity for the establishment of National Food Safety Management Committee (NFSMC) as the entity that coordinates the National Food Safety System (NFSS). The Policy as well provides for an Inter-Ministerial Committee on Food Safety (IMCFS) to oversee the NFSMC with its functions clearly described.

The major shortfalls in the document are:

- inadequate emphasis on surveillance necessary to provide timely information on current and potential foodborne hazards;
- no resources identified for research and surveillance to support a science-based system;
- National Food Control System was not mentioned in the document

The safety and quality of the Nigerian food supply is expected to be regulated at the Federal (national), state and local level and by several agencies. Federal (National) law is expected to regulate interstate and international trade while state governments regulate intrastate businesses. Thus, the food safety will consist of federal agencies exercising designated food

safety responsibilities in accordance with their main authorising statutes. Individual states will supplement these with their own statues, regulations and agencies for regulating and inspecting food safety and quality. This is contrary to the provision in the existing and reviewed policies where majority of the assignments are given to federal agencies. Most government food safety activities are expected to be undertaken by more of the state and local agencies. The agencies to be involved in the operation depends upon the particular state's governmental structure although typically this should be the state's health and agriculture departments. Significant diversity is expected at the local level in terms of size, capacity, capability (food safety expertise) and in how they relate to the agencies at the state level. Nevertheless, the federal, state and local agencies should a have a strong collaboration around food safety.

There is need to learn from the food safety regulation system of the United State of America where the ministry of Agriculture (represented by USDA) and health (represented by FDA) were involved. In Nigeria, the main functions were concentrated in the ministry of health represented by (NAFDAC and SON). Moreso, in the USA food safety system, research is given a priority within the system by establishing and funding dedicated laboratories for food safety.

8. Conclusion

This review suggests that Nigeria's food safety policy should be revised to accommodate updated practices while decentralizing the channels of policy execution and implementation. This could be facilitated through the public-private interface and by active collaboration with international development and donor agencies on food safety matters generally and in the formulation and implementation of a revised policy document.

At present, there is confusion in areas of mandates and roles, and this could improve through a clear definition of roles and responsibilities with an objective target to carry all relevant sectors of the government along while limiting to the barest minimum inhibiting factors such as equivocal policy statements, and political factors. Various bodies are involved in food safety activities all along the food chain therefore proper co-ordination of their activities is crucial for an effective food control system. Poor or lack of co-ordination of activities sometimes leads to duplication of efforts, higher cost of doing business, discouragement of entrepreneurs etc. and an ineffective food control system.

The proposed policy revision should champion new funding mechanisms for NPFSIS to limit the financial hurdles. In areas of coordination, monitoring and control of the food safety system, a decentralization of primary MDAs to sub-MDAs should be facilitated to reduce the execution burden on NAFDAC and NPHCDA. The National Assembly should enact the Food Safety and Quality Bill (2016) into law as a matter of national importance.

References

Ezirigwe, J. (2018). Much ado about food safety: Implications in Nigeria. Afe Babalola University. Journal of Sustainable Development Law and Policy, Vol. 9

FAO and WHO, (2007), FAO/WHO guidance to governments on the application of HACCP in a small and/or less developed food businesses, FAO Food and Nutrition Paper 86. ISSN: 0254-4725. Geneva: Department of Food Safety and Zoonoses, WHO.

Federal Ministry of Agriculture and Rural Development (FMARD), (2016-2020), The Agricultural Promotion Policy.

Federal Ministry of Environment (FME), (2016), National Policy on the Environment.

Federal Ministry of Health (FMOH), (2014), The National Policy on Food Safety and Its Implementation Strategy.

Ministry of Budget and National Planning (MBNP), (2016), National Food and Nutrition Policy.

Okonkwo, C.O and Okonkwo, N. (1980), Criminal Law in Nigeria, 2nd ed. Ibadan: Spectrum Books Ltd.

Augustine, O. and Nwando, O. (2021), Review of Food Safety Policy in Nigeria. Journal of Law, Policy and Globalization, Vol.110

Olalekan, R.M. et al. (2019), Assessment of Environmental Sanitation, Food Safety Knowledge, Handling Practice among Food Handlers of Bukateria Complexes in Iju Town, Akure North of Ondo-State, Nigeria, Acta Scientific Nutritional Health 3.6: 186-200.

Omojokun, J. (2013), Regulation and Enforcement of Legislation on Food Safety in Nigeria, Mycotoxin and Food Safety in Developing Countries. Available from: http://dx.doi.org/10.5772/54423 [Accessed 15 July 2020].

Ukwueze, F.O. (2019). Evaluation of food safety and Quality regulations in Nigeria. Journal of Law, Policy and Globalization: Vol.92 https://www.iiste.org/Journals/index.php/JLPG/article/view/50924

WHO, (2015), Estimates of the global burden of foodborne diseases. Geneva, Switzerland: World Health Organization.

https://www.who.int/foodsafety/publications/foodborne_disease/fergreport/en/ [Accessed 15 July 2020].