

**Fortifying institutional resilience against biological threats (FIRABioT)  
project meeting**  
Nairobi, Kenya 14 – 16 March 2023

# Signature Initiative to Mitigate Biological Threats in Africa

# PLAN

- I. Gaps and Goal of IBB
- II. Regional Priority
- III. Partners

Mrs Idosie KENFACK



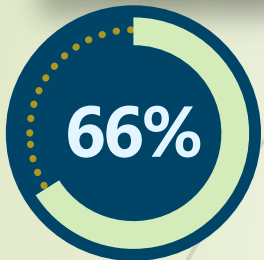
Technical Biosafety/Biosecurity officer-CDC

# Biosafety and Biosecurity Gaps

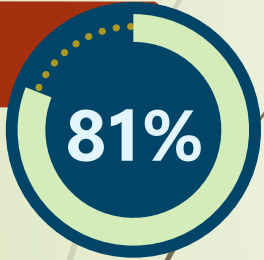
GHS Index 2021 Report

WHO JEE Reports (2016-2019)

## The Global Health Security Index, 2019



No policies for biosafety



No policies for biosecurity



No oversight for DURC



**Innovative Regional Approaches required to mitigate the identified gaps and vulnerabilities**

# Biosafety and Biosecurity Initiative Goal

To strengthen the biosafety and biosecurity systems of African Union Member States to comply with international regulations including the International Health Regulations (IHR 2005), Biological Weapons Convention (BWC), and United Nations Security Council Resolution (UNSCR) 1540 and the GHSA action packages (APP3)

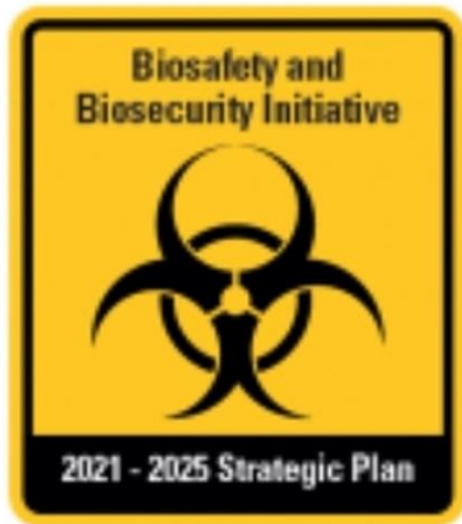
**Table 1: Regional Priority Areas for strengthening biosafety and biosecurity.**

Capacity Building	Training	HCAT List	TWG/Biosafety Association/Body
<p><b><u>Policies/Legal Framework</u></b></p> <ul style="list-style-type: none"> <li>Development/harmonization of biosafety and biosecurity legal framework, legislations and guidelines</li> <li>Development of a regulations for biomedical waste management.</li> <li>Establishment of a licensing/certification programme for High Containment facilities for both human and animal sector</li> </ul> <p><b><u>Human Resource</u></b></p> <ul style="list-style-type: none"> <li>Development of a long term training and capacity building plan that covers pre and in-service training curriculum</li> <li>Establish a Training and Certification Program for Biosafety and Biosecurity experts</li> </ul> <p><b><u>Infrastructure</u></b></p> <ul style="list-style-type: none"> <li>Construct/upgrade Laboratories facilities to meet international standards for biosafety and biosecurity.</li> </ul> <p><b><u>Equipment</u></b></p> <ul style="list-style-type: none"> <li>Servicing and maintenance of BSCs</li> <li>Servicing and maintenance of high containment facilities for both human, animal and agriculture</li> </ul> <p><b><u>International standards</u></b></p> <ul style="list-style-type: none"> <li>Evaluation/Assessment of High containment facilities for compliance to standards.</li> <li>Research</li> <li>Identification of priority research areas in Biosafety and Biosecurity</li> <li>Advocacy</li> <li>Develop and implement advocacy and communication strategy for biosafety and biosecurity</li> </ul>	<ul style="list-style-type: none"> <li>Biosafety and Biosecurity for Lab Professionals</li> <li>Biosafety and Biosecurity Auditors</li> <li>Waste Management</li> <li>Occupational Health and Safety</li> <li>IPC</li> <li>Certification and maintenance of BSCs</li> <li>Certification and Maintenance of High Containment Facilities and biorepositories</li> <li>Genomics &amp; Bioinformatics</li> <li>Bioethics and dual use research of concern</li> <li>ISO 35001:2019 standards</li> <li>Risk assessment and Risk management</li> <li>Lab Based Surveillance</li> <li>Threats Hazards Identification and Risk Assessment</li> <li>The role of law in biosafety and biosecurity</li> <li>Laboratory Information Management System (LIMS)</li> <li>Sample collection, transportation and handling/recording</li> </ul>	<ul style="list-style-type: none"> <li>Development of the High Consequence Agents and Toxins (HCAT) List</li> <li>Conduct inventory of high consequence agents and toxins in the country.</li> <li>Development of pathogen data sheets and share at national and regional level</li> <li>Surveillance of HCAT listed pathogens</li> </ul>	<ul style="list-style-type: none"> <li>Establishment / strengthening of national Biosafety and Biosecurity Associations</li> <li>Establishment / strengthening of national biosafety and biosecurity TWGs.</li> <li>Monitor the Implementation of BSBS</li> </ul>

# Africa CDC Biosafety and Biosecurity Initiative



## The Africa Centres for Disease Control and Prevention



**GOAL: To strengthen the biosecurity and biosafety systems of African Union Member States to comply with international regulations including the International Health Regulations (IHR 2005), Biological Weapons Convention (BWC), and United Nations Security Council Resolution (UNSCR) 1540 and the GHSA action packages (APP3)**

### Priority Area 1

Develop a Biosafety and Biosecurity Legal Framework for the Africa Region

### Priority Areas 2

Establish Regional and Continental Biosafety and Biosecurity TWG to coordinate and monitor implementation

### Priority Area 3

Establish a Regional Training and Certification Program for Biosafety and Biosecurity Experts

### Priority Area 4

Establish a regulatory and certification framework for institutions handling high risk pathogens

### Priority Area 5

Strengthen NPHI and NRL capacities to prevent, detect and respond to Events of public health concern in each MS





**Priority Area 1:** Develop a Biosafety and Biosecurity  
Legal Framework for the Africa Region



# **Priority Area 1:** Develop a Biosafety and Biosecurity Legal Framework for the Africa Region

## **USING THE LEGAL FRAMEWORK**

**Where a Legal Framework already exists**

**A guide to review the Member State's existing legal instruments to check their scope, coverage & adequacy**

**Where no Legal Framework exists**


**Basis for developing a national BSS legal framework. Member States may adopt and domesticate the framework to address national needs.**





## **Priority 2**

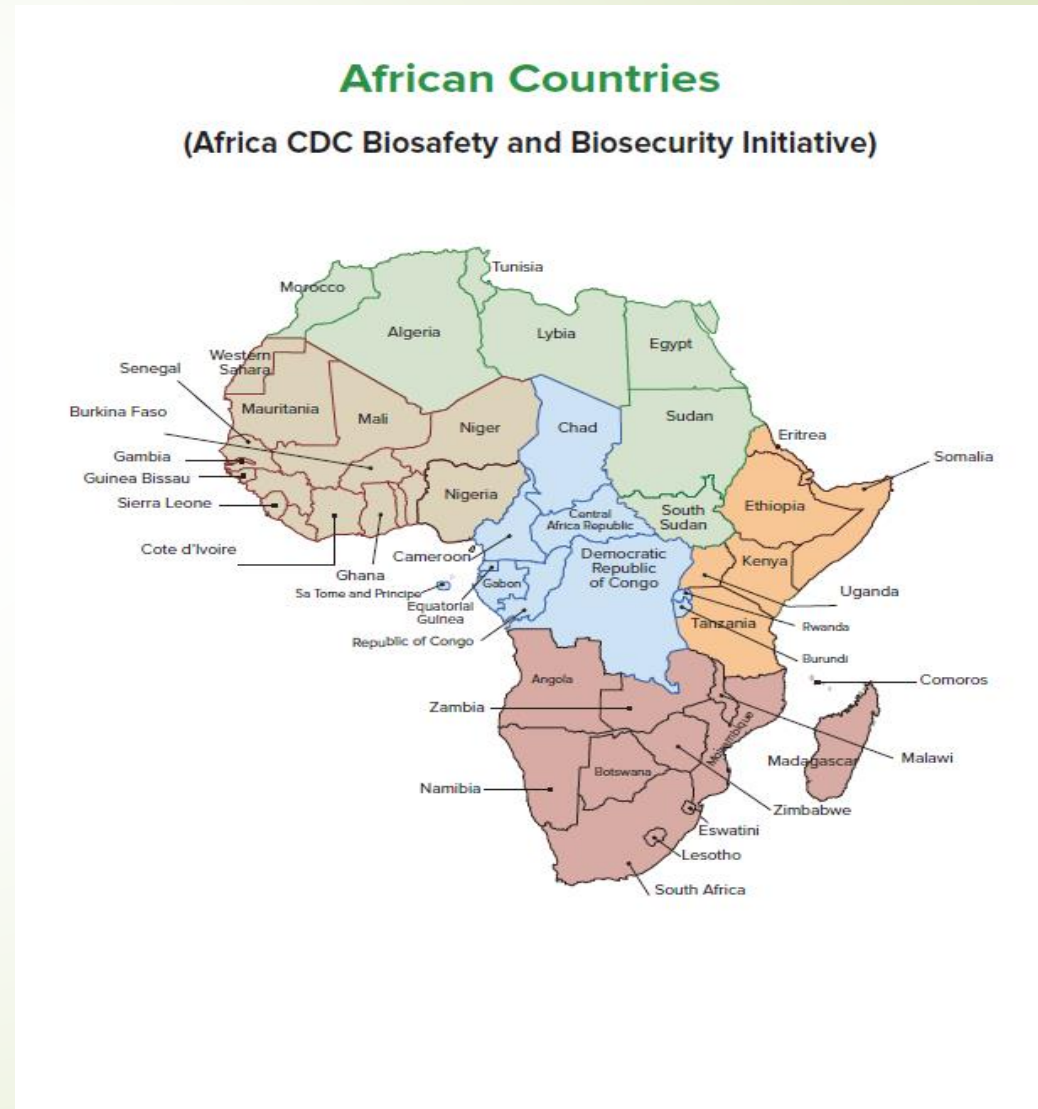
Establish Regional and Continental Biosafety and Biosecurity TWG to coordinate and monitor implementation



# Africa CDC Biosafety and Biosecurity Initiative

Biosafety and Biosecurity Regions

- ❖ Central Africa(9)
- ❖ Eastern Africa(14)
- ❖ Northern Africa(6 )
- ❖ Southern Africa(10 )
- ❖ Western Africa (15)



# Implementation Using Structured Systems

## Continental Biosafety and Biosecurity Working Group

### Regional Biosafety and Biosecurity TWG Central

Burundi  
Cameroon  
CAR  
Chad  
Congo  
DRC  
Guinea  
Gabon  
São Tomé

### Regional Biosafety and Biosecurity TWG East

Comoros  
Djibouti  
Eritrea  
Ethiopia  
Kenya  
Madagascar  
Mauritius  
Seychelles  
Somalia  
Sudan  
Rwanda  
South Sudan  
Tanzania  
Uganda

### Regional Biosafety and Biosecurity TWG North

Algeria  
Egypt  
Libya  
Mauritania  
Morocco  
Sahrawi  
Tunisia

### Regional Biosafety and Biosecurity TWG South

Angola  
Botswana  
eSwatini  
Lesotho  
Malawi  
Mozambique  
Namibia  
South Africa  
Zambia  
Zimbabwe

### Regional Biosafety and Biosecurity TWG West

Benin  
Burkina Faso  
Cabo Verde  
Côte d'Ivoire  
Gambia  
Ghana  
Guinea  
Guinea-Bissau  
Liberia  
Mali  
Niger  
Nigeria  
Senegal  
Sierra Leone  
Togo



# Technical Working Group Profile

- Public Health Institute ,
- Ministry of Health - Biosafety and Biosecurity Laboratories Division
- **Animal/veterinary health**
- International Health Regulatory Focal Point
- Member of national legislature
- An institution of higher education related to health and life science laboratories
- military medical service
- decision maker / political figure.



## **Priority 3**

Establish a Regional Training and Certification Program for Biosafety and Biosecurity Experts



# Establish a Regional Training and Certification Program for Biosafety and Biosecurity Experts

## Action

Develop local, accessible, sustainable and regionally ~~recognized and endorsed~~ formal training and certification program

## Output

Creation of an African Union's Register of Biosafety and Biosecurity Professionals.





## The Regional Training and Certification Program for Biosafety and Biosecurity Professionals Examination and Certification Committee Members



### Noel Odhiambo

**Professional Title:** Senior Technical Advisor

**Nationality:** Kenyan

**Institution:** Amref Health Africa in Kenya

**Area of Expertise:**

- Biosafety and Biosecurity
- Emergency Preparedness and Response

**Chairperson**





### Dr. Ali Asy

**Professional Title:** Professor of Pharmacology and Biosafety Advisor  
**Nationality:** Egyptian  
**Institution:** Animal Health Research Institute, Agriculture Research Center

**Area of Expertise:**

- Biosafety and Biosecurity Technical Expert
- Teaching of Veterinary Medical Sciences.



### Anafi Mataka

**Professional Title:** Project Lead  
**Nationality:** Zimbabwe  
**Institution:** African Society for Laboratory Medicine Academy

**Area of Expertise:**

- Diagnostics implementation
- Professional education

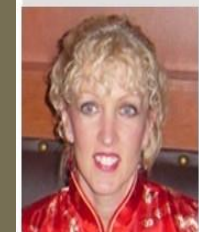


### Stella Ngozi Udo

**Professional Title:** Director Medical Laboratory Science/Public Health Consultant  
**Nationality:** Nigeria  
**Institution:** Starhealth Consultancy Limited and Nigeria Biological Safety Association

**Area of Expertise:**

- Biosafety and Biosecurity Teaching and mentorship
- Quality Management Systems (Auditing lead and Technical Expert, Teaching and Mentorship)
- Administration and Management.



### Maureen Ellis

**Professional Title:** Executive Director  
**Nationality:** Canada  
**Institution:** International Federation of Biosafety Associations

**Area of Expertise:**

- International Professional Examination & Certification
- Biosafety and Biosecurity



### Mr. Byabajungu Henry

**Professional Title:** Technical Supervisor  
**Nationality:** Uganda  
**Institution:** Uganda Supranational Reference Laboratory

**Area of Expertise:**

- Expert in safety with TB culture laboratories
- Management of Biosafety Level 3 Laboratories.
- Competent in shipping of infectious materials according to IATA regulations.
- Certified Biorisk management professional and trainer in Biorisk management.



### James Robert Wakungwi Sakwa

**Professional Title:** Principal Medical Laboratory Officer  
**Nationality:** Kenyan  
**Institution:** Masinde Muliro University of science and technology

**Area of Expertise:**

- Bio risk management
- Biosafety and Biosecurity Technical Expert
- Teaching in health Sciences



### Mrs. Comfort Nyameba Opoku

**Professional Title:** Senior Biosafety and Biosecurity Officer  
**Nationality:** Ghanaian  
**Institution:** Africa Centres for Disease Control and Prevention

**Area of Expertise:**

- Teaching in health Sciences and Biosafety and Biosecurity at Tertiary Institution and Health sector
- Coordination and Management
- Regulation



### Mr Fouelifack Nzeko Eric

**Professional Title:** Biosafety and biosecurity expert  
**Nationality:** Cameroonian  
**Institution:** University of Douala

**Area of Expertise:**

- Biosafety and Biosecurity Technical Expert
- Laboratory Quality Management System



### Mrs. Sibongile N. Zimuto

**Professional Title:** Laboratory Quality Systems and Accreditation Expert  
**Nationality:** Zimbabwe  
**Institution:** SADC Regional Centre of Excellence in Quality Systems (Zimbabwe)

**Area of Expert**

- Standards and Standardization
- Laboratory Quality Management Systems, Accreditation, Metrology (SQAM)



### Khalid FARES

**Professional Title:** Professor, Teacher Researcher  
**Nationality:** Morocco  
**Institution:** Cadi Ayyad University. Faculty of Sciences Semlalia. Marrakech.

**Area of Expertise:**

- Biosafety and Biosecurity,
- Waste Management and Valorization,
- Food Technology.



### Madame Idosie KENFACK

**Professional Title:** Head of Mycobacteriology section and Biosafety/ biosecurity officer  
**Nationality:** Burundian  
**Institution:** National Institute of Public Health (National Reference Laboratory)

**Area of Expertise:**

- Biosafety and Biosecurity,
- Mycobacteriology
- Quality management System
- Training and Capacity Building



### Prof Ciira Kiiyukia

**Professional Title:** Senior Biosafety and Biosecurity Officer  
**Nationality:** Kenya  
**Institution:** Biorisk Management Association of Kenya

**Area of Expertise:**

- Microbiologist
- University lecturer/examiner in Health sciences specialized in disease prevention and control, occupational health and safety and environmental health.



# Cohort 1 - Biorisk Management





# Cohort 1 - Biological Waste Management



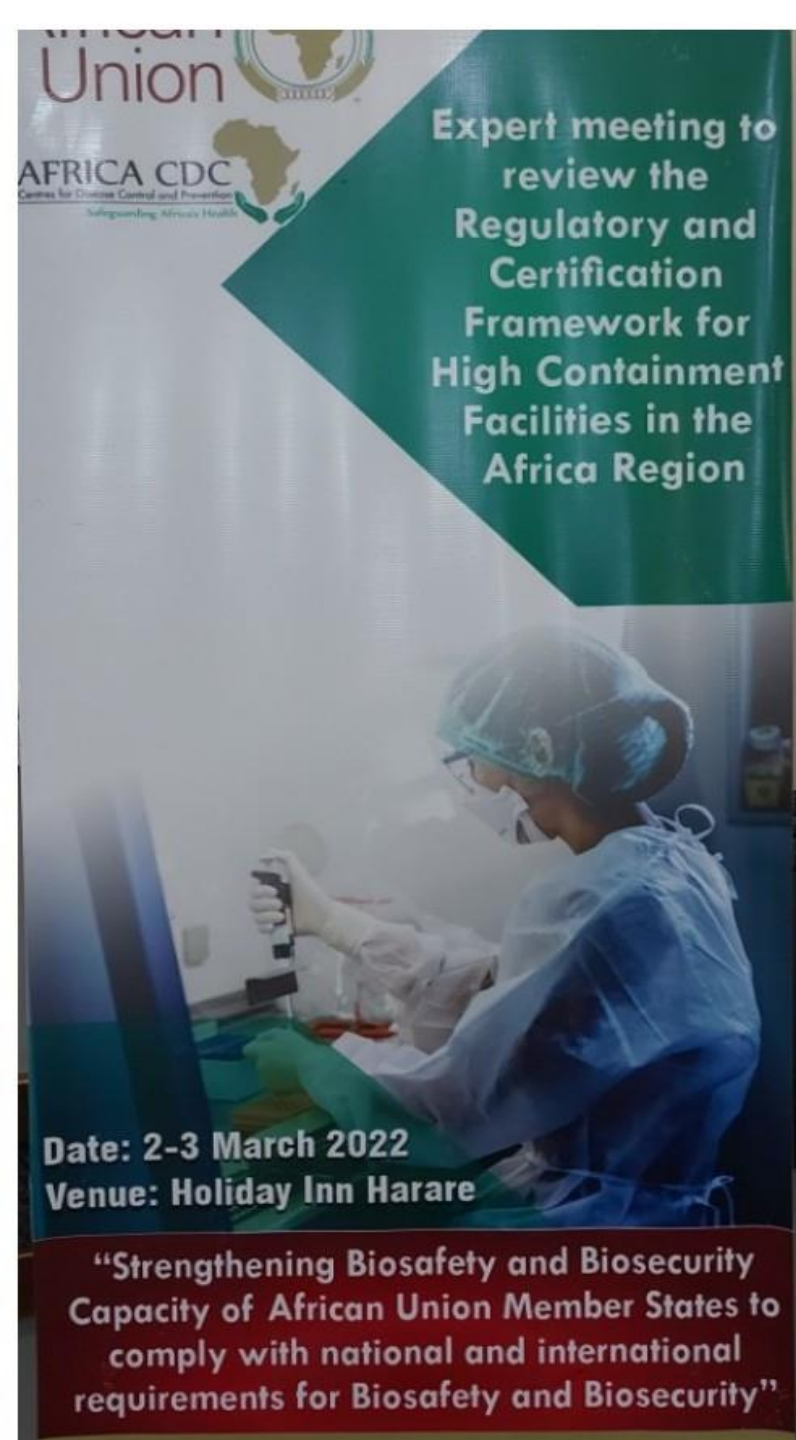


## **Priority 4**

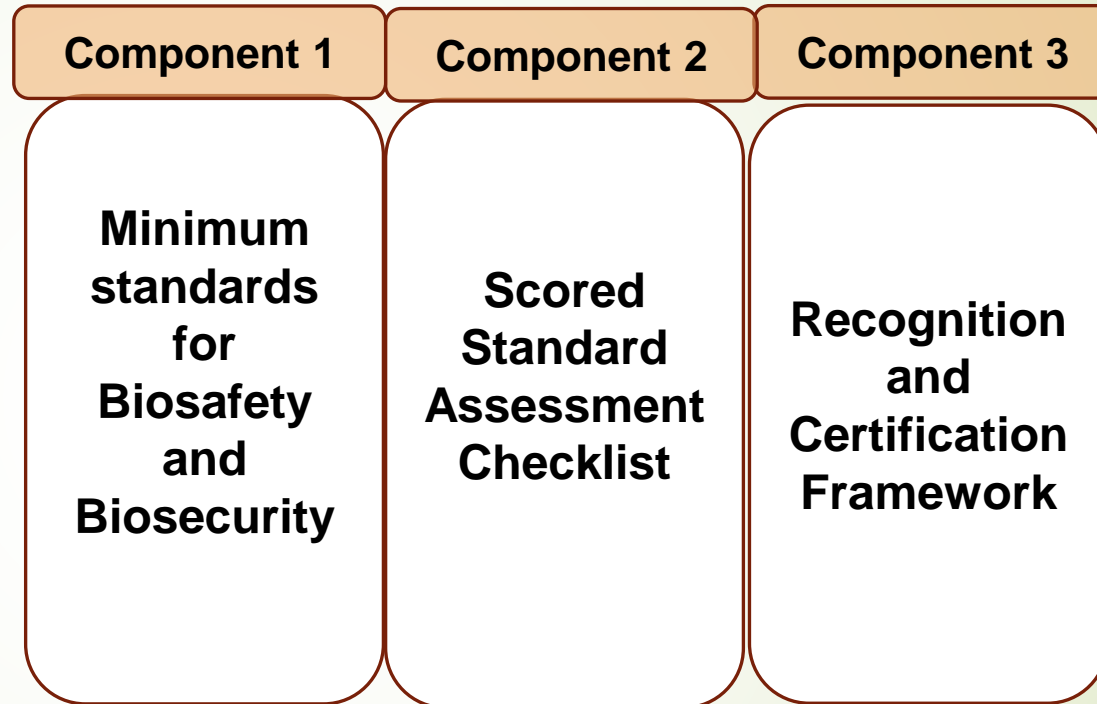
Establish a regulatory and certification framework for institutions handling high risk pathogens







# Regulatory and Certification Framework for High Containment Facilities in the Africa Region



**Addressing Compliance to International Standards for Biosafety and Biosecurity**

**“Strengthening Biosafety and Biosecurity Capacity of African Union Member States to comply with national and international requirements for Biosafety and Biosecurity”**



# Launch and Cohort 1 Training of assessors





## **Priority 5**

Strengthen NPHI and NRL capacities to prevent, detect and respond to Events of public health concern in each MS





# Africa CDC Biosafety and Biosecurity Initiative

## Regional Priorities Report

<https://africacdc.org/download/africa-cdc-biosafety-and-biosecurity-initiative-report-on-the-consultative-process-to-identify-priorities-for-strengthening-biosafety-and-biosecurity/>

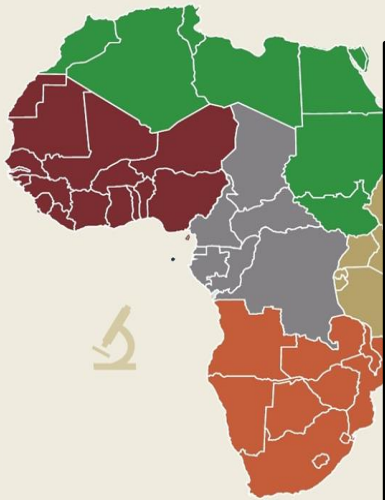
African Union

AFRICA CDC  
Centres for Disease Control and Prevention  
Empowering African Health

Africa Centres for Disease Control and Prevention (Africa CDC)

Africa CDC Biosafety and Biosecurity Initiative  
Report on the Consultative Process to  
Identify Priorities for Strengthening  
Biosafety and Biosecurity

May 2021



African Union

AFRICA CDC  
Centres for Disease Control and Prevention  
Empowering African Health

The Africa Centres for Disease  
Control and Prevention

Biosafety and  
Biosecurity Initiative



2021 - 2025 Strategic Plan

## Africa CDC Biosafety and Biosecurity 5-Year Strategic Plan

<https://africacdc.org/download/biosafety-and-biosecurity-initiative-2021-2025-strategic-plan/>

# TECHNICAL AND FINANCIAL PARTNERS

Organizations participating in the consultative workshops, drafting and reviewing of the Report.

- ❖ Africa Union (AU) Member States
- ❖ The Nuclear Threat Initiative (NTI)
- ❖ Food and Agriculture Organization of the United Nations (FAO)
- ❖ United States Centres for Disease Control and Prevention (US CDC)
- ❖ United States Defense Threat Reduction Agency (DTRA)

Organization that provided resources and hosted workshops

- Africa CDC Regional Collaborating Centres (RCCs)
- African Society for Laboratory Medicine (ASLM)
- Global Affairs Canada Weapons Threat Reduction Program



THANK YOU!  
MERC  
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