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NATIONAL FOOD SAFETY SYSTEMS IN AFRICA – A SITUATION ANALYSIS

(Paper prepared by FAO Regional Office for Africa, Accra, Ghana)

1. Introduction

In a region where food insecurity, political instability, communicable diseases, natural disasters and other major concerns dominate government agendas and the news media, the importance of food safety is often not well understood. However, food safety is of critical importance to Africa because of its aggravating impact over the above listed concerns.

The 1996 World Food Summit Plan of Action recognized the importance of food safety, as it defined food security as: "...when all people ... (have) access to sufficient, <u>safe</u> and nutritious food ...". Furthermore, food-borne illnesses contribute to decreased worker productivity, disability, and even early death, thus lowering incomes and access to food. Food-borne illnesses also contribute to human suffering in the region. There is a high incidence of diarrheal diseases in African children, estimated as 3.3 to 4.1 episodes per child per year. It is estimated that 800,000 children in Africa die each year from diarrhea and dehydration¹.

Practices aimed at improving food safety also reduce food losses and increase food availability. In addition, countries that are able to ensure safe food can take advantage of international trade opportunities, thereby increasing income levels. For example, Kenya was able to increase its fish exports to the EU from 742 metric tons in 1999 to 2 818 tons in 2001 as a result of strengthening their food safety measures. For various reasons, governments of the region may not be able to enforce proper food import inspections, causing potential inflow of sub-standard and even unsafe imported food. This lack of access to safe food, low income levels and a sense of injustice in trade issues are often an important factor in increased political turmoil, further underlining the importance of food safety for the region.

Persons suffering from diseases such as HIV/AIDS, tuberculosis, malaria, and other various ailments affecting the region are at a greater risk to be debilitated by unsafe food, as their immune systems are already compromised. Thus, the assurance of safe food is essential to improving the quality of life for those already affected by disease. Equally, persons suffering from food-borne illness are more likely to contract other communicable diseases. Furthermore, food-borne diseases are one of the most important underlying factors for malnutrition and, indirectly, for respiratory tract infections in developing countries. Repeated episodes of food-borne diseases over a period of time can lead to malnutrition with a serious impact on the growth and the immune systems of infants and children.

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Fact Sheet No. 109: Childhood Diseases in Africa. WHO. 1996.

Natural disasters such as droughts and floods also often affect the region. Crops grown and stored under such conditions are more susceptible to mycotoxin contamination, a harmful naturally occurring toxin. For example, more than 100 deaths were reported in the region in mid-2004, due to acute mycotoxin intoxication.

Unfortunately, the food safety systems in most countries of the region are generally weak, fragmented and not well coordinated; and thus are not effective enough to adequately protect the health of consumers and to enhance the competitiveness of food exports. It is, however, recognized that improving food safety systems has many short and long-term costs and can be a challenging process for many countries to undertake.

Although the situation in every country is affected by the particular country conditions, some common principles and components of an effective food safety system are generally needed in each country. Each of the main components of an effective food safety system will be discussed below, addressing the overall situation of each, as well as recommendations to be considered by the Conference. It should be noted, however, that a full analysis of the food safety control systems in Africa would require a much lengthier and more comprehensive study of the situation in the individual countries, and would go beyond the size limit of the present document.

2. Overview of the components of FSMS in Africa and actions required to address deficiencies

2.1 National food safety policy

Coherent national food safety policies are the foundation for effective food safety management systems. In general, food safety concerns are not adequately addressed in national governmental policies in most African countries; therefore, coordinated and sustainable approaches to the holistic management of food safety cannot be adopted. As previously indicated, most countries of the region do not appreciate the major public health and economic implications of food safety, so food safety remains a low priority in national policy making. Therefore, governments of the region must work to understand the public health and economic benefits of improving food safety systems, and, accordingly, develop coherent national food safety policies, in consultation with all stakeholders, including the food industry, relevant research institutions and consumers.

2.2 Food legislation

The traditional food control systems in most African countries do not provide the concerned agencies with a clear mandate and authority to prevent food safety problems. Furthermore, food legislation that is in line with international requirements (Codex) is lacking in many African countries. As evidenced in Table 1, the existing food legislation is outdated, inadequate, fragmented and can be found in various statutes and codes, creating an evitable confusion among food control enforcement agents, producers and distributors. Enforcement of food legislation is also problematic, often resulting in insufficient consumer protection against fraudulent practices and contaminated food products, and leading to the importation and domestic production of substandard food items as well as trade rejections of food exports from the region. The informal sector, which is often a significant producer and distributor of fresh and processed food products (including street foods²) for direct consumption, is often outside the scope of official control systems and remains the least controlled, except by municipal environmental hygiene authorities.

Basic food laws must emanate from national food safety policies that acknowledge the importance of a science based approach to food safety and clearly define responsibilities for the

An in-depth discussion of issues related to the safety of foods from the informal distribution sector in Africa, including street foods is available as CAF 05/4.

implementing agencies. Governments are encouraged to utilize tools and advice provided by FAO and WHO in the development of food legislation, as well as all other aspects of national food control systems. In particular, the 2003 FAO/WHO Guidelines for Strengthening National Food Control Systems³ offers interesting options that may be considered in this field. As with food safety policies, all relevant stakeholders must also be involved in the development of food legislation, which should also increase the rate of compliance with the laws and regulations.

2.3 Development of national food standards

Globalization of food markets compels nations to develop food standards that are responsive to the needs of users as well as being accepted and recognized internationally. The WTO SPS Agreement stipulates that national sanitary and phytosanitary standards that are based on internationally agreed Codex Alimentarius, IPPC or OIE standards do not require further scientific justification. As indicated in Table 2, some of the countries of the region have national standards bodies that establish food standards, often based on the relevant Codex standards. However, the food standards authorities in many other countries are not well defined and are not actively engaged in the establishment of national food standards.

As part of the overall food safety management system, national governments should establish food standards based on the Codex Alimentarius. Similar to food safety policies and legislation, all stakeholders, including consumers, must be involved in the development of national food standards.

2.4 Science-based risk assessment of food safety issues

While there is an almost universal agreement that a sound scientific risk assessment is an essential part of the basis for any food safety risk management decision, meeting the need for competent, timely and independent risk assessments presents a considerable challenge to most African countries. Risk assessments are needed for establishing relevant food safety legislations, as well as to assist in the establishment of food inspection priorities and other food safety policies. FAO and WHO have recently developed a Food Safety Risk Analysis Manual that further describes the concept and process of risk assessment, as well as risk management and communication.

However, the number of food safety hazards whose risk must be assessed is large, and expanding. The magnitude of adverse health effects associated with food contaminants continues to expand as scientific research develops additional ways to measure harm. Almost all African countries face similar problems of lack of expertise and difficulty in collecting their own toxicological and exposure assessment data to conduct risk assessments.

Governments of the region should utilize the risk assessments carried out by the FAO/WHO risk assessment bodies in their food safety decision-making. Countries must also actively supply their national data on contaminant levels, food consumption patterns, and all other data requested by the FAO/WHO risk assessment bodies so that these international assessments accurately reflect the situation in countries of the region. However, the countries of Africa often have different needs and priorities than the international bodies for the substances on which to conduct risk assessments. As most countries of the region do not have adequate resources to effectively conduct the needed risk assessments at a national level, a regional risk assessment body may provide a valuable service in conducting risk assessments required by national governments.

FAO/WHO. 2003. Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems. FAO Food and Nutrition Paper 76.

2.5 Inspection mechanisms/schemes

An effective food safety management system requires clear inspection policy and procedures that are applied by inspectors who are well trained not only to apply these procedures but also to act as quality assurance advisors and extension officers to the food industry. Food inspectors in Africa suffer generally from (i) a low professional status which is not commensurate with their responsibilities, (ii) a lack of logistical support to carry out the inspections (transport, inspection equipment, etc.) and (iii) the cumulative tasks often requested from them (price control, inspection of non-food consumer items, weights and measures, environmental hygiene, etc.). National food inspection services are often located in the capitals and major cities, with little if any control exercised in small towns and rural areas. Few countries of the region have efficient national import/export inspection and certification systems, as indicated in Table 2. Some countries do conduct partial inspections of meat and/or fish imports and exports. In countries where a strong export market exists in a particular sector, the inspection services are often engaged in the control of the concerned products. In order to benefit from potential food export earnings and to protect themselves against sub-standard imported foods, governments of the region must actively upgrade their inspection systems, in both quality and quantity, to meet their national needs in this field.

2.6 Laboratory support service

Effective enforcement of food legislation and the implementation of food-borne disease surveillance systems require sound and efficient food analysis capabilities at national and sub-national levels. Unfortunately, food control laboratories in the African region are generally very weak, as indicated in Table 2. The majority of public health laboratories do not have the capacity to test for chemical contaminants and naturally occurring toxins. Some identified causes of this weakness are as follows:

- Inadequate resources in terms of funding, equipment and personnel;
- Lack of recurrent expenditure to enable the repair of equipment and to maintain adequate supplies of chemicals and materials needed for analyses; and
- Inadequate quality assurance procedures.

Only a few of the testing laboratories in Africa are accredited for specific tests in accordance with the quality, administrative and technical requirements of ISO 17025, the international standard that provides general requirements for the competence of testing and calibration laboratories. As a result, competence in terms of equipment and operator skills, as well as reliability of results may not be satisfactory. Furthermore, food exporters may need to send samples of their products to accredited laboratories outside the country for testing in order to be accepted by the importing country. This adds to the cost and inconvenience of the process of exporting foods from the region.

The countries of the region must give greater priority to strengthening food control laboratories. Neighbouring countries could also work together to develop inter-laboratory testing programmes, joint training programmes or even sub-regional laboratories that could serve the needs of multiple countries. Governments could also work to strengthen public-private partnerships between laboratories to better utilize scarce resources within a country.

2.7 Capability of the food industry to supply safe food

Food production, processing, and marketing in most countries in the region is highly fragmented among a large number of small producers and handlers who lack appropriate knowledge and expertise in the application of modern practices and food hygiene. The challenges and possibilities for these small and medium producers to produce safe and high quality food is further detailed in CAF 05/5. Coupled with the challenges of small and medium enterprises, there are few well established systems for assisting these companies to develop their capacity to provide safe food, as indicated in Table 2. Some

countries that actively export products to high-income countries from particular sectors, such as fish, horticultural crops and meat, do have adequate training and support for industries in those sectors. In many of these cases, the food industry has accepted the primary responsibility for food quality and safety, as occurs in other regions of the world. Therefore, the food industry often leads the training and development in these fields, with other stakeholders as facilitators. However, many sectors in many countries are still in need of restructuring to be in line with current food safety and quality assurance requirements, including the application of Good Hygienic Practices (GHP), Good Manufacturing Practices (GMP) and the Hazard Analysis and Critical Control Point (HACCP) system.

In addition to food products for export, national governments are also responsible for the safety and quality of food produced for domestic consumption through open markets, supermarkets, schools, hospitals, restaurants, street food vending and other methods. Efforts to improve the safety and quality of foods for these markets are often very poorly financed. Accordingly, all stakeholders, including the food industry, governments and civil society must make a conscious effort to train and equip the food industry to produce safe and high quality food in all the countries of the region.

2.8 Information network on food safety issues

An increasingly important role for national food control systems is the delivery of information and advice to stakeholders across the farm-to-table continuum, both within the country and in other countries. These activities include the following:

- the provision of balanced factual information to consumers and the media;
- the supply of information packages and educational programmes for key officials and labourers in the food industry;
- the provision of reference literature to extension workers in the agricultural and health sectors;
- sharing relevant food safety information with other countries, especially within the region.

Structured and regular acquisition and dissemination of relevant information to the public on food safety problems and corresponding measures taken to resolve them is lacking in most of the countries of the region (Table 3). Such information systems would serve as a basis for building confidence among consumers and the media. This would cause consumers to be prepared to raise issues related to food safety and expect that the concerned agencies will take the necessary action to protect consumers. Furthermore, governments should have a mechanism to share information on outbreaks of food-borne diseases and their results, including the loss of productivity and economic implications. This information is currently not readily acquired or disseminated to the relevant agencies for necessary action.

It is also essential that governments share information with other countries within the region, as well as with countries outside the region. For example, countries should follow the Codex Guidelines for the Exchange of Information in Food Safety Emergency Situations (CAC/GL 19-1995, Rev. 1-2004). Also, many countries recognize the importance of sharing information on food imports that are rejected due to inferior quality or safety, but a network to effectively share this information with other countries has yet to be developed for use by the countries of the region. Concerned agencies also need to have access to information on rejection and/or downgrading of food exports from their country so that corrective actions may be taken.

2.9 Training/education in food safety

It is generally recognized that knowledge related to food safety provides the basis for the development of intervention strategies and initiatives aimed at preventing food-borne illness. However, no single country in the region has established on-going educational programmes for government food control officials, food industry officials and/or consumers. Training/education that does exist is sporadic, not focused and not based on actual and/or possible food safety problems. Most importantly,

such education is currently unsustainable because beneficiaries do not appreciate its usefulness enough to prompt them to pay for the services, therefore reducing the quality of education available.

2.10 Consumer awareness raising

The importance of consumer education in the prevention of food-borne illness is universally recognized. When consumers are quality and safety conscious, they are able to complement the efforts of food control agencies in encouraging the food industry to provide good quality and safe food.

In view of the catalytic role played by consumer associations in promoting the quality and safety of food supplies, governments of the region should facilitate the establishment and sustainability of these associations. These associations are active in some parts of Africa, but should be encouraged to increase their efforts to educate consumers and to hold the food industry and governments accountable for safe and high quality food.

2.11 Coordination of food safety activities at national level

Assuring food safety in a global economy requires a high degree of communication, coordination, and cooperation within and between countries. Management of food safety is a multi-sectoral affair, often involving the ministries of health, agriculture, trade/industry and at times fisheries, tourism, and local governments. In the absence of a well-defined national food safety policy with implementation plans, these organizations tend to operate in accordance with their own aspirations of food safety. Furthermore, without well-established responsibilities for these organizations, the scarce resources available in the countries of the region often dissipate through the duplication of efforts. When agencies are nominated to coordinate national food safety activities, they often lack the required resources to perform assigned duties effectively.

Accordingly, a properly established and sustainable co-ordination mechanism with well-defined responsibilities for each agency is essential. However, as evidenced in Table 3, very few countries in the region currently have effectively functioning coordination mechanisms. Conference paper CAF 05/6 further describes the coordination and cooperation at national and regional levels.

2.12 Epidemiological surveillance of food-borne diseases

As previously indicated, many food-borne disease incidents are reported every year in Africa. Numerous factors, many of which are discussed in this document, contribute to this high number of incidents. However, it is extremely important to note that most cases of food-borne disease in the region are not reported, so the true extent of the problem is unknown.

In most countries in the region, the surveillance infrastructure for food-borne diseases of both microbiological and chemical etiology is weak or non-existent. With the exception of cholera (which is subject to the WHO International Health Regulations), there is no obligation to report food-borne disease internationally. As evidenced by Table 4, only some of the countries of the region require national reporting of food-borne disease incident and even fewer actually have accurate reporting. This absence of reliable data on the burden of food-borne disease impedes understanding about its public health importance and prevents the development of risk based solutions to its management.

2.13 Membership in Codex

Most countries in the region (48 out of 53) are members of the Codex Alimentarius Commission and have established National Codex Committees and National Codex Contact Points (Table 4). Most of these countries have also indicated their adoption of one or more Codex standards. Some have utilized Codex standards in the development of their national food legislation while others have, in the absence of other national legislation, enforced Codex standards. Each Codex member country in the region must

effectively monitor and adopt Codex standards and participate in the elaboration of Codex standards, codes and guidelines so that these standards reflect the needs of African countries.

2.14 Biosafety concerns (regulations on biotechnology or GMOs)

Only a few countries in the region have established regulatory frameworks concerning foods derived from modern biotechnology, including Genetically Modified Organisms (GMOs). Most of the countries are, however, signatories to the Cartagena Protocol on Biosafety (Table 5). With the rapid development of the application of modern biotechnology in food production, it is important that each country of the region determines its policy in this field. Because of the trans-border effect of GMOs, it in essential that such policies are harmonized sub-regionally to ensure effectiveness.

3. Recommendations for establishing integrated, suitable and effective food safety management systems

The food safety management system as well as the food control needs of each country in Africa are unique. Accordingly, the countries of the region must develop strategies to respond to these needs in their own context, using best practice principles adopted by other regions.

The countries of the region must accurately identify their specific food safety capacity building needs so that they can prioritize where to focus their scarce resources. FAO and WHO have recently developed a Food Safety Capacity Needs Assessment tool for official food control systems to assist governments in this regard. Countries should seek to utilize this tool and adhere to the results of the assessment.

African countries often depend on development partners who are not always committed to the sustained strengthening of food safety management systems. As a result, the assistance provided may be donor driven and not based on actual needs. Such assistance is often not "owned" by the beneficiaries and accordingly, may not be sustainable. Donors and beneficiaries must work together to determine the needs to be addressed, as well as the means of addressing them.

The governments of the region must be more prepared to deploy adequate resources for establishing effective food safety management systems. However, governments must also have accurate, timely and relevant information in order to compel policy makers to prioritize improvements to food safety systems higher than other competing requests for scarce national resources. Policy makers require reliable data on the economic and health implications of food safety management systems and on the possible measures to be instituted to attain quality and safety in food supplies. Academia and research institutes, along with all other stakeholders within the country and within the region, must work together to ensure this accurate collection of data to assist policy makers in their decisions.

In addition to the points raised elsewhere in this document, governments should undertake the following actions in an effort to improve food safety management systems:

(A) Health and economic implications

In order for national food safety policy makers to better prioritize scarce resources, governments must generate the necessary information, including the following:

- Approximation of the costs of ensuring quality and safety for the most important locally produced food;
- Estimation of the economic loss to the nation as a result of rejection or down-grading of food exports on the international market;

• Estimation of the cost of treatment of food-borne diseases caused by the consumption of unsafe/unwholesome food.

(B) Legal and institutional framework for FSMS

- Develop national food safety policies from which relevant food legislation and enabling regulations can be derived;
- Develop the necessary legislative and institutional framework for food control taking into account regional and international requirements as well as local conditions;
- Seek to better coordinate the functions of agencies involved in food safety management to reduce overlap or gaps of activities, to better utilize scarce public resources.

(C) Inspection schemes

- Pay due attention to the important role that food inspection services play in the national food control systems and take appropriate measures to improve the professional status of the food inspectors and to provide them with the necessary means to perform their duties adequately;
- Assess the relevance, appropriateness and reliability of the inspection schemes and procedures
 used, as well as the training provided to the inspectors, all in relation to current international
 practices;
- Ensure that food inspection services cover the entire national territory, and are managed in a manner that takes into account priorities in terms of risks to the consumer as well as available resources.

(D) Laboratory support services

- Review the capabilities of all food testing laboratories, determine competence in specific fields as verified through accreditation, allocate responsibilities based on areas of competence and ensure that expensive equipment are used efficiently, including by clients outside the country (within the sub-region);
- Promote the consolidation of laboratory facilities and services, for maximum efficiency and seek regional and international accreditation for the services provided;
- Establish sub-regional networks of food testing laboratories and conduct proficiency testing programmes to upgrade the performance of these laboratories.

(E) Food standards

- Establish a mechanism for developing and reviewing national food standards in relation to current international practices.
- Determine the nature of the involvement of the food industry and other stakeholders in the development of national food standards and in their participation in the international food standard setting fora.

(F) Consumer education

• Facilitate the establishment and sustainability of consumer associations to enable them assume a catalytic role in the food safety management systems.

(G) Information network

• Channel all information on food safety issues through a focal point for circulation to concerned organizations for necessary action and feedback reports. The focal point should be in a position to better explain issues to the media which will, in turn, inform the general public accordingly.

(H) Stakeholder involvement

- All stakeholders operating along the food chain should be encouraged and assisted in building their respective food safety capacity;
- Stakeholders must adopt relevant practices in their food handling operations including Codex texts, and implement the forthcoming ISO 22 000 standard for food safety management;
- Governments must assist the food industries by providing the enabling legislative environment, laboratory, inspection and other needed services;
- All stakeholders must communicate and work together to improve food safety.

4. Conclusions

Every country has some type of a food safety management system at the national level. However, not all of these systems are effective and suitable for the purpose. Governments must establish the different components of the national food control system, determine the inter-relationships of these components and define and implement the responsibilities they have in ensuring the safety of food.

Every national FSMS must work towards the two major objectives of protecting the health of consumers and enhancing the competitiveness of local food products on both the internal and external markets.

National governmental FSMS can be effectively complemented by the food industry if all the stakeholders along the food chain build the necessary capacity for producing and handling food in a safe manner.

Safety conscious and dedicated stakeholders along national food chains will be in a position to promote consistent and safe food trade both domestically and internationally. This will increase domestic food security through the improved access to safe and wholesome food and the resultant rise in national incomes due to increased international food trade.

5. References

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 - b) Building a food safety system in Uganda. Paper prepared by Uganda; CRD 61.
 - c) Food safety control services in Liberia. Paper prepared by Liberia; CRD 50.
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- 7. WHO Awareness Raising Workshop on Food Safety Concerns in the African Region, 4-6 December 2002. Bamako, Mali.

ACRONYMS

BSE - Bovine Spongiform Encephalopathy

EU - European Union

FDB - Food and Drugs Board

FSMS - Food Safety Management System

GAP - Good Agricultural Practices

GHP - Good Hygienic Practices

GMP - Good Manufacturing Practices

GSB - Ghana Standards Board

GVP - Good Veterinary Practices

HACCP - Hazard Analysis & Critical Control PointsISO - International Organization for Standardization

KEBS - Kenya Bureau of Standards

MBS - Malawi Bureau of Standards

MDA - Ministries, Departments & Agencies

NCC - National Codex Committee

NCCP - National Codex Contact Point

NGOs - Non-Governmental Organizations

NSI - Namibia Standards Institutions

PHL - Public Health Laboratory

PPRS - Plant Protection and Regulatory Services

QA - Quality Assurance

QMS - Quality Management System

SABS - South African Bureau of Standards SLSB - Sierra Leone Standards Bureau TBS - Tanzanian Bureau of Standards

UNBS - Uganda National Bureau of Standards

ZBS - Zambia Bureau of Standards

TABLE 1 – BASIC FOOD LAWS AND ENABLING REGULATIONS AND THE MINISTRIES, DEPARTMENTS AND AGENCIES INVOLVED

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
1	Algeria	Presidential Decree n° 05-118 on iodisation food	Ministry of Commerce
		Executive Decree n° 04-320 of October 2004 on the transparency of the sanitary and phytosanitary measures and obstacles on trade	Ministry of Trade
		Law on veterinary public health	Ministry of Agriculture
		Law on Standardization	Ministry of Industry
2	Angola	Law No. 5/87 approving the Sanitary Regulation	Ministry of Health
3	Benin	Law 84-009. Basic Law governing the control of staple food	Ministry of Agriculture
		Regulations on food imports and exports, Street food, food hygiene and labelling	Ministry of Health and Food, Applied Nutrition Directorate
4	Botswana	Food Control Act, 1993 (No. 11 of 1993)	Ministries of Agriculture, Health, Trade, Tourism
		Disease and Pest Act	Food Control Unit
		Permit licensing and Registration of Food Establishments	National Food Control Board
		Botswana Agricultural Marketing Board Act, 1974 (No. 2 of 1974)	Ministry of Agriculture
		Control of Goods Act, 1973 (No. 23 of 1973)	
		Livestock and Meat Industries Act (No. 32 of 1962)	Ministry of Agriculture - Permanent Secretary
		Livestock and Meat Industries (Producers' Agents) Regulations (No. 8 of 1968)	Ministry of Agriculture
5	Burkina Faso	Food Hygiene Law 23-94/ADP	Standardization & Quality Promotion Dir. & National Public Health Lab
		Law no. 022-2005/AN regarding a Code on public Health	Ministry of Health
		Decree n° 2003-670 on the establishment of a general cooperation framework on food safety between the government/partnerships	
		Control of Pesticide Law 041-96	Ministries of Agriculture and Health
		Standards Decree 98-296	

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
6	Burundi	Decree-law No. 1/036 of December 1989 providing general rules on control quality	Ministry of Trade & Industry
		Decree-law No. 1/16 of May 1982 regarding a code on public health	Ministry of Health
7	Cameroon	Law No. 64/LF/123 of November 1964 regarding the public health protection	Ministry of Health
		Decree no. 011 /CAB/PM of March 2004 on the establishment of an ad hoc committee on food safety	
8	Cape Verde	Decree-Law No. 100/92 of 17 August 1992 regulating the export of bananas	
		Government Decree no. 1/2005 on infant food public information campaigns, labelling requirements and the related information	
		Government Resolution No. 6/2004 on the National Food Security Sustainable Strategy	
		Decree no. 1/2005 on infant food public information campaigns, labelling requirements and the related information.	
		Decree-Law No. 89/92 providing general rules for the quality control of nationally produced, imported or exported food	
		Decree-Law No. 32/2003 ruling on rice used for human consumption	
		Order No. 6/2001 approving the Regulation of sanitary measures to be applied on fish products	
		Resolution No. 72/98 creating the National Agency for Food Safety - ANSA	
		Decree-Law No. 12/2004 ruling on production, import, export, commercialisation and use of iodated salt	
		Order No. 10/2001 prohibiting bovine importation from areas infected by BSE disease	
9	Cent.	Decree 95030,1995 on Salt Iodization	Ministries of Agriculture, Health and Trade and National Animal
	African Republic	Decree 040-1984 on import and exports	Husbandry

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
10	Chad	Decree 94/499 ruling on production, import, export, commercialisation and use of iodated salt in the Chad Republic	
		Law n° 95-3 1995-02-18/PR on the restructuring of the national office on cereals	
11	Comoros	Decree n° 82-001/PR on the establishment of a national bureau import and trade of rice	Ministry of Trade
12	Congo, Rep	Decree nº 86-121 on the commercialisation of dry and salty fish	
13	Congo, DR	Decree no.364 of September 2000 establishing the list of the authorized additives in the fishery sector	
14	Cote d'Ivoire	Decree No. 86-454 establishing the power of the government to the municipalities and to the city of Abidjan on veterinary public hygiene measures	Ministries of Finance, Rural Development
15	Djibouti	Decree n°2002-0226/PR/MERN on the regulation of the production, commercialisation and use of the salt of lac Assal.	
		Decree n°2001-0010/PR/MCIA on the regulation of the water for human consumption	Ministry of Health
		Decree n°97-0189/PR/MS -ruling on production, import, export, commercialisation and use of iodated salt	Ministry of Health and Ministry of Trade
		Decree n°2004-0130/PR/MCIA ruling on production and commercialisation of «bred of the people».	Ministry of Trade
16	Egypt	Over 45 Ministerial Resolutions of MDAs concerning the obligation to a wide range of food items according to the Egyptian Standardization and Metrology	
17	Equatorial Guinea	N/A	
18	Eritrea	Fisheries Product Regulations (L.N. No. 40, 41, 105/1998)	
		Fishery Products Additives/Import and Export Regulations (L.N. No. 65/69 of 2003)	
		Heavy Metals Regulations (L.N. No. 66 of 2003)	
		Potable Water Regulations (L.N. No. 68/2003)	

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Regulations regarding Import Permits and Declared Goods (L.N. No. 78 of 2003)	
		Fishery Products Importation and Exportation Regulations (L.N. No. 69 of 2003)	
19	Ethiopia	Quality & Standards Authority of Ethiopia Establishment Proclamation (No. 102/1998)	
		Emergency Food Security Reserve Administration Establishment Council of Ministers Regulations (No. 67/2000)	Emergency food security reserve administration
20	Gabon	Decree 00766,1963 on Public Health	Ministries of Trade, Agric and Health
		Decree 01574 on import and exports	Dir. of Competition & Fraud Control
		Decree no 834/PR/MAEDR establishing a national Codex Alimentarius Committee	Ministry of Agriculture
21	Gambia	Public Health Act, 1989 (Act No. 1 of 1989)	National Nutrition Agency (NaNA)
		Public Health and Fisheries Acts	Dept of State for Agriculture, Health & Trade
		Regulations on Imports/Exports, Food Establishment, Food Labelling & Certification of Fish Processing Plants	National Nutrition Agency (NaNA)
22	Ghana	Food and Drugs Law (P.N.D.C.L. 305B, 1992)	Food and Drugs Board
		Standards Decree (N.R.C.D. 173, 1973)	Ghana Standards Board
		General Labelling Rules, 1992 (L.I. No. 1541, 1992)	Food and Drugs Board
		Ghana Standards Board Certification Mark Rule, LI 662,1970	Ghana Standards Board
		Pest and Plant Disease Act 307, 1965 (L.I. No. 1541, 1992)	Plant Protection and Regulatory Services
		Pesticides Act 528, 1997.	Ministries of Health, Food & Agriculture & Trade
23	Guinea	Decree D/2003/4/PRG/SGG on the establishment of a national commission on food safety and quality (CNSSA)	CNNSSA
24	Guinea Bissau	Decree No. 62-E/92 establishing sanitary food protection	
25	Kenya	Use of Poisonous Substances Act	Ministries of Health, Agriculture, Trade & Industry

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Fertilizer and Animal Foodstuffs (Importation and Use of Meat Animal Bone Meal) (Prohibition) Regulations 2001 (L.N. No. 19 of 2001).	Dept. of Veterinary Services
		Meat Control (Importation of Meat and Meat Products) Regulations, 2001 (L.N. No. 28 of 2001)	Fish Quality and Safety Unit
		Sugar (Imports, Exports and By-products) Regulations, 2003 (L.N. No. 39 of 2003)	Kenya Plant Health Inspectorate Service
		Tea (Packing) Regulations, 1999 (L.N. No. 41 of 1999)	Customs and Excise Dept., KEBS
		Food, Drugs and Chemical Substances Act Cap 254	Ministry of Health
		Public Health Act Cap 242	Ministry of Health
		Standards Act Cap 496	Ministry of Trade and Industry
		Meat Control Act Cap 356	Ministry of Health
		Import Inspection Directive	Customs and Excise Dept., KEBS
		Radiation Protection Act Cap243	Ministries of Health, Department of Public Health
		Liquor Licensing Act Cap 121	Ministries of Health, Department of Public Health
		Meat Control Act 356	Ministries of Health, Livestock, development and fisheries, Department of Public Health
		Pharmacy and Poisons Act Cap 244	Ministries of Health, Pharmacy and poisons Board
		Animal Health Act Cap 364	Livestock, development and fisheries, Department of Veterinary Services
		Fertilizer and Animal Feedstuff Act Cap 345	Livestock, development and fisheries, Department of Veterinary Services
		Dairy Act Cap 336	Livestock, development and fisheries, Agric., Department of Veterinary Services
		Fisheries Act Cap 378	Livestock, development and fisheries, Agric., Department of Fisheries
		Pest Control Products Act Cap 346	Ministry of Agriculture, Pest Control and Products Board

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Seed Act Cap 326	Ministry of Agriculture, Kenya Plant Health Inspectorate Services
		Noxious Seed Act Cap 325	Ministry of Agriculture, Kenya Plant Health Inspectorate Services
		Plant Protection Act Cap 324	Ministry of Agriculture, Kenya Plant Health Inspectorate Services
		Legal notice under Cap 318	Ministry of Agriculture, Horticultural Crops Development Authority
		Science and Technology Act Cap 256	Ministry of Education, Science and Technology, National Council for Science and Technology
		Agric. produce Act Cap 319	Ministry of Agric.,
26	Lesotho	Public Health Order 12, 1970	Ministry of Health and Social Welfare
		Agricultural Marketing (Import of Sugar) Regulations (L. N. No. 176 of 1989).	Minister of Agriculture
		Marketing Registration 23, 1971	Ministry of Industry, Trade & Marketing
		Food Establishment Act 13,1997	Ministry of Agriculture
		Milk Hygiene Regulation 28, 2000	Dept. of Chem University of Lesotho
		Street Food Legal Notice 13, 1971	Dept. of Chem University of Lesotho
27	Liberia	N/A	
28	Libya	Health Law No. 106	Ministry of Health
	ı	Standards Law No. 5	
29	Madagascar	Food Law, 1st August 1905	
		Ordinance 73-054 and 73-055	
		Ordinance 88-015, 1st September 1988 (Facilitate food product import and export)	Ministry of Trade & Industry
30	Malawi	Meat and Meat Products Act	Depts of Fisheries, Animal Health & Industry
		Malawi Dairy Industries Corporation (Establishment) Order, 1987.	
		Milk and Milk Products Act	Veterinary Labs, MBS

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Public Health Act	Ministry of Health and Population
		Meat Inspection Regulations	Ministry of Commerce and Industry
		Meat Marketing Regulations	Ministry of Agriculture and Irrigation
		Pig Grading Regulations	National Quality Control Lab
		Public Health (Condensed Milk) Rules	Veterinary Labs, MBS
31	Mali	Decree n°01-175/pm-rm on capacity building against poverty	Ministry of Agriculture, Ministries of Heath, Trade
		Decree n°00-183/p-rm on the ruling of the public services of the water for consumers	Ministry of Public Health
32	Mauritania	Food Regulations made under the Food Act 1998	Ministries of Health and Trade
		Decree n° R-0017 on the definition of the elaborate product of fishing	Ministry of Fisheries
		Sale of Frozen Foods Regulations 1985 (G.N. No. 113 of 1985)	Food Hygiene Lab and Cen. for Animal Husbandry & Vet. Research
33	Mauritius	Environment protection (Polyethylene Terephthalate) (PET) bottle Permit) Regulations 2001 (G.N. No. 33 of 2001).	
		Food Act 1998 (Act No. 1 of 1998)	Ministry of Health & Quality of Life
		Food and Drugs Act 25 May 1940	Ministry of Health & Quality of Life
		Meat Act 3/665 November 1974	Mauritius Meat Authority
		Food Regulations made under the Food Act 1998	Ministry of Health & Quality of Life
34	Morocco	Decree n° 1041-03 ruling the wheat vending conditions for the production, commercialization of flour	Ministry of Finance, Ministry of Agriculture and Irrigation and Fisheries
		Decree n° 738-96 ruling animal health (importation)	Ministry of Agricultural Development
		Dahir n° 1-02-119 promulgating law n° 49-99 run the sanitary protection measures on animal production and the commercialization of poultry products	
		Decree nº 1409-01 ruling precaution us measures in case of tuberculosis	Ministry of Agriculture, Water & Rural Dev, Forestry
35	Mozambique	Order No. 56/2001 approving the Customs regime applicable to sugar	Ministries of Development, Agriculture, Trade & Industry

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		import.	
		Decree No. 72/98, implementing the water supply policy	Ministries Of Fisheries, Trade and Agriculture
		Public Health Act 11, Fisheries Law 3, 1990	National Inst. of Standards and Quality
		Standards Decree 2, 1993	National Food Lab
		Ministerial Order No. 120/87 approving quality standards for wheat, corn and their flours	Ministry of Trade
		Ministerial Order No. 51/84 approving hygiene regulations for food handling establishments	Ministry of Health
		Ministerial Order No. 80/87 approving the hygiene Regulation on food imports	Ministry of Health
		Order No. 184/75 establishing copra oil as edible oil and defining its characteristics	
		Order No. 23.964 defining sunflower seed oil as an edible oil and establishing quality standards	
36	Namibia	Public Health Act No. 36 of 1919	Ministry of Health
		Standards Act No. 33 of 1962, Export/Registration of Foodstuffs	Ministry of Agriculture, Water & Rural Development
		Cosmetics and Disinfectants Order No. 18 of 1979	University of Namibia (Dept of FS & Tech) SABS
		General Registration GN 121 of 1969	Customs & Excise
		Prevention of Undesirable Residue in Meat Amendment Act, 1994 (Act No. 11 of 1994)	Prime Minister
		Meat Act, 1991 (G.N. No. 220 of 1994)	Meat Board of Namibian Agronomic Board
		Amendment of Regulations relating to the standards of food, drugs and disinfectants (No. 124 of 1994).	Ministry of Health & Social Services
		Regulations Relating to Grading and Classification of Maize (No. 71 of 1994)	Ministry of Agriculture, Water, Rural Development
		Standards of Composition of Maize Products: Agronomy Industry Act, 1992 (No. 72 of 1994)	Ministry of Agriculture
37	Niger	Decree 98-108, 1998 on Food Imports/exports	Ministry of Agricultural Development

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Decree n° 76/MDR/CABon the promotion and organization of agricultural exportation projects implemented by decree n° 77/MDR/CAB and decree n° 78/MDR/CAB	Ministry of Rural Development
		Order n° 35/MDR/CAB,2001 on the establishment of a Committee on food safety implements decree n. 2000-147 ruling the rural development ministry assignments	
		Order n° 09/CAB/PM/2001 establishing a committee for food safety policies	
		Laws on fraud control 1905	Ministry of Public Health
		Gen Order 131, 1941 on the preparation of meat	Ministry of Trade & Industry
		Order 3278, 1942 on imports/exportation of animals, Meat and other animal products	National Public Health Lab
38	Nigeria	Counterfeit and Fake Drugs and Unwholesome Processed Food Decree, (Act No. 25 of 1999)	Federal Ministry of Health
		National Agency for Food and Drug Administration and Control (Amendment) Decree 1999 (No. 19 of 1999)	Food and Drug Agency
		Food and Drugs (Amendment) Decree 1999 (No. 21 of 1999)	Food & Drug Administration & Control (NAFDAC)
		National Agency for Food and Drug Administration and Control Decree 1993 (No. 15 of 1993)	Standards Organization of Nigeria (SON)
		Public Health Ordinance Cap 164 of 1958	National Codex Committee
		The Standards Organisation of Nigeria Decree, No. 56 of 1971	Standards Organization of Nigeria (SON)
		The Animal Disease Control Decree, No. 10 of 1988	Federal Ministry of Agriculture
		The Marketing of Breast Milk substitute Decree, No. 41 of 1990	
39	Rwanda	Order no. 74/453 of December 1952 ruling the sanitary procedure on food amended by order 74/416 of December 1953	
		Order n° 41-38 of March 1956 ruling the commercialization of Wheat	
40	Senegal	Decree n° 99-259 on horticultural products quality and control	Ministry of Agriculture
		Decree n° 98-554 on the establishment of a national food safety Counsel	Ministry of Agriculture
41	Seychelles	Food Act 1987 (Act No. 14 of 1987)	

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
42	Sierra Leone	Public Health Act 23, 1960	Ministry of Health & Sanitation
		Fisheries Management Act, 1994	Ministry of Agriculture, Forestry & Marine Resources
		Standards Act 12, 1996, Registration on Food Establishment, Street Foods, Export & Imports	Sierra Leone Standards Bureau (SLSB)
43	Somalia	Livestock Development Agency Law (No. 34 of 1970)	Secretary of State for Rural Development and Livestock
44	South Africa	Regulations relating to labelling of alcoholic beverages (No. 109 of 2005)	Ministry of Health
		Regulations governing general hygiene requirements for food premises and the transport of food of 12 July 2002	Ministry of Health
		Agreement between the European Community and the Republic of South Africa on trade in spirits - November 2002	
		Meat Safety Act, 2000	Dept. of Health & SABS
		Foodstuffs, cosmetics & Disinfectant, Act No. 54 of 1972	Dept. of Agriculture
		Health Act No. 63 of 1977	Ministry of Health
		Standards Act No. 29 of 1993	SABS
		Food, Drugs & Disinfectant Act No. 13 of 1929	Dept. of Trade & Industry
		Trade Metrology Act No. 77 of 1973	Dept. of Trade & Industry
		Regulations on Food Establish & Export/Import	Customs & Excise Division
		The International Health Regulations Act, 1974 (Act 28 of 1974)	Ministry of Health
		The Medicines and Related Substances Act, 1965 (Act 101 of 1965)	Ministry of Health
		Wine and Spirits Control Act	
		Regulations governing general hygiene requirements for food premises and the transport of food (G. N. No. R.918 of 1999)	
45	Sudan	Environmental Health Act 1975	Ministry of Health - health authorities
46	Swaziland	Public Health Act No. 5 of 1969	Ministry of Health & Social Services (MOHSS)
_		Slaughter House Act. No. 10, 1964	Vet. Services Laboratory & Swaziland Meat Industries
		Sale of Adulterated Food Act No. 25, 1968	University of Swaziland (Lect. of Health Sev.)
		Food Hygiene Regulation 1973	Ministry of Enterprises & Employment

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Bakery Regulation, 1974	Ministry of Enterprises & Employment
47	Tanzania	Coffee Industry Act, 2001 (Act No. 23 of 2001)	Ministry Agric & Food Security
		Food (Control of Quality) Act, 1978 (Act No. 10 of 1978)	Government Chemist Lab, Agency
		Sugar Industry Act, 2001 (Act No. 26 of 2001)	Ministry of Industry & Trade
		Produce Export Ordinance	
		Adulteration of Produce Decree (Cap. 109)	National Food Control Commission
		Cashew Nut (Marketing) Regulations, 1996 (G.N. No. 369 of 1996)	Ministry of Health
		Fish (Quality Control and Standards) Regulations, 2000 (L.N. No. 300 of 2000)	Ministry of Agriculture & Food Security
		Tea Regulations (S.I. No. 92 of 1999)	Tanzania Bureau of Standards (TBS)
		Plant Protection Act 13, 1975	Ministry of Natural Resources & Tourism
		Public Health Act	Ministry of Health
		Fisheries Act 6, 1970	Ministry of Fisheries
		Vet. Act	
		Standard Act 3, 1975	
48	Togo	Law n° 57-16 on the commercialization of local fishing	Ministry of Commerce and Industry, Finance
49	Tunisia	Law no. 117 concerning consumer protection, 1994	
		Decree n° 2005-388 amending decree n° 2000-2574 on the establishment of "Codex Alimentarius" Committee, its ruling, organization and composition.	Ministry of Commerce and Industry and Finance Ministries of Health, Development
		Order on public health of March, 30, 2004, ruling the mother's milk substitutes list implements law n° 83 - 24	Ministry of Public Health
		Decree n° 2003-1718 related to food packaging	Ministry of Commerce and Industry
		Law nº 92-117 on consumer protection	
50	Uganda	Public Health Act, 1964	Ministry of Health, Tourism, Trade & Industry
		Plant Protection Act 1962	Ministry of Agriculture, Animal Industry & Fisheries
		Fish Quality Assurance Rule	Uganda National Bureau of Standards

S/N	Country	Legislation	Ministries, Departments and Agencies involved in enforcement and monitoring*
		Import/Inspection of Clearance Rules, 2002	Uganda Revenue Authority (Chemist)
		Standard Act, 1983, Registration on Food Establishment	Ministry of Agriculture
52	Zambia	Dairies and Dairy Produce Act (Chapter 342)	Ministry of Agriculture & Cooperation
		Food Reserve (Designated Commodities) Standard of Conduct) (Amendment) Regulations (S.I. No. 41 of 2004) amending Regulations S.I. No. 94 of 1996	Ministry of Agriculture
		Dairy Produce Board (Establishment) Act (Cap. 350)	Central Board of Health
		Dairies and Dairy Produce Regulations (Chapter 342)	Central Vet. Research Institute
		Grain Marketing (Acceptance Standards) Regulations. (S.I. No. 296 of 1969)	Customs & Excise Division
		Food & Drugs Acts, Cap 303	Food & Drugs Laboratory
		Food/Drug Registration SI 90/2001	Ministries of Health, Commerce, Trade & Industry
		Public Health Act, Cap 295	ZBS National Food & Nut Commission
		Plant Pesticides Act Cap 252	
		Standard Act Cap 416, Registration on Exports/Imports and Food Establishments	
53	Zimbabwe	Dairy Act	Ministry of Agriculture
		Food and Food Standards Act	Minister of Health and Child Welfare
		Fruit Marketing Act (No. 55 of 1966)	Ministry of Agriculture
		Public Health Act (Chapter 15:09)	Minister of Health and Child Welfare Advisory Board for Public Health
		Animal Health (Import) Regulations (S.I. No. 57 of 1989)	Ministry of Agriculture
		Produce Export Act	Ministry of Agriculture
Sourc	ce of mation / Data	FAOLEX, ECOLEX	FAO Background paper for Global Forum by L. E. Yankey, FAO Consultant, Nov. 2004 Revised by E. Bonanno, FAO Consultant, Sept. 2005

^{*}MDAs not in any particular or specific order in relation to the enforcement of food laws for each country. Mandates and functions overlap.

TABLE 2 – FOOD STANDARD SYSTEMS, INSPECTION MECHANISMS, LABORATORY SUPPORT SERVICES AND CAPABILITIES OF THE FOOD INDUSTRIES TO PROVIDE SAFE FOODS

S/N	Country	Food Standards System	Inspection Mechanism	Laboratory Support Services	Capability of Food Industries to Provide Safe Food
1	Algeria	Algerian Institute of Standardization establishes food standards	Ministry of Commerce oversees import, export and domestic food inspection.	The Algerian Centre for the Control of Quality and Packaging oversees 19 laboratories covering the country	N/A
2	Angola	N/A	N/A	N/A	N/A
3	Benin	No well-defined system for the elaboration of Food Standards. Codex Committee is not functional. No available information on SPS measures	Rudimentary inspections carried out by agents of the Cotonou Abattoir. No well- established mechanism for food inspection	Food and Applied Nutrition Directorate provides basic lab support services. No labs currently have accreditation; however 3 labs are working towards accreditation	No established system for assisting companies to build capacity to provide safe food. Sea products industries partially encouraged to adopt QA practices to meet safety requirements of target markets.
4	Botswana	National standards prepared by Bureau of Standards in collaboration with other key stakeholders; mainly based on Codex standards.	No well established system	Rudimentary. Selected labs being assisted to build capacity. No lab accredited to ISO 17025	Meat industry has been assisted to build capacity and capability to provide safe products for the export market.
5	Burkina Faso	Directorate of Standardization and Quality Management is yet to establish a system for development/review of food standards	Inspection at both international and domestic level not well established	Lab support services are rudimentary	Directorate of Standardization and Promotion of Quality is mandated to promote quality and safety in the food industry. Agency is in its infant stage and so unable to perform functions properly
6	Burundi	N/A	N/A	N/A	N/A
7	Cameroon	N/A	N/A	N/A	N/A
8	Cape Verde	Establishing agency for control of pharmaceutical and food products to set standards	N/A	Laboratory services are very weak except for fishery products and water analysis. New food control agency will serve as reference laboratory.	N/A

S/N	Country	Food Standards System	Inspection Mechanism	Laboratory Support Services	Capability of Food Industries to Provide Safe Food
9	Cen. African Republic	No system in place	National Animal Husbandry Development Agency conducts some inspection at both domestic and international levels	Lab support service is rudimentary	The National Animal Husbandry Development Agency issues sanitary certificates and indirectly compels the relevant industry to focus on safety
10	Chad	Working to harmonize national standards with Codex standards.	N/A	Working to establish a food analysis and control laboratory in 2005	N/A
11	Comoros	N/A	N/A	N/A	N/A
12	Congo, Rep	No system in place	No regulations on imports	No routine laboratory activities	No system in place
13	Congo, Demo. Rep.	N/A	N/A	N/A	N/A
14	Cote d'Ivoire	N/A	N/A	N/A	N/A
15	Djibouti	N/A	N/A	N/A	N/A
16	Egypt	Egyptian Organization for Standardization coordinates food standards work	General Organization for Import and Export Control in Ministry of Trade coordinates	Good laboratories in Ministry of Health and Ministry of Agriculture	N/A
17	Eq. Guinea	N/A	N/A	N/A	N/A
18	Eritrea	N/A	N/A	N/A	N/A
19	Ethiopia	Quality and Standards Authority of Ethiopia is responsible for approving national standards	Various regulatory bodies enforce regulations associated with food safety.	N/A	N/A
20	Gabon	No system in place	Ministry of Trade and Consumer Affairs partially involved in inspection	Lab support service rudimentary	No well-defined assistance to the food industry to build the capacity to provide safe food
21	Gambia	No system in place. NCC established to initiate action on food standards development	Inspection mechanism for fish exports. Food imports not adequately inspected	Rudimentary lab support. Capacity building for selected labs	No established system for building the capability to deliver safe food

S/N	Country	Food Standards System	Inspection Mechanism	Laboratory Support Services	Capability of Food Industries to Provide Safe Food
22	Ghana	Fairly good system in place	GSB/FDB PPRS involved in Food Inspection at both the domestic and international levels	Good lab support services. GSB lab is seeking accrediting for pesticide analysis	No on-going programme for assisting the food industry. Training in HACCP and other quality assurance practices provided on request
23	Guinea	Technical Commission for Agricultural and Food Standards coordinates all actors involved in elaborating food standards.	N/A	Requires strengthening	N/A
24	G. Bissau	N/A	N/A	N/A	N/A
25	Kenya	Fairly good system in place. Codex standards are used as reference documents in the development of food standards.	A mechanism for food imports/export inspection. KEBS inspects food imports.	Good lab support service. Accreditation for specific food tests secured	No on-going programme for building capability in the food industry in general. However, the milk, meat and fishery industries are adequately assisted to build capacity for the provision of safe food. Horticultural produce for exports also targeted for assistance
26	Lesotho	Not well established	No well established system; mechanism for imports/exports of livestock available	A system in place for microbiological examination of food. No lab accredited to ISO 17025	Capacity developed for export products
27	Liberia	N/A	N/A	N/A	N/A
28	Libya	National Centre for Standards and Codes develops food standards.	National Centre for Food and Drug Control has authority for all inspections	Adequate and competent laboratory support services	N/A
29	Madagascar	N/A	N/A	N/A	N/A
30	Malawi	Fairly good system in place	Not well established	Needs improvement. No accreditation	No on-going programme to assist the food industry to build capacity
31	Mali	N/A	N/A	N/A	N/A

S/N	Country	Food Standards System	Inspection Mechanism	Laboratory Support Services	Capability of Food Industries to Provide Safe Food
32	Mauritania	National Centre for Food Hygiene which serves as the Codex Contact Point can initiate standards development	National Centre for Oceanographic and fisheries research inspects fish destined for export markets	National Veterinary Lab provides rudimentary lab support	No established system for assisting the food industry in general to build the capacity to provide safe food; received assistance to improve fish processing establishments, which has been successful.
33	Mauritius	N/A	N/A	N/A	N/A
34	Morocco	N/A	N/A	N/A	N/A
35	Mozambique	No well-established system in place	Inspection of fish for exports well established	Rudimentary laboratory support service. No accreditation	Capacity of the fishing industry adequately developed to provide safe fish for the export market
36	Namibia	No well established system in place. NSI yet to be established	No well established system in place	South Africa Bureau of Standards labs in Walvis Bay provide support	No on-going programme to assist the food industry to build capacity. The fishing industry is assisted to provide safe fish for the export market
37	Niger	Ministry of Trade developed national standards based on Codex texts	Basic inspection & examination programme for imports; Sanitary inspection of meat for export	National Public Health Lab & the Food Tech Lab of the National Institute for Agronomic Research, as well as at Adbou Moumouni University provide basic analysis	No formal assistance to build the capacity to provide safe food. A few companies are in the process of installing quality systems to assure safety and quality in outputs
38	Nigeria	N/A	N/A	N/A	N/A
39	Rwanda	N/A	N/A	N/A	N/A
40	Senegal	Senegal Standardization Institute has elaborated more than 50 food-related standards.	N/A	N/A	N/A
41	Seychelles	N/A	N/A	N/A	N/A

S/N	Country	Food Standards System	Inspection Mechanism	Laboratory Support Services	Capability of Food Industries to Provide Safe Food
42	Sierra Leone	Established NCC is to handle standards development in connection with the SLBS. Adopting Codex standards as national food standards.	Standards Bureau to start import and export and certification procedures in February 2005.	Rudimentary laboratory support service by the Public Health Laboratory. No Accreditation	No established system for building capacity
43	Somalia	N/A	N/A	N/A	N/A
44	South Africa	Good system in place	Well established inspection mechanism at both domestic and international levels	Adequate and competent laboratory support services	Assistance is provided to the food industry to build capacity to provide safe food. Emphasis, as usual, is on the export food industry
45	Sudan	Sudanese Standards and Metrology Organization establishes food standards	Sudanese Standards and Metrology Organization conducts food inspections	N/A	Government committee formed to deal with industrial establishment safety issues.
46	Swaziland	No well established system	Established mechanism for food exports and imports	Lab support available in City Council and Vet Med labs (Ministry of Agriculture). No accredited labs at this time.	Export food industry (meat) is assisted to build capability to provide safe meat for export market
47	Tanzania	A fairly good system in place. Tanzania food safety standards are based on Codex standards where they exist.	Not well established	Basic lab support service, without accreditation. No capacity or ability to quantify pesticide residues in food and foodstuffs	Trade & Industry Associations, in collaboration with National Food Control Agencies have just started instituting measures for educating their members on QA practices
48	Togo	National Standards Board established in 1983 as part of the Ministry of Industry	N/A	Laboratory equipment has been provided through UEMOA project. Three laboratories will be assisted for accreditation.	N/A
49	Tunisia	80% of national standards are in compliance with international standards and working towards 100% compliance	Well established inspection mechanism at both domestic and international levels	Multiple laboratories operating in multiple industries. Many labs are accredited.	Technical Centre for Food Industries provides capacity building for food industry, including training in HACCP

S/N	Country	Food Standards System	Inspection Mechanism	Laboratory Support Services	Capability of Food Industries to Provide Safe Food	
50	Uganda	A fairly good system in place	Established system for imports clearance, including food	Food laboratories of UNBS provide basic lab support. The Microbiology Lab is accredited for selected tests.	As a result of the ban on fish exports to EU in 1997&2000, the fishing industry has been assisted to develop the capacity to meet the safety requirements of the market	
52	Zambia	Zambia Bureau of Standards establishes voluntary standards while the Min of Health establishes mandatory standards.	Established mechanism for imports. Inspection of fruits/vegetable exports is satisfactory	Lab support service is quite satisfactory. No accreditation for any of tests conducted	Horticultural industry has been assisted by the Zambia Export Growers Association to develop their capability to meet the safety requirements of the export markets	
53	Zimbabwe	Food Standards Advisory Board established in 1996.	No documented policies and procedures for imported food inspection. Port health food inspection manual has been developed	Food control activities supported by laboratory services of the Ministry of Health Government Analyst Laboratory and others.	N/A	
Data f		FAO Background paper for Global Forum, Status of Food Safety Management Systems in African Countries with Recommendations for the way forward by L. E. Yankey, FAO Consultant, Nov. 2004 Report of Sixteenth Session of the Codex Committee for Africa, Rome, Italy, 25-28 January 2005				

TABLE 3 – TRAINING PROGRAMMES, CREATION OF SAFETY CONSCIOUSNESS, INFORMATION NETWORK AND COORDINATION OF FOOD SAFETY ACTIVITIES

S/N	Country	Creation of Food Safety Consciousness among Consumers	Information Network on Food Safety	Coordination of Food Safety Activities at the National Level
1	Algeria	N/A	N/A	Ministry of Commerce plays a central role, along with other relevant ministries
2	Angola	N/A	N/A	N/A
3	Benin	Consumer associations are very active in food control activities and training, but require additional funding.	No Network exists	National Technical Committee for food control is mandated to coordinate food control activities.
4	Botswana	Many consumer organizations exist and are very involved in NCC, but no national umbrella consumers organization exists, making further activities difficult.	No network exists	The food control unit of the National Food Control Board acts as the lead agency. No established coordination mechanism.
5	Burkina Faso	No system for consumer education	No Network exists	No established coordination mechanism.
6	Burundi	N/A	N/A	N/A
7	Cameroon	N/A	N/A	N/A
8	Cape Verde	Two main consumer organizations exist and are very active in awareness raising, etc.	N/A	Establishing agency for control of pharmaceutical and food products to control food.
9	Cen. African Rep.	No system for consumer education.	No Network exists	No established coordination mechanism.
10	Chad	An association for the protection of consumer rights exists, but suffers from lack of funds and inexperience.	N/A	N/A
11	Comoros	N/A	N/A	N/A
12	Congo, Rep	Two consumer organizations exist but their activities are hampered by a lack of funds.	No system exists	Only national food safety programme is in the Special Programme for Food Security.
13	Congo, DR	N/A	N/A	N/A
14	Cote d'Ivoire	National Association of Consumers a member of NCC, but participation is limited by lack of funds.	N/A	CODINORM, under the Ministry of Industry, includes all agencies involved with food safety and is in charge of all texts related to Codex.

S/N	Country	Creation of Food Safety Consciousness among Consumers	Information Network on Food Safety	Coordination of Food Safety Activities at the National Level	
15	Djibouti	N/A	N/A	N/A	
16	Egypt	N/A	N/A	Coordination carried out by Ministry of Health through the Food Safety Supreme Committee.	
17	Eq. Guinea	N/A	N/A	N/A	
18	Eritrea	N/A	N/A	N/A	
19	Ethiopia	Low level of awareness among consumers. A consumer rights protection organization is currently involved in food safety activities, but not the NCC and requires strengthening.	N/A	Food control activities are scattered among various regulator bodies and not well coordinated.	
20	Gabon	No system for consumer education	No Network exists	No established coordination mechanism	
21	Gambia	No system for consumer education	No Network exists	One agency (NaNA) is mandated to coordinate food control activities	
22	Ghana	Two consumers associations are active in NCC, but with only ad hoc consumer training activities.	No Network exists	On-going review to re-align the functions and responsibilities of the 12 agencies involved in food safety to overcome overlapping areas.	
23	Guinea	Two consumer associations, ALCO and HYCOV are active in NCC.	N/A	A National Food Safety Commission has existed since 2003 but is not yet functional because of a lack of funds. Activities are poorly coordinated.	
24	G. Bissau	N/A	N/A	N/A	
25	Kenya	Consumers Information Network is active in NCC and all food control activities in country, including consumer advocacy.	No system exists	National Codex Committee links all stakeholders involved in food safety, but need further coordination.	
26	Lesotho	Collaboration between government and consumer organisations hampered by fragmentations and weakness of consumer organizations.	No system exists	Working to develop policy instruments and implement a representative Governing Board to ensure wider participation by stakeholders.	
27	Liberia	N/A	N/A	N/A	
28	Libya	N/A	N/A	N/A	
29	Madagascar	N/A	N/A	N/A	

S/N	Country	Creation of Food Safety Consciousness among Consumers	Information Network on Food Safety	Coordination of Food Safety Activities at the National Level
30	Malawi	No system for consumer education	No Network exists	No established coordination mechanism. Malawi Bureau of Standards acts as a lead agency in food control activities
31	Mali	N/A	N/A	N/A
32	Mauritania	Food safety awareness is high among all consumers after a dioxin scare in imported poultry was well advertised by the media.	No Network exists	Government identified the key agency in food control as the National Research Institute
33	Mauritius	N/A	N/A	N/A
34	Morocco	More than 20 consumer organizations exist in two different federations and are involved in the NCC.	N/A	Coordination carried out within consultative bodies such as the Permanent Interministerial Committee for Food Control or the National Codex Alimentarius Committee.
35	Mozambique	No system for consumer education	No Network exists	No coordinating mechanism
36	Namibia	No system for consumer education	No Network exists	No established coordination mechanism
37	Niger	No system for consumer education	No Network exists	Coordination carried out through active NCC.
38	Nigeria	Consumer Protection Council is an active member of the NCC and educates consumers.	N/A	N/A
39	Rwanda	N/A	N/A	N/A
40	Senegal	N/A	N/A	N/A
41	Seychelles	N/A	N/A	N/A
42	Sierra Leone	The Consumer Protection Agency of Sierra Leone has designed on-going national education programmes on food safety.	No Network exists	Sierra Leone Standards Bureau coordinates work with other concerned agencies.
43	Somalia	N/A	N/A	N/A
44	South Africa	South African National Consumer Union is active in NCC and national food control activities	No Network exists	Established mechanism in place
45	Sudan	N/A	N/A	All relevant committees include stakeholders from government, industry, and NGO groups.

S/N	Country	Creation of Food Safety Consciousness among Consumers	Information Network on Food Safety	Coordination of Food Safety Activities at the National Level
46	Swaziland	Consumer Associations were formerly quite active, but currently require strengthening.	No Network exists	No established mechanism in place
47	Tanzania	Consumer organizations are represented in NCC, but need further support to be more active in food safety awareness raising.	No Network exists	National Food Control Commission coordinates national food safety activities. Tanzania Food and Drugs Authority established in 2003 to coordinate food control activities
48	Togo	Consumers organization is represented on NCC and active in food control matters.	N/A	Coordination through National Codex Committee must be strengthened.
49	Tunisia	National Board of Consumer Protection exists	N/A	National Agency for Health and Environment Control coordinates food safety activities
50	Uganda	Two consumer associations are active in NCC and undertake some consumer training and advocacy.	No Network exists	National Food Safety Strategic Plan has been drafted to support the stakeholders in implementing the proposed Food Safety Law.
52	Zambia	The Consumer Welfare and Protection Directorate of the Zambia Competition Commission has embarked on an elaborate quality/ safety awareness programme.	No Network exists	National Food Safety Committee established in Ministry of Trade, but needs strengthening. National SPS committee (Min of Ag) addresses food safety of exports, but needs strengthening.
53	Zimbabwe	Consumer Council of Zimbabwe involved in food control activities, but needs additional assistance in technical training	N/A	Food Standards Advisory Board established in 1996; proposed to form a Food Safety Control Authority. National Codex Committee not yet established.
Source of Information / Data Way forward by L. E. Yankey, FAO Consulta Report of Sixteenth Session of the Codex Con		ant, Nov. 2004	nt Systems in African Countries with Recommendations for the , 25-28 January 2005	
	N/A	- Not Available		

TABLE 4 – MEMBERSHIP IN CODEX: NOTIFIABLE FOOD-BORNE DISEASES IN THE AFRICAN REGION

S/N	Country	Membership in Codex and establishment of National Codex Committees (NCC) and National Codex Contact Points (NCCP)	Notifiable food-be African Region	orne diseases in the
			Food-borne diseases	Incidence of diseases
1	Algeria	Member of CCNEA. NCC and NCCP currently under development	N/A	N/A
2	Angola	Member - The NCC comprises Min of Agriculture & Rural Dev, Health, Industry, Trade, Fisheries & Environment Affairs. NCCP in Ministry of Agriculture.	N/A	N/A
3	Benin	Member - NCC established in 1990. NCCP located in the Min of Rural Dev. in the Department of Food and Applied Nutrition (DANA). NCC is being strengthened in terms of membership, technical activities, sensitization and communication.		N/A
4	Botswana	Member - Food Control Unit of the Ministry of Health serves as the NCCP.	Cholera, diseases caused by Salmonella	No data
5	Burkina Faso	Member- NCCP in Ministry of Agriculture	N/A	N/A
6	Burundi	Member- NCCP in Standards Bureau	N/A	N/A
7	Cameroon	Member - Codex Contact Point located in Ministry of Trade & Industry	N/A	N/A
8	Cape Verde	Member. Establishing agency for control of food products which will serve as NCCP. Min of Agriculture currently serving as NCCP.	N/A	N/A
9	Cen. African Rep.	Member- Ministry of Agriculture serving as NCCP.	N/A	N/A
10	Chad	Member- Hygiene division serves as NCCP	N/A	N/A
11	Comoros	Not a member	N/A	N/A
12	Congo, Rep	Member. Ministry of Industry serves as NCCP.	Cholera	No data
13	Congo, DR.	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A
14	Cote d'Ivoire	Member. CODINORM, the national organ in charge of Codex, includes all agencies working in food safety and is represented within the NCC. Ministry of Agriculture serves as NCCP.	N/A	N/A

S/N	Country	Membership in Codex and establishment of National Codex Committees (NCC) and National Codex Contact Points (NCCP)	Notifiable food-be African Region	orne diseases in the
			Food-borne diseases	Incidence of diseases
15	Djibouti	Not a member	N/A	N/A
16	Egypt	Member of CCNEA. Ministry of Health coordinates the NCC through the Food Safety Supreme Committee. Egyptian Organization for Standardization and Quality serves as NCCP.	N/A	N/A
17	Eq. Guinea	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A
18	Eritrea	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A
19	Ethiopia	Member. NCCP located in the Quality and Standards Authority of Ethiopia which is also the secretariat of the NCC. Needs further strengthening	Diseases caused by Staph. aureus, Salmonella, Shigella & Bacillus cereus	38 notified cases for 2001
20	Gabon	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A
21	Gambia	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A
22	Ghana	Member for over 30 years - NCCP located in the Ghana Standards Board. The National Codex Committee has 22 members and is actively involved in matters of food standards and safety.	N/A	N/A
23	Guinea	Member. The National Standardization and Metrology Institute (INNM), serves as the NCCP. Requests assistance in establishing a NCC.	Diseases caused by Staph. aureus, Salmonella, Shigella & Bacillus cereus	Cholera:44%;
24	G. Bissau	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A
25	Kenya	Member - NCCP and NCC chair is the Kenyan Bureau of Standards; the NCC comprises government ministries, universities, the private sector, and consumer organizations. Functions need further coordination and strengthening.	N/A	N/A
26	Lesotho	Member - Contact Point is located in the Food and Nutrition Coordinating Office	N/A	N/A
27	Liberia	Member- Ministry of Commerce serves as NCCP.	N/A	N/A

S/N	Country Membership in Codex and establishment of National Codex Committees (NCC) and National Codex Contact Points (NCCP)		Notifiable food-borne diseases in the African Region			
			Food-borne diseases	Incidence of diseases		
28	Libya	Member of CCNEA. National Centre for Standards serves as NCCP. NCC recently formed.	N/A	N/A		
29	Madagascar	Member - NCC membership comprise Govt. Ministries, Private Labs, Private Sector, Consumer and Producers Associations. Ministry of Commerce serves as NCCP.	N/A	N/A		
30	Malawi	Member - NCC involves all relevant ministries, industries and consumers. Bureau of Standards serves as NCCP.	N/A	N/A		
31	Mali	Member. Ministry of Health serves as NCCP.	N/A	N/A		
32	Mauritania	Member. National Center of Hygiene serves as NCCP.	N/A	N/A		
33	Mauritius	Member. Ministry of Agriculture serves as NCCP.	Food poisoning (bacteria etc), Cholera & diarrhea due to Salmonella	Cholera:44%; Diarrhoea:21%		
34	Morocco	Member. The NCCP is located in the Fraud Repression Division of the Min of Agriculture. This Division serves as the secretariat to the NCC, established in 1997.	N/A	N/A		
35	Mozambique	Member. NCCP is in the Min of Health and is responsible for distributing Codex texts, coordinating the activities of Codex within the country, and supporting the National Institute of Standardization and Quality in their work. NCC comprises Ministries of Agriculture, Trade, Fisheries & consumer organizations.	Diseases caused by Shigella, Rotavirus	No data		
36	Namibia	Member. Ministry of Agriculture serves as NCCP.	N/A	N/A		
37	Niger	Member - NCC formed in 1998; comprised of all concerned parties. NCCP located in the Ministry of Public Health and Reproduction. It encourages decision-makers to rely on and adopt Codex standards	N/A	N/A		

S/N	Country	Membership in Codex and establishment of National Codex Committees (NCC) and National Codex Contact Points (NCCP)	Notifiable food-b African Region	orne diseases in the
			Food-borne diseases	Incidence of diseases
38	Nigeria	Member. NCC was re-activated in August 2000, with representation of all identifiable stakeholders. Technical sub-committees have been established, and plans are being made to strengthen and empower the NCC and the NCCP. The Standards Organization of Nigeria is the NCCP and also the Secretariat of the NCC, chaired by the National Agency for Food and Drug Administration and Control.	Diseases caused by Salmonella, Botulinum, Shigella, Listeria, pesticides and natural toxins	No data
39	Rwanda	Member. Ministry of Commerce serves as NCCP.	N/A	N/A
40	Senegal	Member - NCC is located in the Food and Applied Nutrition Unit of the Ministry of Health and serves as technical support to the Senegal Standardization Institute (ISN). To date, it has elaborated more than 50 food-related standards.	N/A	N/A
41	Seychelles	Member. Bureau of Standards serves as NCCP.	N/A	N/A
42	Sierra Leone	Member. Standards Bureau serves as NCCP and chairs the NCC.	N/A	N/A
43	Somalia	Not a member	N/A	N/A
44	South Africa	Member. NCCP and secretariat of NCC is located in the Dept of Health. NCC includes Depts of Health, Foreign Affairs, Agriculture, the South African Bureau of Standards and the National Consumer Forum.	N/A	N/A
45	Sudan	Member of CCNEA. NCC established with all relevant stakeholders. Ministry of Agriculture serves as NCCP.	N/A	N/A
46	Swaziland	Member. NCC comprises relevant Ministries, Local Government, University, the food industry and consumer associations. NCCP is in the Ministry of Health. Committee meets on an ad hoc basis	N/A	N/A
47	Tanzania	Member. NCC was established in 1980, with secretariat located in the Tanzania Bureau of Standards. Have an active and well established NCCP in TBS.	N/A	Outbreak of cholera around Lake Victoria in 1997

S/N	Country	Membership in Codex and establishment of National Codex Committees (NCC) and National Codex Contact Points (NCCP)	Notifiable food-borne diseases in the African Region		
			Food-borne diseases	Incidence of diseases	
48	Togo	Member. Division of Nutrition and Food Technology of the Ministry of Agriculture serves as the focal point for the NCC and NCCP. NCC was established in 2004 and involves all relevant stakeholders.	N/A	N/A	
49	Tunisia	Member of CCNEA. Active NCC and NCCP- in Bureau of Standards.	N/A	N/A	
50	Uganda	Member. NCCP located in National Bureau of Standards. NCC established in June 2002 comprising Government ministries, the industry and trade associations, academia, research institutions, and consumer organizations.	N/A	N/A	
52	Zambia	Member. Ministry of Health is the NCCP. NCC not yet established due to lack of funds and continuity.	N/A	N/A	
53	Zimbabwe	Member. Food Standards Advisory Board (FSAB) serves as the NCC. The NCCP and secretariat of the NCC and the FSAB is the Government Analyst Laboratory of the Ministry of Health	N/A	Food- related disease outbreaks are recurrent, in particular, cholera and anthrax	
Source of Information / Data		Report of Sixteenth Session of the Codex Committee for Africa, Rome, Italy, 25-28 January 2005	WHO/AFRO Regional Survey		

N/A= Not available

NCC - National Codex Committee: NCCP - National Codex Contact Point

TABLE 5 – REGULATIONS ON BIOTECHNOLOGY AND GMOS (SIGNATORY TO THE CARTAGENA PROTOCOL ON BIOSAFETY)

S/N	Country	Regulations on Biotechnology or GMOs	Signatory to the Cartagena Protocol on Biosafety			
			Signature	Ratification (rtf) Accession (acs)		Entry into force
1	Algeria	Does not have regulations on biotechnology or GMOs	25-May-00	05-Aug-04	rtf	03-Nov-04
2	Angola	Does not have regulations on biotechnology or GMOs				
3	Benin	Does not have regulations on biotechnology or GMOs	24-May-00	02-Mar-05	rtf	31-May-05
4	Botswana	Does not have regulations on biotechnology or GMOs	01-Jun-01	11-Jun-02	rtf	11-Sep-03
5	Burkina Faso	Regulatory framework on all functions pursuant to the Cartagena Protocol on Biosafety	24-May-00	04-Aug-03	rtf	02-Nov-03
6	Burundi	Does not have regulations on biotechnology or GMOs				
7	Cameroon	Does not have regulations on biotechnology or GMOs	09-Feb-01	20-Feb-03	rtf	11-Sep-03
8	Cape Verde	N/A				
9	Cen. African Rep.	Regulatory framework	24-May-00			
10	Chad	Does not have regulations on biotechnology or GMOs	24-May-00			
11	Comoros	Does not have regulations on biotechnology or GMOs				
12	Congo, Rep	Does not have regulations on biotechnology or GMOs	21-Nov-00			
13	Congo, DR	Does not have regulations on biotechnology or GMOs		23-Mar-05	acs	21-Jun-05
14	Cote d'Ivoire	Does not have regulations on biotechnology or GMOs				
15	Djibouti	Does not have regulations on biotechnology or GMOs		08-Apr-02	acs	11-Sep-03
16	Egypt	Does not have regulations on biotechnology or GMOs	20-Dec-00	23-Dec-03	rtf	21-Mar-04
17	Eq. Guinea	Does not have regulations on biotechnology or GMOs				
18	Eritrea	Does not have regulations on biotechnology or GMOs		10-Mar-05	acs	08-Jun-05
19	Ethiopia	Does not have regulations on biotechnology or GMOs	24-May-00	09-Oct-03	rtf	07-Jan-04
20	Gabon	Does not have regulations on biotechnology or GMOs				
21	Gambia	Does not have regulations on biotechnology or GMOs	24-May-00	09-Jun-04	rtf	07-Sep-04
22	Ghana	Does not have regulations on biotechnology or GMOs		30-May-03	acs	11-Sep-03

S/N	Country	Regulations on Biotechnology or GMOs	s on Biotechnology or GMOs Signatory to the Cart			tagena Protocol on Biosafety	
			Signature	Ratification Accession (a		Entry into force	
23	Guinea	Does not have regulations on biotechnology or GMOs	24-May-00	Ì			
24	G. Bissau	Does not have regulations on biotechnology or GMOs					
25	Kenya	N/A	15-May-00	24-Jan-02	rtf	11-Sep-03	
26	Lesotho	Policy- still in draft form		20-Sep-01	acs	11-Sep-03	
27	Liberia	Does not have regulations on biotechnology or GMOs		15-Feb-02	acs	11-Sep-03	
28	Libya	Does not have regulations on biotechnology or GMOs		14-Jun-05	acs	12-Sep-05	
29	Madagascar	Does not have regulations on biotechnology or GMOs	14-Sep-00	24-Nov-03	rtf	22-Feb-04	
30	Malawi	Does not have regulations on biotechnology or GMOs	24-May-00				
31	Mali	Does not have regulations on biotechnology or GMOs	04-Apr-01	28-Aug-02	rtf	11-Sep-03	
32	Mauritania	Does not have regulations on biotechnology or GMOs		22-Jul-05	rtf	20-Oct-05	
33	Mauritius	Does not have regulations on biotechnology or GMOs		11-Apr-02	acs	11-Sep-03	
34	Morocco	Does not have regulations on biotechnology or GMOs	25-May-00	•			
35	Mozambique	Does not have regulations on biotechnology or GMOs	24-May-00	21-Oct-02	rtf	11-Sep-03	
36	Namibia	Regulatory framework	24-May-00	10-Feb-05	rtf	11-May-05	
37	Niger	National legislation	24-May-00	30-Sep-04	rtf	29-Dec-04	
38	Nigeria	National guideline on handling, transport, packaging and identification, public awareness and participation	24-May-00	15-Jul-03	rtf	13-Oct-03	
39	Rwanda	Does not have regulations on biotechnology or GMOs	24-May-00	22-Jul-04	rtf	20-Oct-04	
40	Senegal	Does not have regulations on biotechnology or GMOs	31-Oct-00	08-Oct-03	rtf	06-Jan-04	
41	Seychelles	Regulatory framework	23-Jan-01	13-May-04	rtf	11-Aug-04	
42	Sierra Leone	Does not have regulations on biotechnology or GMOs					
43	Somalia	Does not have regulations on biotechnology or GMOs					
44	South Africa	National legislation on the following topics: Intentional introduction into the environment (Advanced Informed Agreement); LMOs for use as food, feed or for processing; Transit and contained use; Genetic modification of organisms		14-Aug-03	acs	12-Nov-03	

S/N	Country	Regulations on Biotechnology or GMOs	Signate	Signatory to the Cartagena Protocol on Biosafety				
			Signature	Ratification (rtf) Accession (acs)		Entry into force		
45	Sudan	N/A		13-Jun-05	acs	11-Sep-05		
46	Swaziland	Does not have regulations on biotechnology or GMOs						
47	Tanzania	Does not have regulations on biotechnology or GMOs		24-Apr-03	acs	11-Sep-03		
48	Togo	Does not have regulations on biotechnology or GMOs	24-May-00	02-Jul-04	rtf	30-Sep-04		
49	Tunisia	Does not have regulations on biotechnology or GMOs	19-Apr-01	22-Jan-03	rtf	11-Sep-03		
50	Uganda	N/A	24-May-00	30-Nov-01	rtf	11-Sep-03		
52	Zambia	N/A		27-Apr-04	acs	25-Jul-04		
53	Zimbabwe	Does not have regulations on biotechnology or GMOs	04-Jun-01	25-Feb-05	rtf	26-May-05		
Source of Information / Data		FAOLEX, ECOLEX	Parties to the Convention on Biological Diversity / Cartage Protocol on Biosafety CDB/UNEP, 2001-2005					