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

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PROCEDURAL REPORT OF THE 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

1. The Ad Hoc Group of States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction held its fourth session at the Palais des Nations, Geneva from 15 to 26 July 1996, in accordance with the decision taken at its third session. The Group held 20 meetings during that period under the chairmanship of Ambassador Tibor Tóth of Hungary. Ambassador Richard Starr of Australia and Ambassador Jorge Berguño of Chile continued to serve as Vice-Chairmen of the Group. Mr. Ogunsola Ogunbanwo, the Senior Coordinator of the Disarmament Fellowship, Training and Advisory Programme, Centre for Disarmament Affairs, Department of Political Affairs, served as Secretary of the Group.

2. At the fourth session of the Ad Hoc Group, the following States Parties to the Convention participated in the work of the Group: Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Italy, Japan, Mexico, Mongolia, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Sierra Leone, Slovakia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America. The following signatory States to the Convention also participated in the work of the Group: Morocco and the Syrian Arab Republic.

3. At the first meeting, the Ad Hoc Group decided to continue its consideration of Agenda Item 9 entitled "Strengthening of the Convention in Accordance with the Mandate as it is contained in the Final Report of the Special Conference of the States Parties to the Biological Weapons Convention".

4. As in the previous session, the Chairman of the Ad Hoc Group was assisted by Friends of the Chair in his consultations and negotiations on particular issues as follows:

Definitions of Terms and Objective Criteria
- Dr. Ali A. Mohammadi (Islamic Republic of Iran)

Confidence-Building and Transparency Measures
- Ambassador Tibor Tóth (Hungary)

Measures to Promote Compliance
- Mr. Stephen Pattison (United Kingdom of Great Britain and Northern Ireland)

Measures Related to Article X
- Ambassador Jorge Berguño (Chile).

5. Out of the 20 meetings the Ad Hoc Group held in accordance with the programme of work, 7 meetings were devoted to issues related to "Measures to Promote Compliance", 3 meetings (and a number of informal meetings) were devoted to "Measures Related to Article X", 2 meetings (and a number of informal meetings) were devoted to the issues on "Confidence Building Measures", 6 meetings (and a number of informal consultations) were devoted to "Definitions of Terms and Objective Criteria". One meeting of the Ad Hoc Group was devoted to the consultations with the international organizations. The Friends of the Chair were assisted by Mr. Timur Alasaniya and Mr. Jerzy Zaleski of the Centre for Disarmament Affairs.

6. The results of discussions and the exchange of views on those issues were reflected by Friends of the Chair in papers which were annexed to the present Report (Annex III). These papers are without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and do not imply agreement on the scope or content of the papers.

7. In addition to the documents presented at its previous sessions, the Ad Hoc Group had before it 38 working papers covering all four issues under discussion and which are listed in Annex I.

8. The Group considered and adopted the Programme of Work for the fifth session to be held from 16 to 27 September 1996. (Annex II)

9. At its 20th meeting of the session on 26 July, the Ad Hoc Group considered and adopted its draft Procedural Report for the fourth session as contained in document BWC/AD HOC GROUP/WP.88.

ANNEX I

LIST OF DOCUMENTS

DOCUMENTS SUBMITTED AT THE FOURTH SESSION

Document symbol	Title
BWC/AD HOC GROUP/WP.53	Working paper submitted by South Africa - Classification of facilities involved and affected by declarations and inspections
BWC/AD HOC GROUP/WP.54	Working paper submitted by South Africa - Difference between investigation of alleged use of BTW and investigation of unusual outbreaks of disease
BWC/AD HOC GROUP/WP.55	Working paper submitted by South Africa - Systems and tools for an investigation of alleged use of biological or toxin weapons
BWC/AD HOC GROUP/WP.56	Working paper submitted by the Russian Federation - Terms and definitions
BWC/AD HOC GROUP/WP.57	Working paper submitted by the Russian Federation - Criteria for the inclusion of micro-organisms and other biological agents and toxins affecting plants in a list of biological agents and toxins
BWC/AD HOC GROUP/WP.58	Working paper submitted by the Russian Federation - Criteria for the inclusion of micro-organisms and other biological agents and toxins affecting animals in a list of biological agents and toxins
BWC/AD HOC GROUP/WP.59	Working paper submitted by Canada - Concerns about abuse of challenge inspection
BWC/AD HOC GROUP/WP.60	Working paper submitted by Canada - Practice non-challenge visit of a defence research establishment

BWC/AD HOC GROUP/WP.61	Working paper submitted by Ireland - Common Position of the European Union defined by the Council on the basis of Article J.2 of the Treaty on European Union, relating to preparation for the Fourth Review Conference of the Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction (BTWC)
BWC/AD HOC GROUP/WP.62	Working paper submitted by South Africa - Unusual outbreaks of disease and their investigation
BWC/AD HOC GROUP/WP.63	Working paper submitted by South Africa - Criteria for plant pathogens
BWC/AD HOC GROUP/WP.64	Working paper submitted by South Africa - A system of confidence building visits
BWC/AD HOC GROUP/WP.65 and Corr.1	Working paper submitted by Ireland on behalf of the European Union - European Union discussion paper on triggers for declarations
BWC/AD HOC GROUP/WP.66	Working paper submitted by Ireland on behalf of the European Union - European Union discussion paper on challenge inspections
BWC/AD HOC GROUP/WP.67	Working paper submitted by Ireland on behalf of the European Union - European Union discussion paper regarding short notice non-challenge visits
BWC/AD HOC GROUP/WP.68	Working paper submitted by Australia - Initiation of challenge inspections
BWC/AD HOC GROUP/WP.69	Working paper submitted by Italy - A possible role of the ICGEB in the implementation of Art. 10 of the Biological Weapons Convention

BWC/AD HOC GROUP/WP.70	Working paper submitted by Canada - Challenge inspection: Key principles
BWC/AD HOC GROUP/WP.71	Working paper submitted by New Zealand - Criteria and lists of animal and plant pathogens to support specific measures to verify compliance with the Biological Weapons Convention
BWC/AD HOC GROUP/WP.72	Working paper submitted by Ireland on behalf of the European Union - European Union proposal regarding definitions of terms
BWC/AD HOC GROUP/WP.73	Working paper submitted by the United States of America - The role of epidemiology in unusual/suspicious outbreaks of disease
BWC/AD HOC GROUP/WP.74	Working paper submitted by Australia - Measures to promote cooperation in biotechnology and related fields
BWC/AD HOC GROUP/WP.75	Working paper submitted by Ireland on behalf of the European Union - European Community collaboration with developing countries in the field of biotechnology
BWC/AD HOC GROUP/WP.76	Working paper submitted by Brazil and the United Kingdom of Great Britain and Northern Ireland - Report of a joint UK/Brazil practice non-challenge visit
BWC/AD HOC GROUP/WP.77	Working paper submitted by Australia - Trial inspection of a biological production facility
BWC/AD HOC GROUP/WP.78	Working paper by the Friend of the Chair on definitions and objective criteria
BWC/AD HOC GROUP/WP.79	Working paper by the Friend of the Chair on definitions and objective criteria

BWC/AD HOC GROUP/WP.80	Working paper by the Friend of the Chair on definitions and objective criteria - Summary of views on definition of terms
BWC/AD HOC GROUP/WP.81	Working paper submitted by the United Kingdom of Great Britain and Northern Ireland - Survey of microbiological facilities in the UK
BWC/AD HOC GROUP/WP.82	Working paper submitted by Brazil and the United Kingdom of Great Britain and Northern Ireland - List of equipment for facility declarations
BWC/AD HOC GROUP/WP.83	Working paper by the Friend of the Chair on definitions and objective criteria
BWC/AD HOC GROUP/WP.84	Working paper by the Friend of the Chair on definitions and objective criteria
BWC/AD HOC GROUP/WP.85	Working paper by the Friend of the Chair on confidence building and transparency measures
BWC/AD HOC GROUP/WP.86	Working paper by the Friend of the Chair on confidence building and transparency measures
BWC/AD HOC GROUP/WP.87	Working paper by the Friend of the Chair on confidence building and transparency measures
BWC/AD HOC GROUP/WP.88	Draft procedural report
BWC/AD HOC GROUP/WP.89	Working paper by the Friend of the Chair on definitions and objective criteria
BWC/AD HOC GROUP/WP.90	Working paper by the Friend of the Chair on definitions and objective criteria
BWC/AD HOC GROUP/INF.7	List of participants

ANNEX II

PROGRAMME OF WORK FOR THE FIFTH SESSION
(16 - 27 September 1996)

First Week: 16 - 20 September 1996

	16 SEP	17 SEP	18 SEP	19 SEP	20 SEP
AM	AHG/CM	CBM	DEF	CM	CM
PM	DEF	CM	ART.X	DEF	ART.X

Second Week: 23 - 27 September 1996

	23 SEP	24 SEP	25 SEP	26 SEP	27 SEP
AM	CBM	CM	CM	AHG	AHG
PM	INT.ORG/ ART.X	DEF	DEF	AHG	AHG

CM - Measures to Promote Compliance
DEF - Definitions of Terms and Objective Criteria
CBM - Confidence Building and Transparency Measures
ART.X - Measures related to Article X
AHG - Ad Hoc Group Meetings

ANNEX III

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

This paper is without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the papers.

DECLARATIONS

PURPOSE

1. Declarations help strengthen confidence in compliance with the Convention by increasing transparency and thus helping to avoid false suspicions of non-compliance. Declarations make evasion of obligations more difficult, and could thus have a deterrent effect. To be fully effective, declarations may have to be linked to other measures. Declarations should address relevant issues related to compliance with the Convention and implementation of the compliance regime.

SCOPE

General Considerations

2. States could be required to declare activities/facilities/programmes of clear relevance to the objective of strengthening compliance according to the agreed scope of declarations. There is a need at the same time to avoid including irrelevant material which risks overload of information. Declaration requirements need to be precise and to take account of national security and CPI concerns. There was general agreement that mandatory declarations could be a useful way of complementing the existing voluntary CBMs.

3. The Group had an initial discussion of information to be provided about a declared site. A possible outline of such information is at Annex 1. It was noted that different information might be required from different sorts of facilities.

DECLARATION CRITERIA

4. Each State Party could submit declarations on any of the following activities, facilities and programmes:

(A) BIOLOGICAL DEFENCE

(a) National Biological Defence Programmes

Commentary

5. This should include information about bio-defence programmes funded by Government/Military whether conducted at military or civilian sites. The Group agreed to ask the Definitions Group to consider a more specific definition of national biological defence programme.

(b) Facilities taking part in bio-defence programmes and conducting work on microorganisms or toxins as well as material emulating their properties

(c) Past biological offensive or defensive programmes

Commentary

6. Further consideration should be given to whether military medical programmes of protection against infectious diseases (or toxins) should be included and, if so, whether facilities involved in military medical programmes could be declared. Further consideration should be given to the cut-off date for past programmes; dates mentioned were 1.1.46, Entry into Force of the BWC (26.3.75), entry into force of any legally-binding instrument strengthening compliance of the Convention, and, a requirement to declare past programmes conducted at any time. One suggestion was that countries which had submitted information on past programmes as part of their CBM return should confirm the accuracy of that information, but not be obliged to submit a new return.

(B) HIGH CONTAINMENT FACILITIES

(d) (i) Facilities containing areas protected according to the standard for maximum containment laboratories as specified in 1993 WHO laboratory biosafety manual (Biosafety level 4 or equivalent standards).

(ii) Possibly, facilities possessing BL3 containment or equivalent standards, in combination, possibly, with work on listed agents.

Commentary

7. The BL4 trigger is intended to capture those facilities, not already captured by the military triggers, with maximum containment levels.

8. It was also suggested that a separate high containment trigger, including BL4, would not be necessary if facilities of concern were adequately covered by other triggers.

9. A number of problems were identified about the utility of BL3 as a trigger. Although criteria for BL3 containment levels are described in the WHO 1993 Biosafety Manual, it appeared that these were not universally reflected in national practice. Many countries did not require obligatory licensing of such facilities. Some facilities would satisfy BL3 standards for only short periods. Furthermore, an unqualified BL3 trigger might capture too many facilities not of direct relevance.

10. The possibility of combining BL3 with other triggers was proposed. It was also suggested to identify key technical characteristics associated with BL3 (see below).

(C) WORK WITH LISTED PATHOGENS AND TOXINS

Commentary

11. Deletion of the list as a separate trigger could mean that culture collections were not declared. But a requirement to declare all such collections, unless qualified in some way, might be unworkable.

12. It was noted that the phrase "work with" needed to be defined. Such work might include aerobiological studies, genetic modification, production, examining the properties of listed agents, including studies of their pathogenesis and structure. It might be useful to trigger the declaration of facilities which produced listed agents, or worked with them (subject to excluding purely diagnostic facilities).

(D) AEROBIOLOGY/AEROSOL DISSEMINATION

(f) Facilities that:

(i) use aerosol test chambers for work with listed microorganisms or toxins

(ii) work with aerosols of listed microorganisms or toxins at open air test sites.

Commentary

13. Aerobiology work in the bio-defence sector would be captured by the bio-defence trigger. Routine agricultural work, environmental work, and public health work should be excluded. There might be no need for separate triggers for aerobiology if the activities of concern were adequately covered by other triggers (such as work with listed agents).

14. There might be a need to trigger the declarations of other aerobiology activities/facilities to those above. In particular it was suggested that consideration should be given to requiring the declaration of all test chambers for use with any microorganisms or toxins.

(E) PRODUCTION MICROBIOLOGY

(g) the following types of facilities:

(i) those producing vaccines licensed by the State Party for the protection of humans; those producing animal vaccines; or

(ii) those producing vaccines for protection against listed agents;

(iii) those producing listed agents

(iv) those working on listed agents, and having production capacity on the same site;

(v) (possibly) other production facilities not necessarily working on listed agents.

Commentary

15. This trigger is intended to try to explore the possibility of capturing relevant production facilities which would have the capability and expertise for relevant production but which are not involved in biodefence programmes. The CBMs already invite the declaration of facilities producing vaccines licensed for the protection of humans. It was suggested that the formula might be made broader i.e. to include production of unlicensed vaccines. But it would probably not be necessary to include research. It was suggested that the Definitions Group might look at trying to define the concept. In any event further work was required on the question of unlicensed vaccines.

16. The inclusion of the reference to animal vaccines was without prejudice to the outcome of the debate on animal pathogens, and their role in any list of triggers. It was noted that one problem was that a number of animal vaccines were produced in situ.

17. One way of further refining the trigger might be to require only the declaration of vaccine producers working with listed agents, but this might exclude relevant facilities.

18. It was recognised that a difficult area was whether to require the declaration of other production facilities. It was argued that certain facilities possess the appropriate scale and expertise to be relevant under the Convention in view of their capability to produce microorganisms in significant quantities. But it might be difficult to devise a trigger sufficiently precise to capture facilities of concern without resulting in the declaration of too many irrelevant facilities (i.e. food processing, detergent additives etc.). This could also result in a considerable administrative burden. Two options were put forward in one working paper for consideration:

(i) Requiring the declaration of facilities which work with or produce listed agents, which contain areas protected according to specified features e.g.:

- *Directional inwards airflow*
- *Physical separation from public areas*
- *Limited access*
- *Filtration of air by HEPA filters*
- *Class III Biological safety cabinets used for manipulation of agents and which have an aggregate fermenter production capacity.*

OR

(ii) Requiring the declaration of specified production facilities and facilities where work relevant to the protocol is carried out;

- *Those carrying out production of listed agents*

- *Those working on listed agents and having production capacity (possibly aggregate fermenter capacity) on the same site*

- *Certain other facilities:*

- *Facilities producing medicines by fermentation*
- *Facilities producing antibiotics by fermentation*
- *Facilities producing other microbial products by fermentation in closed systems*

19. In preliminary discussion of these options it was suggested that, as regards option (i), other technical features might be included such as in situ sterilisation, and independent ventilation systems. It was also suggested that Class III safety cabinets were not a necessary characteristic of BL3 equivalent containment.

20. Another approach would be to require the declaration of facilities handling microorganisms in a system which physically separates the process from the environment and where exhaust gases from the closed system are treated in order to minimise release. Further detailed consideration of the pros and cons of all of these options is still required.

(F) GENETIC MODIFICATION

(h) genetic modification (possibly) on listed agents

Commentary

21. It was recognised that genetic modification and other techniques could be used to enhance the potential for misuse of microorganisms and toxins. But genetic modification was a widespread technique in biotechnology and further consideration was required of whether genetic modification on its own should be a trigger for declarations. One option would be to combine this with work on listed agents. This

might be difficult to define precisely given the sophistication and potential of GM techniques. But identification of particular genetic modification work might be possible through the use of polymerase chain reaction, DNA finger print technology and sequencing the genetic code. Another possibility would be to require the declaration of GM to enhance pathogenicity or virulence. But this, too, might be difficult to define. One option would be not to have genetic modification as a separate trigger but to require general information about genetic modification to be provided by all sites triggered by other means. If an appropriate GM trigger were devised, then it was suggested that information submitted about such activities should include a detailed technical assessment of the risks involved in the use or production of any modified organisms.

(G) OTHER CRITERIA

- Transfer data. As a trigger for declarations would yield too much information and would be difficult and complex for States Parties to implement. Transfer data could be included in declarations made under other criteria.

- Vectors. There were reservations about requiring the declaration of the breeding of vectors of microorganisms, but it was noted that a question could be asked about such work in the facility declaration format.

- Unusual outbreaks. States Parties could be required to declare outbreaks of infectious diseases and similar occurrences caused by toxins, which seem to deviate from the normal pattern in the area concerned. This issue requires further consideration.

OTHER CONSIDERATIONS

- Declarations could be annual. In the first year declarations might be relatively comprehensive and in subsequent years focus primarily on changes.

- There could be declarations for each facility as well as national declarations.

- National legislation might be needed to meet the requirements of declaration contents.

- Declarations could be handled in such a way as to protect the confidentiality of the information they contain.

- Any future international organisation could follow up gaps and ambiguities in declarations by requesting further information possibly through national authorities. This might obviate the need for visits/inspections in certain cases.

Notifications

- Changes in information already described in declarations, and other developments, could, if necessary, be recorded in subsequent notifications. Some examples are contained in BWC/AD HOC GROUP/8. Others could include changes in laboratory containment levels, or in the purpose of high containment facilities.

- Annual declarations could include advance warning of such changes.

- Further consideration should be given to whether and how transfer data could be recorded in notifications.

SUMMARY

22. The Compliance Measures Group has devoted a number of sessions to discussion of triggers for declarations. Many delegations have reflected carefully on the issues involved. All the issues identified in the above paragraphs remain valid. An important consideration is the need to look at the package of triggers as a whole to ensure that they capture relevant facilities, without duplication.

23. The following key questions are intended to help delegations clarify their thinking on some of the issues which need to be addressed.

Containment: BL3

24. Given the problems identified earlier in the paper with BL3, one approach requiring further consideration might be to restrict the declaration requirement to only those BL3 facilities working with or producing listed agents. A further refinement would be to require the declaration of only such facilities possessing an aggregate fermenter production capacity. But if we had this trigger would we also need a trigger requiring the declaration of production of listed agents outside BL3 facilities?

25. If we have a trigger involving BL3 do we need to be more precise about the definition of BL3? A definition is already available in the WHO guidelines, although it is not universally implemented in the same way. Would the problems with its implementation be overcome if we tried to highlight some key features of BL3 (such as directional inwards air flow, filtration of air by HEPA filters, possession of Class III biological safety cabinets for manipulation of agents)?

Aerobiology

26. An area of concern was open air release of listed agents.

- There was also interest in the declaration of test chambers - possibly for use only with listed agents. As noted above this might adequately be covered by a "work with listed agents" trigger.

- The key question is whether it is necessary to require the declaration of test chambers not intended for use with listed agents. Test chambers are an essential tool in a BW programme. A requirement to declare them (even without a link to listed agents) will probably result in the declaration of very few additional facilities. Would these facilities be better captured by other triggers?

Genetic Modification

27. Genetic modification could be used to enhance the BW potential of a microorganism. One option would be to require the declaration of GM to enhance pathogenicity or virulence, but this might be difficult to define. A simpler approach would be to require the declaration of GM on listed agents. Despite the sophistication of GM techniques it ought to be possible to link genetic material with a specific pathogen or toxin through the use of techniques mentioned in paragraph 21. But this might require an elaborate trigger which would be difficult to implement consistently.

- GM on listed agents could be subsumed under the "work with listed agents" trigger. Further consideration is required of whether this would be a useful trigger. Information on GM work could include an account of the risks involved in the use or production of any modified organism.

Production Micro-biology

- The CBMs recognise that vaccine production facilities were of concern under the BWC. Other production facilities with similar capabilities could also be of potential concern.

- But the essential characteristics of such facilities are difficult to specify. Given the ease and speed at which agents can be produced, fermenter capacity and presence of downstream processing equipment are not sufficient indicators. Expertise is not difficult to obtain. Production in a closed system may merit further consideration. Further consideration is required of the possibility of identifying specific products (as indicated in the options in paragraph 18 above).

- One question was, whether if we could agree on such a production trigger, the eventual effect would be only to invite a potential proliferator to use a different form of production activity as cover for his BW activities.

ANNEX 1

DECLARATION FORMATS

THE FOLLOWING TYPES OF INFORMATION COULD BE INCLUDED IN DECLARATIONS. SPECIFIC REQUIREMENTS MAY VARY ACCORDING TO THE PARTICULAR TYPE OF DECLARED FACILITY.

1. GENERAL INFORMATION

NAME OF FACILITY

LOCATION (postal address)

SOURCES OF FUNDING (MILITARY, GOVERNMENT, PRIVATE)

A GENERAL DESCRIPTION OF THE OBJECTIVES AND MAIN ELEMENTS OF ACTIVITIES SUCH AS WORK IN STUDIES OF PATHOGENICITY AND VIRULENCE, DIAGNOSTIC TECHNIQUES, AEROBIOLOGY, DETECTION, TREATMENT, TOXINOLOGY, PHYSICAL PROTECTION, DECONTAMINATION. OTHER RELATED ACTIVITIES INCLUDING WHETHER THE FACILITY WAS EVER INVOLVED IN A PAST OR PRESENT BW PROGRAMME, DETAILS OF ANY OPEN SOURCE PUBLICATIONS ON THE WORK OF THE FACILITY.

2. ACTIVITIES, INCLUDING

WORK WITH LISTED AGENTS

PRODUCTION, STOCKPILING OF AND WORK WITH LISTED PATHOGENS OR TOXINS

WORK ON GENETIC MATERIAL DERIVED FROM LISTED PATHOGENS

3. EQUIPMENT

INDICATE WHETHER ANY OF THE PIECES OF LISTED EQUIPMENT ARE PRESENT ON SITE

4. QUANTITATIVE DATA (USING, AS APPROPRIATE, LABORATORY RECORDS)

NUMBER OF ROOMS, LABORATORIES AT BL3/BL4 OR EQUIVALENT, OR HIGHEST LEVEL OF CONTAINMENT

AGGREGATE FERMENTER CAPACITY ON SITE (THE FACILITY TO DECLARE WHICH OF VARIOUS RANGES IS MOST ACCURATE)

TOTAL NUMBER OF STAFF EMPLOYED, INCLUDING THOSE CONTRACTED FOR MORE THAN SIX MONTHS.

NUMBERS OF STAFF WORKING IN THE FOLLOWING CATEGORIES: CIVILIAN, MILITARY, SCIENTIFIC, TECHNICIAN/ENGINEERS, SUPPORT AND ADMINISTRATIVE STAFF, CONTRACTOR STAFF

5. COOPERATIVE ACTIVITY

INFORMATION ON ANY COOPERATIVE ACTIVITIES IN WHICH THE FACILITY IS INVOLVED E.G. BETWEEN IT AND OTHER INTERNATIONAL ORGANISATIONS

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

This paper is without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the paper.

ON-SITE MEASURES

Introduction

1. The Special Conference mandated the Ad Hoc Group to consider, inter alia, "a system of measures to promote compliance with the Convention, including, as appropriate, measures identified, examined and evaluated in the VEREX report. Such measures should apply to all relevant facilities and activities, be reliable, cost effective, non-discriminatory and as non-intrusive as possible, consistent with the effective implementation of the system and should not lead to abuse". They "should be formulated and implemented in a manner designed to protect sensitive commercial proprietary information and legitimate national security needs" and they "shall be formulated and implemented in a manner designed to avoid any negative impact on scientific research, international cooperation and industrial development."

2. In the context of on-site measures, VEREX noted that "the most frequently identified on-site measures in combination were on-site inspections (interviewing, visual inspection, identification of key equipment, sampling and identification, auditing). This does not mean that all the measures in parenthesis above always would be included in an on-site inspection." These measures would presumably be implemented in the context of visits to a site.

3. This paper follows a preliminary discussion of on-site measures. There was no agreement on the inclusion of on-site measures into the system of measures to promote compliance with the Convention. The overall effectiveness and feasibility of the system of measures to promote compliance with the Convention would need to be assessed, taken as a whole and in the context of work on the other elements of the Ad Hoc Group's mandate.

4. Further consideration should be given to the view that on-site measures should be target specific, conducted in accordance with agreed lists of agents (pathogens and toxins) and equipment, and that their scope should be clear. Another view held that on-site measures should not be tied to agreed lists of agents.

Recurrent Issues

5. A number of important recurrent issues concerning on-site measures and visits/inspections require further consideration:

- the role of lists;

- how to avoid unduly interfering with activity at the site;

- how to protect commercial proprietary and scientific information and national security information not of concern to the Convention. In this respect, consideration should be given in particular to:

(a) access regulated by multilaterally-agreed standing arrangements on applicable procedures;

(b) access regulated by ad hoc arrangements agreed between the inspecting and inspected parties for each facility to be visited or inspected;

(c) privileges and immunities of inspectors;

- the need to ensure the necessary access to sites

- the need for balance between: (i) the requirement to protect commercial proprietary and scientific information and national security information not of concern to the Convention, and avoid interfering unduly with the activities of the site; and (ii) the obligation to address any concerns about compliance;

- the nature of the inspectorate or designated inspectors who could be responsible for conducting on-site measures; some considerations could include:

(a) the need for impartiality and objectivity;

(b) the need for an inspectorate with the skills and resources, including financial, to implement on-site measures effectively and impartially;

(c) whether to set up an independent Organisation to strengthen compliance with the Convention and if so how it might be structured, and whether there were any alternatives to this;

(d) equitable geographical representation in the selection of inspectors and staff of the possible Organisation;

- how to ensure that costs, including equipment costs, are carefully controlled and how they would be shared;

- what decision-making processes would be appropriate to the implementation of on-site measures;

- the question of appropriate and non-discriminatory access to collected data;

- how different types of visit or inspection could be initiated;

- whether different procedures would be necessary for different types of visit or inspection;

- whether the example of other relevant regimes may be used in formulating measures, bearing in mind that biological weapons have their own inherent characteristics;

- the political costs involved.

Visits/Inspections

6. A number of different types of inspection have been identified in discussions so far.

7. There could be an investigation to address a specific concern about non-compliance with the BWC (a "challenge inspection"). This could take place at short notice, and at either a declared or undeclared facility or site. It was recognised that political sensitivities would be involved. There should therefore be strict and effective measures to prevent abuse. It might be a measure of last resort.

8. On the implementation of such inspections, detailed consideration would need to be given to the questions raised in the Recurrent Issues section of this paper and how they should be initiated. Would requests be limited to States Parties only? Would a request have to be accompanied by supporting data to demonstrate "due cause"? What other filters could be considered? A consultation and clarification mechanism to help resolve inconsistencies might avoid the need for such inspections in some circumstances.

INVESTIGATIONS TO ADDRESS A NON-COMPLIANCE CONCERN

9. The compliance Measures Group had a further discussion of the issues raised in considering arrangements for an investigation to address a specific concern about non-compliance with Article I of the BWC. The following outlines a possible model. The model is without prejudice to the eventual institution/organisational framework. It is intended to identify some key questions which need to be addressed if any arrangements for investigating a non-compliance concern are to meet the objectives of strengthening confidence in compliance.

INSTITUTIONAL/ORGANISATIONAL OPTIONS

10. Various options are possible:

(a) Article V, under which States Parties undertake to consult one another and to cooperate in solving any problems which may arise in relation to the objective of, or in the application of the provisions of, the Convention.'

(b) Article VI, under which any State Party 'which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Convention may lodge a complaint with the United Nations Security Council.

(c) A new mechanism to investigate compliance concerns, which might involve the establishment of a small independent organisation with a permanent inspectorate, or a standing pool of experts to carry out investigations as required.

11. Any future legally binding instrument should take into account the existing Article V and VI provisions. Some delegations thought that these provisions should take priority over any others. But questions were raised about some aspects of these procedures. In particular, would they provide adequate rapidity or objectivity of response? Although Article VI envisaged a UNSC investigation, Part (1) implicitly requires clear indications of violation before the UNSC can act; but what mechanisms are available to obtain that evidence? Another possibility is that Article VI provisions could be invoked for follow up to an investigation. Action under Article VI would be subject to a veto by any one of the permanent Members.

FUNDAMENTAL CONCERNS

12. A number of fundamental concerns were emphasised:

- the nature of BW is different from any other WMD: a future mechanism would need to take this into account. The CWC approach would not necessarily be appropriate, but some elements from the CWC and other disarmament treaties might be useful.

- The scope of any investigation should be clearly related to a specific non-compliance concern.

- Any investigation of a non-compliance concern would involve political sensitivities. It was likely to be highly intrusive and could be open to abuse. Other measures especially consultation and clarification to address concerns could be explored in parallel to or prior to launching an investigation. Prior bilateral consultations could be important, with multilateral action a measure of last resort.

- Any provision for such investigations should fully recognise the sovereign rights of States Parties to protect activities not of concern to the BWC. One approach would be for States Parties to have the right to refuse access to particularly sensitive sites unrelated to the purpose of the BWC. But if a State Party were to provide less than full access to inspectors, it could be obliged to make every attempt to provide alternative means to address the non-compliance concern.

- States Parties against whom a specific non-compliance concern is raised have a direct interest in rapidly resolving such concerns in order to avoid misunderstandings. They should undertake to assist as far as possible and, bearing in mind logistic and practical difficulties, to help clarify and resolve such concerns rapidly. Other States Parties to the protocol could undertake to assist, to the extent they may be capable or are requested, in clarifying and resolving matters related to non-compliance with the Convention.

- Any investigation should require a high standard of competence, independence, impartiality and consistency.

- Some delegations thought that there should be a conclusion by an international organisation or body as to whether non-compliant activity had taken place: other delegations took the view that determination of non-compliance was a matter for individual State Parties.

13. The following key elements of an investigation regime were discussed.

(A) INITIATION

- **Only State Parties could be entitled to request an investigation. The sole purpose could be to investigate a specific concern about non-compliance with Article I of the BWC. Any investigators should have a clear and specific mandate.**

Commentary

14. Given the political sensitivities involved only States Parties could be entitled to request an investigation. It was important that a State Party making a request should be able to demonstrate a specific non-compliance concern.

- **An inspection could be conducted on the territory of any State Party or in any other place under the jurisdiction or control of a State Party (i.e. at both declared and**

undeclared locations) with due regard to the fundamental concerns on access in paragraph 12 (fourth tiret) above.

Commentary

15. It was recognised that some sites might be particularly sensitive. It would be appropriate for a State Party to take steps to protect information and activities. One suggestion was that a State Party might have the right to restrict or deny access to a particularly sensitive site, or particularly sensitive information unrelated to the BWC. If so, a State Party could be under an obligation to take all reasonable steps or alternative means to address the non-compliance concern.

(B) INFORMATION TO BE SUBMITTED IN SUPPORT OF A REQUEST

- **A Requesting State Party should substantiate its non-compliance concern with specific information. This would help prevent abuse and help ensure the conduct of an effective inspection.**

Commentary

16. Any request should be based on information which would need to be as specific as possible. It was proposed that a standard format and criteria for such requests should be agreed. Further discussion of this was required. Minimum information to be provided should include location, how the concern arose, the type of non-compliant activity, the specific event or activities which gave rise to the concern, the date and place of any such event, other information indicating a non-compliance concern. The arrangements could include a requirement to submit the information to multilateral scrutiny, and affirm that the source of the information was non-discriminatory and well-founded.

- **States Parties should keep requests within the scope of the Convention and refrain from unfounded requests.**

Commentary

17. Further work was needed on the basis for determining whether a request was unfounded. It would be difficult to define precisely all the circumstances which would lead to the conclusion that a request was unfounded. An approach based on outline principles might be preferable to an attempt to define in advance precise circumstances.

(C) SCREENING (TO GUARD AGAINST ABUSIVE REQUESTS)

18. A political decision making and/or approval process could be required in processing a request for an investigation.

There may be a requirement to process the request rapidly.

19. Various screening mechanisms were suggested (the order below does not reflect any preference, or a sequential process):

(i) A requirement for prior Article V bilateral consultations.

(ii) Consideration by the United Nations Security Council (under Article VI) of a complaint of non-compliance and whether to initiate an investigation.

(iii) Consideration and decision by the States Parties through a political representative body to approve formally the investigation.

(iv) Providing the request satisfied agreed requirements (as discussed in paragraph 16) an inspection would proceed unless the States Parties or their representative body intervened to overrule the request and recall the inspection team.

(v) States Parties could be assisted in their deliberations by technical advice either from an ad hoc group of experts, or a small technical Secretariat of a new independent organisation.

20. Further discussion was needed of what procedure could be adopted - and in particular what the voting requirements might be - to enable States Parties to reach a decision if option (iii) were followed.

(D) MEASURES TO GUARD AGAINST ABUSE DURING INSPECTIONS

- **Inspectors should be obliged to conduct an investigation in the least intrusive manner possible consistent with the effects and timely implementation of their mission. They could be obliged to collect only relevant information necessary to clarify the specific non-compliance concern.**

- **An inspected State Party should have the right to take measures to protect sensitive installations and to prevent disclosure of commercial proprietary, scientific and national security information not related to its obligations under the Convention. Specifically it could have the right to implement managed access techniques including, inter alia:**

  - **shrouding displays and equipment**

- **switching off computer screens**

- **granting selective access to buildings, laboratories and documentation**

- **limiting the numbers of inspectors permitted in any area at one time**

- **controlling the time spent in particular areas**

- **restricting the visual access to particular areas.**

Commentary

21. a distinction was drawn between measures to screen out unfounded requests for an investigation, and measures to prevent inspectors abusing their position during an inspection to obtain irrelevant information. The importance was stressed of ensuring that inspectors do not abuse their position to collect relevant information during an investigation. This principle could be elaborated in any new regime (as indicated above). States Parties also have the right to protect sensitive information not relevant to the Convention. Consideration might also need to be given to resolving any differences between inspectors and inspected States Parties over what constituted CPI if there were disputes over access.

(e) MEASURES TO DEAL WITH ABUSE AFTER AN INSPECTION HAS TAKEN PLACE

- **Following an investigation, if States Parties decided that a request had been frivolous, abusive or beyond the scope of the Convention they should consider appropriate sanctions.**

22. Other ways of addressing these concerns included:

- Inspectors and the organisation could be held liable for damages arising from their actions, including leakage of CPI. This requires further consideration.

- Any organisation could use its own disciplinary procedures to deal with misconduct by inspectors.

23. The importance was stressed of ensuring the careful handling of any information collected during an investigation.

(F) TIMEFRAME FOR INVESTIGATION

- **A State Party could be obliged to respond to a request rapidly**

Commentary

24. A number of delegations stressed that, given the nature of BW, a rapid response to a request was important if the investigation machinery was to be credible. It was pointed out that this would not be the case if a State Party had too much notice of a possible investigation. At the same time measures to guard against abuse would need to be followed. Further consideration was needed on the exact timeframe that could be appropriate.

(G) ACCESS

25. Access during an investigation could be governed by (i) multilaterally agreed procedures or principles and (ii) arrangements negotiated ad hoc between the inspectors and the investigated State Party to address specific access at a particular Site and which enables the inspection team to fulfil its mandate.

(H) TOOLS FOR INVESTIGATION

26. The above principles could offer a framework for the use of the inspection tools. These could include: interviewing, visual observation, identification of key equipment, sampling. Medical examination and auditing were also considered. Medical examination could be particularly appropriate in cases of alleged use.

(I) POST INVESTIGATION REVIEW

27. The contents of the inspection report could be considered by the States Parties or their representative body. It was suggested that the report should include a factual account of the investigation, an indication of whether non-compliant activity had taken place, and the extent to which the investigated State Party had cooperated in the investigations. A decision could follow on any response or further action, particularly in the event that there were unresolved non-compliance questions. In the event of non-compliance or abuse there should be consideration of what sanctions might be appropriate, or what other steps might be taken. If it were determined that the right to initiate any investigation or procedure had been abused there should be consideration of penalties at post-inspection review.

OTHER VISITS

28. There was discussion of the role which visits other than those to investigate a specific concern about compliance of the BWC might play in any future compliance regime. A key question was whether they would be cost-effective and useful.

29. Various concepts were put forward:

(i) Some non-challenge visits could be used to convey information to a State Party about other relevant matters, and could therefore have a role to play in implementing Article V and Article X. It might be more appropriate to look at some aspects of this type of visit in the context of Article X.

(ii) Random visits. These could have deterrent value. They could take place at short notice on the basis of agreed criteria. They could be conducted by experts from States Parties and/or an international inspectorate.

(iii) Short notice non-challenge visits. These could make it more difficult for a proliferator to conceal non-compliant activity within a declared site. In addition, they could help strengthen confidence in the accuracy of declarations, e.g. by providing a mechanism to help resolve uncertainties.

There was a suggestion there might be a quota system to govern the distribution of such visits among States Parties. Some specific ideas were proposed. These included setting a ceiling to the number of such visits per year, distributed equally over the regional groups. It could also include proposals for distinguishing the importance of different categories of declared site. Various suggestions were put forward for identifying key facilities, including those involved in bio-defence programmes, or having BL4 containment, or that had discovered new viral agents, or had produced animal or human vaccines.

(iv) Visits specifically to address a concern/ambiguity which fell short of a concern about compliance with the BWC itself (i.e. a concern about the accuracy of the declaration). It was pointed out that any visit designed expressly to address a concern could be regarded as close to a "challenge", and could involve similar sensitivities.

30. Other issues:

- Further discussion was needed to assess the benefits of such visits against their costs and the burden on States Parties of hosting them, and to evaluate their utility and whether they have a place in an overall regime.

- What would be the specific purposes of such visits particularly if the aim of the regime is not to monitor civilian industry?

- Would responsibility for initiating such visits lie exclusively with an inspectorate, or exclusively with States Parties? Or would a combination of these procedures be appropriate?

- What level of resources would it be appropriate to devote to this level of activity?

31. Different types of visit/inspections could employ a different range of measures and different levels of intrusiveness, according to the specific objectives of each visit.

32. A number of participants reported on practice non-challenge visit.

IMPLEMENTATION OF SPECIFIC ON-SITE MEASURES

Interviewing

- Interviewing, if properly conducted, could be an important on-site measure in combination with other measures

- Interviewers need to be impartial, objective and have the proper qualifications and skills to carry out interviews

- Further consideration should be given to the form of interviews. They should not be inquisitorial or accusatory. Arrangements could be made for a senior member of staff/government representative/legal adviser to be present when an employee is being interviewed. Interpretation may also be required.

- Other safeguards for personnel or facilities (e.g. a manual of procedures) might be considered. National authorities may have an important role in preparing facilities for interviews

- Those interviewed should have the right to refuse to answer any question.

- Access to appropriate individuals for interview would be important. Consideration should be given to how much advance notice of interviews is required.

- Interviewing should be carried out in such a way as to avoid unduly hindering the work of the site.

- Commercial proprietary information and national security information not of concern under the Convention would need to be protected.

- A list of pathogens and toxins may have utility in interviewing. For example, interviewers may wish to confirm the accuracy of information in declarations concerning work on listed pathogens and toxins.

Visual observation (VEREX measure: visual inspection)

- Visual observation could be an important on-site measure in combination with other measures. It is not always possible clearly to determine the intent of activity at a site with this measure alone.

- Where direct visual observation is not possible, alternative means of demonstrating compliance should be offered. Consideration could be given to alternatives such as use of a video camera, drawings of the area.

Identification of key equipment

- Identification of key equipment could be an important on-site measures in combination with other measures. The identification of key equipment could help determine if the equipment is consistent with the purpose of the site.

- There could be a role for a list of key equipment in the implementation of this measure. Account should be taken of the fact that biotechnology equipment is extremely diverse, rapidly evolving and likely to be of dual use as equipment may be used for different purposes in different states. Care needs to be taken that a list of equipment does not result in erroneous judgements: presence of certain items of equipment is not the only factor. The absence of particular types of equipment and the quantity of equipment could also be important, since if a facility had been declared for a specific purpose, certain equipment would be expected to be present.

Sampling and identification

- Sampling and identification could be an important on-site measure. It would provide objective/scientific information about material at the site, but would need to be used in combination with other measures.

- Sampling and identification is a highly intrusive measure. Confidential proprietary information would need to be protected. This could be achieved by restricting the use of sampling and analysis by means such as the following:

  - limiting the specific situations in which sampling would be available, or, while not excluding sampling, ensuring that it be used sparingly

  - limiting the numbers of samples to be taken

  - limiting the areas from which samples might be taken (e.g. process samples might be excluded)

  - using only limited certain techniques of sampling and identification such as standard reagents and procedures

- A list of pathogens and toxins may have utility in sampling and identification

- Despite the sensitivity of sampling, it might be possible to allow for sampling to be undertaken, following negotiation between parties directly involved, even if sampling was not a required measure for the "inspection" involved.

- It would be preferable for analysis of samples always to be carried out on site, because of CPI concerns and the importance of rapid analysis. Off-site analysis in specific cases (e.g. in investigation of alleged use or in identifying a virus) might be necessary. This might be made more acceptable through considering various methods to protect CPI and other sensitive information.

- Sampling and identification would need to be carried out by inspectors with proper qualifications and skills. The results provided by sampling would need to be carefully analysed, taking into account the context in which they were taken.

- There may be national legislation considerations.

Auditing

- Further consideration could be given to the possible role of auditing in a system of measures, although it would not alone be adequate to resolve compliance concerns. It might help avoid the need for a more intrusive measure such as sampling and identification.

- In implementation of this measure, it would be important to take into account national procedures/financial regulations which vary among States Parties.

Medical examination

- Medical examination could have utility and wider application in the investigation of alleged use or unusual outbreaks of disease.

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

This paper is without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the paper.

INVESTIGATION OF ALLEGED USE

INTRODUCTION

1. Appropriate arrangements to provide for the investigation of alleged use could play a central part in a legally binding instrument to strengthen confidence in compliance. Detailed consideration, however, needs to be given to the implementation arrangements, especially the scope, triggers for initiation of any investigation, and the specific technical guidelines for the conduct of any investigation.

2. Use of BW could be difficult to determine for several reasons; for example, the disease episode would be difficult to distinguish from a naturally occurring event; the disease may not be recognized as the consequence of BW use; the circumstances surrounding the alleged use, particularly if armed conflict is involved, could make investigation hazardous; considerable time may have elapsed since the alleged use.

3. Following discussion in the Compliance Measures Group it is clear that further clarification is required of the situations which might warrant an "allegation of use" investigation. The following paragraphs seek to identify them and the specific arrangements which might be devised to address each type. It is understood that certain principles would apply as discussed in the paper on On-Site Measures.

(i) Allegation of use on territory of requesting State Party with or without identifying another State Party as an alleged perpetrator.

- All State Parties could have the right to request such an investigation.

- They could need to make a case that the outbreak of disease in question clearly warranted investigation under the auspices of the BWC.

- They could be required to cite epidemiological data in support of their request. In the case of a request alleging involvement by another State Party additional supporting information could be needed to demonstrate a compliance concern. Further consideration was needed on the nature of this additional information.

- Even a request not naming a State Party might eventually lead to an allegation against a State Party, and could be subject to some form of screening. A request naming a State Party would be more sensitive and could be subject to more careful screening, including independent epidemiological

advice, and other considerations. Further consideration was needed on the exact procedures in both cases which might be involved.

- The area of investigation could not be confined to a specific facility, and could involve tools other than those which might be used in investigating a compliance concern at a facility, including, specifically, medical examination and environmental sampling.

- The State Party could use the report of an alleged use investigation as an element in making any further request for action under the BWC compliance regime.

(ii) Allegation of use on territory of another State Party

- There are different views on whether a State Party will have the right to request such an investigation, and on the relationship between this and an investigation to address a compliance concern.

- Any such request could need to be supported by relevant evidence including epidemiological data. But it is unlikely that access to reliable epidemiological data would be available or that it could in itself provide conclusive grounds for such a request being approved. Additional material would need to be presented in support of the request. Further consideration was needed on the nature of this additional information, and on how to ensure maximum objectivity.

- The request could be subject to a thorough screening procedure, including technical and political screening. Bilateral consultation and clarification could be important. Further consideration was needed on the exact procedures which might be involved.

- The area of investigation could not be confined to a specific facility, and could involve tools other than those which might be used in investigating a compliance concern at a facility, including, specifically, medical examination and environmental sampling. But it was noted that the use of the latter tools was sensitive. Further consideration was needed.

- The State Party could use the report of an alleged use investigation as an element in making any further request for action under the BWC compliance regime.

- Further consideration was required of the specific situations in which such an investigation might be requested, including, as in the previous example, any differences if the request did not name another State Party as a perpetrator.

4. At an earlier discussion the following outlines for requesting investigation into alleged use were considered.

(A) INITIATION

Any State Party to a legally binding instrument could be entitled to request an investigation of alleged use.

Key questions are identified below.

Commentary

5. The precedent of similar Conventions or international regimes suggests that only States Parties normally have the authority to request an investigation of alleged use. In this case, it would presumably be only States Parties who had also ratified the legally binding protocol. Further consideration needs to be given to the issue of whether individuals or NGOs should be allowed to approach a future BWC secretariat to request an investigation. One option might include a provision to enable an approach to be made directly, or through another international organisation such as the WHO or FAO or through a State Party.

6. Two possible situations were distinguished; (1) where a State Party might want to request an investigation on its own territory and (2) where a State Party might want to request an investigation outside its own territory. For an investigation to take place, the consent of the inspected State would be a prerequisite.

States Parties should be mindful of their obligations under Article V of the BWC where they are committed to consult with one another and cooperate in solving any problems which may arise in relation to the Convention.

Any allegation should be accompanied by supporting information.

Commentary

7. Sufficient information would need to be submitted to support the request. Such information would help provide a focus and define the scope for any subsequent investigation. Requesting States Parties could be obliged to submit information on a wide range of relevant topics. Much would depend on the specific circumstances. A request would need to contain at least some minimum amount of detail. Some specific details might be required. Article VI of the BWC, notes that any complaint about compliance submitted to the United Nations Security Council should include all possible evidence confirming its validity.

States Parties could submit information, to the extent possible, on the following:

- **the State Party on whose territory alleged use of biological and toxin weapons may have occurred;**

- **the location and characteristics of the areas in which biological or toxin weapons may have been allegedly used; the location name and geographic co-ordinates; and the identification of the location in relation to another known location (by direction and distance);**

- **characteristics of the site(s): nature of the terrain and accessibility of the site; whether military or civil (city, rural area, town, buildings affected);**

- **meteorological conditions;**

- **the moment of the alleged use;**

- **types of biological and toxin weapons allegedly used;**

- **extent of alleged use;**

- **characteristics of the biological and toxin agents allegedly used; preliminary identification;**

- **effects on humans; estimated number of fatalities; number of hospitalized victims; signs and symptoms at the time of attack; delayed onset;**

- **effects on animals: signs and symptoms;**

- **effects on vegetation;**

- **types of samples identified in situ, including any unexploded munitions or remnants of munitions;**

- **types of samples analyzed; results of available analyses;**

- **request for specific assistance (medical and technical) as applicable;**

- **indication of equipment, installations and assistance available for a team of investigators.**

Commentary

8. The above suggestions are taken from United Nations, CWC procedures and proposals made to the Ad Hoc Group. States Parties would not have to meet all of these information requirements before an investigation could proceed.

(B) MEASURES TO GUARD AGAINST ABUSE

Provisions would be necessary to guard against the possibility that an outbreak of disease was deliberately misrepresented as an alleged use in order to initiate international investigation procedures, thereby abusing the regime.

Possibilities include;

(i) requirement to provide sufficient information;

(ii) a (technical/scientific) screening mechanism;

(iii) a (political) decision making/approval process;

(iv) a combination of (ii) and (iii);

But there is likely to be a requirement for urgency in deciding whether to proceed with an investigation.

Commentary

9. A requirement to submit sufficient information in support of a request should help reduce the risk of frivolous or abusive requests. The role of a technical screening body to evaluate the submitted evidence might also be a useful mechanism for filtering unwarranted requests. The composition of such a body would need to be considered as would its decision making procedures. Approval procedures for permitting an investigation to proceed needs further consideration. However, the elaboration of any such system would need to keep in mind the requirement for timely investigations: a long review and evaluation process could well undermine the effectiveness of any investigation procedures.

10. As noted above, the consent of the inspected State is a prerequisite for an investigation to take place. A State Party to any future legally binding instrument would presumably have accepted the obligations contained in it.

11. There would need to be arrangements for evaluating the results of any investigation to see whether the request had in fact been abusive, and consideration given to any follow-up action.

(C) IMPLEMENTATION

Investigations need to be carried out by impartial and qualified personnel. Any new BWC inspectorate that might be created could become the body primarily responsible for carrying out an investigation.

The creation and maintenance of an international register of persons/centres with specific epidemiological or other relevant expertise could be useful for the rapid provision of specialised expertise for investigations of alleged use.

The investigative team should be able to use the full range of on-site measures identified by VEREX, including medical examination, in carrying out its investigation.

Commentary

12. Detailed technical guidelines for the conduct of investigation of alleged use are already available in procedures prepared for the United Nations Secretary-General. The procedures outlined in Part XI of the CWC's Verification Annex may also be relevant in the BW context:

(i) Access

13. The investigative team could be given access to all areas which could be affected by the alleged use of biological or toxin weapons. The team could have a right of access to hospitals, refugee camps and other places it considers convenient for the effective investigation of the alleged use. Managed access procedures may be required in specific circumstances, but these would need to be applied without preventing an inspection team fulfilling its mandate.

(ii) Collection of Samples

14. The investigative team could have the right to collect samples in types and quantities it deems necessary. Adequate control samples should be taken in areas near the place of the alleged use. Samples important in such investigations include: munitions and devices, remnants of munitions and devices, environmental samples (air, soil, flora, water, snow) and biomedical samples of human or animal origin. Care would need to be taken to avoid contamination of samples; records and appropriate identification numbers would need to be made for each sample; care would need to be taken for sample preservation during transport. A legal chain of custody would be essential for preserving the integrity of the sample collection and analytical process.

(iii) Extension of the investigation area

15. If during an investigation, the team considers it necessary to extend the investigation to a neighbouring State Party the United Nations Secretary-General or Director of the BW Secretariat as appropriate could notify that State Party of the need to have access to its territory. The extent of any such access would need to be agreed between the parties involved.

(iv) Extension of the inspection period

16. Should the team consider that safe access to a specific zone pertinent for the investigation is not possible, the requesting State Party would need to be informed immediately. If necessary, the inspection period could be extended until access under safe conditions can be provided and the team will have concluded its mission.

(v) Interviews

17. The investigating team should be entitled to interview and examine those persons that could have been affected by the alleged use of biological and toxin weapons. It would also have the right to interview eye witnesses on the alleged use of biological or toxin weapons.

(vi) Medical Examination

18. Medical examination would be important. The Inspection team could also have the right to interview medical personnel and other persons who may have treated or may have been in touch with those who could have been affected by the alleged use. The team could have access to medical records, if available, and could be allowed to participate in the autopsies of those people who might have been affected by the alleged use.

National authorities should conduct their own independent investigation.

Commentary

19. Particularly where the alleged use takes place on the territory of the requesting State Party, the national authorities of that State will presumably be involved and may conduct their own investigation. They should, however ensure that any international investigation is able to complete its task effectively and that the necessary support and assistance is provided. Any international investigation should not obstruct a national investigation. Similarly, any national investigation should not obstruct the (international) investigation. In this context Article VI (2) of the BWC are relevant; namely each State Party has an obligation to co-operate in any compliance investigation initiated by the Security Council. It may be for National Authorities to conduct an investigation, only seeking international assistance when needed.

(D) REPORTS AND JUDGEMENT

The investigative team's report should give a full account of its investigations and factual conclusions.

Commentary

20. Care needs to be taken in reaching any judgement especially if it is possible that an endemic disease could be responsible. Investigative epidemiology would be a useful tool. Three factors would be particularly important: normal and epidemic disease incidents; demographic parameters, and vaccine purchase and usage. Conclusions will need to be drawn on the basis of the material in the investigative team's report. Further consideration is required of how this should be done.

21. The report might need to make recommendations on any technical or humanitarian assistance needed by the requesting State Party.

22. In the event that the team obtains during its investigation any information which may be useful in identifying the origin of any employed biological or toxin weapon, such information would need to be included in the report.

23. There was also discussion of the issues raised in the following two papers.

This paper is without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the paper.

ALLEGATIONS OF OTHER INCIDENTS POSSIBLY REQUIRING SIMILAR INVESTIGATION (I.E. ACCIDENTAL RELEASE/TEST)

- There were different views on whether this should be included as a separate element in the compliance regime. It was argued that it could be part of the investigation of alleged use procedures, or part of the procedures to investigate a compliance concern, or that it had no place in the regime.

- Access to reliable epidemiological evidence would probably be difficult to obtain and therefore insufficient to substantiate a request. Additional grounds would need to be presented to demonstrate a compliance concern. Further consideration was needed on the nature of the additional information.

- It was noted that this type of investigation could be a category of investigation to address a compliance concern ("challenge inspection"), although it was noted that the inspection tools and area could be different.

- A request could be subject to a thorough political and technical screening procedure. Bilateral consultation and clarification could be important. Further consideration was needed on the exact procedures which might be involved.

- Further consideration was needed on whether the area of investigation should be limited to a specific facility or not, and whether it would involve tools other than those which might be used in investigating a compliance concern at a facility, including, specifically, medical examination and environmental sampling.

This paper is without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the paper.

UNUSUAL OUTBREAKS

- There were different views on whether this should be included as an element in the compliance regime. It was argued that it could have a place in the investigation of alleged use procedures, or that it had no place in the regime.

- Given the primary role of national authorities, investigation of unusual outbreaks could not be expected to be of immediate concern to the compliance regime.

- But States Parties could pursue any concerns about an unusual outbreak bilaterally and through other means, keeping in view national investigations.

- Any report suggesting that an unusual outbreak did not have a natural origin could be presented in support of a request for action under one of the categories described above.

- Further discussion was needed on the relationship between unusual outbreaks and declarations, and on any links with Article X measures.

FRIEND OF THE CHAIR ON DEFINITIONS OF TERMS AND OBJECTIVE CRITERIA

These papers are without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and do not imply agreement on the scope or content of the papers.

Human Pathogens

The following list of human pathogens and toxins was discussed by the Group and recognized to be relevant for developing a list or lists of bacteriological (biological) agents and toxins for specific measures to strengthen the Convention:

Viruses

1. Crimean-Congo haemorragic fever virus
2. Chikungunya virus
3. Eastern encephalitis virus
4. Ebola virus
5. Hantavirus
6. Japanese encephalitis virus
7. Junin virus
8. Lassa fever virus
9. *Machupo virus*
10. Marburg virus
11. Rift Valley Virus
12. Tick-borne encephalitis virus (Russian spring-summer encephalitis virus)
13. Variola virus (Smallpox virus)
14. Venezuelan encephalitis virus
15. Western encephalitis virus
16. Yellow fever virus

Bacteria

1. Bacillus anthracis
2. Brucella spp
3. Chlamydia psittaci
4. Clostridium botulinum
5. Francisella tularensis (tularemia)
6. Pseudomonas (Burkholderia) mallei
7. Pseudomonas (Burkholderia) pseudomallei
8. Yersinia pestis

Rickettsiae

1. Coxiella burnetti
2. Rickettsia prowazekii
3. Rickettsia rickettsii

Fungi

1. Histoplasma capsulatum (incl. var duboisii)

Toxins

1. Abrin (A. precatorius)
2. Botulinum toxins (Clostridium botulinum)
3. Clostridium perfringens (tox)
4. Corynebacterium diphteriae (tox)
5. Cyanginosins (Microcystins) (Microcystis aeruginosa)
6. Enterotoxins (Staphylococcus aureus)
7. Neurotoxin (Shigella dysenteriae)
8. Ricin (Ricinus communis)
9. Saxitoxin (Ganyaulax catanella)
10. Shigatoxin
11. Tetanus toxin (Clostridium tetani)
12. Tetrodotoxin (Spheroides rufripes)
13. Trichothecene mycotoxins
14. Verrucologen (Myrothecium verrucaria)

Criteria for human pathogens and toxins

The following criteria, which are proposed to be used in combination, were discussed by the Group and recognized to be potentially useful for development of a list of human pathogens and toxins in support of specific measures:

1. Agents known to have been developed, produced, stockpiled or used as weapon;

2. Low infection dose or high toxicity;

3. High level of morbidity;

4. High level of contagiousness in population;

5. Infection or intoxication by respiratory route;

6. High level of incapacity or mortality;

7. No effective prophylaxis (i.e. immune sera, vaccines, antibiotics) and/or therapy commonly available and widely in use;

8. Stability in the environment;

9. Difficulty of detection or identification;

10. Ease of production.

Definition of some terms:

morbidity:	ratio of sick to healthy persons;
contagiousness:	capability to be communicable;
incapacity:	lack of physical or intellectual power;
mortality:	ratio of dead to sick persons.

Animal pathogens

The following list of animal pathogens was discussed by the Group for further consideration with a view to developing a future list or lists of bacteriological (biological) agents and toxins, where relevant, for specific measures designed to strengthen the Convention:

1. African swine fever virus
2. Avian influenza virus (Fowl plague virus)
3. Bluetongue virus
4. Camel pox virus
5. Classic swine fever virus
6. Contagious bovine (pleuropneumonia)/Mycoplasma mycoides var. mycoides
7. Contagious caprine (pleuropneumonia)/Mycoplasma mycoides var. capri
8. Foot and mouth virus
9. Herpes B virus (monkey)
10. Hog cholera virus
11. Newcastle disease virus
12. Peste des petits ruminants virus
13. Porcine enterovirus type 9
14. Rabies virus
15. Rinderpest virus (Cattle plague virus)
16. Sheep pox virus
17. Teschen disease virus
18. Vesicular stomatitis virus

Criteria for animal pathogens

The following criteria were discussed by the Group and may be used in combination for selection of animal pathogens to be included in a list of bacteriological (biological) agents and toxins:

1. Agents known to have been developed, produced or used as weapons;

2. Agents which have severe socio-economic and/or significant adverse human health impacts to be evaluated against a combination of the following criteria:

   a) High morbidity and/or mortality rates;

   b) Short incubation period and/or difficult to diagnose/identify at an early stage;

   c) High transmissibility and/or contagiousness;

   d) Lack of availability of cost effective protection/treatment;

   e) Low infective/toxic dose;

   f) Stability in the environment;

   g) Ease of production;

Definition of selected terms:

"Morbidity" - the ratio of sick to healthy animals.

"Mortality" - ratio of dead to sick animals.

"Contagiousness" - capability to be communicable from a sick to healthy animal.

"Stability in the environment" - ability of the agent to retain its properties and resist temperature, humidity and insolation.

"Infective dose" - the smallest quantity of the agent which infects animals.

Plant pathogens

The following list of plant pathogens was discussed by the Group for further consideration with a view to developing a future list or lists of bacteriological (biological) agents and toxins, where relevant, for specific measures designed to strengthen the Convention:

1. Citrus greening disease bacteria
2. Colletotrichum coffeanum var. Virulans
3. Chochliobolus miyabeanus
4. Dothistroma pini (Scirrhia pini)
5. Erwinia amylovora
6. Microcyclus ulei
7. Phytophthora infestans
8. Pseudomonas solanacearum
9. Puccinia erianthi
10. Puccinia graminis
11. Puccinia striiformiis (Puccinia glumarum)
12. Pyricularia oryzae
13. Sugar cane Fiji disease virus
14. Tilletia indica
15. Ustilago maydis
16. Xanthomonas albilineans
17. Xanthomonas campestris pv citri
18. Xanthomonas campestris pv oryzae

Criteria for plant pathogens

The following criteria were discussed by the Group and may be used in combination for nomination of plant pathogens to be included in a potential list of bacteriological (biological) agents and toxins:

1. Agents known to have been developed, produced or used as weapons.

2. Agents which have severe socio-economic and/or significant adverse human health impacts, due to their effect on staple crops[1/], to be evaluated against a combination of the following criteria:

   a) Ease of dissemination (wind, insects, water, etc.);

   b) Short incubation period and/or difficult to diagnose/identify at an early stage;

   c) Ease of production;

   d) Stability in the environment;

   e) Lack of availability of cost-effective protection/treatment;

   f) Low infective dose;

   g) High infectivity;

   h) Short life cycle.

Definition of selected terms:

"Infective dose" - the smallest quantity of the agent which infects plants.

"Stability in the environment" - ability of the agent to retain its properties and resist temperature, humidity and insolation.

"Infectivity" - ratio of infected plants to the total number of plants exposed.

[1/] Staple crops: a description/definition will need to be developed for the purposes of the BWC drawing from usage in relevant international bodies, eg. FAO, WTO.

Threshold quantities

During consideration of the issue of threshold quantities of biological agents and toxins, one proposal was that a quantity of 5 kg. of one type of biological agent or toxin should be used as a threshold for activities related to evaluation of the efficiency of means of protection against biological weapons. Alternative views were that such a quantitative approach could not be used as a threshold in declaration triggers for work on listed agents. Another view was that there would be a need to specify different thresholds for different agents.

Another view was that limiting the quantities was not useful since the quantities could be rapidly increased.

An opinion was expressed that the issue of establishing thresholds for toxins could be addressed separately.

Summary of views on equipment

The Friend of the Chair prepared the following list of key equipment based on inputs from various delegations:

1. Aerosol test chambers (Maximum Containment ...)
2. Aerosol analyzers (special ...)
3. Aerosol filling equipment (special ...)
4. Aerosol dissemination equipment (special ...)
5. Aggregate fermenters (with specific characteristics)
6. High speed self-sterilizable centrifugal separators or decanters for continuous or semi-continuous operation (with a capacity of more than a certain volume)
7. Lyophilizators (with a capacity of more than a certain volume)
8. Microencapsulation equipment (special ...)
9. Ultrafiltration equipment (with a capacity of more than a certain volume)
10. Biological safety cabinets (Class .../.../...) or flexible isolators

A view was held that this list was potentially useful for supporting mandatory declarations.

Another view was that it could be used as an illustrative list of key equipment for the purposes of inspection.

Suggestions have also been made that facilities at the biosafety levels of BL3 and BL4 need to be discussed as requirements for triggering specific measures.

Different views were expressed by the delegations about the utility, types, parameters and characteristics of the above equipment and there was a general feeling that more consideration should be given to these issues during further discussion by the Group.

Definition of terms

There was a general understanding that definition of terms was needed for some terms, particularly technical terms, in connection with specific measures. Some terms which were proposed in the Group to be defined were as follows:

1. Genetic modification or manipulation
2. Military medical programme
3. Biological defence programme
4. Biological defence facility
5. Diagnostic facility
6. Military related biodefence programme
7. BL3
8. Work with biological agents and toxins
9. Vaccine
10. Production capability
11. Facility
12. Site

It was also understood that some priority should be given to definition of the following terms:

1. Biological defence programme
2. Military related biodefence programme
3. Work with biological agents and toxins
4. BL3

The definitions of the following terms are the outcome of informal consultations with the delegations and may serve as a basis for consideration of the Group.

Definitions:

1. A number of terms have been proposed as requiring definition. It was agreed that it would be useful to have certain terms defined to assist the work of the Compliance Measures Group. The Group had an initial discussion of the following terms, which were considered without prejudice to the question of whether they would eventually be included in a future legally binding instrument in the context of specific measures to strengthen the Convention.

(A) **Biological Defence Programme**

The following elements might need to be discussed in considering a definition:

- Objective/purpose of a biological defence programme. This could be defined as removing or weakening the effects of biological weapons. Another possible formulation would be protection against use of microbial or other agents or toxins for hostile purposes or in armed conflict.

- The role in the programme of prophylaxis, treatment, detection, identification and decontamination.

- Activities which might be considered as part of a biological defence programme. These might include, for example, research, development, testing, evaluation and production.

- Activities which should be excluded from this definition. These might include, for example, activities aimed at dealing with epidemics or containing infection.

(B) **Work with Listed Agents**

3. The following elements might need to be discussed in considering a definition:

- Does "work with" include:

  - aerobiology
  - production
  - genetic modification
  - studying the properties of agents

- development of methods for detection, prophylaxis, treatment

- maintaining culture collections

(C) **Other terms proposed for definition**

- Genetic modification or manipulation
- Biological defence facility
- Vaccine
- Military medical programme
- Diagnostic facility
- Military related biodefence programme
- BL3
- Production capability
- Facility
- Site

Some proposals for definitions, for the consideration of delegations, are attached as follows:

(Attachment)

A. **Biological Defence Programme**

Activities related to protection against the use of microbial or other biological agents or toxins for hostile purposes or in armed conflict which are as follows:

1. Development, production and implementation of method for prophylaxis, treatment, diagnosis and epidemiological studies of infectious diseases caused by listed agents.

2. Development and evaluation of methods of physical protection and related equipment (such as protection suits).

3. Study and evaluation of technics and equipment for detection, identification and isolation of listed agents.

4. Studies of isolation and decontamination of sources and areas contaminated by listed agents.

B. **Military Medical Programme**:

Spacial medical programme on protection from diseases or injury to ensure physical and psychological health of military personnel, including prophylaxis and treatment programme on weapons injury (including biological weapons), military public health programme under special environment (such as hotness, cold, highland or jungle etc.), military programme against infectious and usual diseases, programme of medical services, etc.

C. **Diagnostic Facility**

The facility which is to carry out biological operation only for the purpose of isolation, diagnosis and identification of micro organisms and toxins, including the production of the reagents, which are related to the diagnosis, such as antigens and antibodies.

D. **Military related biodefence programme**

The biological defense programme for military purposes.

E. **Work with listed agents and toxins**

Any manipulations with them, inter alia in such fields as maintaining culture collections, examining the properties of listed agents and toxins, development of methods and means of

their detection of profilaxis as well as in the field of production, aerobiology, genetic modification and toxinology.

F. **Biosafety level 3, i.e. BL.3**

These practices, safety equipment and facilities are applicable to clinical diagnostics, teaching research or production facilities in which work is done with risk group III agents where the potential for infection by consequences. Personnel are required to have specific training in work with these agents and to be supervised by scientists experienced in these kinds of microbiology, immunology. Specially designed laboratories and precautions including the use of safety cabinets of class III and HEPAFILTER are prescribed and the access is strictly controlled.

G. **Vaccine**

"Vaccine" means a preparation which, when introduced into an organism, (is intended to induce) (induces) in it an active immune response.

H. **Genetic modification**

"Genetic modification" means any directed activity aimed at changing genetic material in order to confer new or enhanced properties on it.

I. **Unit**

"Unit" means the combination of those items of equipment necessary for the development, production (processing) and stockpiling of biologically active materials, or for biological defence programmes.

J. **Site**

"Site" means an area, structure or building containing one or more "units" with auxiliary and associated infrastructure.

K. **Facility**

"Facility" means any "site" or "unit".

FRIEND OF THE CHAIR ON ARTICLE X

These papers are without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and do not imply agreement on the scope or content of the papers.

ELEMENTS FOR STRUCTURED DISCUSSIONS ON ARTICLE X ON THE BWC

In order to facilitate a structured discussion on Article X of the Biological Weapons Convention regarding peaceful uses in the field of bacteriological (biological) activities, the following are some possible elements for consideration.

I. GENERAL REMARKS ABOUT ARTICLE X

1. Article X is an integral part of the BWC and should not be separated, in its application, from that context.

2. Article X is one of the four equally important areas singled out in the mandate of the Ad Hoc Group, leading towards the objective of strengthening the effectiveness and improving the implementation of the Convention.

3. Article X is an essential element in the overall balance of the Convention, with its mutually reinforcing objectives of eliminating biological weapons and facilitating the fullest possible exchange of biological technology for peaceful purposes.

4. Article X has a promotional aspect and a regulatory aspect, respectively reflected in its two sections, which must be addressed comprehensively.

5. Agreeing to consider specific measures designed to ensure effective and full implementation of Article X does not imply that the Parties to the BWC conclude Article X is presently not fully implemented.

6. Article X has a fundamental role to play in shaping a compliance regime for the BWC.

II. MANDATE

In this context, (considering appropriate measures, including possible verification measures, and draft proposals, to strengthen the Convention) the Ad Hoc Group shall, inter alia, consider:

"Specific measures" designed to ensure effective and full implementation of Article X, which also avoid any restrictions incompatible with the obligations undertaken under the Convention, noting that the provisions of the Convention should not be used to impose restrictions and limitations on the transfer for purposes consistent with the objectives and provisions of the Convention of scientific knowledge, technology, equipment and materials.

Measures should be formulated and implemented in a manner designed to protect sensitive commercial proprietary information and legitimate national security needs.

Measures shall be formulated and implemented in a manner designated to avoid any negative impact on scientific research, international cooperation and industrial development.

In undertaking its task, the Ad Hoc Group will take into account all Working Papers, Summary Records, and all other relevant material presented to the Special Conference, as contained in its Final Report.

III. INTERNATIONAL CONTEXT OF A COMPLIANCE REGIME FOR THE BWC

In designing a compliance regime for the biological area, the following factors could be taken into account:

1. the relative simplicity and worldwide diffusion of several technologies potentially relevant for biological warfare (BW);

2. the important civilian applications of most of the relevant equipments, technologies and agents;

3. the large number of facilities, activities and equipment which have potential BW application and which probably could not be excluded from the scope of the compliance measures;

4. the fact that, for a great number of countries, biological disarmament and non-proliferation are considered low-priority issues, especially if compared with public health problems, which sometimes compete for the same scarce resources.

IV. SCOPE AND CONTENT OF POSSIBLE SCIENTIFIC AND TECHNICAL EXCHANGES

1. Transfer and exchange of information concerning research programmes in biosciences:

(a) Exchange of data, including name, location, scope and general description of activities on research centres and laboratories.

(b) Wider transfer and exchange of information, materials and equipment among States on a systematic and long-term basis.

(c) Coordination of national and regional programmes and working out in an appropriate manner the ways and means of cooperation in this field.

(d) Coordination in providing information on national epidemiological surveillance and data reporting systems.

2. Active promotion of professional contacts between scientists and technical personnel, on a reciprocal basis, in relevant fields, through the following:

(a) Planned international conferences, seminar, symposia and similar events dealing with biological research directly related to the Convention.

(b) Lectures on scientific and technical questions of interest by qualified experts from the public and private sectors of participating States Parties.

(c) Visiting internships in fields of biological research directly related to the Convention.

(d) Other opportunities for exchange of scientists, joint research projects or other measures to promote contacts between scientists and technical personnel engaged in research directly related to the Convention.

3. Encouragement of publication of results of biological research directly related to the Convention in scientific journals generally available to States Parties, as well as promotion of use for permitted purposes of knowledge gained in this research.

(a) Basic research in biosciences, and particularly that directly related to the Convention, should be unclassified, as a general rule.

(b) To the extent possible and without infringing national and commercial interests, applied research should also be unclassified.

(c) States Parties are encouraged to provide information on their policy as regards publication of results of biological research.

(d) States Parties should provide information on relevant scientific journals and other relevant scientific publications generally available to States Parties.

4. Increased level of technical cooperation and assistance.

(a) Training programmes to developing countries in the use of biosciences and genetic engineering for peaceful purposes.

(b) Support for the establishment, operation and updating of biological databases.

(c) Assistance in the preparation of declarations and reports required or relevant to the Convention.

(d) Training of national authorities in areas such as biosafety, diagnosis, identification of agents, development and production of vaccines.

(e) Technical assistance for the gradual upgrading of national biological safety practices to reach multilaterally agreed standards.

5. Greater cooperation in international public health and disease control.

(a) Cooperation on a bilateral level and/or in conjunction with the World Health Organization (WHO), the International Office of Epizootics (IOE) and the Food and Agriculture Organization (FAO) regarding epidemiological surveillance, with a view to improvements in the identification and timely reporting of significant outbreaks of human and animal diseases.

(b) Identification of further needs in the field of public health and development of epidemiological methods and procedures which may be applied in individual countries in order to meet those needs.

(c) Examination of the need for the elaboration of an international programme of vaccine development for the prevention of diseases involving scientific and technical personnel from developing countries which are Parties to the Convention.

V. POSSIBLE INSTITUTIONAL ARRANGEMENTS

1. World Data Bank, under the supervision of the United Nations, entrusted with facilitating the flow of information in the fields of genetic engineering, biotechnology and other scientific developments. The WDB would solicit, collect and make available, data appropriate for various technological levels on Good

Manufacturing Practices (GMP), safe laboratory procedures, biological containment, product standards, quality control, new or developing biotechnology methods and products and their potential applications in order to supplement existing data banks and further disseminate knowledge.

2. Inclusion in the agenda of a relevant United Nations body of the ways and means to improve existing institutional mechanisms in order to facilitate the fullest possible exchange of equipment, materials and scientific and technological information regarding the peaceful use of biological agents and toxins. Coordination to that end with United Nations specialized agencies and other international organizations, including FAO, WHO, UNESCO, WIPO, UNIDO, UNEP, etc. (a tentative suggestion would be to allocate the leading role to the Commission for Sustainable Development).

3. Active association with the International Centre for Genetic Engineering and Biotechnology (ICGEB) which could carry on training programmes, exchanges and information activities, with the proviso that the benefits would be limited to States Parties of the Convention.

VI. POSSIBLE ADDITIONAL WAYS AND MEANS TO ENHANCE INTERNATIONAL COOPERATION

1. Facilitating the conclusion of bilateral, regional and multiregional agreements providing, on a mutually advantageous, equal and non-discriminatory basis, for their participation in the development and application of biotechnology.

2. Use of existing institutional means within the United Nations system and the full utilization of the possibilities provided by the specialized agencies and other international organizations.

3. Providing information on existing intergovernmental agreements that are relevant to the commitments made by States Parties to the Convention regarding or relevant to Article X.

4. Acknowledging activities that provide preferential or exclusive benefits to States Parties in good standing under the BWC, registering and supporting appropriate external international programmes.

5. Network for Exchange of Epidemiologic Data (NEED): Electronic network for rapid reporting of disease outbreaks, including human, animal and plant diseases, with review by experts providing analysis and assistance,

may be directly applicable to measures which will strengthen the BWC. This network could be part of the existing PROMED system.

VII. FINANCIAL ARRANGEMENTS

1. Full exploration of existing multilateral resources (through the establishment of working relationships with multilateral organizations such as WHO, OIE, FAO and regional bodies which already possess considerable expertise in the surveillance, prevention and control of infectious diseases).

2. Further consideration of the financial implications of the possible establishment of an independent organization or an organization associated to the CWCO which could be entrusted inter alia with Article X functions.

3. The provision of a framework through which donor countries could provide voluntary contributions and assistance.

4. A Special Fund could be established for contributions intended to implement data collection, exchanges, and for the upgrading of biosafety practices.

5. Bilateral or multilateral arrangements developed between donor and recipient countries in order to meet the cost of exchanges.

VIII. SCIENTIFIC AREAS WHICH COULD BE PROMISING FOR COOPERATION UNDER ARTICLE X

1. Cooperative efforts by developed and developing countries in order to promote international cooperation in the field of peaceful activities in such areas as medicine, public health and agriculture.

2. One of the fields of cooperation in microbiology would be the study of the influence of enhanced radioactivity on microorganisms aimed at reducing its potentially harmful effects on humans, plants and animals, to be carried out within the United Nations Programme for minimization of the consequences of the Chernobyl accident.

3. Agricultural biotechnology, food production and enhancement and improvement in nutritional values due to genetic developments should be considered as useful areas for cooperative efforts.

4. Development of techniques for identification of agents and diagnostics.

IX. REPORTING, ADMINISTRATIVE AND REVIEW PROCEDURES

1. Annual report of the Secretary-General of the United Nations, on the implementation of Article X, collated from national reports submitted to the United Nations Centre for Disarmament Affairs.

2. Analysis of the Secretary-General's report by the Convention's Review Conferences, intersessional and consultative mechanisms.

X. SAFEGUARDS AND LIMITATIONS

1. States Parties should refrain from any discriminatory practices that may hamper the international peaceful cooperation in bioscience and in related and applied research, as well as international trade in related goods and equipment, consistent with the objectives and provisions of the Convention.

2. States Parties should ensure that a review of facilities intended to be used for scientific and technical exchanges be made before the initiation of an exchange to verify that all safety and immunization measures can be implemented to protect the personnel and the environment.

3. States Parties should comply with legislation and administrative measures designed for the security and physical protection of research centres, laboratories and facilities intended to be used for scientific and technical exchanges, and to prevent unauthorized access to and removal of pathogenic or toxic material.

XI. RELATIONSHIP BETWEEN ARTICLE X AND OTHER ARTICLES OF THE BWC

Articles I and III

1. Article III regulates the transfer, assistance, encouragement or inducement of acquisition of the agents, toxins, weapons, equipment or means of delivery banned by Article I.

(a) Article III is sufficiently comprehensive so as to cover any recipient whatsoever at international, national or sub-national levels.

(b) Transfers relevant to the Convention should be authorized only when the intended use is for purposes not prohibited under the Convention.

(c) The implementation of this Article with respect to such transfers should continue to be the subject of multilateral consideration.

(d) The provisions of this Article should not be used to impose restrictions and/or limitations on the transfer for purposes consistent with the objectives and the provisions of the Convention of scientific knowledge, technology, equipment and materials to States Parties.

(e) The proposal to replace export controls on dual-use items with non-discriminatory reporting of transfers of critical items requires further consideration.

Article V

2. Article V regulates consultation and cooperation in relation to the objective of, or in the application of the provisions of, the Convention.

(a) A number of Confidence-building measures adopted pursuant to Article V must also be considered measures to promote Article X, with certain focusing (CBM "A" Part 1, CBM "B", CBM "C", CBM "D", and to a certain extent CBMs E' F and G).

(b) When recommending their adoption, the Review Conference uses the wording "Mindful of Articles V and X".

Article VII

3. Article VII contains the obligation of support assistance to Parties exposed to danger as a result of violations of the Convention.

A proposal has been put forward to include in a future BWC compliance protocol a provision of the nature of Article X of the Chemical Weapons Convention, stipulating that each State Party would be under binding obligation to provide assistance directly or through a BWC organization in areas such as detection, protective or decontamination equipment or medical treatments to States Parties threatened or injured by biological weapons.

XII. ROLE OF ARTICLE X WITHIN A COMPLIANCE ASSURANCE REGIME

1. The aim of an effective compliance regime for the BWC must be to strengthen the web of deterrence and to help provide incentives for the peaceful use and international cooperation in biosciences.

(a) The effectiveness of such a regime will be considerably enhanced if there is uncertainty in the minds of potential aggressors that illegal activities will escape detection.

(b) This uncertainty can be achieved by building a high degree of flexibility into the options available to those implementing the regime.

(c) Such flexibility requires the increased transparency of activities and facilities of relevance to the Convention which can be gathered from national declarations and Article X type exchanges, as well as through other measures.

(d) Information obtained from national declarations can be supplemented by other information available from analysis of publications, contacts between scientists and technical personnel, assessment of joint projects and generally through the national pattern built up over time in the process of international cooperation.

2. Cooperative measures under Article X would also help the States Parties to draw a clearer picture of relevant biological activity in each State Party.

(a) Some of the cooperative measures could be implemented in connection with validation or information visits, during which information may be gathered on biotechnological activities at one or several geographically close facilities.

(b) Validation or information visits could be preceded by regional or national seminars on implementation of the BWC, conduct of inspections, biosafety, identification of agents, diagnostics, vaccine production, etc., organized in conjunction with other multilateral organizations.

(c) Such pattern of activity has the advantage of involving a large number of companies in the private sector, as well as research and production institutions, with compliance activities, while

keeping to a minimum the element of intrusion and minimizing the risk of breach of CPI or national security requirements.

3. Specific measures designed to ensure effective and full implementation of Article X can also play a useful role in developing a compliance assurance regime.

(a) Attention should be devoted to the modalities of the exchange of information in order to enhance its compliance ingredients.

(b) Emphasis on the study of deviant patterns, on particular interests of the BWC and on the comparative advantages of the Convention's framework to deal with a matter pertaining to Article X, rather than entrusting it to a global programme.

(c) Attention should also be devoted to technologies endowed with the capabilities of benefitting States Parties in Article X areas and supporting BWC compliance (i.e. Vaccine for Peace International Programme).

FURTHER NOTES ON THE ELEMENTS FOR STRUCTURED DISCUSSION ON ARTICLE X

This paper does not substitute, modify or improve the Working Paper (BWC/AD HOC GROUP/28) submitted by the FOC on Article X during the July meeting. It is rather an attempt to reflect the discussion on the paper and to anticipate potential difficulties, as well as specific items where further analysis is required. Modalities and procedures are suggested in order to deal with some of those items due to their complexity or, in other cases, to their overlapping with matters being considered in other fora, or in other working groups of the Ad Hoc Group.

Emphasis has been placed so far on the terms of the mandate (specific measures to ensure effective and full implementation of Article X). The need to focus on a more specific range of activities and on "areas directly relevant to the Convention" has been stressed by many delegations. References were made to Article X as an essential element in the overall balance of the Convention, with its mutually reinforcing objectives of eliminating biological weapons and facilitating the fullest possible exchange of biological technology for peaceful purposes.

Paragraph IV (Scope and content of possible scientific and technical exchanges) was mentioned as requiring further examination in order to provide for the implementation of some of the measures described in those paragraphs. The items specified in the FOC included:

1. Transfer and exchange of information concerning research programmes in biosciences.

2. Active promotion of professional contacts between scientists and technical personnel, on a reciprocal basis, in relevant fields.

3. Encouragement of publication of results of biological research directly related to the Convention in scientific journals generally available to States Parties, as well as promotion of use for permitted purposes of knowledge gained in this research.

4. Increased level of technical cooperation and assistance.

There was some discussion of the suggestions also contained in paragraph IV, subparagraph 5 (Greater cooperation in international public health and disease control) as well as with regard to subparagraph 5 of paragraph VI (Network for Exchange of Epidemiological Data/NEED). These aspects relate to a substantial amount of current multilateral activity

highlighted by the delegation of the United Kingdom, in its paper (WP.7) and described in an informative note by the FOC (WP.23). The task of Strengthening the BWC through the enhancement of multilateral cooperation may require that the next Review Conference address the outstanding issues in some detail. The Review Conference may wish to take into account proposals made by non-governmental organisations, described in WP.23.

Specific items mentioned in IV.5 and VI.5 are within the competence of several international organisations (WHO, IOE and FAO) but it is the World Health Organisation that plays a primary role in the implementation of its International Health Regulations (IHR). The Ad Hoc Group of Scientific and Technical Experts convened by the BWC in 1987 recommended that States Parties should fully utilise existing reporting systems within WHO and apply the classification contained in the WHO Laboratory Biosafety Manual. The Third Review Conference of the BWC ratified these recommendations.

Given the fact that there is a system of double reporting of diseases and outbreaks due to toxins relevant to the BWC, and that WHO (jointly with IOE and FAO) receives a larger amount of information and possesses the expertise required to adequately process such information, there may be a case for establishing an office to handle declarations under the BWC, or to process existing WHO declarations in a manner relevant to the BWC, in a special office of the WHO. Such a proposal could be considered by the next World Health Assembly or some joint BWC/WHO meeting. However, when considering a decision to avoid double reporting, it is convenient to take due account of the fact that the obligation to report outbreaks of infectious diseases under the BWC is currently a CBM and could also be included as a compliance measure.

The same note of caution is applicable to the identification of further needs in the field of public health cooperation, the development of epidemiological methods and procedures and to the question of an international vaccine programme. The Informative Note (WP.23) described the various proposals made by non-governmental groups and both the Third BWC Review Conference and WHO have been generally supportive of some of these initiatives. A firm decision lies within the competence of the Fourth Review Conference but the above mentioned options (World Health Assembly and joint BWC/WHO meeting) are also worth considering.

A different perspective arises in connection with the concept of a Clearing-House for Article X purposes. The following aspects merit examination:

The value of databanks, including existing facilities such as the Global Bioinformatics Network (BINAS) and the specialised

network of the International Centre for Genetic Engineering and Biotechnology (ICGEBNET); the Clearing-House of the Biodiversity Convention at present in a pilot phase during 1996-97; and information which could be provided by the UN University (UNU) system of affiliated institutions, including its Programme for Biotechnology in Latin America and the Caribbean (UNU/BIOLAC).

New projects such as the Network for Exchange of Epidemiological Data (NEED) and a possible BWC Databank under United Nations tuition or otherwise, located in the ICGEB, providing information on safe laboratory procedures, bioproduct standards, biological containment, new or developing technologies and other services (Proposal from the Pugwash Workshop) require closer examination and differentiated treatment. While the NEED project should be examined together with the items in IV.5, the proposed BWC/ICGEB databank touches on the more complex issue of the pattern of cooperation between the BWC and the ICGEB and, more fundamentally, the issue of a BWC Organisation.

The United States (BWC/AD HOC GROUP/WP.25) recommended that States Parties establish INTERNET connectivity and indicated that numerous sources of relevance to the Convention were already available and were generally free of charge or requiring only a small access fee, in addition to the standard INTERNET services of electronic mail, file transfer and search applications. The USA paper pointed to the important role of reliable connectivity in strengthening the BWC and expressed willingness to prepare more detailed descriptions of the technical data and costs of individual telecommunications and their connectivity. Reference was made in the USA paper to databanks such as GENEBANK, MEDLINE, Protein databank of the United States Department of Energy, World Wide Web pages from ProMed, OUTBREAK and MEDSCAPE, database maintained by the Federation of American Scientists, WHO and SIPRI, web pages and numerous journals, newsgroup and discussion groups.

It was agreed that experts from the most relevant organisations be invited to make presentations on their current activities, in order to assess the existing web of multilateral cooperation and its relevance, if any, to Article X of the BWC. In addition to the already mentioned organisations, private centres and their affiliated institutions, could give some useful insight about their work i.a. the International Network of Pasteur Institute.

Many of these initiatives relate to the more fundamental question concerning the kind of institutional framework (Paragraph V, Possible Institutional Arrangements) envisaged to facilitate Article X objectives and the type of financial assistance required to establish appropriate machinery, as contemplated in paragraph VII (Financial Arrangements) or

otherwise. Although a review of current programmes and facilities suggests that, by taking advantage of relevant capabilities, a small BWC Organisation may become cost-effective; a consensus seems to exist that all these matters should be taken into consideration and decided by the Ad Hoc Group as a whole.

With regard to the indicative examples of scientific areas regarded as promising (Paragraph VIII) some doubts were expressed about their relevance to a "disarmament treaty" such as the BWC. Comprehensive surveys of cooperative programmes developed by the United States, Japan, the Netherlands and France and information concerning activities in the field of biotechnology by the Czech Republic, illustrate the ways in which countries fulfil their commitments with regard to Article X. Moreover, the opinion was expressed that these important flows could be channelled in a more structured manner, and through more accessible ways to improve compliance with Article X.

This suggestion leads us into the kind of recommendations made by the Review Conferences and collated in paragraph IX (Reporting, administrative and review procedures) mentioned as well as belonging to the same global context of paragraphs V and VII, and therefore to be transferred to the Ad Hoc Group as a whole. Nevertheless, the question of reporting and reviewing progress achieved in compliance with Article X requires independent discussion about specific formats and particular features of such type of reporting and reviewing exercise.

There was no substantive discussion of potential issues concerning the relationship of Article X to other BWC Articles. Cuba contributed two papers (WP 4 and 5) which attempt to define rights and obligations of States under Article X in areas bordering the sensitive relationship with Article III; the need to give equal importance to promotional and regulatory needs was stressed and a request was made for an FOC paper enquiring into problems derived from export controls and their possible solutions. The already mentioned WP.5 is also concerned with ways to reinforce pledges of assistance to Parties threatened or harmed by biological weapons, including a voluntary fund or an ad hoc agreement with the United Nations Secretary General and setting up a minimum capacity to offer to a State Party emergency assistance under Article VII of the BWC.

Paragraph XII (Role of Article X within a Compliance Assurance Regime) was mentioned as requiring further examination in order to provide for the implementation of some of the measures described in those paragraphs. In the context of its paper (WP.24), Brazil supported the argument that cooperative measures under Article X would also help the States Parties to

draw a clearer picture of relevant biological activity in each State Party and stressed the importance of validation or information visits and the benefits to be derived for the implementation of the BWC objectives.

This summary record of positions and indications about Article X issues sheds some light on the need to proceed with further discussion on some critical areas; it introduces a note of caution and a dose of realism with regard to the possibilities which WP.28 opens for discussion; and provides some criteria for the establishment of priorities, the concentration on "core areas" relevant to the BWC, and a more selective method of work.

FRIEND OF THE CHAIR ON CONFIDENCE BUILDING AND TRANSPARENCY MEASURES

These papers are without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and do not imply agreement on the scope or content of the papers.

These potential confidence building and transparency measures would be voluntary and non-mandatory, and they could be included, as appropriate, into a legally binding instrument.

Surveillance of Publications

1. Collection and survey of relevant information on publicly available printed matter and the media with special attention to activities directly related to the BWC and its Protocol.

2. Collection

   2.1 States parties and international organizations (WHO, FAO, OIE, ...) are requested to provide relevant information

   2.2 BWC organization is to collect relevant information from publicly available sources (para. 4)

3. Survey

   3.1 management, categorization and synthesis

   3.2 to be carried out by personnel with specific expertise, relying on information technology

   3.3 survey will have to be focused (para. 5)

4. Sources of information

   4.1 scientific publications

   4.2 scientific journals

   4.3 specific statistical data

   4.4 relevant press data bases

   4.5 scientific data bases

   4.6 records and reports of scientific meetings and congresses

4.7 information on vaccine-programmes, other programmes and research concerning pathogenic organisms and toxins directed under high-containment conditions

4.8 information on new market products related to rapid identification of toxins and microbial pathogens including WHO risk groups III and IV

5. Information to be collected and surveyed

5.1 Key identifiers (triggers) should be used

5.1.1 same triggers as for declarations (compliance measures)

5.1.2 possibility of combining triggers

5.1.3 other possible triggers (source of information linked to triggers)

6. Activities to be covered

6.1 Unclasification of basic research and applied research in biosciences; biological research publication policy; scientific publications (1991 CBM "C" approach)

6.2 all compliance relevant activities (as defined by triggers)

7. Modalities

7.1 States parties and international organizations are requested to provide information on an annual basis

7.2 organization is to collect and survey information continuously

7.3 information is to be provided

7.3.1 in one of the UN official languages

7.3.2 with a short resume of publications

7.3.3. preferably in computerized format (Floppy disk)

7.4 information collected can be accessed by States Parties

Surveillance of Legislation

1. Collection and survey of information with regard to legislation that is directly related to the BWC and its Protocol. (Existence or absence of legislation may not be an indication of compliance or non-compliance).

2. Collection

   2.1 States Parties are requested to provide relevant information

   2.2 BWC organization is to collect, as appropriate, relevant information

3. Survey

   3.1 Management, categorization and synthesis

   3.2 To be carried out by personnel with specific expertise, relying on information technology

   3.3 Survey will have to be focused.

4. Sources of information:

   4.1 Legislation directly related to the BWC and its Protocol.

      4.1.1 Enabling legislation with regard to the BWC and its Protocol.

   4.2 Regulations related to activities/facilities/ programmes/agents covered by the BWC and its Protocol.

4.3 Other measures related to activities/facilities/ programmes/agents covered by the BWC and its Protocol.

4.4 Legislative, regulatory and relevant statistical data bases.

5. Information to be collected and surveyed

5.1 Besides legislation directly related to BWC and Protocol (enabling legislation) key identifiers (triggers) should be used.

5.1.1 Same triggers as for declarations (compliance measures).

5.1.2 Possibility of combining triggers.

5.1.3 Other possible triggers.

6. Activities to be covered

6.1 Development, production, stockpiling, acquisition, or retention of microbial or other biological agents, or toxins, weapons, equipment and means of delivery specified in Article I; export of micro-organisms and toxins; imports of micro-organisms and toxins (1991 CBM, "E" approach).

6.2 All activities covered by BWC and Protocol and activities related to triggers.

7. Modalities

7.1 States Parties are requested to provide baseline information.

7.2 States Parties are requested to provide information on an annual basis about changes.

7.3 Organization is to collect and survey information continuously.

7.4 Information to be provided:

7.4.1 Copies of legislation in original languages if possible with unofficial translation in one of UN official languages.

7.4.2 A short resumé in one of the UN official languages.

7.4.3 Preferably in computerized format (floppy disk).

7.5 Information can be used to provide, as appropriate, "model" legislation.

7.6 Information can be accessed by States Parties.

Data on Transfers and Transfer Requests and on Production

As this measure is under consideration as a mandatory one in the Compliance Measures FOC discussions, it should be further studied in the light of the outcome of those discussions.

1. Collection and survey of national export and import data (e.g. government and industrial production statistics, culture collection records and other relevant information going beyond declaration requirements and to be provided voluntarily by States Parties).

2. Collection

   2.1 States Parties are requested to provide relevant information

   2.2 BWC organization is to collect relevant information from publicly available sources

   2.3 Confidentiality concerns need to be considered

3. Survey

   3.1 management, categorization and synthesis

   3.2 to be carried out by personnel with specific expertise, relying on information technology

   3.3 survey will have to be focused

4. Sources of information

   4.1 trade publications

   4.2 specific statistical data

   4.3 regulations and other measures (including control)

5. Information to be collected and surveyed

   5.1 key identifiers (triggers) should be used

      5.1.1 same triggers as for transfer and production declarations

5.1.2 other possible triggers (e.g. for data collection under para. 2.2)

5.2 information on

5.2.1 suppliers and recipients

5.2.2 agents

5.2.3 equipment

6. Modalities

6.1 States Parties are requested to provide information on an annual basis (collection of national data might require national regulation)

6.2 Organization is to collect and survey information continuously

6.3 Information is to be provided

6.3.1 in one of the UN official languages

6.3.2 in accordance with agreed format

6.3.3 preferably in computerized format (floppy disk)

Multilateral Information Sharing

1. Sharing of information including electronic networking on issues relating to materials and activities of potential relevance to and in harmony with the BWC and the legally binding measure.

2. Sharing of information

   2.1 Between States Parties (with the assistance of the BWC organization).

   2.2 Between the organization and international organizations.

   2.3 The organization is to collect information from non-governmental organizations and programmes/ initiatives.

3. Areas which could be covered

   3.1 Confidence building measures reports (as agreed in 1991)

      3.1.1 Exchange of data on research centres and laboratories.

      3.1.2 Exchange of information on national biological defence research and development programmes.

      3.1.3 Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins.

      3.1.4 Encouragement of publication of results and promotion of use of knowledge.

      3.1.5 Active promotion of contacts.

      3.1.6 Declaration of legislation, regulations and other measures.

      3.1.7 Declaration of past activities in offensive and/or defensive biological research and development programmes.

      3.1.8 Declaration of vaccine production facilities.

   3.2 Consultation in completing CBM requirements and reporting obligations.

3.3 Surveillance of disease outbreaks and unusual disease outbreak reports.

3.3.1 Surveillance of human disease outbreak and unusual disease outbreak reports.

3.3.1.1 WHO Weekly Epidemiological Record (on World Wide Web), containing information on disease events obtained through the implementation of the International Health Regulations, from the WHO communicable disease and antimicrobial resistance monitoring systems, and from country experiences in disease surveillance and control.

3.3.1.2 WHO EMC's (Division of Emerging and other Communicable Diseases Surveillance and Control) electronic distribution system providing regular updates on epidemics of international importance, communicable disease and global surveillance (on World Wide Web).

3.3.2 Surveillance of animal disease outbreak reports.

3.3.2.1 OIE Disease Information, a weekly collection of reports of animal diseases for urgent dispatch (on World Wide Web)

3.3.2.2 OIE Bulletin, a monthly publication which describes the course of the most contagious animal diseases.

3.3.2.3 OIE World Animal Health, an annual review of worldwide status regarding OIE List A and B diseases.

3.3.2.4 FAO/OIE/WHO Animal Health Yearbook containing the data received in the joint FAO/OIE/WHO questionnaires.

3.3.2.5 OIE HandiSTATUS, an electronic information program containing data related to OIE and FAO/OIE/WHO questionnaires.

3.3.3 Surveillance of plant disease outbreak reports.

3.3.3.1 Joint FAO/OIE/WHO questionnaire sent out by FAO

3.4 Information on pharmaceutical and vaccine production, good manufacturing practices, biosafety capabilities and procedures.

3.4.1 ICGEB net. Information, clearing house mechanism on biotechnology, genetic engineering and biosafety.

3.4.2 BINAS (Biosafety Information Network Advisory System developed in conjunction with UNIDO and ICGEB).

3.5 Information concerning research and exchange programmes covering areas related to the BWC and the Protocol.

3.6 Information related to obligations under the BWC, e.g. information that may be related to the production, development, stockpiling or means of delivery of pathogens and toxins for hostile purposes.

4. Possible forms of information sharing

4.1 Between States Parties (organization as "hub") and between States Parties and international organizations (WHO, FAO, OIE, ICGEB, UNIDO, etc).

4.1.1 Creation of a computer network to integrate through INTERNET connectivity databases covered in para 3. (via secure World Wide Web page access).

4.1.2 INTERNET connectivity and video conferencing connectivity/network to support information sharing (vaccines, GMP, biosafety, etc.).

4.1.3 "Virtual" attendance at scientific conferences. Consultation and training in relevant areas.

4.2 Between the organization and non-governmental organizations and programmes/initiatives.

4.2.1 INTERNET connectivity with PROMED, NEED, OUTBREAK, MEDSCAPE, on relevant disease outbreaks.

4.2.2 INTERNET connectivity with national and international databases of relevance for the BWC and the Protocol (CDC Reports, MEDLINE, GENEBANK, etc.).

Exchange visits (international arrangements and off-site visits)

1. Visits of experts arranged for scientific purposes by a State Party to comparable facilities (for off-site visits: to facilities of potential relevance for the BWC and the Protocol) of another State Party.

2. Visits

   2.1 Visits would be under bilateral and/or multilateral agreement.

   2.2 On a voluntary and/or reciprocal basis.

   2.3 Visits should be in harmony with the provisions of the BWC and the Protocol.

3. Experts will have expertise in areas relevant for the BWC and the Protocol (illustrative list)

   3.1 Administrators with expertise in science administration and related matters
   3.2 Agriculture
   3.3 Bacteriology
   3.4 Biochemistry
   3.5 Biological defence experts
   3.6 Biosafety
   3.7 Biotechnology
   3.8 Engineers of fermentation technology, equipment, buildings, etc.
   3.9 Entomology
   3.10 Epidemiology
   3.11 Immunology
   3.12 Medicine
   3.13 Pharmaceutical sciences (antibiotics and other ethiotropic drugs)
   3.14 Quality control experts
   3.15 Toxicology
   3.16 Veterinary science
   3.17 Virology

4. Scope

   4.1 Bilateral/multilateral exchanges (for international arrangements: long-term scientific exchanges) made in selected programme areas where common interest exists between countries.

4.2 Bilateral/multilateral exchanges (for international arrangements: long-term scientific exchanges) covering all areas directly related to the BWC and the Protocol.

4.3 Bilateral/multilateral long-term scientific exchanges covering all areas of potential relevance for the BWC and the Protocol (not restricted to declared facilities).

5. Modalities

5.1 Could be negotiated through bilateral and/or multilateral agreements.

5.2 For the selection and/or appointment of experts, help may be sought from specialized UN agencies (WHO, FAO, OIE, UNDP, etc.) and international organizations (ICGEB).

5.3 Arranged with mutual agreement on the:

5.3.1 Areas of interest;
5.3.2 Selection of personnel;
5.3.3 Length of the scientific exchange;
5.3.4 Costs.

Confidence Building Visits

1. A coordinated set of visits with voluntary participation to promote confidence between States Parties, as well as in a future BWC Organization.

2. Advantages of confidence building visits.

   2.1 Regular contact could help developing confidence among States Parties to the BWC.

   2.2 Such visits might help States Parties to demonstrate transparency in matters related to the BWC.

   2.3 Confidence building visits could be means of establishing open communication channels between similar institutions in different countries and could contribute to create the climate for the interchange of information and technology. As such, these visits could also be a further step towards the implementation of Article X of the Convention.

   2.4 The contacts established between international experts could assist with the interchange of information and establish networks of expertise which will be beneficial to all States Parties participating.

   2.5 Confidence building visits would not be intrusive.

3. Visits

   3.1 Visits could be coordinated through bilateral and/or multilateral arrangements.

   3.2 Participation in the visits should be voluntary.

4. Participation

   4.1 The persons participating in the visits (confidence building visit teams) could be nominated from the States Parties who are participating in the confidence building measures.

   4.2 States Parties participating in the confidence building visits could annually update their list of experts who are available for participation in confidence building visit teams.

   4.3 Experts would need to be available for periods of no longer than 2 to 3 weeks per year.

5. Potential Scope

5.1 Each participating State Party could on a voluntary basis make available a list of facilities which the confidence building visit team could visit, including

5.1.1 facilities which are to be declared in terms of other measures developed to strengthen the BWC;

5.1.2 facilities not to be declared (commercial, teaching and research facilities).

5.2 Each participating State Party could on a voluntary basis include additional facilities in the list of facilities which the confidence building visit teams could visit.

5.3 Visit at each facility might include

5.3.1 review of declared, planned and other activities;

5.3.2 visual overview of current activities;

5.3.3 discussion of any anomalies;

5.3.4 discussion of latest trends in safety, containment, quality control, etc. as relevant;

5.3.5 scientific exchanges.

6. Potential Modalities

6.1 States Parties participating in confidence building visits would be entitled to take any measure deemed necessary to ensure that commercial and other information is not jeopardized.

6.2 In order to ensure that these visits do not become too disruptive or onerous, confidence building visits could take place at irregular intervals and visits to any facility should not exceed a couple of days per visit.

6.3 Adequate notice should be given to the participating States Parties of an impending visit and the visit should get the agreement of the participating States Parties.

6.4 The confidence building visit teams could, as appropriate, cooperate with the future organization.

6.5 The funding for confidence building visits should be provided by participating States Parties and could be supported by a special financial arrangement.

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