

**Eighth Review Conference of the States Parties  
to the Convention on the Prohibition of the  
Development, Production and Stockpiling  
of Bacteriological (Biological) and  
Toxin Weapons and on Their Destruction**

14 November 2016

English only

**Geneva, 7-25 November 2016**

Agenda item 12

**Follow-up to the recommendations and decisions  
of the Seventh Review Conference  
and the question of future review of the Convention**

**Ghana's report on Biological Weapons Convention (BWC)  
Implementation Review exercise held in Accra — 19–20  
October, 2016**

**I. Introduction**

1. On 20 October 2016, delegates from five (5)-partner States, namely Canada, USA, Mexico, Chile and Ghana, concluded the Biological Weapons Convention (BWC) Implementation Review Exercise, which began in Canada in August 2016, at a two-day roundtable meeting in Accra.

**II. Objective**

2. The objective of the meeting was aimed at assisting Ghana in improving its national implementation of the BWC and setting an example of transparency, as well as exchanging best practices with other State Parties to the Convention.

**III. Participants**

3. In all, twenty-three experts participated in the meeting, including experts drawn from various institutions in Ghana (see appendix II). Benjamin ASOMANIN, Director for Research, Statistics and Information Management, Ministry of Environment Science Technology and Innovation (MESTI) opened the meeting on behalf of the Minister for MESTI. Dr Joseph AMPOFO, Director for Water Research Institute, Council for Scientific and Industrial Research (CSIR), chaired the meeting.

**IV. Approach for the Exercise**

4. Fifteen (15) invited experts from various institutions (see Appendix II) made presentations related to the six (6) schematic areas outlined on the reporting form (see Appendix III). Adequate time after each presentation was provided for the participants to

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ask questions, clarify issues and make contributions or suggestions regarding how Ghana is implementing the BWC. The presentations on the first day, 19 October 2016, included the following:

- (a) Overview of the National Implementation of the BWC in Ghana
- (b) Overview of Legal Perspective and the Criminal Code of Ghana in dealing with offences in relation to the use of biological weapons
- (c) National Security Approach to the Implementation of the BWC
- (d) Comprehensive overview of Ghana's export controls on biological agents and toxins
- (e) Capacity building efforts aimed at preventing the proliferation of biological weapons

5. The second day activities began with a tour of the Biosafety Level (BSL)-2 and BSL-3 Laboratory facilities by all the five-partner States at the Noguchi Memorial Institute for Medical Research (NMIMR), University of Ghana, Accra, after which participants resumed the roundtable meeting to have presentations on the following:

- (a) Biosafety and biosecurity: Risk Mitigation Strategies and challenges
- (b) Biosafety and biosecurity — Veterinary perspective
- (c) Haemorrhagic fevers focusing on Ebola virus as a potential biological weapon
- (d) Oversight of life science dual use research of concern - biological agents and toxins

## **V. Presentations and Discussions**

6. The Deputy Director of Ministry of Environment Science Technology and Innovation (MESTI) responsible for Biological Weapon Convention gave an overview of the national implementation of the BWC, touching on the mandate of MESTI and other institutions spearheading Ghana's implementation and what has been done since Ghana ratified the Convention.

7. On legal perspectives, there were two presentations. The first one was led by the Chief State Attorney from Attorney General's Department, whilst a Senior State Attorney from same institution led the second presentation on legislative drafting. The meeting demonstrated that Ghana has no legislation that deals specifically with biological or toxin weapons. However certain sections of the Criminal Code Act 1960 and the Anti-Terrorism Act, 2008 (Act 762) could be applied in prosecuting violations or offences regarding the use of biological agents or toxins as a weapon. It was further noted that Ghana has not prosecuted any case on biological agents or toxins weapons.

8. With respect to the domestication of the BWC in Ghana, the meeting noted that the drafting of the legislation on biological weapons is yet to be addressed. Meanwhile, the provisions of the BWC are indirectly being enforced under various existing legislation including the Anti-Terrorism Act, 2008 (Act 762), Public Health Act, 2012 (Act 851) and the Criminal Code, 1960 (Act 29).

9. The meeting also indicated that there is a need to harmonize all the existing legislations related to biological agents or toxins issues into one main Act. Alternatively, the various sections in the existing legislation that cover Articles I, III and IV of the BWC could be repealed to pave the way for the enactment of legislation to fully implement the

BWC. The discussions concluded that, in order to facilitate the domestication of the BWC process, the Ministry of Environment Science Technology and Innovation, which is responsible for BWC-related issues should endeavor to sponsor the enactment process.

10. The presentation on "National Security Approach to the Implementation of the BWC" took the form of a speech read on behalf of the Minister of the Interior by that Ministry's Executive Secretary for National Commission for Small Arms and Light Weapons (NACSA). The speech indicated that Ghana has not used biological weapons (BW) or assisted any non-State actors in production or development of BW, and strongly affirmed Ghana's commitment to the provisions under the BWC. The speech also advocated effective regulatory systems for facilities in Ghana handling biological agents, as well as background checks on researchers in the life sciences. It attributed Ghana's challenge in fully implementing the BWC to lack of technical expertise, weak institutional capacity, and inadequate funding. The meeting took note of the Ministry's plan to subject the transfer of biological agents to a requirement of government authorization by adding biological agents to the National Control List for conventional weapons.

11. The presentation on capacity building was led by the Director of Kofi Annan International Peace Keeping Training Centre (KAIPTC). The meeting noted that KAIPTC's key achievements, including training programs, research and publications, have indirectly contributed to the implementation of the BWC. The meeting discussed the increased global threat of bioterrorism and the need to prioritize issues concerning the control of biological and toxin weapons.

12. The other key issues noted were on recent efforts to enhance capacity building at KAIPTC. These include the introduction of a counter-terrorism course as part of the curriculum and the signing of Memorandum of Understanding (MOU) between the Organization for the Prohibition of Chemical Weapons (OPCW) and KAIPTC in 2008 to assist in capacity building on prohibition of chemical weapons.

13. The presentation on export controls was in two parts. The Acting-Director of Import and Export Control Department (IECD) of Ministry of Trade and Industry led the discussion on overview of export controls and Ghana's mechanisms for it, whilst the Scientific Officer of the Ghana Revenue Authority — Customs Division (GRA-CD) gave a presentation on enforcement and challenges. It was noted that the Ministry of Trade and Industry (MOTI) operates under Exports and Imports Act, 1995 (Act 503) and that IECD oversees export controls. This department collaborates with agencies such as Food and Drugs Authority (FDA), Ghana Standards Authority (GSA), and the Plant Protection and Regulatory Services Directorate (PPRSD) in controlling imports and exports of high risk goods (including biological agents) and maintains a robust annual application system.

14. The meeting noted that MOTI has thirteen (13) agencies which implement its key policies and ensures a robust review and approval process for exports and imports. It was further noted that the MOTI recently raised the level of public laboratories by supporting the upgrade of over 28 laboratories to ISO/IEC Standard and getting them accredited, and the Ministry also has in place a "single window" system where exports are electronically controlled. The meeting noted that the Exports and Imports Act is currently under review and therefore suggested that export control provisions, including to controls BWC-related items, should be considered in the new law.

15. The GRA-CD's presentation discussed the legislation, structures, and measures in place for the enforcement of Customs controls, clearance procedures, approvals and permits, general export requirements, and examination of sensitive biological materials. The operational laws described are the Customs Act, 2015 (Act 891), Customs (Amendment) Act, 2015 (Act 905), Customs Departmental Codes of Instructions, and Exports and Imports Act, 1995 (Act 503). The presentation indicated that biological

materials are restricted or prohibited goods on the Customs Control list of items for which permits are required for transfer clearance. Customs uses ten (10)-digit codes in identifying goods.

16. Customs also has an effective collaboration with a number of agencies including Food and Drugs Authority, Ghana Standards Authority, the Ghana Police Service, National Security, Veterinary Services Department, and Public Health Division. The meeting noted that if biological agents that could be weaponized are detected they are usually seized and secured at a Customs warehouse, with the assistance of other agencies such as the police, public health authorities and Environmental Protection Agency.

17. The biosafety and biosecurity session was divided into four parts: tour at the biosafety level-2 (BSL-2) and BSL-3 training laboratories at NMIMR on the University of Ghana campus, risk mitigation and challenges, veterinary perspective, and Hemorrhagic Fevers.

18. The tour at the BSL-2 and BSL-3 facilities was led by the Head of Parasitology of (NMIMR) on the University of Ghana campus. The facilities had in storage biological pathogens and toxins for research and training purposes. It was observed that the facilities had appreciable level of biosafety and biosecurity system in place. However, more emphasis was seen placed on biosafety than biosecurity.

19. The presentation on risk mitigation and challenges was led by Head of National Public Health and Reference Laboratory. The meeting noted that the Ghana Health Service relies on Public Health Act, 2012 (Act 851) to address bio-safety and biosecurity concerns, but unfortunately the Public Health Act has no Legislative Instrument. The Ghana Health Service also has four National Reference Laboratories spread across the country, with a BSL3 lab located at National Medical Institute for Research at KNUST, Kumasi.

20. The third presentation was led by the Head of Public Health and Food Safety Division (PHFSD), Veterinary Service Directorate (VSD) of Ministry of Food and Agriculture. The presentation focused on the institutional structure, border operations, inter-agency collaborations, legislations and regulations empowering VSD's functions and activities. It was noted that VSD has three (3) BSL-3 functional laboratories, located at Tamale, Takoradi, and Accra, and most of its anthrax vaccines are produced in Tamale. Lack of biological waste disposal, inadequate technical expertise, weak institutional capacity, and inadequate laboratory equipment such as incinerators were identified as major challenges confronting VSD.

21. The fourth session discussed Ebola virus disease. The Head of Ebola Centre of Ghana Health Service led the discussion, which focused on Ebola Virus Disease (EVD) outbreak in West Africa, an exposition on Ghana's preparedness and response to EVD outbreak, and an expert view of whether the Ebola virus outbreak in West Africa constitutes a biological warfare threat.

22. The last session was led by the Research Scientist and the Director of the CSIR-Savannah Agricultural Research Institute (SARI). The presentation highlighted research activities of the Institute involving biological agents and toxins, including the biosafety practices, biosafety and biosecurity (BS&S) measures, legislation, and inter-agency and international collaboration. The meeting examined the procedures of obtaining biological agents or toxins from suppliers, particularly France.

23. At the end of the two days presentations, the delegates from the five countries had a general discussion on the entire exercise, including the country visits and on Working Papers for the upcoming 8<sup>th</sup> BWC Review Conference in Geneva, Switzerland. As part of this, Ghana provided its report on observations and lessons learnt from the visit to Canada, USA, Mexico and Chile.

**APPENDIX I: AGENDA<sup>1</sup>**

Wednesday 19 <sup>th</sup> October, 2016		
TIME	TOPIC	Lead
08:00 - 08:30	Registration of Delegates	Exercise Coordinator-William
08:30 - 08:45	Welcome Address by Minister for Environment Science Technology and Innovation (MESTI)	<i>MESTI</i>
08:45 - 09:30	National implementation of the BWC -Overview	Kwamena Quaison,
09:30 -10:15	Legal Perspective : BWC - Domestication Efforts	Freda Benjamin-Laing
10:15 -11:00	Legal Perspective II - Enforcement and Challenges	Alfred Asiama-Sampong
11:00 -11:15	Coffee Break	
11:15 - 12:15	National Security Approach to Implementation	John Applerh
12:15 - 13:15	Lunch Break	
13:15 - 14:15	Export controls: Overview and Mechanisms	Michael Opoku/ KwasiOfori-Antwi
14:15 -15:15	Export controls: Implementation and Challenges	Samuel Akrofi
15:15 - 15:30	Break	
15:30 - 16:30	Capacity Building Perspective: Preventing Bioterrorism	KwesiAning/AfuaLampsey

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Wednesday 19 <sup>th</sup> October, 2016		
TIME	TOPIC	Lead
16:30 - 17:00	Discussions /Wrap up	All Experts

Thursday 20 <sup>th</sup> October, 2016		
TIME	TOPIC	LEAD
08:30- 09:00	Visit to Noguchi Memorial Institute for Medical Research (NMIMR)	Coordinator
09:00- 09:15	<i>Welcome Address by Director -General of NMIMR</i>	
09:15 - 11:00	Tour to Noguchi Laboratories: BSL 2 & BSL3 and Biosecurity concerns	NMIMR
11:00- 11:15	<i>Coffee Break</i>	
11:15 - 11:30	Biosafety and Biosecurity: Risk Mitigation Strategies and Challenges	David OpareAgyapong
11:30 -12:15	Biosafety and Biosecurity: Veterinary Perspective	BashiruBoi Kiki Moto
12:15 - 13:15	<i>Lunch</i>	
13:15 - 14:30	Haemorrhagic Fevers: Ebola virus, a potential biological weapon and mitigation strategies	Lawrence Ofori-Boadu
14:30 - 15:45	Oversight of life science dual -use research of concern - Biological agents and toxins	Stephen K. Asante/Stephen KwasiNutsugah
15:45 - 16:00	Break	All Experts
16:00 - 16:45	Discussion of Visits Reports / Working Paper for BWC	All Experts

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Thursday 20 <sup>th</sup> October, 2016		
TIME	TOPIC	LEAD
	Conference	
16:45 - 17:00	Wrap up/Closing remarks	Davis/ Joseph Ampofo

## APPENDIX II: PARTICIPANTS LIST TO ACCRA MEETING

DELEGATES			
No.	NAME	INSTITUTION	COUNTRY
1	Michael Scott DAVIS	US Department of State	USA
2	Lawrence SCHNEIDER	US Department of State	USA
3	Bertha DESMENNU	Canadian High Commission	CANADA
4	Macarena Gonzalez MEKIS	DG-National Mobilization	CHILE
5	Marisol O’Ryan ALONSO	DG-National Mobilization	CHILE
6	Marcos Moreno BAEZ	Embassy of Mexico	MEXICO
7	Joseph Addo AMPOFO	Council for Scientific Research	GHANA
8	William Kofi BAFFOE-MENSAH	National Security Council Secretariat	GHANA
INVITED INSTITUTIONAL EXPERTS			
	NAME	INSTITUTION	POSITION
1	Ben ASOMANI	MESTI	Director (RSIM)
2	Kwamena Essilfie QUAISON	MESTI	Deputy Director
3	Alfred ASIAMA-SAMPONG	AGD	Chief State Attorney
4	Freda BENJAMIN -LAING	AGD	Senior State Attorney
5	Jones APPLERH	NACSA/MOI	Executive Secretary
6	Kwesi ANING	KAIPTC	Director
7	Afua LAMPTEY	KAIPTC	Research Head
8	Kwabena M. BOSOMPEM	NMIMR	HoD/ Parasitology
9	Michael OPOKU	MOTI	Acting Director/Standards
10	Kwasi OFORI-ANTWI	MOTI	Senior Industrial Promotion Officer
11	Bashiru Boi KIKIMOTO	VSD	Head of PHFSD
12	David Agyapong OPARE	GHS	Head of NPH & RL
13	Stephen K. ASANTE	CSIR SARI	Research Scientist
14	Stephen Kwasi NUTSUGAH	CSIR SARI	Director
15	Samuel AKROFI	GRA-CD	Scientific Officer



**APPENDIX III**  
**BWC IMPLEMENTATION REVIEW EXERCISE**  
**NATIONAL REPORTING FORM**  
**[SUBMISSION FROM GHANA]**

States Parties to the BWC have the legal obligation “never in any circumstances to develop, produce, stockpile, or otherwise acquire or retain” biological or toxin weapons or their means of delivery (Article I), “not to transfer to any recipient” any of these banned items or to assist another to manufacture or acquire them (Article III), and to “take any necessary measures to prohibit and prevent” the items activities banned under Article I on its territory (Article IV).

Transparency in the implementation of these national measures can improve confidence and trust among States Parties, and improving this transparency is the goal of the Implementation Review Exercise.

Below is a list of questions on national measures to address specific aspects of implementation.

Some are required by the Convention, and others – while not explicitly required – have been identified as effective implement tools and thus have been used by Parties to help fulfill their

BWC obligations. The Implementation Review Exercise is not meant to assess a State’s compliance, and no judgment of compliance is intended to be drawn from whether individual States Parties have all of these measures in place.

## **Introduction**

Ghana is yet to domesticate the Biological Weapons Convention into national law to enhance the enforcement of civil or criminal sanctions by competent authorities against malicious use of biological material. Meanwhile, individual stakeholders particularly research institutions and laboratories have Standard Operating Procedures (SOPs) and regulations in mitigating risks associated with the handling of biological agents or materials. Though confronted with technical support, skills and competence challenges, Ghana is making efforts to build the capacity to fully fulfill its obligations under the Convention on Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction (BWC), which Ghana signed on April 10, 1972 and ratified on the June 06, 1975.

In compliance with its BWC obligations, Ghana relies on some of its national legislations to enforce criminal or civil sanctions against offenders. Significant among these are the Anti-Terrorism Act, 2008 (Act 762) as amended sections 11-18, Anti-Terrorism Regulations, LI 2181 (2012) section 2, 10; Electronic Transactions Act, 2008 (Act 778) sections 51- 52, Anti-Money Laundering Act, 2008 (Act 749) sections 1, 41 & 43; Anti-Money Laundering Regulations, 2011 (LI 1987); Economic and Organized Crime Act, 2010 (Act 804) sections 23,24 & 29; Biosafety Authority Act, 2011(Act 831) section 2, 11-15, 23, 19-21, 31-34, 41; Criminal code, 1960 (Act 29) section 11, 17 & 19, ,Export and Import Act,1995 (Act 503); Criminal and Other Offences (Procedure) Act,1960 (Act 30) section 39;and Customs Act, 2015 (Act 891). Appendix 1 shows the legislative framework relied upon for enforcement.

Indeed, Ghana's resolve to support the prohibition of Biological Weapons dates back to 1968. It could be recalled that during a debate in the First Committee of the United Nations (UN) General Assembly, Ghana favored the prohibition motion. However, international technical assistance, institutional empowerment and capacity building support have not been adequate to synergize efforts of competent stakeholders at the national level to domesticate the Convention through enactment of the appropriate law.

In fact, Ghana reassured Member State Parties of its commitment and unflinching support to the obligations under the BWC at the First Review Conference of State Parties held in Geneva in 1980. At the meeting, Ghana stated that it 'had abided strictly by its obligations under the Convention and, as a developing country, and had no intention of developing bacteriological weapons'. Additionally, since joining the UNSC Ghana has made general statements at several forums supporting the view that Weapons of Mass Destruction (WMD) which includes Biological Weapons constitutes global threat to international peace and security and therefore remains committed to the global efforts to achieve a world free of such weapons. Furthermore, Ghana attests to the fact that it is through the universal adherence to the international disarmament and non-proliferation regimes that the spread of WMD can be curbed and the preservation of mankind be guaranteed.

Thus, Ghana remains unreservedly committed to the tenets of the UNSCR 1540 adopted under Charter VII of the UN Charter and collaborate with a number of international organizations including International Maritime Organization (IMO); World Health Organization (WHO); World Customs Organization (WCO) and World Organization for Animal Health (OIE) and International Criminal Police Organization (INTERPOL). With regard to WCO, Ghana has signed WCO declaration on implementation of framework of Standards to secure and facilitate global trade (SAFE framework of Standards). It also has Bilateral Cooperation Agreements with several States at the Regional level through its membership on some bodies including African Union (AU); Economic Community of West African States (ECOWAS); Inter-Governmental Action Group against Money Laundering in West Africa, Egmont Group of Financial Intelligence Units.

Ghana continues to participate in Member States meetings and conferences. It could be recalled that in 1994, Ghana participated in the Special Conference of the State Parties to the BTWC where a consensus was reached to form a Special Open Group, also referred to as Protocol, to develop a legally binding document to strengthen the Convention. However, following intensive negotiations among all State Parties between 1995 and 2001, the negotiations were suspended. This, invariably, affected the pace at which Ghana was advancing in the implementation of its obligations under the Convention.

Obviously, not much activity was seen regarding the Convention until the outbreak of EBOLA Virus Disease in the West Africa sub-region in 2014, where Ghana activated its Emergency Operational Center to coordinate technical assistance and control activities with other Member State Parties, the World Health Organizations and other international bodies. Indeed, the importance of the obligations under the Convention was fully appreciated during the

EBOLA Crisis as Ghana recognized the urgent need for Confidence Building Measures, institutional capacity building and technical support.

As part of Ghana's preparedness initiative while fulfilling its obligations under the Convention, Ghana developed a National Response Plan for Chemical Biological Radiological and Nuclear (CBRN) Incidents, an European Union (EU) – CBRN Centre of Excellence (COE) Risk Mitigation Initiative, which was supported by EU and jointly implemented by United Nations Inter-Regional Crime and Research Institute (UNICRI) and Joint Research Centre of the European Commission.

Following this, Ghana put together five-member delegation from relevant and competent institutions to take part in the Meeting of State Parties on Biological (Toxins) Weapons Convention held in Geneva in December, 2015 and held bilateral meetings with Member States such as US and Canada, who were eager to provide technical support in accordance with the provisions under the Convention to Ghana and other countries.

It is envisaged that the BWC implementation review exercise will help Ghana identify the gaps in the fulfillment of its obligations under Convention and help in accelerating the pace to domesticate the Convention into national law.

## 2. Prohibitions

2.1. Does your country have laws, regulations, and/or other measures that:

2.1.1. Define biological and toxin weapons for purposes of the prohibitions in Article I?

(Yes/no; if the answer is yes, please provide that definition.)

**Yes, they are microbial or other biological agents, or toxins whose release into the environment or exposure to the public in furtherance of a political, ideological, religious, racial or ethnic cause constitutes a terrorist act. (Anti-Terrorism Act, 2008 (Act 762))**

2.1.2. Prohibit (with regard to items specified in Article I):

(Yes/no; if the answer is yes, please state the penalties your law provides for that action.) **Yes**

**2.1.2.1. Development? Conviction on indictment to a prison term of between 7 to 25 years**

**2.1.2.2. Possession/stockpiling? Conviction on indictment to a prison term of between 7 to 25 years**

**2.1.2.3. Import? Conviction on indictment to a prison term of between 7 to 25 years**

**2.1.2.4. Export? Conviction on indictment to a prison term of between 7 to 25 years**

**2.1.2.5. Transfer? Conviction on indictment to a prison term of between 7 to 25 years**

**2.1.2.6. Use? Conviction on indictment to a prison term of between 7 to 25 years**

**2.1.2.7. Assistance with any of the above (includes facilitation, conspiracy, brokering, financing)?**

**Conviction on indictment to a prison term of between 7 to 25 years**

2.1.3. Prohibit such activities when they:

2.1.3.1. (Yes/no; if the answer is yes, please state the penalties your law provides for violations.) **Yes.**

2.1.3.2. Take place within your territory, under your jurisdiction, and/or under your control?

**Conviction on indictment to a minimum penalty of 5 years imprisonment and a maximum penalty of death (section 5(1) of criminal offences (amendment) Act, 2012)**

2.1.3.3. Are committed by a national of your country? **Conviction on indictment to a prison term of between 7 to 25 years**

2.1.4. Authorize appropriate authorities to (yes/no):

2.1.4.1. Seize biological agents, toxins, or equipment covered by Article I? **Yes**

2.1.4.2. Secure, retain, and transport such materials prior to their destruction when required for public safety and/or law enforcement investigation or prosecution? **Yes**

2.1.5. Provide for injunctions against prohibited conduct? (Yes/no) **Yes**

2.2. Please add any additional information you would like to provide regarding your country's practice of or experience with the prohibitions listed above.

**There are other laws that are used to support prosecution depending on the nature of the offence.**

2.3. Describe any plans for new or modified laws, regulations, and/or other prohibition measures.

**There are plans to use the executive instrument to implement the UNSCR 1540 whilst efforts are made to domesticate BWC into national law i.e. Biological Weapon Convention Act.**

### 3 Export controls

3.1. Does your country have laws, regulation, and/or other measures that:

3.1.1. Include a list of controlled biological agents, toxins, and related weapons, equipment, means of delivery, and/or technology? (Yes/no) **Yes**

3.1.2. Require a license for the export of controlled items? (Yes/no) **Yes**

3.1.3. If licenses are required (yes/no; if the answer to any of the following is yes, please state the penalties your law provides for violations):

3.1.3.1. Are there regulations establishing the requirements and procedures to obtain a license? **Yes – an export not covered by the requisite permit shall be stopped**

3.1.3.2. Are licenses for export of controlled agents, toxins, equipment, and technology issued only to recipients in another state that are similarly regulated in respect of such items? **Yes**

3.1.3.3. Is a license required for the export of any item if transferred to entities deemed to be of proliferation concern? **Yes**

3.1.3.4. Do licenses require a certificate from the recipient stating:

3.1.3.4.1. The name and location of the end user and any intermediaries, **Yes**

3.1.3.4.2. The end use of the controlled item(s), and **Yes**

3.1.3.4.3. That the controlled item(s) will not be retransferred and/or diverted from peaceful uses? **Yes**

3.1.4. Establish requirements and procedures for the transit of controlled items through your territory. **Yes – Use of electronic seals coupled to a GPS System for real time monitoring**

3.2. Please add any additional information you would like to provide regarding your country's practice of or experience with the export controls listed above.

**The common external tariff currently in use classifies infected or contaminated biological agents and their means of delivery as prohibited material.**

3.3. Describe any plans for new or modified laws, regulations, and/or other export control measures.

#### 4. Biosafety and biosecurity

4.1. Does your country have laws, regulations, and/or other measures that:

4.1.1. Include a list of biological agents and toxins that pose a severe threat to public health and safety and national security? (Yes/no) **No but Ghana controls any material considered toxic to the environment at its borders.**

4.1.2. Require a license for the possession, use, or transfer of such agents and toxins?  
(Yes/no) **Yes**

4.1.3. If licenses are required, do they provide for the following (Yes/no; if the answer to any of the following is yes, please state the penalties your law provides for violations):

4.1.3.1. Registering those individuals, facilities, and/or entities approved to possess, use, or transfer those agents and toxins? **No specific law but other existing laws related to the offence are used on the judges' discretion to prosecute.**

4.1.3.2. Requiring that those individuals, facilities, and/or entities have a lawful purpose for use, possession, or transfer of those agents and toxins? **No specific law but other existing laws related to the offence are used on the judges' discretion to prosecute.**

4.1.3.3. Conducting audits and inspection on laboratories approved to possess, use, or transfer controlled agents and toxins? **Yes but only institutional activity and not national conformity eg. Council for Scientific and Industrial Research Act, 1996 (Act 521) and Biosafety Regulations 2007 (LI 1887)**

4.1.3.4. Revoking the license in the event of violation of the laws or regulations?  
**Yes, same as 4.1.3.3**

4.1.3.5. Prohibiting possession, use, or transfer by certain individuals or entities based on specified actions and/or other criteria? **Yes, same as 4.1.3.3**

4.1.4. Establish requirements for the security and safety of those facilities approved to possess, use, or transfer controlled agents and toxins? (Yes/no) **No but individual institutions approved have their own regulations to that effect.**

4.1.5. Establish requirements for the following regarding individuals possessing, using, and/or transferring controlled agents and toxins: **Yes - the Anti-Terrorism Act, 2008 (Act 762)**

4.1.5.1. Security background checks on personnel to ensure reliability? (Yes/no; if the answer is yes, please provide details on the security screening process.) **No**

4.1.5.2. Training of personnel in the proper handling and securing of controlled

agents and toxins? (Yes/no) **Yes but institutional based and managed**

4.1.6. Regulate domestic transfers of controlled agents and toxins, including (yes/no):

4.1.6.1. Permitting transfers only among licensed entities? **No**

4.1.6.2. Requiring advance notification to the responsible government authority?

**Yes but institutional controlled**

4.1.6.3. Specifying technical, security, and accountability requirements? **Yes**

4.1.6.4. Requiring carriers to be licensed or approved? **Only approved by the institutions concern**

4.1.7. Controls on imports from outside of your territory of controlled agents and toxins, including (yes/no):

4.1.7.1. Permitting importation only to a licensed entity? **Yes**

4.1.7.2. Requiring advance notification to the responsible government authority? **Yes**

4.1.7.3. Specifying technical, security, and accountability requirements? **Yes**

4.1.7.4. Requiring carriers to be licensed or approved? **Yes**

4.1.8. Establish requirements to ensure safe, effective, and verifiable destruction of

controlled agents? (Yes/no) **No but institutions have their own requirements**

4.1.9. Require individuals and entities to immediately notify appropriate regulatory and

law enforcement organizations of the theft, loss, or release of controlled agents or

toxins? (Yes/no) **Yes**

4.2. Please add any additional information you would like to provide regarding your country's practice of or experience with the biosafety and biosecurity measures listed above.

4.3. Describe any plans for new or modified laws, regulations, and/or other biosafety and biosecurity measures? **Same as in 2.3**

5. Oversight of life sciences dual-use research, including that which implements Articles III and/or IV

5.1. Does your country have laws, regulations, and/or other measures that:

5.1.1. Require government review of life science dual-use research? (Yes/no; if yes, please state which government organizations conduct the reviews.) **No**

5.1.2. Require research institutions to review life sciences dual-use research? (Yes/no) **No**

5.1.3. Describe government processes for review of life sciences research and development to ensure compliance with BWC and penalties your law provides for violations of the above? (Yes/no) **No**

5.2. Please add any additional information you would like to provide regarding your

country's practice of or experience with the oversight measures listed above.- **Not available**

5.3. Describe any plans for new or modified laws, regulations, and/or other oversight measures? **Not available**

6. Governmental organization for administering and enforcing BWC implementation

6.1. How is your government organized to implement the measures described above?

The government implements the measures through the relevant Ministries, Department and Agencies. These include the following Ministry of the Interior Ministry of Environment Science Technology and Innovation (MESTI), Council for Scientific and Industrial Research (CSIR), Ministry of Defence, Financial Intelligence Centre, Economic and Organized Crime Office (EOCO), National Security Council Secretariat, Environmental Protection Agency (EPA), Noguchi Memorial Institute for Medical Research (NMIMR), Attorney General Department, Ghana Ports and Harbors Authority, GRA-Customs Division, Ghana Immigration Service and Ghana Police Service.

To facilitate the enforcement of BWC implementation a Technical Committee with representatives from all the relevant and competent authorities has been constituted under the National Security Council Secretariat to ensure the implementation of Ghana's obligations under the Convention. The Committee provides a platform for the National Security Coordinator to discuss the Implementation strategy, and to report to the National Security Coordinator on any other matter related to the enforcing of the implementation.

The government has also established a national biosafety authority to ensure peaceful uses of biological agents and living modified organisms under Biosafety Authority Act, 2011 (Act 831).

- 6.2. What is the role of each department/agency/ministry that has responsibilities for implementation?

**Refer to Appendix 2**

- 6.3. What measures are taken to ensure that the individuals affected by the measures described above are aware of their legal obligations?

Individuals are made aware of their legal obligations through dissemination of the regulations, laws and measures at seminars, conferences meetings and placement of information on websites of the regulatory authorities

## Appendix 1

### Legislative Framework

- Animals (control of importations) Act, 1952 (Act 36) sections 2 & 3
- Anti-Money Laundering Act, 2008 (Act 749) sections 1, 41 & 43
- Anti-Money Laundering Regulations, 2011 (LI 1987)
- Anti-Terrorism Act, 2008 (Act 762) as amended sections 11-18
- Anti-Terrorism Regulations, LI 2181 (2012) section 2, 10
- Biosafety (Management of Biotechnology) Regulations 2007 (LI 1887) sections 12, 13, 18
- Biosafety Act, 2011 (Act 831) section 2, 11-15, 23, 19-21, 31-34, 41
- Community Water and Sanitation Agency Act, 1998 (Act 564)
- Council for Scientific and Industrial Research Act, 1996 (Act 521)
- Criminal and other Offences (Procedure) Act, 1960 (Act 30) section 39
- Criminal Code Act, 1960 (Act 29), as amended section 20 (Abetment of Crime);
- Criminal code, 1960 (Act 29) sections 11, 17 & 19,
- Customs Act, 2015 (Act 891);
- Customs (Amendment) Act, 2015 (Act 905)
- Customs Codes of Instructions
- Economic and Organized Crime Act, 2010 (Act 804) sections 23, 24 & 29
- Electronic Transactions Act, 2008 (Act 778) sections 51- 52
- Environmental Assessment Regulations, 1994 (LI 1652)
- Environmental Protection Agency Act, 1994 (Act 490)
- Export and Import Act, 1995 (Act 503)
- Ghana Maritime Security Act, 2004 (Act 675) section 61
- Ghana Water Company Limited, Statutory Corporations Act 461 (1993) Amended by LI 1648(1999)
- Immigration Act, 2000 (Act 573)
- Pesticides Control and Management Act, 1996 (Act 528), Part I
- Plant and Fertilizer Act, 2010 (Act 803)
- Prevention and Control of Pests and Diseases of Plants Act, 1965 (Act 307) Part I-III,
- Public Health Act, 2012 (Act 851)



- Road Traffic Act, 2004 (Act 683) Section 89
- The Security and Intelligence Agencies Act, 1996 (Act 526) section 12
- Trademark Act, 2004 (Act 664)

**Appendix 2**List of Ministries, Departments and Agencies related to the BWC Implementation and their roles.

S/no	Ministries	Roles
1	Ministry of the Interior	formulates policies to control, regulate and monitor movements of all weapons within and into the country; responsible for licensing and issuance of permits for the possession or use of weapons;
2	Ministry of Environment Science Technology and Innovation	Formulates policies to regulate and monitor the environment, scientific research and innovations as well provide oversight responsibility to the lead agencies under Ministry
3	Ministry of Health	Formulates policies on the medical use of biological materials, identification of contaminated biological materials, means of delivery of biological materials and provides technical and medical experts
	Ministry of Trade and Industry	Formulates policies to control and monitor exports and imports of Biological agents or materials that could be used for malicious purposes
4	Ministry of Defense	Formulates policies for defence against malicious use of biological materials and provides advice on strategies to counter bioterrorism
5	Ministry of Food and Agriculture	Formulates policies to control and monitor agricultural products from getting contaminated with Biological agents
6	Ministry of Justice and Attorney General's Department	Provides legal advice on issues related to the implementation and assists in drafting laws and regulations
7	Ministry of Foreign Affairs and Regional Integration	Facilitates and coordinates all external support or assistance related to the BWC implementation
<b>Department Agencies</b>		
1	Ghana Ports and Harbors Authority	shares information on handling characteristics of dangerous goods using International Maritime Dangerous Goods Code;
2	Public Health Reference Laboratory	Provides special laboratory services and complements in disease surveillance, preparedness and response
3	Ghana Health Service	Coordinates all emergency medical treatment of contaminated and/or injured individuals
4	Financial Intelligence Centre	Monitors the financial institutions to identify funds for supporting terrorism
5	Economic and Organized Crime Office	Assists in identifying organized syndicates involved in financing terrorists activity through collaboration with other agencies
5	National Security Council Secretariat	Coordinates all intelligence and information related to the biological materials for malicious purposes and advice on the required response actions

6	Ghana Police Service	Arrest and prosecute offenders suspected to be involved in Biological Weapon matters
7	Bureau of National Investigation	Gathers information, provides intelligence and conduct investigation on threats of bio-terrorism
8	Food and Drugs Authority	Conducts food sample checks for contamination resulting from biological agent
9	Ghana Immigration Service	Regulate and control movement of foreigners and nationals cross the country's territorial borders
10	Ghana Revenue Authority – Customs Division	Assists with information and GPS tracking services on biologicals being transported along specified routes; contracts local emergency services and Biological experts for assistance during screening of packages and luggage for HAZMAT; provides information on exporters/importers, description and quantities of biological materials imported into customs bonded warehouses;
11	Environmental Protection Agency	Assists in developing regulations to strengthen prohibitions of Biological weapons in the environment
12	Ghana Police Forensic Laboratory	conducts forensic investigations on Biological agents or materials found at the scene of crime
13	Council for Scientific and Industrial Research	Provide support in checking for contamination in food, soil, animal, water and crop samples with biological agents
14	Ghana Ports and Harbours Authority	Shares information on exports and imports and collaborates with security agencies in tracking and monitoring movement of biological materials at the ports and within the country
15	Noguchi Memorial Institute for Medical Research	Provides technical advice through its research on dangerous biological materials; how to identify, monitor and control the spread of harmful biological agents; assists in bio-disinfection and decontamination of affected people involved in biological incidents Advices on regulations to strengthen the prohibitions in Article 1
16	Ghana Standards Authority	Provides support as reference and expert organization in terms of identification of physical, chemical, biological and forensic hazards; their levels and possible standard recommendations for handling biological agent