Background

Accidental and intentional biological risks pose potentially catastrophic consequences to health, security, and political and economic stability. These risks are magnified by rapid technological advances and the potential for terrorist and state interest in weapons of mass destruction. For too long the capacities required to prevent accidental and intentional biological events – biosafety and biosecurity – remain an under-prioritized part of overall health security. Published World Health Organization Joint External Evaluations (WHO JEE) show that 74% of countries have little to no biosecurity and biosafety capacity\(^1\). The second iteration of the GHS Index, released in December 2021, found that the global average score for the prevention of the emergence or release of pathogens was a 28.4 out of 100, making it the lowest-scoring 2021 GHS Index category. In addition, preparedness for globally catastrophic biological events were similarly low. However, the sub-Saharan African region scored 19.8 out of 100, underscoring the level of investment needed.\(^2\) Taken together, the world is facing an unacceptably grievous level of risk posed by a potentially catastrophic biological event.

In 2018, to address the growing risk of a deliberate or accidental biological event, the Nuclear Threat Initiative (NTI) launched the Global Biosecurity Dialogue (GBD), with the generous support of Global Affairs Canada’s Weapons Threat Reduction Program and the Open Philanthropy Project. The GBD explicitly serves and advances the objectives of the Global Health Security Agenda (GHSA) Action Package on Biosafety and Biosecurity (APP3), the Biological Weapons Convention (BWC), the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP), and the United Nations Security Council Resolution 1540 (UNSCR 1540). GBD efforts have already yielded specific outcomes to improve biosecurity around the world. Following a successful annual meeting in 2019 in Addis Ababa, the African Union (AU) launched a new initiative to strengthen biosecurity among each of its member states, the Biosafety and Biosecurity Initiative (BBI). NTI has been a partner to Africa Centres for Disease Control and Prevention (Africa CDC), working collaboratively to support the development of the BBI and associated strategic planning. Efforts under these terms of reference will support these initiatives and be completed in collaboration with NTI, Africa CDC, and other partners.

In collaboration with several partners, Africa CDC held a series of consultative workshops to determine the status of biosafety and biosecurity capacity implementation continent wide and develop a set of regional priorities to address capacity gaps. These were broken out in to five priority areas: (1) policies or legal frameworks, (2) human resources, (3) infrastructure, (4) equipment, and (5) international standards.

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1. [https://extranet.who.int/sph/home](https://extranet.who.int/sph/home)
2. [https://www.ghsindex.org/report-model/](https://www.ghsindex.org/report-model/)
Africa CDC developed a **Five-Year Strategic Plan (2021-2025)** to address the five areas. Efforts to implement this plan are underway, with support coming from a variety of partners and sources, including the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, specifically through the GP’s Signature Initiative, which will work for rapid implementation and scale up of biosafety and biosecurity capacity across the continent, including in support of the BBI. Going forward, it will be important to clearly communicate progress made in each of the five priority areas, updating partners regularly, and tracking implementation over the course of the BBI. This would ideally be accomplished through a web-based dashboard that is regularly updated and easily accessible.

### Initiative Implementation

Africa CDC implements the BBI across six broad categories of work to capacitate the continent to better address biosecurity risks from infectious diseases:

1. Sharpening strategic focus on biosafety and biosecurity to effectively implement and evaluate the impact of the BBI.
2. Establishing and operationalizing five multisectoral and multi-expert regional biosafety and biosecurity technical working groups and a continental technical working group.
3. Developing an AU-endorsed biosafety and biosecurity legal framework for use across AU Member States.
4. Establishing a regulatory and certification framework for institutions handling High Consequence Agents and Toxins (HCAT).
5. Establishing a regional training and certification program for biosafety and biosecurity experts.
6. Strengthening AU Member State biosafety and biosecurity capabilities, including through infrastructure support and training and capacity building of National Public Health Institutes and National Reference Laboratories, to prevent, detect, and respond to accidental or deliberate biological events.

These six areas of work address each of the five priority areas noted above and meet the needs outlined during the scoping workshops held earlier.

In the short term, Africa CDC is working to develop a regional Legal Framework that can guide development and implementation of national biosafety and biosecurity instruments in the African region. To accomplish longer-term priorities, additional resources (human and financial) are needed to capacitate Africa CDC Headquarters and regional offices to effectively develop and implement regional training and certification programs for experts. Long-term outcomes will include the creation of self-sustaining Regional Centres of Excellence to coordinate training and capacity building across the continent in collaboration with national institutions, including National Public Health Institutes, National Reference Laboratory networks, and higher learning institutions.

Annex 1 of the attached Five-Year Plan details the timeline for implementation, showing the progress that must be made should the project meet all intended goals and outcomes. Annex 3
highlights the expected deliverables, including means of verification. Each of these should be consulted and considered as part of any monitoring and evaluation framework.

**During the Five-Year Plan development, Annex 4 was developed as a placeholder for a future, more fully fleshed out framework.** The sources of data and indicators currently listed are intended to provide an example and other indicators should be included as appropriate or needed. The project outcomes resulting from this scope of work should fulfill this requirement. Africa CDC will share existing work on which this project can be built.

**Scope of Work for Requested Tool**

**Topic:** Monitoring and evaluating progress under the Africa CDC’s Biosafety and Biosecurity Initiative to communicate progress

The requested tool will provide a mechanism to track implementation of the Africa CDC’s BBI in line with the noted Strategic Plan. In doing so, it will track commitments and progress toward the goals outlined under the initiative, gathering inputs at the national, regional, and global levels.

**Framework**

This Framework will provide Africa CDC with a way to regularly and accurately report on progress made across all priority areas within the BBI, utilizing reports, data, and publicly information as available. In addition, the framework should incorporate inputs from countries across the continent, ensuring their engagement in this process, as well as inputs from donor entities (private or public). Not only will this help with national level buy-in to enable framework implementation, but it will provide regular touch points and check ins between Africa CDC staff, global donors, and national entities to ensure close coordination and alignment of efforts.

The developed framework should include measurement and accountability across all six areas of the BBI as noted above. It must be easily updated, drawing upon available data, with regular benchmarks and requirements for updating information to show progress ad interim (i.e., quarterly, or annually, in addition to end of strategy evaluation). In any case, the framework must monitor progress against all the BBI’s strategic goals. Given the possible reporting burden associated, indicators should be simple and minimize burden on project staff to the greatest extent possible.

Specific inputs and considerations may include:

- **Outcome Measures:** Measures of national biosafety and biosecurity capacity building progress
  - Examples: Capacity measures, comparable over time, using existing, regularly updated sources such as the Global Health Security Index, the Joint External Evaluations, and the State Party Self-Assessment Annual Report

- **Progress Indicators:** Regional Africa CDC and Member States efforts
  - Examples: Completion of regional efforts that contribute to desire end-states of Africa CDC’s BBI, number of advocacy and communication engagements at national level, completion of domestication of the Regional Biosafety and Biosecurity Legal Framework
• Input Indicators: Data and information from Member States, global sources, including donors and partners and should include the Global Partnership’s Signature Initiative.
  o Examples: Resources committed by Member States and Signature Initiative partners to advance national or regional efforts toward the desired end-states of Africa CDC’s BBI

These indicators and methods of collection should comprise a full data architecture.

To make the Framework easy to utilize, the project must include some sort of training program to orient users. In addition, it should include the following:

• Standard Operating Procedures (SOPs) that detail usage at national, regional, and global levels. These SOPs should include guidance on how to operate, utilize, and update the Framework and be developed in collaboration with Africa CDC. They should also include specific timelines (on a quarterly or annual basis) on how and when users should update data and progress, utilizing Africa CDC as the hub for managing ongoing M/E outcomes under the Framework.

• Guidelines on how to utilize the Framework (e.g., a donor/funder guide) to show impacts of donor inputs, allowing funders to report up to leadership on BBI progress effectively.

• Key indicators and information for regular communications following Framework implementation. These will be used by Africa CDC and others to communicate progress. As part of your work, provide suggestions on where additional communications tools or work can be developed in the future.

Dashboard

The product should also provide a high-level dashboard that is distilled from the more robust framework noted above and can be regularly updated via a website to highlight progress to donors, partner countries, and organizations around the world. This dashboard should distill the most relevant information from the framework to an easy, top-line display to quickly highlight progress across each area (ideally through 1-3 indicators per area maximum). It should be visually engaging and easy to understand, particularly for a non-technical audience (such as funders or laypeople).

In designing this portion of the framework, Africa CDC’s and some Member States information technology and web development teams, along with relevant partners such as NTI, will be engaged to ensure messaging needs are met. This portion of the project must be able to show regular progress, building upon the noted inputs above and displaying them appropriately. This dashboard will function as a messaging tool for external and donor partners to show their investments are worthwhile.

Proposed Timeline of Deliverables

Given project complexity, the proposed timeline is notional and can be adjusted in consultation with NTI | bio.

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Description</th>
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<tbody>
<tr>
<td>February-April</td>
<td>Project awarded, and work begins</td>
</tr>
<tr>
<td>Late-April to Early-May</td>
<td>Initial overview of framework presented to NTI for feedback</td>
</tr>
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Early July
Draft framework and tool presented to NTI for review

Late August
Framework and tool presented to NTI

Following the initial framework development, NTI will work with Africa CDC to finalize, pilot the framework in a friendly country, and garner country buy-in. This will take place over a three-month period (approximately). During this process, you will remain engaged and make needed corrections and updates. Following the pilot, you will further refine the framework to be responsive to country experience. This final draft will be presented to the five Africa CDC coordinated Technical Working Groups (on biosafety and biosecurity) before final endorsement.

You are also expected to have periodic check in calls with the NTI project team and representatives from Africa CDC. This will include 3-5 monitoring and evaluation experts from African Union Member States to help insure a collaborative and inclusive approach to Framework development, which will aide in eventual adoption and implementation.

**NTI Project Team**

- Jacob Eckles, Senior Program Officer, NTI | bio
- Gabby Essix, Program Officer, NTI | bio
- Hayley Severance, Deputy Vice President, NTI | bio

**Attachments**

2. NTI’s Global Health Security Index (accessible here: [www.ghsindex.org](http://www.ghsindex.org))
3. Global Partnership Signature Initiative Information
   - Global Partnership Introduction
   - Virtual Conference Summary