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Review of Existing Governance and Strategies for Dual-Use Research in West Africa

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Acronyms

NRC - National Research Council

JEE - Joint External Evaluations

DURC - Dual Use Research of Concern

BWC - Biological Weapons Convention

IBBIS - International Biosecurity and Biosafety Initiative for Science

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Introduction

Dual Use Research is research conducted for legitimate purposes to generate knowledge, information, technologies, and/or products but could be utilized for both benevolent and harmful purposes.

In today's world of rapidly advancing science, scientific tools and technologies are more widely available than ever before, and the dissemination of scientific findings occurs through multiple channels and at various levels. Developing policies for managing the dissemination of knowledge, tools, and techniques produced by scientific research has become important and urgent. The rapid development in biotechnology and the constant possibility of using scientific findings for negative and criminal purposes has led many scientists, agencies, policymakers and governments to raise the need to control dual-use research around the globe. (National Research Council, 2006).

There are three principal mechanisms for controlling dual-use research - Self-regulation (by the scientific communities), external regulation through the implementation of policies by the government, followed by the combination of the two (Resnik, 2013). Majority of bioscientists in a survey favoured self-regulation to government censorship of scientific publications (Committee on Assessing Fundamental Attitudes of Life Sciences as Basis for Biosecurity Education 2009). It was reported that government control of publication could threaten scientific progress and intellectual freedom, which could also impede the dissemination of important findings that could benefit society and place undue administrative burdens on research outcomes (Resnik, 2006).

The policies related to security concerns about scientific research in the United States were initially focused on research results that have both civilian and military applications. However, following the bombing at the World Trade Center and the Aum Shinrikyo attacks on the Tokyo subway in the late 1990s, which also included the use of biological agents, concerns about biological research were raised.

Scientists were also worried about the implication of a study in Australia in 2001 that led to the creation of a highly virulent strain of mousepox that was lethal even to mice that had been vaccinated for naturally occurring mousepox. This study was followed by a paper that investigated the basis for the difference between the virulence factors in the variola major virus, which causes smallpox, and the vaccinia virus, which is used as a vaccine against the disease (Rosengard et al., 2002). The research publication was reported as a document that could serve as a guide for terrorists seeking to weaponize biological agents, even though it provided information on the treatment of infectious diseases (Epstein, 2001).

In 2004, a National Research Council (NRC) report helped frame the debate about open scientific communication in the life sciences. Biotechnology Research in an Age of Terrorism (2018) which became known as the Fink Report after study committee chair Gerald Fink, highlighted the concept of dual-use research through its identification of the "dual use" dilemma in which the same technologies can be used legitimately for human betterment and misused for bioterrorism." The Fink Report later drew recommendations from the existing regulations, and guidelines and leveraged on the traditions of self-governance in the life sciences. Developed countries are developing policies and strategies to address emerging challenges with dual-use research. The United States of America For example, EPA Order 1000.19 allow a thoughtful pause before beginning or publishing specific areas of research to evaluate potentially problematic research. The order establishes a systematic approach for EPA researchers to identify and mitigate when and how the risks that knowledge, information, products, or technologies produced by certain life sciences research may be misapplied in ways that pose significant threats with potential consequences to public health, agricultural crops and other plants, animals, environment, or national security.

Despite the increase in biotechnology research in Africa, there is little evidence of the implementation of national policies/strategies performing oversight of dual-use research in West African countries.

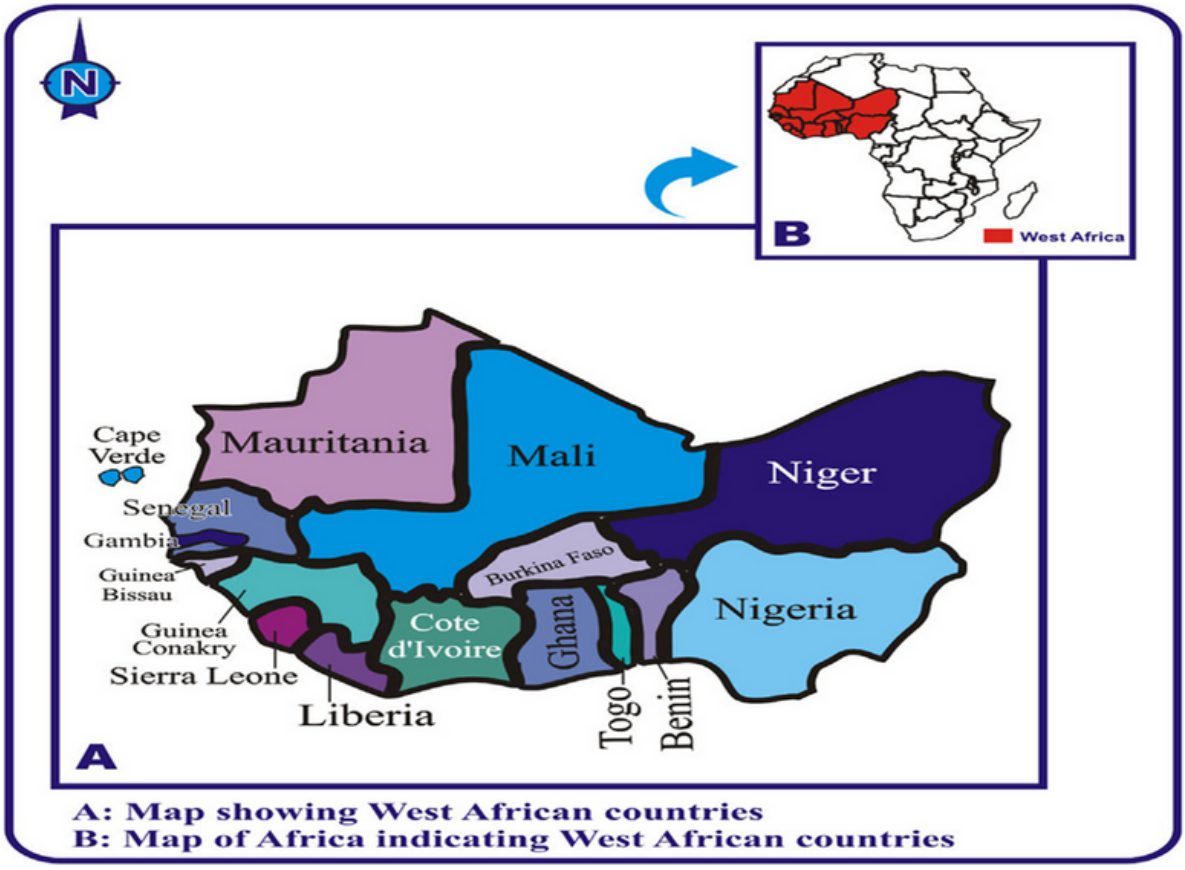
With the rising relevance and threats of dual-use research, especially in developing countries, there is an urgent need to articulate pragmatic policies and realign institutions to incorporate frameworks and strategies that govern dual-use research. The aim of this study is to review regional oversight of Dual Use Research of Concern across West African countries.

Methodology

Study Area

The study was conducted in West Africa. West Africa is a region that encompasses 16 countries, with an estimated population of 367 million (UN, 2015); that is about 30 per cent of the population of Africa and 5 per cent of the world's population. This is a five-fold increase in West Africa's population compared to 1950 with a population size of 73 million people; making West Africa the fastest-growing region globally. The region also has a young population, with almost half of West Africans below 15 years old. This assures continued population growth into the near and medium future. Assuming a medium-fertility model, the population of the region is projected to exceed one billion by 2059, when almost one in 10 of the world's people will be West African

There are major gaps in biosecurity and biosafety capacity in West Africa, as indicated in the World Health Organization Joint External Evaluations (JEE) report, where all countries in the region have limited to no demonstrable biosafety and biosecurity capacity.



A: Map showing West African countries
B: Map of Africa indicating West African countries

Research Methods and Data Analysis

This study utilized both primary and secondary sources of data. This approach allows for effective triangulation of data to ensure that findings can be corroborated and any weaknesses in the data can be compensated for by the strengths of other data, which will increase the validity and reliability of the results. This study involved three major research activities:

a. Content analysis of scientific literature, national policy documents, biosecurity and action plans, international treaties, global biosecurity databases, conference documents, summit reports and national reports, among others, were analyzed.

b. Secondly, a semi-structured questionnaire was designed and employed to obtain information from Life science and medical research scientists in West African countries. This survey evaluated and obtained information on the existing policies and regulations governing dual-use research from respondents that are from West Africa. The survey targets experts with decades of experience in public health, biosecurity, life science and international security. It assessed the Dual use research knowledge and perception of the respondents who are largely responsible for biosecurity and biosafety activities in West African countries. A total of 100 questionnaires were administered to biosecurity stakeholders in 16 West African countries. To determine the existence of policies and regulatory framework that governs Dual-Use research in West Africa countries, participants were allowed to respond to Yes/No questions.

International governance for Dual Use Research of Concern (DURC)

The increasingly international nature of modern emerging biotechnology has necessitated the development of an internationally accepted governance structure for dual use research of concern. Several international processes, such as the Biological Weapon Convention (BWC), World Health Organization, have engaged the need to build a more coherent international governance framework for dual-use research of concern.

Piers D. Millett (2017), in his report on international perspectives on DURC, viewed that no international consensus exists on the need to address DURC. Indeed, he said, the subject has been largely ignored at the international level in recent years; expanding the discussion will require a concerted effort. Millett attributed low levels of engagement with DURC to (1) limited awareness of the issue, (2) competing demands on countries' limited resources, (3) a sense that the issue is not relevant to most countries, and (4) suspicions in many developing countries that U.S.

There have been several discussions under the BWC to address the misuse of advances in biotechnology in recent years. In the early 2000s, the BWC began to address emerging modern research, in addition to its long-time focus on the prevention of the development, stockpiling and acquisition of biological weapons. In the 2008 Meeting of States Parties to the BWC, parties were encouraged to "be at alert to potential misuse of research, and assess their research for dual-use potential," "seek to stay informed of literature, guidance, and requirements related to dual-use research," and "provide concise, practical guidelines, including criteria to define sensitive research and identify areas of greatest risk. There are more discussions by BWC on DURC from 2012 to 2014; a report from the BWC 2012 meeting "expressed support for 'enhanced national oversight of dual-use research of concern without hampering the fullest possible exchange of knowledge and technology for peaceful purposes'," and the 2013 report again articulated "the value of increased national oversight of DURC and highlighted the possibility of developing international approaches” to DURC management.

The 2014 report summarized nations' common understandings of DURC and described key areas for future work. The 9th Review Conference of the BWC held in 2022 established a new Working Group that will make recommendations on measures to strengthen the BWC. These will address advances in science and technology, confidence-building and transparency, compliance and verification, as well as national implementation measures, international cooperation, and preparedness and response.

The WHO Science Division, in collaboration with the WHO Regional Office for Africa and the Africa Centres for Disease Control and Prevention (Africa CDC), organized the first regional workshop in January 2023 in order to operationalize the Global guidance framework for the responsible use of life sciences to mitigate biorisk and governing of dual-use research in the WHO African region.

The workshop was designed: to present the framework and other related existing regional initiatives; to facilitate the sharing of knowledge and experience of countries on the challenges and needs to mitigate biorisks and governing dual-use research; to strengthen the collaboration among multidisciplinary stakeholders within the WHO African region; to test specific elements of the framework, and identify the needs for additional toolkits or regional guidance; and to recommend concrete actions for the roll-out of national implementation of the framework.

Gaps in Biosafety and Biosecurity Measures on Dual-Use Research in West Africa

Africa has experienced a surge in the frequency and impact of infectious diseases in the last few decades. About twenty-five (25) reported outbreaks of Ebola disease had been reported since 1976 in sub-Saharan Africa, with the 2014-2016 outbreaks in West Africa being the deadliest, with about 28,000 infections and 13,000 mortality cases reported. In a similar trend, the increase in activities of non-state actors and insurgency in the region is also a major biosecurity threat in the region. Government and policymakers have responded to these infectious disease outbreaks with an efficient public health mitigation measure with the prompt establishment of public and private diagnostic laboratories, including high and maximum biocontainment facilities (BSL3 and BSL4) in Ivory Coast, Nigeria and Gabon (Bobadoye et al., 2021). In recognition of increased biosecurity threats in the region in past decades, there is a heightened awareness of the need for laboratory establishment for prompt detection and surveillance of emerging infectious diseases (Abayomi et al., 2016). This has justified the significant rise in investment in both public and private laboratories within the region.

Africa contributes less than 0.1% of global vaccine consumption, while only 1% of vaccines used in Africa are manufactured on the continent. However, more than 30 new vaccine manufacturing initiatives are now already underway in Africa, and momentum is gathering to make this expansion possible (Ouma and Berkely, 2022). The COVID-19 outbreak has inspired BioNTech, one of the developers of the Pfizer COVID-19 vaccine, to initiate the construction of the first state-of-the-art manufacturing site for mRNA-based vaccines in Senegal. World Health Organization in partnership with CONVAX, is setting up a technology transfer hub on mRNA vaccine technology in some African countries, including Nigeria and Senegal. This has contributed significantly to the increase in biomedical activities in the region (Paul, 2022).

The successes recorded in genomics and biotechnology across the globe in the last few years have transformed medicine, agriculture and environmental sciences. Aggressive research on human genome sequence is ongoing in Africa. However, the global rise in the acceptability and utilization of modern biosciences and biotechnology techniques used in fighting disease, protecting the environment and promoting economic development has exposed the world to the associated risks of these technologies (Gregory, et al. 2020; Millett et al., 2021). The misuse, diversion and/or manipulation of these technologies and research initiatives ongoing in West Africa could trigger serious adverse and irreversible environmental damage to the environment and cause biological disaster (Dublov, 2014). This is particularly worrisome because of the recent rise in the activities of insurgents in the region. Considering the apprehension of emerging biotechnology and life sciences like synthetic biology and genetic engineering vulnerability to dual-use research dilemmas, global attention has been drawn to the urgent need for firm regulations and monitoring of studies that risk dual-use purposes.

Agencies like NTI and WHO have conceptualized an initiative called the International Biosecurity and Biosafety Initiative for Science (IBBIS), to mitigate against misused and deliberate abuse of bioscience and biotechnology. This seeks an establishment of a concrete safety plan from researchers, institutions, companies and investors involved in biotechnology research. IBBIS will work together with a diverse range of stakeholders to complement the effort of the World Health Organization, Biological Weapons Convention and United Nations Security Council Resolution 1540, particularly to safeguard bioscience and biotechnology. Though most of life science researchers in Africa are still non well equipped to conduct emerging sophisticated biotechnology research such as genetic engineering, gene technology, synthetic biology, and precision medicine, among others, there are numbers of siloed biotechnology researches ongoing on the continent that could be a potential concern to public health system if inadequately monitored or any of the biosecurity measures are breached.

Global Health Security index (2020) reported that 94% of countries across the globe have no National level oversight measures for dual-use research and no evidence of National Assessment of dual-use research. It also discovered that most high-research output countries need more gross inadequate biosecurity policies governing dual-use research. One of the major hindrances to Dual use research governance in West Africa is the non-existence of operational and domesticated biosecurity policy and legislative instrumental in most countries (Bobadoye et al., 2021). Effective and efficient biosecurity and biosafety measures on Dual-Use research should provide oversight throughout the developmental process of the study: project design, funding, project execution and publication of findings. Risk reduction throughout the research is critical for the integrity of the research (Nuclear Treaties Initiative Paper, 2021).

Review of Dual Use Research Governance and strategies in West Africa

Comprehensive review and evaluation of available literature and National policy documents clearly indicated that most of the West African countries have robust policies and regulations that govern biosecurity related issues (Table 1). The sixteen West African countries have policies and strategies relating to biosecurity and biosafety police and plans, surveillance strategies, data management and public health emergency preparedness plan. However, these extant policies and legislative framework do not provide adequate oversight and governance for dual use research concept. There is a growing concern about the capability of the region to ensure the integrity of life science research and promote dual-use research for peaceful purposes. A first report on dual-use research (National Research Council, 2004) suggested that an effective policy that guides dual use research should be strict and efficient to reduce associated biological threats without affecting inherent progress of the biotechnology achievements. It is however recommended that implementation of the regulations and policies governing dual use research must not be too restrictive, considering its critical role in the development of vaccines, diagnostics, therapeutics and surveillance against biosecurity threats.

Table 1: Shows the policies and strategies in different countries in West Africa that are currently in place to prevent the emergence of pathogens with potential of concern

S/N	West African Countries	Existing Policies	Category of Policies
1.	Nigeria	• National Biosecurity Policy and Action Plan (2022-2026) • National Biosafety Management Act, (2015) • Viral Haemorrhagic Fevers Preparedness and Response Plan • National Action Plan for Health Security (2018) • Nigeria's National Health Act (2014)	• National Planning For Zoonotic Diseases/Pathogens • Real-Time Surveillance And Reporting • Ethical Considerations During Surveillance
2.	Burkina Faso	• Burkina Faso Biosafety Legislation • National Regulations on Biotechnology Security The Data Processing and Freedom Commission (*Commission de l'informatique et des libertés, or CNIL*) 2007	• Ethical considerations during surveillance
3.	Benin	• National Commission of Information (Freedom) And Privacy Law N° 2009-09 (2009). • National Health Development Plan (2018-2022). • Benin's Pandemic and Disaster Preparedness Plan. • Joint External Evaluation Report of IHR Core Capacities of The Republic Of Benin Mission Report 21-26 May 2017	• Ethical Considerations During Surveillance • Emergency Preparedness and Response Planning • Cross-Border Agreements • National Planning for Zoonotic Diseases/Pathogens

4.	Cape Verde	• The Ebola Virus Haemorrhagic Fever Contingency Plan (2014, • The Contingency Plan and Response to The Dengue Epidemic (2009) • The Prevention Plan and The Control of Avian Influenza and Pandemic Influenza (2007) • The National Strategy for Prevention, Control and Fight Against Endo and Ectoparasites (2019) • General Judicial Regime for The Protection of Personal Data Of Individuals	• National Planning for Zoonotic • Ethical Considerations During Surveillance
5.	The Gambia	• National Ebola Virus Disease Preparedness and Response Plan 2014-2015 • The Integrated National Emergency Preparedness • Response Plan for Avian and Human Influenza 2015-2019 • National Public Health Emergency Preparedness Plan, in the form of the Health Sector Emergency Preparedness and Response Plan Related to All-Hazards 2017-2019 (Hseprp)	• National Planning For Zoonotic Diseases/Pathogens • National Planning For Zoonotic Diseases/Pathogens • Emergency Preparedness and Response Planning

6.	Ghana	• Ghana's 2012 Public Health Act (PHA) • Ghana’s National Plan for Conducting Testing During A Public Health Emergency • National Guidelines for Laboratory Testing And Reporting On Respiratory And Infectious Diseases In Health Facilities In Ghana • Ministry Of Health, Ghana-2012 Public Health Act • Technical Guidelines for Integrated Disease Surveillance And Response In Ghana • Ghana Biosafety Act, 2011 Act 831	• National Planning For Zoonotic • Laboratory Testing For Detection Of Priority Diseases • Ethical Considerations During Surveillance
7.	Guinea-Bissau	• Strategic National Plan to Prevent and Combat Avian Flu" In 2006 • Guinea-Bissau Has The "National Plan for Health Development Ii 2008 2017 • Guinea-Bissau 2025: Strategic and Operation Plan 2015-2020: 'Terra Ranka'", Published in March 20	• National Planning For Zoonotic
8.	Ivory Coast	• Strategic Plan for the Zoonotic Disease Action Package (ZDAP) 2015-2019	• Surveillance systems for zoonotic diseases/pathogens

		• Côte d'Ivoire: Covid-19, Response Plan against acute respiratory infections of Coronavirus (2020)	• National public health emergency preparedness and response plan
9.	Guinea	• The National Pharmaceutical Policy of 2014 • National Health Development Plan 2015-2024	• Regulatory process for approving medical countermeasures • Regulatory process for approving medical countermeasures
10.	Mali	• Library of National Action Plans • National Multi-Risk Preparation and Disaster-Response Plan • COVID-19 Disease (COVID-19) Prevention and Response Action Plan	• AMR surveillance, detection, and reporting • Emergency Preparedness and Response Planning
11.	Mauritania	• Joint External Evaluation of IHR Core Capacities of the Islamic Republic of • Mauritania: Mission report 27-31 March 2017 • National Disaster Risk Management Action Plan (PANGRC)	• National planning for zoonotic diseases/pathogens • Emergency Preparedness and Response Planning
12.	Niger	• Strategy for Sustainable Development of Livestock • Launching the Development Process For National Policy	• National planning for zoonotic diseases/pathogens • National public health emergency preparedness and response plan

		• Capacity Building Action Plan for Disaster Risk Reduction, Emergency Preparedness and Response, 2015-2018 • Preparation Plan and Response to Novel Coronavirus	• National public health emergency preparedness and response plan • Activating response plans
13.	Senegal	• National Strategic Plan for Health Emergency Operation Center (COUS)	• National public health emergency preparedness and response plan
14.	Togo	• Togo COVID-19 Emergency Response and System Preparedness Strengthening	• Activating response plans
15.	Sierra Leone	• National Strategic Plan for Combating Antimicrobial Resistance 2018-2022. • National Health Laboratory Strategic Plan 2016-2020 • National Health Sector Strategic Plan 2017-2021	• AMR surveillance, detection, and reporting
16.	Liberia	• National Technical Guidelines for Integrated Disease Surveillance and Response • National Management Information Systems Policy	• National Planning for Zoonotic Diseases/Pathogens • Ethical Considerations During Surveillance • Exercising Response Plans

16.	Liberia	• National public health emergency response plan • The National Health and Social Welfare Policy and Plan 2011-2021	• Communication With Healthcare Workers

This study equally evaluates the biosecurity framework and regulations governing dual-use research across West African countries. We targeted biosecurity experts and life science researchers in those countries. These researchers were used as respondents to generate necessary information on existing policies and laws in their respective countries. Based on the feedback from the administered questionnaire, which includes the analysis of the potential impact of existing policies, legislations and regulations on dual-use research in the respondent country. Most of the respondents are medical and life science experts working in biosecurity institutions such as academic and educational institutions, government, non-governmental and intergovernmental institutions. A few countries, such as Burkina Faso, Sierra Leone and Coted" Ivoire reported (Table 2) the availability of policies and regulatory frameworks that govern dual-use research; this shows inconsistency with available policy documents and literature from these countries. In Burkina Faso, 71% of respondents reported the existence of a policy that governs dual-use research in their country. In a similar trend, in Sierra Leone, 77% of biosecurity experts gave feedback that there is a regulatory framework on dual-use research in their country. This inconsistency in studies may suggest an inadequate understanding of the complexity and dynamics of dual-use research (Dubov, 2014).

Meanwhile, the remaining thirteen indicated that there are neither policies, regulatory frameworks, nor institutions responsible for dual-use research in their countries. It was observed that 100% of respondents in Nigeria, Togo, Ghana, Mali, and Cabo Verde indicated that regulatory framework and institution that oversee dual-use research is lacking. This outcome confirms the analysis of existing policy documents (Table 1) and study by in some African countries (WHO, 2022).

An important highlight of this study shows that 100% of respondents in all the West African countries evaluated affirm that there is no regulation that governs data management, the dissemination and publication of dual-use research results (Table 2).

An integral part of research is data management skills, particularly in sensitive research; this is quite disturbing for scientists and policymakers in this region. Addressing this challenge will require a multidisciplinary approach that includes awareness-raising and capacity-building activities.

This result clearly agrees with an international survey conducted on scientists about dual-use research awareness (Bielefield-CeBitec, 2018). This study concluded that many scientists were not familiar with the term dual use and the existence of gaps amongst research in identifying and communicating dual-use research. Another important concern in this study was that 100% of respondents from thirteen countries expressed that no national ethic board regulates dual-use research in their respective countries.

Table 2: Feedback on the existing governance structure of dual-use research in West Africa

Country	Indicators									
	Do you have an existing policy that governs dual-use research in your country/%		Do you have a regulatory framework for Dual-use research in your country/%		Do you have an institution or organization that regulates dual-use research in your country/%		Do you have a regulation that governs data management, the dissemination and publication of DURC results/%		Do you have a national ethic board that regulate dual use research in your country/%	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Burkina Faso	71	29	71	29	85	15	0	100	71	29

Senegal	0	100	0	100	0	100	0	100	0	100
Sierra Leone	77	22	77	22	66	33	0	100	66	33
Carbo Verde	0	100	0	100	0	100	0	100	0	100
Mali	0	100	0	100	0	100	0	100	0	100
Nigeria	15	85	0	100	0	100	0	100	0	100
Togo	0	100	0	100	0	100	0	100	0	100
Guinea	25	75	33	66	0	100	0	100	0	100
Liberia	50	50	35	65	18	82	0	100	33	66
Ghana	0	100	0	100	0	100	0	100	0	100
Ivory Coast	71	28	68	32	0	100	0	100	0	100
Gabon	0	100	0	100	0	100	0	100	0	100
Benin	0	100	0	100	0	100	0	100	0	100
Gambia	18	82	0	100	0	100	0	100	0	100
Guinea Bissau	0	100	15	85	0	100	0	100	0	100

Strategies to Strengthen Dual-Use Research Governance in West Africa

Recent advances and progress recorded in emerging biotechnology research by some West African countries have necessitated the need to develop national and regional governance frameworks to prevent any form of biosecurity threat. This has prompted the research community and stakeholders in life science to create national and regional biosecurity policies and also biosafety practices and strategies across biomedical facilities, countries and regions. Despite the existing measures, the region needs to strengthen policies and strategies for dual-use research. Below are some recommendations that can strengthen dual-use research governance in the region.

1. Creation of Awareness and Deep Understanding of Dual-Use Research among Life Science Researchers. A broader definition of dual-use research of concern should be properly raised amongst the scientific community and stakeholders in West Africa. This must include the recognition that while naturally emerging pandemics continue to pose a significant threat, the next global catastrophe could be caused by the deliberate misuse of the tools of modern biology or by a laboratory accident. This will enable West African research communities to fully appreciate the complexities of dual-use research and adequately maximize the benefit.

2. Countries should update or create regulatory frameworks that will capture dual-use research oversight. We strongly encourage policymakers and intergovernmental agencies in the region to promote the operationalization and domestication of BWC in all the countries in West Africa. This will strengthen and empower member countries to initiate a regulatory framework to oversee Life science research and mechanisms to screen DNA synthesis against a predetermined list of toxins and agents of concern. Countries can either implement policies for dual-use research through executive orders and regulations or they can pass relevant legislation.

3. Robust mechanisms beyond policymaking must be introduced to reinforce dual-use considerations in biomedical research. Oversight of research of dual-use concern should be enacted at the earliest stages of research, such as when giving out grants, and continue to follow its progression in cases where dual-use risks are unclear at its conception. The rapid dissemination of scientific results during public health emergencies has demonstrated that controlling the flow of such information is futile once such research has been completed. This should require grant applicants to explicitly account for risks of misuse in applications and notify funders and other relevant authorities of any previously unanticipated changes in the dual-use risk status of their research. Building stronger social norms around dual-use research will be critical for the practical implementation of regulatory frameworks as optimal adherence will depend on the cooperation of researchers.

4. Institutional oversight addressing both academic and industrial research institutions is an important step in the middle of the research and development life cycle. Concrete and adequate information and conclusion of responsible dual-use research should be disseminated at recognized and certified conferences, meetings, workshops and proceedings. The research output of a study, especially in life sciences, can be as dangerous as the research activities itself. Research methods and data targeted to achieve a harmless and beneficial study could be manipulated and repurposed for harmful and deleterious research that can threaten the public health system. There should be a monitoring system that restricts and discourage indiscriminate dissemination of research information, data and results in Life science study that are susceptible to dual-use risk.

5. Africa CDC should propose legal frameworks that establish a requirement for all institutions handling high-risk materials to conduct a risk assessment and install mitigation measures, and the framework should also enforce all institutions and laboratories to report their cases of Dual-Use Research of Concern (DURC) to the government and/or relevant biosecurity institutions.

Conclusion

Analysis of the various policies and documentary evidence in the West African countries, in addition, to reports from biosecurity experts within the region, revealed that existing policies and legislative instruments do not have the capacity and framework to oversee dual-use research to derive optimal benefit while preventing associated threats.

There is a need to support West African countries at national and regional levels to develop laws and frameworks that will govern dual-use research and other research of dangerous consequences in the region. This policy should establish review procedures for scientific research that has dangerous organisms, pathogens or toxins with the potential to cause harm if misused. Implementing these policies will help reduce biosecurity risks in life science research and develop controlled mechanisms that would allow the dissemination of research results by researchers while mitigating the potential for harm to national security.

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ABOUT GET

The Global Emerging Pathogens Treatment Consortium (GET) was established in 2014 as a direct response to the 2014-2016 Ebola virus disease outbreak in West Africa. GET now operates firmly in the African Biosecurity space and functions as a think tank. Providing high level advocacy, research, operational and necessary expertise to support countries and communities achieve improved resources to combat outbreaks and other biosecurity threats that can threaten stability, peace and security thereby undermining economic growth and wellbeing.

GET is legally registered in Nigeria, Accra, Ghana, Sierra Leone, and United State of America. Our primary purpose is to develop African-led and Afrocentric strategies within an international context to effectively address emerging biosecurity threats. We have collaborations and partnerships with many organizations within and outside Africa.

Our activities are focused on (1) capacity building (2) Research (3) logistics (4) Publication (5) Outreach and community engagement (6) Policy advocacy.

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