



FOOD AND AGRICULTURE  
ORGANIZATION  
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**Agenda Item 4.2 a) and 4.2 b)**

**GF/CRD Liberia-1**

**ORIGINAL LANGUAGE**

**FAO/WHO GLOBAL FORUM OF FOOD SAFETY REGULATORS**

*Marrakech, Morocco, 28 – 30 January 2002*

**REDUCTION OF FOOD-BORNE HAZARDS, INCLUDING MICROBIOLOGICAL AND  
OTHER WITH EMPHASIS ON EMERGING HAZARDS**

**COUNTRY PAPER PROPOSED BY LIBERIA**

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## INTRODUCTION

The presence of pathogenic microorganism represents the most significant hazard in food. A structured risk assessment is widely accepted as a necessary basis for the control of this hazard, and HACCP analysis are widely agreed upon to be the most cost effective means for control.

The ecological conditions relevant to contaminating microorganisms are different in the high moisture environment of typical high dose irradiated foods to those in dried foods and ingredients. Factors relating to microbiological safety should therefore be considered separately for these two applications. Microbiological data on radiation decontamination of animal feed and laboratory animal diets are available and provide information complementary to data on high dose irradiation of dried foods.

It is important to note that in establishing food irradiation technologies, the steps of risk assessment for hazardous microbiological agents had already been followed well before the modern concept and terminologies of risk assessment were developed.

The four stage of risk assessment have therefore been fully addressed.

1. Hazard identification (ie. the most radiation tolerant pathogenic micro-organisms).
2. Hazard characterization (i.e. the toxin formation by C. Botulinum the most critical biological agent).
3. Exposure assessment (i.e. the efficacy of processing for inactivation of spores through the application of the 12D concept, whose very high safety margin takes all reasonable uncertainties into consideration and the D-equivalency concept in the case of combined anti-microbial agents and/or treatment).
4. Risk characterization (e.e. the severity and likelihood of intoxication, which is extremely low for sterilization processes).

## INTEGRATED APPROACHES TO THE MANAGEMENT OF FOOD SAFETY THROUGHOUT THE FOOD CHAIN:

The Division of Environmental and Occupation Health, Ministry of Health and Social Welfare and the Division of Plant Quarantine at the Ministry of Agriculture are the designated National Authority (DNA) charged with the responsibility to ensure that all consumables (foods) entering or leaving Liberia are safe and fit for human consumption and/or marketing purposes.

### 1. OUR OVER-RIDING PRIORITY:

The Division overall priority is to prevent food borne disease by identifying and addressing the causes of food poisoning. This will be achieved through focusing on the risks at every point in the food chain.

We adopt this approach throughout our standards. We are also charged by Law to apply the highest standards. These standard, embracing both prevention and control processes aim to eliminated risks at the earliest possible point in the food chain.

Prevention and control include:

- (a) Inspection and surveillance at every point in the food chain.
- (b) Upstream quality control in food chain.
- (c) Maintenance of awareness and vigilance through health education, information and training programs for the public, and
- (d) Monitoring of procedures at effective frequencies early in the food chain.

## **2. A PARTNERSHIP APPROACH:**

A number of high level indicators are developed to evaluate food safety activities and encourage optimum performance in Liberia, they include:

- (a) Ministry of health and Social Welfare
- (b) Ministry of Agriculture
- (c) Ministry of Commerce and Industry
- (d) Consumer Protection Agency

## **3. OUR STRATEGIC GOALS:**

- (a) To minimize health risks to consumers from contaminated unsafe food.
- (d) To win acceptance by all parties in the food chain of their primary responsibility for the safety of food.
- (e) To achieve continuous compliance with food legislation and standards.
- (f) To operate in accordance with Law the highest possible standard of inspection and surveillance.
- (g) To create awareness and knowledge about food safety; hygiene and nutrition; and
- (h) To maximise the enhancement effects on the food industry, the national image and on tourism.

## **LIBERIA SITUATION**

Liberia has population (1995 estimate) of about 3,039,000, giving the country an overall population density of 31 persons per sq. km (79 per sq. Mile). The civil war has driven hundreds of thousands of Liberians into neighbouring countries as refugees.

The inception of the Liberian civil conflict, inevitably brought untold suffering to its citizenry, such as highly deteriorated health conditions. The seven year old war has adversely affected all sectors of Liberia's natural life. In the health sector, there have been the destructions of health infra-structures 100% of Water and Food Quality Control Laboratories were destroyed.

Environmental and Occupation health and Safety activities are recognized as a multi-sectoral concern of Government. The primary responsibility for supervision of services and programs to protect the general and work environment from pollutants and contaminants rest with the Division of Environmental and Occupational health of the Ministry of health and Social Welfare.

The Ministry of health and Social Welfare and other collaborating Ministries Agencies have ensured the formulation and promulgation of guidelines standards, enforcement of legislation and health regulations provision and monitoring of environmental and Occupational health and safety services which include:

- (a) Assessment and monitoring of all food establishments.
- (b) Monitoring and control of food quality.

Risk assessment is done to protect human health and the environment. Focal groups for humans are workers, consumers, and men exposed indirect via the environment. For environment, protection goods are aquatic and terrestrial ecosystem, top predators, micro organism in food.

Risk Analysis can be done through 3 steps:

1. Exposure assessment which is based on men's daily up take and predicted environmental concentration (PEC).
2. Effect assessment which is based on no observed adverse effect level (NOAEL)
3. Predicted no effect concentration (PNEC).  
Constraints:
4. Due to the destruction of the quality control laboratory where water and food were tested and analyzed to ensure their safety there is difficulty for monitoring and surveillance of the quality of consumers' products.
5. Shortage of trained manpower has also impeded our operation.

### **SUMMARY/CONCLUSION:**

As Designated National Authority on Food Safety of Liberia, our aim is to increase public awareness of the risks of food poisoning and the preventive measures that can be taking throughout the food chain And also to protect the health of people consuming Liberian food at home or abroad whilst helping to maintain and enhance the reputation of its food related industries.

Our constraint is the lack of Food Analytical Laboratory in Liberia for food quality control due to the war.

Food safety and the protection of the health of consumers have become international issues, forcing most developed countries to exam how they ensure the safety of their food supply.

As we gathered in this workshop we would like to state here that our role to integrated approaches to the management of food safety throughout the food chain is to:

- (a) Educate consumers and communicate risks,
- (b) Convince industry that it owes the responsibility to produce and provide safe food.
- (c) Develop an effective inspection service from farm to fork.
- (d) Get every food business to recognize the importance of food safety and to make it our integral part of their business.

In conclusion, we would like to say that the Food Safety Program in Liberia has some very innovative and positive lessons to offer and is always on the look out for similar positive experiences of other partners/countries. In this workshop, together, we can share our experiences and develop partnerships. Important issues that have to be addressed by this gartering including the problem of standardization of statistical data and their effective use. Technologies that are accessible and used friendly, affordable and appropriate to the users needs. Sharing of experiences between countries is an effective way to influence policies hence the need for proper documentation of the experience in the region so as to enrich stakeholders on sustainable program development in the sector.

Our willingness to break form the past and have the courage stand up and be counted as individuals ready to practice what we preach may be considered the new battlefield.

As we are in new millennium and we have within these walls, the political will of a one group that can make things happen. FAO, as a partner, will continue to support and hopefully catalyze actions we outline through our shared experiences and resources, but together we must take this new and courageous step, for the time to act is now.

We take this opportunity to thank our bosses for providing this unique opportunity for exchange of ideas and fostering partnership.

Thank you for your keen attention.