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DISCRIMINATING TRIGGERS FOR MANDATORY DECLARATIONS

by Graham S. Pearson

Introduction

1. Declarations were identified as one of the principal measures by the Ad Hoc Group of Governmental Experts (known as VEREX) which identified and examined potential verification measures from a technical and scientific viewpoint during 1992 and 1993. At the third meeting of VEREX, a working paper[1] was produced by the rapporteur, Annabelle Duncan of Australia, which provided the evaluation of declarations. The Introduction to this working paper stated that

> "Declarations were considered to be a major off–site measure from which national profiles or patterns of biological activity could be assessed against other sources of information. Using the declaration mechanism, nations could share information regarding biological activities and could, in effect explain to States Parties activities which may otherwise cause compliance concerns."

2. The capabilities of declarations were set out as being:

> "Declarations could build up a picture of the approaches to microbiological work, health and safety in a country. This may lead to an understanding of the approaches taken in a country to work on micro–organisms and toxins, against which initial judgements of consistency could be made. They could help to put in context other information, providing a basis for discounting incorrect or unsubstantiated reports which might otherwise give rise to costly on–site verification measures.
>
> Declarations could, with other measures, provide a graduated response to compliance concerns. Concerns raised by, for example, detection of activities via remote sensing or information monitoring may be allayed by simple notification in response to a request. When discrepancies persist between the declared information and that obtained by other verification measures, more expensive and time consuming verification measures (e.g. inspections) could be necessary.
>
> It is envisaged that declarations will be important in both the general and focused phases of verification. Thus certain items/events could be declared on a regular basis by all States Parties. Other items/events could be declared (notified) as required e.g. information regarding key equipment may only be declared in the preparatory stage of a more focused inquiry such as an inspection."

Limitations were also addressed and included:

> "A major limitation of declarations is that their utility depends upon their accuracy. No nation would declare a prohibited activity as such, but non–declaration of a facility

[1]United Nations, *Declarations (Rapporteur: Ms. A Duncan),* BWC/CONF. III/VEREX/WP. 156, reproduced in BWC/CONF. III/VEREX/9, Geneva, 1993, pages 166-173.

known by other verification means to exist could give rise to compliance concerns. Thus, declarations alone may not provide verification of the BWC but they are strongly synergistic with other measures.

Declarations may give an uneven picture of activity in the biological field. For example, nations which impose Good Manufacturing Practice (GMP) codes upon industry are likely to have necessary information about their biological industries at hand, whereas those nations where there is little government control or regulation of biological industry may find it more difficult to provide relevant information. This situation should improve as more nations adopt international codes of practice such as GMP."

3. Finally, further useful points were included in its agreed summary:

"Declarations, if properly structured, could be an important mechanism for building up a picture of the biological activities in a nation. They give a nation the opportunity to explain actions or events to States Parties which may otherwise cause compliance concerns. The veracity of such explanations can be judged against the patterns of activity in biological sciences built up over time.....

On balance, it would appear from this evaluation that declarations have a high status in terms of potential utility. There is however a need to consider in more detail exactly what items/events should be declared."

4. Definitions were defined in the final report[2] of VEREX as:

"Mandatory, periodic reporting on a regular basis of information considered to be of relevance for verification of the BWC. The nature of the events/items/facilities to be declared has yet to be fully defined. Notifications were considered to be a subset of declarations, concerned with the reporting of new or unforeseen events or forecast of events in order to pre–empt compliance concerns."

5. The Special Conference held in September 1994 at the request of a majority of the States Parties to the Biological and Toxin Weapons Convention saw the presentation of a number of working papers and national statements by States Parties. Several of these touched on the importance of declarations. Thus, Brazil said[3] that:

"It has become clear that a system of national declarations would be useful as a starting point for the BWC Verification system. As stated at VEREX III, "declarations to microbiological work, health and safety in a country ... against which initial judgements of consistency could be made". It seems necessary to discuss carefully what types of facilities should be included in national declarations, in order to account for all facilities posing a real compliance concern, and only those."

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[2]United Nations, *Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint,* BWC/CONF. III/VEREX/9, Geneva, 1993.

[3]Brazil, *Strengthening the BWC: Elements for a Possible Verification Regime,* BWC/SPCONF/WP.4, Special Conference of the States to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Geneva, 21 September 1994.

and Ambassador Nasseri of Iran said[4]:

> "Let me state this clearly. Strengthening of the Convention through verification mechanisms and enhancing its effectiveness presupposes universality and requires unqualified support of all members. Members are expected to commit themselves to submit declarations, accede to the demands of verification and accept the indispensable costs."

6. A joint working paper by China, India and Iran said[5]:

> "While it was agreed that reliance could not be placed on any single measure by itself, the measures described under the headings "declaration" and "off–site" were most frequently identified as the most desirable ones."

and South Africa identified[6] possible verification measures as including:

> "The introduction of mandatory declarations. South Africa is of the opinion that declarations should form the nucleus of any verification regime as well as the substance of confidence building measures. Declarations should, however, not contain information that would threaten proprietary rights. Declarations are also not of much value for preventing proliferation if they are not verified in some way. Confirmation of security provisions at a facility, the nature of containment facilities, the presence of equipment for declared activities and changes in previously declared status, are all areas of useful information which can be verified during on–site visits without threatening commercial confidentiality."

7. It is therefore apparent from the VEREX evaluation that there is agreed language that "declarations have a high status in terms of potential utility" and that "Declarations were considered to be a major off–site measure from which national profiles or patterns of biological activity could be assessed against other sources of information". There is agreement that "It is envisaged that declarations will be important in both the general and focused phases of verification". The subsequent work by the Ad Hoc Group has further demonstrated that there is very wide international agreement that declarations have a central role to play in a strengthened BTWC.

Required Declarations

8. In a paper[7] to the 4th Pugwash CBW Workshop in December 1995 which was developed further for the conference held in Bonn in May 1996 at the Friedrich Ebert Stiftung and

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[4] Statement by H. E. Ambassador Sirous Nasseri, Head of Delegation of the Islamic Republic of Iran to the Special Conference of the States to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Geneva, 20 September 1994.

[5] China, India and Iran, *Working Paper by China, India, Iran (Islamic Republic of)*, BWC/SPCONF/WP.15, Special Conference of the States to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Geneva, 22 September 1994.

[6] South Africa, *Mandate to Strengthen the Biological and Toxic Weapons Convention*, BWC/SPCONF/WP.11, Special Conference of the States to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Geneva, 22 September 1994.

published[8] in the book of that conference, I stressed the necessity of distinguishing clearly between

a. the **trigger** for the declaration and

b. the **information to be provided within a declaration**.

The difference between triggers and the information to be provided can be illustrated by considering the requirements for the confidence-building measures agreed at the Second Review Conference[9] in 1986 and extended at the Third Review Conference[10] in 1991. The triggers and information to be provided are set out in the Table below.

TABLE: CBM TRIGGERS AND INFORMATION TO BE PROVIDED

CBM	Trigger	Information to be provided
A Part 1	Facility having maximum containment laboratory meeting criteria for BL4 or P4	Name Organisation or company Locations and postal address Source(s) of financing Number of maximum containment units with indication of size (m^2) Scope and general description of activities, including type(s) of microorganisms and/or toxins as appropriate

[7]Graham S Pearson, *The Role of Declarations in a Strengthened Biological and Toxin Weapons Convention (BTWC)*, Working Paper, Pugwash Meeting no. 212, 2-3 December 1995, Geneva, Switzerland.

[8]Graham S Pearson, *Improving the Biological Weapons Convention: The Role of Lists and Declarations*, in Oliver Thranert (ed) *Enhancing the Biological Weapons Convention*, Verlag J H W Dietz, Bonn, 1996.

[9]United Nations, *The Second 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*, Geneva 8–26 September 1986, BWC/CONF.II/13, Geneva 1986.

[10]United Nations, *The Third 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*, Geneva, 9–27 September 1991, BWC/CONF.III/23, Geneva 1992.

A Part 2	National biological defence research and development programmes	Objective and summary of the R&D activities indicating whether work is conducted in a list of 10 areas, whether contractor or other non-defence facilities are used and its funding. Organizational structure of the programme and its reporting relationships Information on defence and other governmental facilities in which the biological R&D programme is concentrated a. Location b. Floor area (m^2) of the facilities including BL2, BL3 and BL4 c. Total number of staff employed d. Number of staff in the categories: civilian, military, scientist, technicians, engineers. support and administrative staff e. A list of the scientific disciplines of the scientific/engineering staff f. The source and funding levels in research, development and test and evaluation g. The policy regarding publication and a list of publicly-available papers and reports.

B	Outbreaks of infectious diseases and similar occurrences caused by toxins and on all such events that seem to deviate from the normal pattern	Background information on outbreaks of reportable infectious diseases. Information on outbreaks that seem to deviate from the normal pattern - Time of cognizance of outbreak - Location and approximate area - Type of disease and intoxination - Possible causative agents - Main characteristic of systems - Detailed symptoms - Deviations from normal pattern - Number of primary cases - Number of total cases - Number of deaths - Development of outbreak - Measures taken
C	Encouragement of publication of results and promotion of knowledge	Information on policy on publication of results - including at facilities declared under CBM A - including outbreaks declared under CBM B Information on relevant scientific journals generally available to States Parties
D	Promotion of contacts between scientists	Information on planned international conferences Information on opportunities for exchange of scientists and joint research
E	Declaration of legislation, regulations and other measures	Information on whether States Parties have legislation, regulations and other measures related to - Article I - Export of micro-organisms and toxins - Import of micro-organisms and toxins
F	Past offensive or defensive biological research and development programmes	Date of entering into force of BWC for State Party Period of activities Summary of research and development activities indicating whether work carried out in particular areas identified in the CBM

G	Facilities providing vaccines licensed by the State Party for the protection of humans	Name of facility Location (mailing address) General description of types of diseases covered

In the May 1996 paper, I concluded that:

> "The information to be provided in declarations needs to be structured so as to give a comprehensive appreciation of the facility/programme/event. Careful attention needs to be given to clarity in indicating what is required in the declaration whilst leaving sufficient scope for the declarer to include as much information as is considered to be helpful in providing transparency.
>
> Carefully crafted requirements to trigger declarations and modalities for each declaration to ensure that appropriate and relevant information is provided will strengthen the Convention by increasing transparency and building confidence over time in compliance. **The aim must be to declare those facilities/ programmes/events most relevant to the Convention, recognise that all information of possible relevance will not be declared and avoid requirements to provide information that is not of direct relevance.** The most effective and practical way of identifying the optimum triggers and contents for declarations will be through the analysis of national evaluations of the proposed triggers and declarations as this will give a valuable insight into their practicality, feasibility and effectiveness."[Emphasis added]

9. The past two years has seen considerable progress made by the Ad Hoc Group (AHG) which has through successive Friend of the Chair papers taken forward the concept of declarations so that the rolling text annexed to the procedural report[11] of the July 1997 AHG meeting has in Article III. D text which identifies the triggers for declarations whilst the information to be provided within a declaration is elaborated in Annexe A. The triggers identified in the BWC/AD HOC GROUP/36 version of the rolling text, with square brackets as indicated, are:

> [A. [Military] [Biological Defence] Programmes [against biological and toxin weapons]
>
> [B. [Military] [Biological Defence] Facilities [taking part in defence programmes against biological and toxin weapons]
>
> C. Past Biological and Toxin Offensive and Defensive Programmes

[11]United Nations, *Ad Hoc Group 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*, Procedural Report, BWC/AD HOC GROUP/36, 4 August 1997.

D. Vaccine Production

[E. Plant Inoculant and/or Biocontrol Agent Production Facilities with Plant Quarantine Capacity

F. [[High] [Maximum] Containment Facilities

G. [Facilities Working with Listed Agents/Toxins

H. [[Other Production Facilities] [Production Facilities not Working with Listed Agents]

I. [Other Relevant Facilities [not Working with Listed Agents]

[J. Transfers

[K. Appearance of outbreaks of disease or epidemics

It will be noted that several of these triggers (such as C, D, F and K) carry forward into the rolling text and develop the triggers for the Confidence-Building Measures.

10. In considering declarations it is necessary to ensure that the requirements are guided by practical considerations. A requirement to declare **all** facilities of **possible** relevance to the BTWC would be ineffective, impracticable and result in information overload. In addition, States Parties would have no confidence that all facilities which should have been declared under such a requirement had in fact been declared -- either within their own State or in another State. For an effective verification regime, the facilities declared must be those of **most relevance** to the Convention and the trigger requirements need to be precise and free from ambiguity. A pragmatic approach suggests that a requirement to declare 10s of facilities within a State rather than 100s of facilities is more likely to be implemented effectively and accurately by all State Parties thus building confidence that those facilities which should be declared have indeed been declared.

11. A number of States Parties have carried out surveys of their national microbiological capabilities using questionnaires designed to elucidate how many facilities would require to be declared should certain trigger requirements be included in the legally binding instrument. These are highly informative and, taken together, indicate pragmatic approaches to effective declarations of the facilities most relevant to the Convention.

12. The first two such surveys were reported at the November/December 1995 AHG meeting by Canada and the Netherlands. The working paper[12] by Canada considered a number of triggers:

* Level of biocontainment
* Military microbiology
* Aerobiology
* Work with listed pathogens and toxins
* Production microbiology; and

[12]Canada, *Discussion Paper on Declarations: List of Agents and Combinations of Criteria,* BWC/AD HOC GROUP/WP. 6, 28 November 1995.

* Genetic engineering/biotechnology

The outcome was a conclusion that two of the triggers if used on their own would be impracticable as requiring many hundreds of facilities to be declared:

* Working with listed pathogens and toxins -- some 750 facilities

* Genetic engineering/biotechnology -- between 600 and 700 facilities

More practical triggers were those for

* Military microbiology -- one military facility and 19 non-military facilities

* Production microbiology -- 30 facilities

Possible problems were identified with the other two triggers of biocontainment and aerobiology; in both cases the point was made that the most relevant aspects might well be caught as information to be provided under the other triggers of military microbiology and production microbiology. The Canadian paper in considering combinations of triggers concluded that

a. Military microbiology as a stand-alone criterion, and

b. Any activity in combination with listed pathogens and toxins

would be effective triggers.

13. The Netherlands paper[13] described the outcome of a survey which had considered a number of triggers:

* Military and military related biodefence programmes/facilities
* High containment facilities
* Work with listed pathogens and toxins
* Aerobiology/aerosol dissemination
* Production microbiology
* Genetic manipulation
* Equipment

The paper concluded that two of the triggers might be applicable on a stand alone basis:

* Military microbiology -- one facility
* BL 4 High containment -- no facility in the Netherlands

Insofar as the other triggers were concerned, the paper concluded that such triggers in isolation would probably catch too many facilities not of direct relevance to the Convention. Four combinations of triggers were identified as being needed to select the most relevant facilities:

[13]The Netherlands, *The Relevance and Effectiveness of (Combinations of) Criteria for Declaration,* BWC/AD HOC GROUP/WP.10, 28 November 1995.

* Production microbiology in combination with work with listed pathogens and toxins
    -- four facilities with animal/human pathogens/toxins and two facilities with plant pathogens
* Production microbiology in combination with biocontainment level (BL3 and in some cases BL2)
* Aerobiology in combination with work with listed pathogens and toxins
* Aerobiology in combination with work with biocontainment level (BL3 and in some cases BL2)

14. At the next AHG meeting in July 1996, the UK reported[14] on a survey of microbiological facilities which had used the following triggers:

* Military and militarily related biodefence
* Biocontainment
* Work with [listed] pathogens or toxins
* Genetic modification (genetic manipulation)
* Production microbiology
* Aerobiology and aerosol dissemination

No conclusions were drawn in the paper about the effectiveness or otherwise of the various triggers. However, information was provided as to the number of facilities which reported activities under the individual triggers together with comments about the relevance of such sites to the Convention.

* Military and militarily related biodefence -- Not mentioned further in the paper
* Biocontainment -- BL3 trigger would catch hundreds of facilities
* Work with [listed] pathogens or toxins -- 90 facilities
* Genetic modification (genetic manipulation) -- 170 facilities, many considered to be of low relevance
* Production microbiology -- over 170 sites, many not considered of sufficient relevance to justify declaration
* Generic production activities (as listed below) -- 62 sites
    -- production of vaccines for humans
    -- production of vaccines for animals
    -- production of medicines by fermentation
    -- production of antibiotics
    -- production of biopesticides/insecticides
    -- production of single cell protein eg for animal food
* Aerobiology and aerosol dissemination -- 17 sites

The following conclusions can be drawn from the information provided, although these are not explicitly drawn in the paper:

a. BL 3 as a stand alone trigger would catch too many facilities.
b. Genetic manipulation as a stand alone trigger would catch too many facilities.
c. Production microbiology would catch too many facilities.
d. Generic production activities would offer greater utility
e. Potential production capability would catch too many facilities

[14]United Kingdom, *Survey of Microbiological Facilities in the UK*, BWC/AD HOC GROUP/WP. 81, 23 July 1996.

15. The March 1997 AHG meeting saw a paper[15] from Italy reporting on a survey of microbiological facilities. This survey had used the following triggers:

* Military and militarily related biodefence programmes/facilities
* Biocontainment
* Work with listed pathogens or toxins
* Aerobiology /aerosol dissemination
* Production microbiology
* Genetic manipulation
* Vectors

The results were as follows:

a. Military and militarily related biodefence programmes/facilities -- 1 facility -- a highly relevant criteria.

b. Biocontainment -- 3 facilities with BL4
-- 20 with BL3
-- 20 with BL2

BL 4 could be a stand-alone trigger as only limited number of facilities. BL3 and BL2 as a stand alone trigger was not particularly useful. Better if combined with production capability or production capability and work with listed agents.

c. Work with listed pathogens or toxins -- 44 facilities
-- 17 declared production capability
-- 5 declared genetic manipulation

Work with listed agents as a stand alone trigger is of little relevance. More significance if combined with production capability and/or genetic manipulation.

d. Aerobiology /aerosol dissemination -- 1 facility declared release of non-listed plant agents

As a stand alone trigger of little relevance. Might have utility if combined with listed agents.

e. Production microbiology -- 55 facilities

As a stand alone trigger a number of facilities of little or no impact on the BTWC are caught. Increase relevance by combination with listed agents and/or genetic manipulation.

f. Genetic manipulation -- 21 facilities

As a stand alone trigger not meaningful. Some relevance when nucleic acids belonging to or related to listed agents are involved.

g. Vectors -- 1 facility.

Insufficient information to draw a conclusion.

[15]Italy, *National Survey in the Microbiological Activities,* BWC/AD HOC GROUP/WP. 146, 18 March 1997.

16. The following triggers were identified as being those which would capture the facilities/sites of most relevance to the Convention:

- Military and military related biodefence programmes/facilities
- BL 4
- BL 3 and/or BL 2 & Microbiological production
- Work with listed agents and toxins & Microbiological production
- Work with listed agents and toxins & Genetic manipulation
- Work with listed agents and toxins & Aerobiology
- Microbiological production & Genetic manipulation

40 facilities would require to be declared by Italy if these were the triggers used for declarations in the legally binding instrument.

17. A survey[16] by the five Nordic countries was reported at the July 1997 AHG meeting. This involved some 11 triggers:

1. Work with listed agents and toxins or genetic modification to change pathogenicity or virulence (excluding diagnostic work only)
2. Production capability & work with listed agents
3. Production of human and animal vaccines
4. Production of antibiotics by fermentation
5. Production of therapeutics by fermentation (excluding vaccines and/or antibiotics)
6. Production of other microbial components by fermentation in a closed system
7. BL 4 containment
8. BL 3 containment
9. Production area with OECD containment Category 3 or 2
10. Studies of microbial pathogens in aerosol chambers or outside environment
11. Involved in national biological defence programme or related biodefence activities

50 facilities were triggered by one or more of the above triggers. All but one of the facilities was caught by trigger 1 (work with listed agents or genetic manipulation). 40 were triggered by trigger 6 (production of other microbial components) and 37 were triggered by trigger 9 (production areas with OECD Cat 3 or Cat 2 containment). The paper concludes that the number of facilities -- 50 -- triggered in the five Nordic countries would be fairly limited. It is also noted that the information given in the declaration format used in the trial would provide a general picture of the scientific areas and the production capabilities in areas of peaceful uses relevant to the BTWC. It is concluded that the collected information would increase transparency and build confidence between States parties.

Analysis and Conclusions

18. The surveys thus far reported have been for Canada, the Netherlands, United Kingdom, Italy and the five Nordic Countries. The results can be summarised as follows:

Trigger utility	Canada	Netherlands	UK	Italy	Nordic
Military biodefence	Yes	Yes	-	Yes	Yes
Biocontainment	+ other	BL 4	+ other	BL 4	+ other

[16]Denmark, Finland, Iceland, Norway and Sweden, *Results of a Facility Declaration Trial in the Five Nordic Countries*, BWC/AD HOC GROUP/WP. 173, 18 July 1997.

Listed agents	Not alone	Not alone	Not alone	+ other	Yes
Genetic modification	Not alone	Not alone	Not alone	Not alone	Yes
Production microbiology	Yes	+ listed agents + biocontain	Not alone	+ listed agents	+ other
Aerobiology	+ other	+ listed agents + biocontain	-	+ listed agents	+ other

Most of the surveys give an indication of the number of facilities which would need to be declared if certain triggers, or combinations of triggers, were to be used to capture those facilities of most relevance to the Convention. In these surveys, the triggers or combinations used generally included military biodefence and BL 4 containment as stand alone triggers and production microbiology in combination with work on listed agents as one of several combined triggers. The conclusions reached by Canada in its survey reported in November 1995 that triggers could be military microbiology, as a stand alone trigger, and the other proposed triggers (eg production microbiology) in combination with listed agents and toxins, have thus turned out to be largely confirmed by the subsequent surveys so far reported by other States Parties. The numbers to be declared if triggers such as these were to be used can be summarised as:

	Canada	Netherlands	UK	Italy	Nordic
Number of facilities to be declared	30 to 50	[Tens]	-	40	50

19. The surveys thus far reported have been for developed countries which, with the exception of Canada, have all been located in Europe. The broad conclusion that emerges is that the number of facilities in each country that would need to be declared under triggers chosen to capture those facilities of most relevance to the Convention would be relatively limited with numbers of the order of 10s in each country. As it is unlikely that in developing countries there would be as many facilities that would need to be declared, the adoption of triggers based on military microbiology and high containment (BL 4) as a stand alone triggers, and combination triggers such as production microbiology together with work on listed agents and toxins would appear to be practicable and effective in capturing those facilities of most relevance to the Convention.

20. It is recommended that other States Parties, especially those in the developing world such as Brazil, India and South Africa, should carry out similar surveys of their microbiological facilities using questionnaires similar to those used in the surveys already reported to the AHG. In addition, the Russian Federation and the United States should also carry out similar surveys to see whether military microbiology and high containment as stand alone triggers and combination triggers such as production microbiology together with work on listed agents and toxins would be equally applicable in capturing the most relevant facilities in their countries.

21. The triggers being considered in the rolling text, as noted in para 9 above, include several which carry forward and develop the triggers for the Confidence-Building Measures. These developments are welcomed even though there are still square brackets which have to be removed. The following comments are made on the triggers in the rolling text:

[A. [Military] [Biological Defence] Programmes [against biological and toxin weapons]

[B. [Military] [Biological Defence] Facilities [taking part in defence programmes against biological and toxin weapons]

In both A and B the removal of the limitation to "research and development" which appears in the corresponding CBM (CBM A Part (ii)) is greatly welcomed.

C. Past Biological and Toxin Offensive and Defensive Programmes

This trigger has yet to have the limitation "research and development" which also appears in the corresponding CBM (CBM F) removed. Whilst the addition of "[testing and production]" indicates a move in the right direction, it would be far more preferable to remove the words "research and development" so that the requirement is simply to declare "past offensive and/or defensive programmes". Such a simplified trigger will achieve greater transparency and confidence.

D. Vaccine Production

This trigger has the useful and welcome extension, albeit currently in square brackets, to "[and animals][and plant inoculants]". The term "[licensed by the State Party]" could usefully be deleted thereby achieving greater transparency.

[E. Plant Inoculant and/or Biocontrol Agent Production Facilities with Plant Quarantine Capacity

F. [[High] [Maximum] Containment Facilities

The removal of the qualification "research centres and laboratories" which appears in the CBM (CBM A Part (i)) and its replacement by the term "facilities" is greatly welcomed.

G. [Facilities Working with Listed Agents/Toxins

H. [[Other Production Facilities] [Production Facilities not Working with Listed Agents]

I. [Other Relevant Facilities [not Working with Listed Agents]

[J. Transfers

[K. Appearance of outbreaks of disease or epidemics

It continues to be debatable the extent to which the BTWC should require or become involved in the reporting of outbreaks of disease. There is no advantage to be gained from the BTWC regime setting up any duplication of existing, more effective disease reporting systems. The initiatives being taken elsewhere to strengthen the reporting of all outbreaks of disease should be encouraged.

22. It has to be remembered that the aim is to achieve an effective set of mandatory declarations from all States Parties that focussed on the most relevant facilities, are practicable and will build transparency and confidence whilst **not** seeking to capture **all** facilities of **possible** relevance. The negotiations in the AHG are leading towards a broad consensus that declarations should be made of the following:

a. Military Biological Defence Programmes and Facilities

b. Past Biological and Toxin Offensive and Defensive Programmes

c. Vaccine production facilities

d. Maximum containment (BL 4) facilities

The national microbiological surveys thus far reported to the AHG indicate that such triggers together with combination triggers such as production microbiology together with work on listed pathogens and toxins would be effective in capturing those facilities **of most relevance** to the Convention, would involve practicable numbers of declarations and would not result in information overload.

23. Further consideration needs to be given to the other proposed triggers such as production capabilities not working on listed agents yet have high primary containment and could be turned quite quickly into facilities producing biological agents. Those States Parties which have already carried out national microbiological surveys should be able to provide information from those surveys which would indicate the feasibility and practicality of the other proposed triggers.

24. The requirement is thus for developing countries and for the Russian Federation and the United States to carry out national microbiological surveys, using questionnaires similar to those used in the surveys already reported to the AHG, to confirm the practicality of the triggers identified in para 22 above. All States Parties who have carried out such national microbiological surveys should be encouraged to analyse their data to evaluate the feasibility and practicality of the other triggers. Such moves should enable a coherent set of triggers for declarations to be developed that will be both effective and practical in contributing to the legally binding instrument for a strengthened BTWC.