



FEDERAL REPUBLIC OF NIGERIA

NATIONAL BIOSAFETY EMERGENCY RESPONSE STRATEGY

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NATIONAL BIOSAFETY EMERGENCY RESPONSE STRATEGY

Table of Contents

CHAPTER 1 PREAMBLE	1
CHAPTER 2 OBJECTIVE OF THE STRATEGY	2
CHAPTER 3 INSTITUTIONAL AND PERSONNEL ARRANGEMENT	3
CHAPTER 4 TYPES OF BIOSAFETY EMERGENCIES	4
4.1 RESPONSE TO EMERGENCIES	5
4.2 EMERGENCY EQUIPMENT.....	5
4.3 OTHER AREAS TO BE CONSIDERED DURING EMERGENCY RESPONSE	5
4.4. AWARENESS ON EMERGENCY RESPONSE.....	6
4.5 COLLABORATING AGENCIES/BODIES IN BIOSAFETY EMERGENCY RESPONSE	6
ANNEX 1: EMERGENCY RESPONSE FORM	8
ANNEX 2: SCALE FOR THE LIKELIHOOD OF EMERGENCY	9

CHAPTER 1 PREAMBLE

Public perceptions of the risks associated with modern biotechnology range across a wide spectrum of positions and include risk to the environment, human health, economy, ethical concerns such as ‘meddling with nature’ and social issues which require public education.

Biosafety emergencies are more in the areas of unintentional release of Living Modified Organisms (LMOs) or Genetically Modified Organisms (GMOs) and post release effects that may have potential adverse impacts on humans and the environment. Biosafety emergency measures must not cause panic. However, the immediate public must be alerted if need be. The management of biosafety emergency in Nigeria rests with the National Biosafety Management Agency (NBMA). The collaboration with other emergency response Agencies is vital for efficiency and synergy. This Strategy shall be mainstreamed into the National Emergency Response Management.

CHAPTER 2 OBJECTIVE OF THE STRATEGY

The Biosafety Response Strategy serves as Guideline on Response to Biosafety Emergency issues in Nigeria. The objective is to adopt response measures to protect the environment and human health from potential adverse impacts of GMOs as well as other activities relating to modern biotechnology, in the event of any emergency situation requiring immediate action.

CHAPTER 3 INSTITUTIONAL AND PERSONNEL ARRANGEMENT

There shall be established a Biosafety Emergency Response Unit (BERU) under the office of the Director General, to be headed by a competent officer. The Unit shall respond to all biosafety emergency issues within the country and shall work with departments within the agency, other relevant Ministries, Departments and Agencies (MDAs) and Biosafety Officers of Institutional Biosafety Committees (BO-IBCs). There shall also be in each of the zonal offices, a designated officer in charge of emergency issues in liaison with the Unit at the headquarters.

The following Emergency Officer's information details shall be made available to the public:

- i. Office address;
- ii. E-mail address and
- iii. Telephone No.

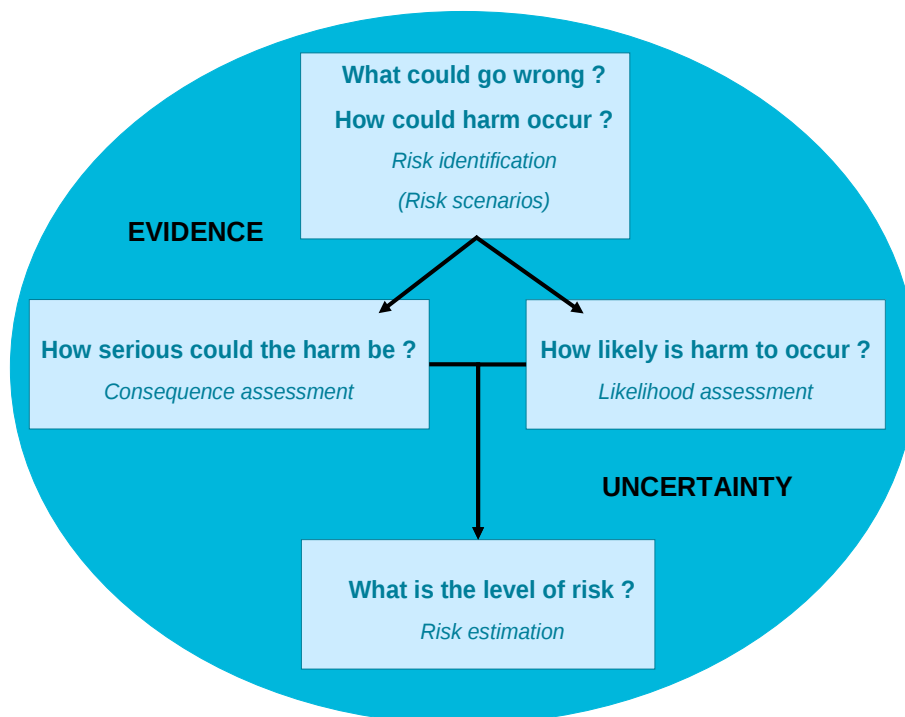


Fig. 1.0. Consideration for Emergency

CHAPTER 4 TYPES OF BIOSAFETY EMERGENCIES

i. Unintentional Release due to:

- GMO materials from Labs/Containment Facilities;
- GMOs from storage facilities and Confined Field Trials (CFTs);
- Invasion, theft of GMOs from storage facilities
- Fire in LMO/GMO facilities
- Un-intentional /GMOs release during transportation
- Civil disorder
- Natural disasters including cyclones, storms, etc.
- Structural instability (such as packaging materials, containment facilities, buildings, etc.)
- Terrorism.

ii. Laboratory Hazard (chemical spills, fire, cuts, etc.)

iii. Food/feed safety

- Cells/Viruses
- Food toxicity/allergenicity - the potential of the GMO to be harmful to humans and other organisms (if any)

iv. Environment

- GMOs Persistence in the environment
- GMOs Invasiveness. the potential of the GMO to adversely affect any ecosystems; transfer of genetic material to another organism (gene flow);

4.1 Response to Emergencies

The general procedure for responding to biosafety emergencies shall include:

- i. Appropriate Communication to relevant officers within the Agency, including the Biosafety Emergency Response Officer, the Chief Security Officer of the Agency and the Director General.
- ii. Alerting other relevant government agencies if necessary
- iii. Alerting the public if necessary
- iv. Cordoning off the area of release if necessary
- v. Retrieval of all GM materials from environment if unsafe GMOs are detected
- vi. Removal and disposal of contaminated clothing
- vii. Vigorous washing of contaminated skin for 5 minutes with soap and water
Contacting relevant Public Health Offices such as National Agency for Food Drug Administration and Control (NAFDAC) if GM Food toxicity/allergenicity is discovered
- viii. Immediate flushing of eyes for at least 15 minutes with water, using an eyewash if toxic GM materials or chemicals is in contact with the eye.

NOTE: In event of emergencies, the Emergency Response Form (Annex 1) should be completed and forwarded to Director General, National Biosafety Management Agency.

4.2 Emergency Equipment

The Agency shall deploy the appropriate emergency response equipment.

4.3 Other areas to be considered during emergency response

- i. Personnel of GMO facilities
- ii. Transportation
- iii. Traceability
- iv. Safety of enforcement officers,
- v. Risk Management plan
- vi. Packaging of GMOs for shipping to other institutions/countries
- vii. Proper labeling and documentation of GMO package,
- viii. Recordkeeping,
- ix. Security
- x. Public complaints against GMOs
- xi. Anti- GMO environmental groups reactions
- xii. Safety manuals

Consequences	Consequence assessment definitions relating to the health of people and the environment
Marginal	Minimal adverse health effects. Minimal or no damage to the environment or disruption to biological communities.
Minor	Adverse health effects that are reversible. Damage to the environment or disruption to biological communities that is reversible and limited in time and space or numbers affected.
Intermediate	Adverse health effects that are irreversible. Damage to the environment or disruption to biological communities that is widespread but reversible or of limited severity.
Major	Adverse health effects that are severe, widespread and irreversible. Extensive damage to the environment or extensive biological and physical disruption of whole ecosystems, communities or an entire species that persists over time or is not readily reversible.

4.4. Awareness on Emergency Response

All officers of the Agency shall be trained on emergency response to effectively address all Biosafety emergencies. In addition, training on emergency prevention and management practices will be put in place for stakeholders including relevant scientists, technicians, marketers, agricultural extension officers, etc. This will set a culture of emergency response management among stakeholders.

4.5 Collaborating Agencies/Bodies in Biosafety Emergency Response

- i. National Emergency Management Agency (NEMA)
- ii. Nigeria Agricultural Quarantine Service (NAQS)
- iii. National Agency for Food, Drug Administration and Control (NAFDAC)
- iv. Nigeria Customs Service (NCS)
- v. National Seed Council (NaCS)
- vi. Consumer Protection Council (CPC)
- vii. The media

- viii. Nigeria Police Force (NPF)
- ix. Public Health Office
- x. Institutional Biosafety Committees
- xi. Accredited Private and Public Institutions
- xii. Nigeria Security and Civil Defence Corps (NSCDC).

Table 4.0 Possible Stakeholders in Biosafety Emergency Response

Group	Stakeholders
Research	Vice Chancellors of universities, CEOs/Directors of research institutes, Research and Development corporations, other research and development partners, Institutional Biosafety Officers.
Industry	Traders, manufacturers and proponents of the technology
Primary producers	Farmers groups (National and states), Seed Companies
Interest groups	Civil Society Organisations (CSOs), health professionals, Professional bodies
International Community	African Union (AU), ECOWAS, UN organs (FAO, UNDP, UNEP, GEF, SCBD, WHO, etc.)
Government	State and local governments, relevant MDAs
Public	Consumers

ANNEX 1: EMERGENCY RESPONSE FORM

Name of Authorised Party: Address: E-mail Address: Tel. No. Type of GMO:			
Site Identification:			
Permit Number(s):		Manager:	
Inspector:		Date of Inspection:	
EMERGENCY RESPONSES			
Unless otherwise noted, tick Yes or No in the appropriate box, or 'NI' =		YES	NO
Not Inspected			
Was any unintended release recorded?			
Was any non-compliance incident recorded?			
Was the incident reported to the National Biosafety Management Agency?			
Has corrective action been taken in accordance with the requirements?			
Are additional follow-up measures to be carried out?			
INSPECTOR'S SIGNATURE:			

ANNEX 2: SCALE FOR THE LIKELIHOOD OF EMERGENCY

Likelihood	Likelihood assessment definitions
Highly unlikely	May occur only in very rare circumstances
Unlikely	Could occur in some circumstances
Likely	Could occur in many circumstances
Highly likely	Is expected to occur in most circumstances