

Overview of Food Safety Situation in Africa – Country Position

Presented by:
Abimbola O. Adegboye
National Agency for Food and Drug
Administration and Control (NAFDAC)
Lagos, Nigeria

Introduction

- Nigeria is West African Country with a population of about 139,000,000 in 2007.
- It is bordered by :
 - the Atlantic Ocean in the South,
 - Niger and Chad Republics in the North; and Cameroon and Benin Republics in the East and West respectively.
- All the bordering countries are French - speaking countries (Francophone) while Nigeria is an English-speaking country (Anglophone)

Introduction



Introduction

- The country has :
 - a total area of 923,768.64 sq. km
 - a land area of 710,770 sq km and
 - A coastline of 853 kilometers.
- The country has various climatic zones:
 - Mangrove Swamps * Tropical Rain Forest*
Guinea and Sudan Savannah Grasslands* semi
Desert Sahel Savannah*.
 - The climate can be classified to be humid sub-tropical.
- These climatic diversities contributed to the existing varieties of cultural and dietary practices

s/n	Food and Food Products	Qty MT/Yr
1.	Millet	6,025
2.	Guinea Corn	6,885
3.	Groundnut	2,484
4.	Beans	2,622
5.	Yam	24,783
6.	Maize	6,595
7.	Cassava	33,698
8.	Rice	2,023
9.	Melon	494
10.	Cocoyam	1,544
11.	Plantain	1,746
12.	Fats and Oils	1,375
13.	Meat Poultry and Eggs	356,000
14.	Fish	1,025
15.	Pulses & Legumes	2,579
16.	Fruits & Vegetable	5,914
17.	Milk and Milk Products	933,000

Table 1: Estimated Production of Major Food and Agricultural Products in Nigeria^[1]

Introduction

- Majority of these food products are consumed
- Other agricultural products and a fraction of food products such as shrimps are exported (Table 2).
- Nigeria depends on food importation to:
 - Supplement the feeding of its large populace and
 - Satisfy industrial demands (Table 3)
- Food importation is allowed so long as it complies with the national food standards and it is registered by NAFDAC.

Introduction

s/n	Exported Food & Agricultural Products	Qty MT/Yr
1.	Frozen Shrimps & Sole Fillet	477,841
2.	Crabs	514.6
3.	Fish	340.3
4.	Polished Sesame Seeds	10,290,124
5.	Cocoa Powder	2,294,090

Table 2: Some Exported Food and Food Products from Nigeria

Introduction

s/n	Imported Food and Food Products	Qty MT/Yr
1.	Cereals	31,622.26
2.	Fats and Oils	493.38
3.	Meat Poultry and Eggs	27.0
4.	Fish	39,066.65
5.	Sugar	88,187.88
6.	Milk and Milk Products	6744.82
7.	Seasonings	2636.13

GO-GLOBAL CONFERENCE ACCRA

1 *Table 3: Some Imported Food and Food Products into Nigeria*

Introduction

s/n	Years	Numbers of Registered Food Products by NAFDAC	
		Local	Imported
1	2002	235	205
2	2003	185	546
3	2004	862	244
4	2005	1011	195
5	2006	1152	254
6	2007	1108	312
7	2008	1189	414

Table 4: Local and Imported Food Products Registered by NAFDAC 2002 -2008

Safe Control of Imported Food

- Massive food importations come with its challenges.
- The world has become a global village, food produced in a country thousands of kilometers away are readily available in the local market if it is not restricted and it is registered by NAFDAC (see Table 4).
- Intricacies of modern day food production and multi sourcing of raw and packaging materials make traceability of such food imports an important issue to NAFDAC, the Food Control Agency in Nigeria.

Safe Control of Imported ...

- There are various government Ministries, Departments and Agencies (MDAs) responsible directly or indirectly with the control of imported food and agricultural items into Nigeria. One of them is:

NAFDAC

- This is the National Agency for Food and Drug Administration and Control
- A scientific organization mandated to protect the consumers from the use and consumption of unwholesome, counterfeit and dangerous foods, drugs, cosmetics, detergent, medical devices, packaged water and chemicals.
- It is established with Cap N1 LFN 2004 (formerly Decree 15 of 1993 as amended) there are other enactments and regulations that NAFDAC enforces.

Safe Control of Imported ...

- Others bodies are
- **SON:** Standards Organization of Nigeria. Its mandate is setting and elaboration of standards for products and methods and enforce the standards it sets.
- ***Federal Ministry of Agriculture:*** include
 - Federal Department of Fisheries (FDF) is empowered to enforce provision of its Act which include control of processed fish and ensuring that specified safe step and actions are taken and materials used in exploitation of sea fisheries are safe.
 - National Agricultural Quarantine Service also has a role to play in ensuring control of plants and animals items' import..

Challenges in Imported Food Control

- Some of the administrative challenges include:
 - Curtailing smuggling activities:
 - Inadequate resources to monitor the vast, porous land border
 - Inadequate information flow from sister organizations in the neighboring countries
 - Language barriers.
- Some of the Food safety challenges include:
 - Importation of sub-standard and/or unregistered food products e.g. non iodized salt, unfortified flour, sugar and vegetable oil, etc.

Challenges in Imported Food...

- Importation of near expiry date food (minimum of 6 months to expiry date on the Arrival date is required),
- Fraudulent practices such as *cloning* the NAFDAC Reg. Number.;
- Fake and adulterated food products, non detection of undeclared genetically modified food and genetically modified components in food ingredients;
- Diversion of food raw materials meant for industrial use into the open market e.g. powdered milk, salt, sugar, etc;.
- Inadequate port-of-entry screen -testing of imported food samples.

Safe Control of Local Food Production

- In Nigeria as in other countries, mandate for food safety and hygienic practices cut across different tiers of governments such as:
 - Federal, State and Local Governments
 - Government bodies such as Federal Ministries (Health, Agriculture, Education, Information, Transport, Commerce),
 - Parastatals and Departments such as NAFDAC, SON, SFRD, Nigeria Police Force, etc.

Therefore, there is a need for tactful and resourceful approach to secure everybody's cooperation and sustain their collaboration with NAFDAC, as the lead agency on food safety.

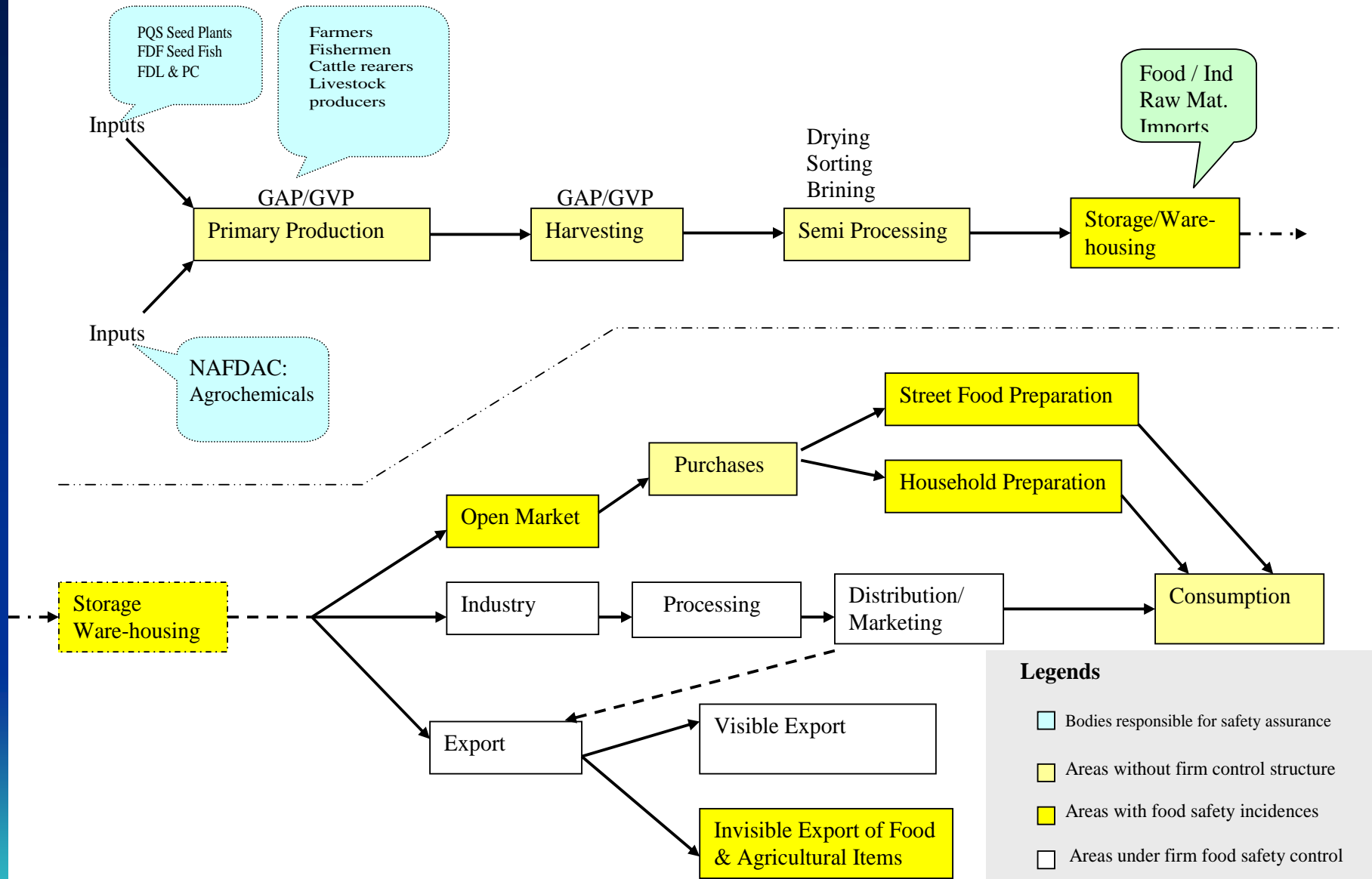
Safe Control *National Policies*

- In line with the government policies on Food Hygiene and Safety and Food and Nutrition, responsible agencies are mandated to:
 - protect the public against injury to health from consumption of unwholesome food;
 - restrain the sale of foods which are unhygienically prepared, adulterated, contaminated, spoilt, mislabeled;
 - ensure proper inspection and registration of all food premises;
 - conduct public health surveillance of food premises, food handlers and equipment used for food processing;
 - educate the populace on sound hygiene and safety practices;
 - ensure inter-ministerial and multi-sectorial collaborative activities.

Safe Control *National Food Supplies*

- In Nigeria, there are very few industrial primary producers such as mechanized farmers, intensive livestock farmers, etc. Their impact on food supply is negligible.
- Agricultural products' supplies in Nigeria are aggregates collection from small and medium farms and subsistence farmers.
- This is fraught with its own challenges such as problems of non-uniformity and non-grading, problems of traceability, harvest losses, no added values, etc.
- It makes extension services expensive and uncoordinated.
- To properly situate other challenges it is better to have an overview of national food chain

Figure 2: Schematic Flow of Safe Food Production and Distribution in Nigeria



Safe Control... *National Food Supplies*

- National food chain is a continuum i.e. from farm to fork. This is equally applicable to the assurances of its safety. This is depicted in Figure 2.
- There has not been firm safety control in the primary production, harvesting, semi processing, food stores and warehouses, open markets, street food vending, invisible export and consumption segments. This notwithstanding, there have not been any serious food crisis from these segments of the food continuum.
- In the organized food industry segment are under strict control and monitoring and it is undergoing continuous improvement in its safety control. They include packaged food processing, distribution and marketing, and export of the food continuum.

Safe Control... *National Food Supplies*

However, certain segments of the continuum have witnessed food safety incidents irrespective of their control status; these include

- Storage/warehousing
- Open market food retailing
- Street food preparation and vending
- Household food preparation and
- *Invisible* exports.

Some of them are explained as follows

Safety Challenges in Local Food Production

- *Storage / Warehousing Operations:*

- There have been abuse and misuse of agro chemicals, by food merchants. This unwholesome practice has led to major food crisis in Nigeria.
- There have been reported cases of 112 people hospitalized with two deaths in Cross River State in the South Eastern Nigeria.
- Also 120 students of Government Girls Secondary School in Gombe State in the North Eastern Nigeria were hospitalized after consumption of bean meal.
- Laboratory report showed outrageous levels of organophosphate, carbamates, fenithothion and chloropyrifos, which are highly toxic pesticides.

Safety Challenges in Local Food Production...

- *Storage / Warehousing Operations*
 - Following confirmed reported cases of hospitalization and deaths after consumption of cowpea and beans products, NAFDAC banned the sale and supply of thirty different agrochemical products in the country:
 - Some of the banned pesticides are aldrin, binapacryl, captafol, chlordane, chlordimeform, DDT, dieldrin, dinoseb, ethylene dichloride, heptaclor and lindane. Others are parathion, phosphamidon, monocrotophos, methamidophos, chlorobenzilate, toxaphene, endrin, merix endosulphan, delta HCH and ethylene oxide

Safety Challenges in Local Food Production...

- *Open Market Food Retailing*

- There have been reports of expired food still being displayed in the market, unregistered food products, fake food products, fraudulent food packages, foods with deleterious contents after unhealthy exposure to the elements, etc.

Willful consumption of these products has led to dire consequences.

- *Street Food Preparation and Vending:*

- There have been reported cases of food poisoning after consumption of street vended food. Some school children in Lagos have been hospitalized after consumption of street vended yoghurt products. These are mainly due to poor personal hygiene and handling of food by the operators.

Safety Challenges in Local Food Production...

- *Household Food Preparation:*
- Some housewives have inadvertently fed their household unwholesome foods with some cases resulting in death or chronic diseases.
- These resulted from wrong choice of material .e.g. poorly processed bitter cassava, mishandling of pesticides, poor hygienic practices, unsafe raw food handling practices, etc.
- In some cases due to poor purchasing power, some had little choice but to buy screened grains and cereals, nuts and fruits and vegetable.
- With some of the screened grains harbouring mycotoxins, chronic diseases may ultimately results at later stages in life from continuous consumption of these types of food.
- Children that are weaned on such cereals are particularly vulnerable.

Safety Challenges in Local Food Production...

- *Household Food Preparation...*
- A national survey for Aflatoxins and ochratoxins in commercially available cereal-based infant formulae was carried out in Nigeria in the year 2006.
- Seventy seven (77) samples of cereal based infant formulae were purchased from markets all over the country.
- The results indicated that more than 50% of cereal based infant formula sold in the Nigerian market contains aflatoxins from 0.1ug/kg to 17.74ug/kg, and more than 50% contained ochratoxins at levels between 0.1ug/kg and 13.1ug/kg

Safety Challenges in Local Food Production...

- *Invisible Export:*
- This term refers to the exports that did not pass through the official channels thereby resulting to self help. It also refers to those purchases of finished factory products especially the multinational companies for the purposes of exportation without informing or securing the authority of such companies before exportation.
- When such products which may meet the national standards and international standards especially that of Codex are denied entry at the port of destination, they may invariably fail to meet destination country food standards, which are more stringent especially European Community.
- There are also semi processed food products destined for African Shop in the Europe. Such include *Egusi Melon, Ogonno, Panla (Stockfish) Ponmo, Palm oil, Dried Fish, Smoked Fish* etc.

Safety Challenges in Local Food Production...

- *Invisible Export...*
- These products are never brought to the appropriate authority that will conduct quality checks on them viz- a- viz crosschecking the quality parameters of destination countries.
- Invariably these products fail the mycotoxin tests, excessive use of additives, use of unapproved colours, filth, etc.
- Some other poor products from other countries fraudulently claim Nigeria address.

Administrative Challenges in Local Food Control

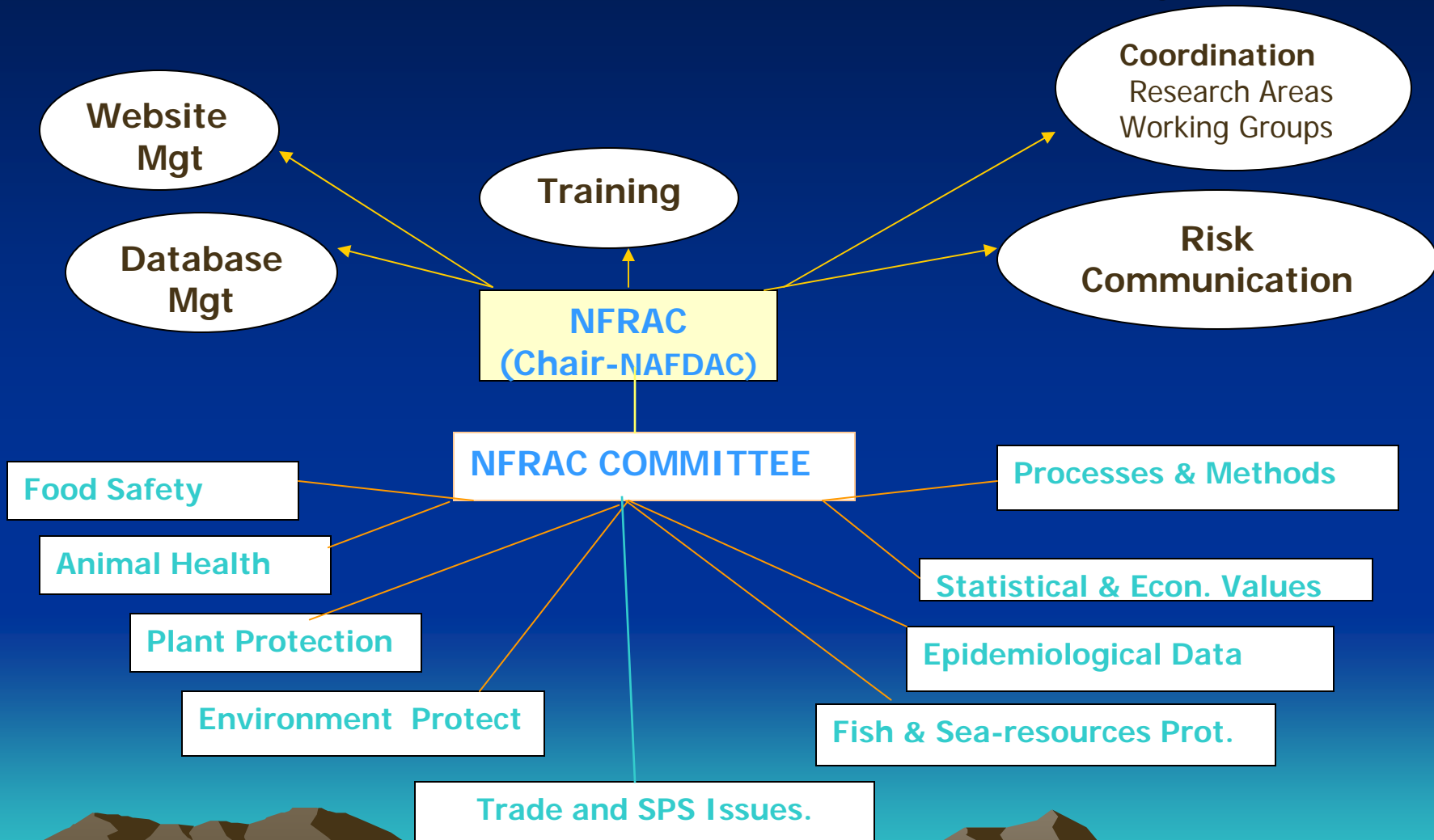
- Other challenges are mainly administrative and these are as follows:
- Uncoordinated efforts in the food safety control continuum amongst various MDAs, Research Institutes, Universities and the Private Sector. This results in neglect of important areas and duplication of efforts.
- Also it leads to presentation of fragmented data due to non synthesis of available data centrally.
- Insufficient manpower also poses a problem. Highly resourceful scientists have left for greener pastures and putting more demands on staff.

Mitigation Measures

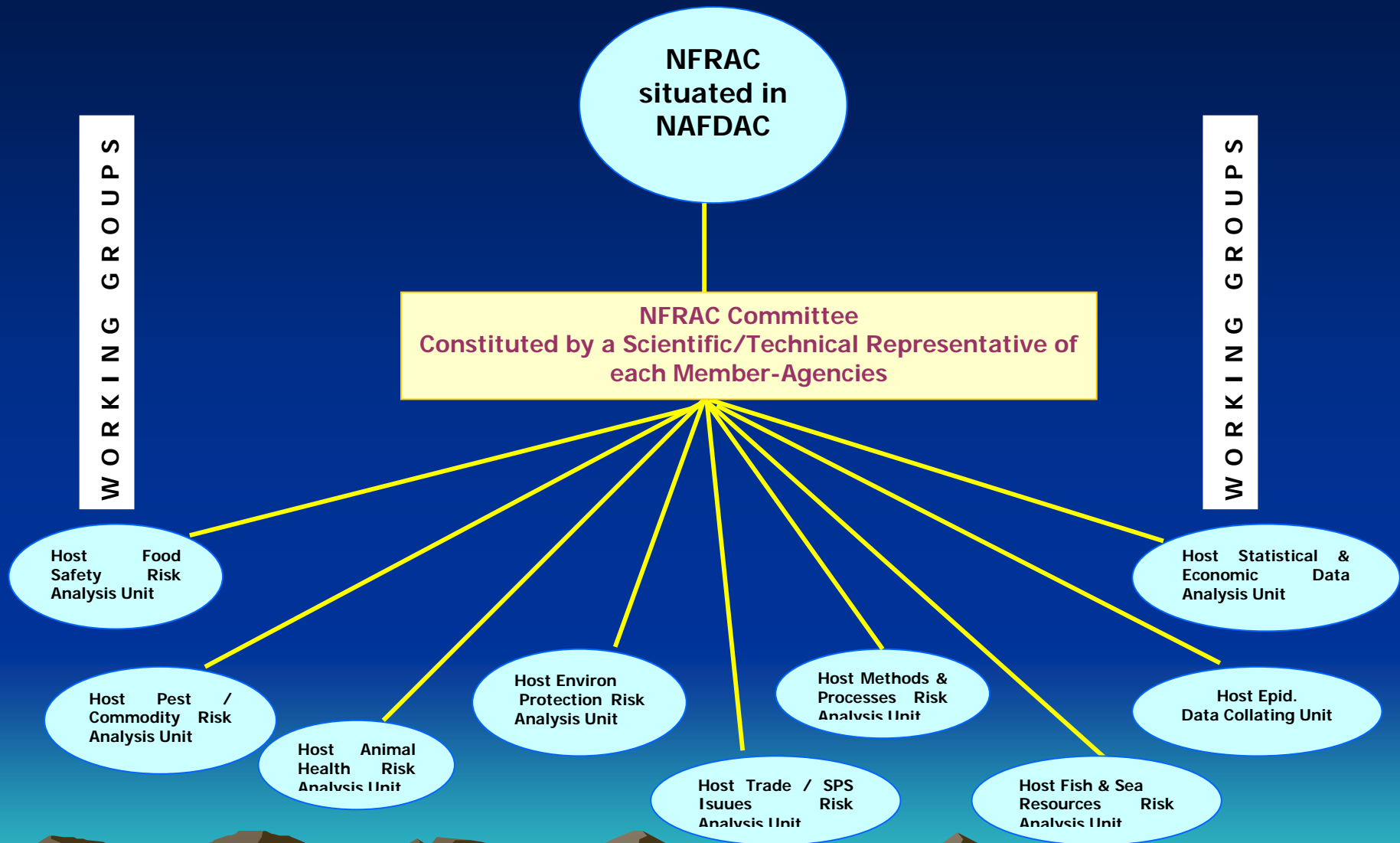
- For the identified challenges there have been proactive measures to mitigate the problems one of them is the Establishment of National Food Risk Analysis Centre (NFRAC), which is an inter-ministerial, multi-sectoral central scientific data depository body for all organisations with mandate for food safety in Nigeria.
- This is on going and it is hoped that this will bridge the gaps and eradicate dichotomy in information sharing amongst all the concerned bodies.
- The conduct of Total Diet Studies by one of the Host of NFRAC sub Committees will go a long way in establishing the baseline for contaminants in food as consumed in Nigeria and monitoring the trends in food safety.

Mitigation Measures

Responsibilities In Risk Analysis



Operational Structure of NFRAC



Mitigation Measures

- There is also a need for sustained enlightenment of consumers in Nigeria on good hygienic practices using the WHO 5 Keys to Safer Food module.
- Moreover there should be collaboration between food safety regulators nationally and at the sub regional levels e.g. There could be annual conference of food regulators where food safety challenges and solution will be exchanged, emerging technologies shared and establishing rapport amongst officers with its attendant benefits such as information flow.
- At government levels mentoring and sharing of expertise through exchange programmes and other capacity building programmes could be explored.

Conclusion

- This paper has highlighted the areas of food and agricultural production in Nigeria which still have enormous potentials to be explored for export market, the food imports is presently supplementing the local production in feeding the large population in Nigeria.
- The paper has presented the existing structure for food control in Nigeria and the relationship amongst the bodies that share in the food safety mandate.
- Moreover it has emphasized the need for further improvement on the present level of control by using centrally collated scientific data on food safety to project food from Nigeria into the Global Market.

THANK YOU ALL FOR LISTENING



Akposombo Dam '04