

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 fifth session at the Palais des Nations, Geneva from 16 to 27 September 1996, in accordance with the decision taken at its third session, and confirmed at the fourth 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 fifth session of the Ad Hoc Group, the following States Parties to the Convention participated in the work of the Group: Argentina, Australia, Austria, 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, Malta, Mexico, Mongolia, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, 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: Egypt, Morocco and Myanmar.

3. At the 1st 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".

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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, seven meetings were devoted to issues related to "Measures to Promote Compliance", four meetings (and a number of informal meetings) were devoted to "Measures Related to Article X", two meetings (and a number of informal meetings) were devoted to the issues on "Confidence Building Measures", four meetings (and a number of informal consultations) were devoted to "Definitions of Terms and Objective Criteria". The Friends of the Chair were assisted by Mr. Timur Alasaniya and Mr. Jerzy Zaleski of the Centre for Disarmament Affairs.

6. At the 8th and 12th meetings of the Ad Hoc Group, the following international organizations made presentations on their activities relevant to the work of the Ad Hoc Group:

WHO	Dr. David Heymann, Director, Division of Emerging and other Communicable Diseases Surveillance and Control (EMC), Geneva
	Dr. (Brigadier-General) Rafael D'Amelio Direzione Generale della Sanita Militare, Rome
UNIDO	Mr. George Tzotzos, Industrial Development Officer
OIE	Dr. Robert Reichard, Head of the Scientific and Technical Department, World Organization for Animal

Health

ICGEB Mr. Decio Ripandelli, Programme and Administrative
Coordinator, International Centre for Genetic
Engineering and Biotechnology

UNESCO also contributed a written submission.

7. The results of discussions and the exchange of views on those issues were reflected by Friends of the Chair in papers which are annexed to the present Report (Annex I).

8. In addition to the documents presented at its previous sessions, the Ad Hoc Group had before it 21 working papers covering all four elements of the mandate under discussion and which are listed in Annex III.

9. The Ad Hoc Group decided to inform the Fourth Review Conference of the progress it has made in fulfilling its mandate, as set out below.

The Special Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (September 1994) agreed to establish an Ad Hoc Group open to all States Parties to consider appropriate measures including possible verification measures, and draft proposals to strengthen the Convention.

Since its establishment, the Ad Hoc Group held one short organizational session, and four substantive sessions of a duration of two weeks each.

In accordance with its mandate, as contained in the Final Report of the Special Conference (BWC/SPCONF/1), the Ad Hoc Group has been considering appropriate measures, including possible verification measures, to strengthen the Convention.

Where relevant, consideration of issues has sought to build on the considerable body of technical work connected with strengthening the BTWC regime undertaken by the Ad Hoc Group of Technical Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint (VEREX) in 1992 and 1993.

The Ad Hoc Group has made significant progress towards fulfilling the mandate given by the Special Conference including by identifying a preliminary framework and elaborating potential basic elements of a legally-binding instrument to strengthen the Convention.

Nevertheless, the Ad Hoc Group was not able to complete its work and submit its report including a draft of the future legally-binding instrument to the States Parties for

consideration at the Fourth Review Conference. In this context it is noted that the cumulative period allocated to substantive negotiations in the Ad Hoc Group has been eight weeks. In order to fulfil its mandate, the Ad Hoc Group has decided to intensify its work with a view to completing it as soon as possible before the commencement of the Fifth Review Conference and submit its report, which shall be adopted by consensus, to the States Parties, to be considered at a Special Conference.

The Ad Hoc Group in its future work will build upon materials contained in the papers of the Friends of the Chair attached to the present report as well as to the reports from the previous sessions.

In order to intensify its work, the Ad Hoc Group decided to hold the following sessions in the course of the next twelve months.

The Ad Hoc Group agreed to hold a three-week session in the first half of 1997. It envisages holding this from 3 - 21 March. It requested the Chairman of the Group to carry out appropriate consultations with a view to avoiding as far as possible any parallel meetings with other disarmament meetings, which could cause difficulties to delegations.

14 July - 1 August

The Ad Hoc Group requested the Chairman to carry out appropriate consultations with a view to avoiding as far as possible any parallel meetings with other disarmament meetings in the period 28 July - 1 August, which could cause difficulties to delegations.

15 September - 3 October

10. The Ad Hoc Group considered and adopted the Programme of Work for the sixth session envisaged to be held from 3 - 21 March 1997 (Annex II).

11. At its 20th meeting of the session on 27 September, the Ad Hoc Group considered and adopted its procedural report.

ANNEX I

FRIENDS OF THE CHAIR

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.

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

These summaries reflect the range of discussion that has occurred in the AHG. All elements of the summaries require further consideration. The FOC papers annexed to the Report of the Fourth Session remain valid reference documents. The various issues and proposals reflected in the summaries were not subject to equal consideration or amounts of discussion.

I. DECLARATIONS *

[Military] Biological Defence Facilities/Programmes

[The existence of] [National] [Biological Defence Programmes/
Defence Programmes against Biological Weapons]

Facilities [in any place under the jurisdiction or control of
the State Party] taking part in [national] [biological defence
programmes/defence programmes against biological weapons]
[and conducting work on microorganisms or toxins as well as
material emulating their properties] [regardless of
ownership].

Past biological offensive or defensive programmes [if the
State Party has not already provided this information under
the Confidence Building Measures].

Other Relevant Facilities

Facilities which produce vaccines [and/or antitoxins]
[licensed by the State Party] for the protection of humans
[and animals] [against listed agents/toxins] [with a certain
production capacity and containment level].

[Facilities containing areas protected according to the
standard for maximum containment laboratories as specified in
the 1993 WHO Laboratory Bio-safety Manual (Biosafety level 4
or equivalent standard)].

[Facilities containing areas protected according to the BL3
standard or equivalent but excluding purely diagnostic [and
medical] facilities.]

Facilities which:

- (i) [work with listed agents and toxins. (Work
with listed agents to be further defined, but
understood to include [any manipulation,]
[aerobiological studies, genetic modification,]
[culture collections] (but not [medical or]
diagnostic facilities).)]
- OR (ii) [work with listed agents/toxins and have a
microbiological production capability on site]
- OR (iii) [work with listed agents/toxins and possess a
microbiological production capability and have

certain containment characteristics [including negative air pressure]].

* An indicative declaration format appears in BWC/AD HOC GROUP/31, p.19.

[Other production facilities not necessarily working with listed agents, which have an aggregate fermenter production capacity above a specified level and which contain areas protected with: negative pressure, physical separation from public areas, filtration of exhaust air by HEPA filtration, access control, Class III biological safety cabinets and airtight seals, and aggregated self-sterilizing fermenters with operational closed systems.]

[Facilities which produce by fermentation: (i) medicines and/or (ii) antibiotics or (iii) other microbial products in closed systems.]

[Facilities not necessarily working on listed agents which possess aerosol test chambers of a certain size for work with microorganisms or toxins.]

[Sites not necessarily working on listed agents which possess equipment for aerosol dissemination in the open air.]

[Genetic modification not necessarily on listed agents [to enhance pathogenicity and virulence] [with BL4 or BL3 containment on site].]

II. INVESTIGATIONS TO ADDRESS A NON-COMPLIANCE CONCERN

[Investigations to address a non-compliance concern could be of two types:

(1) Facility Investigations where there is concern that a particular facility(ies) is involved in activities prohibited by Article I and will be conducted inside the perimeter of the facility.

(2) Field Investigations where there is an event(s) of release of, or exposure of humans, animals or plants to microbial or other biological agents and toxins. These investigations would take place in affected geographic areas.

A State Party, requesting an Investigation to address a non-compliance concern could specify whether it was seeking a Facility or Field investigation.]

(A) INITIATION

1. Right of any State Party to request an investigation [by a future BWC Organization] [challenge inspection under Article VI of BWC] into a specific concern about non-compliance with Article I of the BWC by any other State Party.

2. Investigations to be conducted on the territory of any State Party or in any other place under the jurisdiction or control of the State Party [regardless of the form of ownership [of the facility].

3. Investigations should have a clear and specific mandate.

4. Obligation on a State Party to provide in its investigation request specific information about the particular [and demonstrable] non-compliance concern.

5. Obligation to keep requests within the scope of the Convention and to refrain from unfounded requests.

6. Other States Parties could undertake to assist, to the extent they may be capable or are requested, in clarifying or resolving matters related to a concern about non-compliance.

7. [States Parties could make full use of opportunities for bilateral and multilateral clarification and consultation [through the Organization] to resolve these concerns] [prior to and/or in parallel to a request.]

8. [Right of any State Party to request a "field investigation" i.e. an investigation [by a future BWC Organization] into [a situation or event of release of, or exposure of humans, animals or plants, to [microbial or other

where this term appears it is understood that there is no agreement on terminology. Another possible term was 'challenge inspections' (under Article VI).

biological agents or toxins] [biological or toxin weapons] [associated with] a specific concern about non-compliance with Article I of the BWC by any other State Party.]

9. [For "field investigations": a State Party may make a request either about a situation on its own territory, or on the territory of another State Party of a non-State Party, with its agreement and in accordance with international law, where another State Party is identified as the alleged perpetrator. The State Party may or may not name an alleged perpetrator, except that in the case of the territory of a non-State Party, an alleged perpetrator should be named.]

(B) INFORMATION TO BE SUBMITTED WITH A REQUEST FOR AN INVESTIGATION TO ADDRESS A NON-COMPLIANCE CONCERN

10. Information in support of a request 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, any other information indicating a non-compliance concern.]

11. All information should be as precise as possible. [There should be a requirement [for the requesting State Party] to affirm [establish] [prove] [demonstrate] that the source of the information was [reliable] [impartial], non-discriminatory, well-founded [and open to multilateral scrutiny]].

12. In respect of requests for investigation of a specific non-compliance concern at a facility ["facility investigation" [challenge inspection under Article VI]] the following types of information to be provided with the request are [intended to be illustrative]: [an allegation of violation of Article I of the BWC, with information to the extent possible about time and place, could suffice]. [It is assumed that information of the types in paragraphs (i), (ii), (iii) [and (vii)] below would be an essential part of a request for an investigation into a non-compliance concern.] [The other types of information are also important.]]

(i) Information, [to the extent possible,] on the development, production, stockpiling, acquisition or retention of

(a) microbial or other biological agents or toxins whatever their origin or method of production, of types and in quantities that have no

justification for prophylactic, protective or other peaceful purposes;

- (b) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.
- (ii) The [approximate] place where the non-compliant activity is alleged to have taken place. This should include as much detail as possible [about any facility concerned,] including a description, [its] location, boundaries and geographic co-ordinates.
- (iii) The [approximate] period during which the non-compliant activity is alleged to have taken place.
- (iv) The specific events, or series of events, which gave rise to a non-compliance concern.
- (v) Whether any facility concerned has been [declared under the Protocol; and any information included in or absent from the declaration return relevant to the allegations].
- (vi) If not, any information to suggest that the facility concerned should have been declared [under the Protocol].
- (vii) [Information from] [Outcome/Results of] [any] prior consultations/clarifications relevant to the request.
- (viii) [Relevant information about the source [confirming its reliability and impartiality].] [Certain sources of information might not always be reliable.]
- (ix) Any additional relevant information, eg. on extent and nature of the alleged non-compliant activity.

13. [In respect of a request for [a "field investigation": (i.e.) an investigation into [situation or event, of release of or exposure of humans, animals or plants to [microbial or other biological agents or toxins] [biological or toxin weapons] associated with] a specific concern about non-compliance with Article I of the BWC by any other State Party):

- (i) Evidence may vary with each request, but may include:

- the location and characteristics of the area(s) involved;
 - the location name and geographic co-ordinates;
 - the moment of the alleged use (if possible);
 - effects on humans/animals/plants;
 - numbers of affected humans/animals/plants;
 - symptoms and signs of the disease;
 - types and results of samples identified;
 - any other corroborative information.
- (ii) Evidence other than epidemiological data would [usually] be necessary to demonstrate a prima facie non-compliance concern.]
- (iii) [Natural outbreaks of disease [may be][are] of no concern under the Convention.]

(C) SCREENING (TO GUARD AGAINST ABUSIVE REQUESTS)

14. [Requests for an investigation into a non-compliance concern could be submitted to the United Nations Security Council for decision on whether to initiate an investigation.

or

Requests for an investigation into a non-compliance concern could be submitted to a political representative body of States Parties. Providing the request satisfied agreed requirements, the investigation would proceed [if formally approved by this representative body] or [unless this body intervened to overrule the request and recall the inspection team.]]

15. [The consideration of investigation requests could be assisted by technical advice [from an ad hoc group of experts/a small technical secretariat] of a new independent organization.]

16. Requests [for an inspection] [for a field investigation] should be subject to careful technical and political screening [to ensure that the evidence provided supports a prima facie case of non-compliance concern involving a [situation or event of release of or exposure of humans, animals, or plants to] [microbial or other biological agents or toxins] [biological or toxin weapons]].

(D) MEASURES TO GUARD AGAINST ABUSE DURING INVESTIGATIONS

17. Obligation to conduct an investigation in the least intrusive manner possible consistent with its effective and timely implementation, and to collect only relevant information necessary to clarify the specific non-compliance concern.

18. Right of the investigated State Party to take measures [it deems necessary] to protect sensitive installations and to prevent disclosure of commercial proprietary, scientific and national security information not related to its obligations under the Convention. These could include managed access techniques such as, 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.

(E) MEASURES TO DEAL WITH ABUSE AFTER AN INVESTIGATION HAS
TAKEN PLACE

19. Right of States Parties to consider [collectively] (at post investigation review) appropriate [sanctions] [penalties] [actions], [by the Organization] if they decide that a request has been frivolous, abusive, or beyond the scope of the Convention.

20. [Individual inspectors and/or the Organization could be liable for damages arising from their actions, including leakage of CPI.]

21. [Disciplinary procedures to deal with misconduct by inspectors.]

(F) TIME-FRAME FOR AN INVESTIGATION

22. A State Party in which the investigation has been requested should be required to respond rapidly. Investigations into a non-compliance concern to be conducted as soon as possible consistent with agreed procedures after the submission of the inspection request.

(G) ACCESS/CONDUCT OF INVESTIGATIONS

23. States Parties should have the right to restrict [or deny] access to any particularly sensitive site, area or information unrelated to the BWC.

24. If a State Party were to provide less than full access to inspectors, it [should] [be obliged to] make [every attempt to provide [reliable] alternative means of demonstrating] [all reasonable efforts to demonstrate] compliance.

25. [Access could be governed by multilaterally agreed procedures or principles.] [Extent and nature of access to a particular place or places to be negotiated between the investigators and the receiving State Party [while enabling the inspection team to fulfil its mandate].]

26. [For [field investigations]:

- (i) [The investigative team could have access to all areas which could be affected, including hospitals,

refugee camps, and other places it considers necessary for the effective conduct of its investigation, without interfering with national measures to contain the outbreak.]

- (ii) [If during an investigation, the team considers it necessary to extend the investigation to a neighbouring State, the [United Nations Secretary-General or other appropriate persons/organization,] could notify the State Party of the need to have access to its territory. The consent of the other State Party would be required. The extent of any such access would be agreed between the parties involved.]

(H) IMPLEMENTATION BY THE INVESTIGATION TEAM OF SPECIFIC ON-SITE ACTIVITIES

[For facility investigations:]

27. Interviewing

Inspectors could have the right [to interview] [to request an interview with] [any appropriate personnel] [personnel who might be in a position to provide information about alleged non-compliant activities] [with their agreement] in the presence of representatives of the [inspected side/facility] [inspected State Party/a legal adviser/a senior member of facility staff]. Advance notice of interviews should be given.

Interviews could be conducted in such a way as to avoid unduly hindering the work of the site.

Inspectors could have the right only to request information and data [relevant to the [compliance concern raised under the] Convention] which are necessary for the conduct of the inspections [and in fulfilment of their inspection mandate]. If required, interpretation could be provided by the inspectors/the Organisation, or, where, requested, by the inspected State Party.

Those interviewed could have the right to refuse to answer any question to protect commercial proprietary and national security information. But [States Parties and persons interviewed where appropriate] [should] [be obliged to] make [every attempt to provide [reliable] alternative means of

demonstrating] [all reasonable efforts to demonstrate] compliance such as provision of documents, records etc).

In conducting interviews, inspectors could make use of, [but not be limited to] [questions related to declarations] [questions related to agreed lists eg. of pathogens and toxins, and equipment].

[Interviews should be conducted according to set guide-lines.]

28. Visual Observation

Inspectors could have the right [to inspect] [to request the inspection of] any part of, or items on, the inspection site.

If direct visual observation is not possible because of national security, commercial proprietary or safety considerations [or if standard health and safety regulations mean that inspectors cannot have access to certain areas] the inspected State Party [should] [be obliged to] [make every attempt to] [provide [reliable] alternative means of demonstrating] [make all reasonable efforts to demonstrate] compliance. Such means could include [but not be limited to] the use of [for example] a video camera or drawings.

29. Identification of key equipment

Inspectors could have the right [to request access to] [to inspect and identify] equipment at the inspection site. [In identifying key equipment, inspectors could make use of, but not be limited to questions related to agreed lists of equipment [or to other agreed criteria for determining the relevance of equipment to strengthening confidence in compliance].

Inspectors could also note the absence of, size and quantity of dual-use equipment on the site [and compare this with information provided in declarations where appropriate].

30. [Auditing

[Inspectors could have the right [to request access to] [to inspect] documentation and records held at the facility, as necessary to the conduct of their mission.] The Inspected State Party could have the right to take measures, in accordance with managed access procedures, to protect information and records which it considers confidential for reasons of national security or commercial sensitivity, but [should] [be obliged to] [make every attempt to] [provide [reliable] alternative means of demonstrating] [make all reasonable efforts to demonstrate] compliance [to the

Inspection Team].

Inspectors could have the right to take and remove copies of documents or print-outs of records from the site only with the permission of the Inspected State Party.

All documents, print-outs of records or other information obtained as a result of access to documentation and records, could be required to be handled confidentially.

On-site auditing must be conducted in such a way as to minimize disruption to the normal work of the facility.

The inspected State Party should provide inspectors with any information, such as details of national procedures/financial regulations, which may be relevant to the inspection of such documents and records.

If issues remain unresolved after an inspection which [in the opinion of the inspectors] could be addressed by specific off-site auditing, the inspectors/a future Organization/requesting State Party could pursue with the inspected State Party how this measure could be implemented.]

31. [Medical examination]

In investigations involving epidemiological evidence, such as ["field investigations"], the inspectors could have the right to conduct medical examination, with the appropriate consent. They could also conduct autopsies where relevant.

[Appropriate] [medical] inspectors could have access to other medical or veterinary information such as records, and could request the examination of laboratory animals or samples.]

32. Sampling and identification

Inspectors could have the right [as a last resort and only in investigations to address a specific non-compliance concern [either in a facility or field investigation] in accordance with the principle of [negotiated] [managed] access to take samples and test for the presence of specific pathogens or toxins.

[Inspectors should be guided by the following principles:

- (i) Sampling could be the final resort to address a particular point of relevance to the non-compliance concern.

- (ii) Sampling should be used only where there is other evidence acquired during the inspection or otherwise available to the inspectors which suggests that sampling might provide significant information. [Investigators should use specific tests to focus on specific agents, strains or genes, if possible.]
- (iii) The inspected State Party has the right to take measures to protect national security and confidential proprietary information such as requiring the use of specific tests or on-site analysis [or if necessary to refuse a sample].

[If the inspection request includes information about the possible involvement of specific agents in non-compliant activity at a site, the intention to test for such agents could be required to be stated in the inspection mandate.]

[If a specific agent has not been identified in the inspection mandate, and if the inspectors decide during an investigation that an issue can only be resolved through the use of sampling and analysis, they could also have the right to take and analyse samples to detect the presence of [listed] pathogens and toxins [of concern.]]

Any sampling and analysis could be required, wherever possible, to be carried out [on site] [on the territory of the inspected State Party] [by personnel of the inspected facility] [only in the presence of a representative of the inspected State Party]. [Where the inspectors deem on-site analysis to be impossible, they could have the right to remove samples for off-site analysis which could be done in the presence of a representative of the inspected State Party. All sampling should be conducted according to agreed procedures and methods to protect CPI.] [Analysis of samples could be carried out at laboratories designated for the purpose by the Organization.]

An inspected State Party may offer a reliable sample at any time which meets the needs of the investigation to help resolve a non-compliance concern or other ambiguity.

[If sampling resulted in substantial loss of production compensation could be considered.]]

33. [For field investigations:

The investigative team should be able to use the range of [on-site measures identified by VEREX] [and other measures] to help resolve the non-compliance concern specified in its

mandate. Such measures include visual inspection of affected areas, interviewing [of those affected and eye-witnesses], access to medical records of those affected as well as medical examination with consent, including the taking of samples from affected humans/animals/plants [to make or confirm a diagnosis], investigative epidemiology, taking and evaluating environmental samples, and samples of munitions and devices or remnants of munitions and devices.]

(I) POST INVESTIGATION REVIEW

34. The investigators' final report could include [factual findings with regard to the concerns regarding possible non-compliance with Article I of the BWC] [an indication of whether non-compliant activity had taken place and the extent to which the investigated State Party had cooperated in the investigations.]

35. [The representative body of States Parties or United Nations Security Council, depending on the eventual institutional arrangements, could [consider whether there had been any non-compliant activity] and take a decision on [any] response or further action, particularly in the event that [there were unresolved non-compliance concerns] [that a State Party was found to have violated the Convention] [including, following a field investigation, a follow-up facility investigation.]

36. [The final report could make recommendations on any technical or humanitarian assistance needed.]

III. [OTHER VISITS/[MEASURES]

[A number of mandatory [non-challenge] visits to facilities in States Parties could be conducted to help strengthen confidence in the accuracy of declarations and to deter non-compliance.]

[Such visits could convey information to States Parties about other relevant matters and could therefore have a role to play in implementing Article V and Article X.]

[Such visits could be focussed on key declared facilities eg. those involved in bio-defence programmes.]

[Such visits could take place at random.]

[Such visits could take place at short notice.]

[Such visits could be subject to a quota system to govern their distribution.]

[In the event that a State Party [or future Organisation] wished to seek clarification of an ambiguity or concern related to any other State Party's implementation of the arrangements under the future regime, but which would not warrant an investigation into a non-compliance concern, the State Party [or Organization] could consult with the other State Party to seek to resolve the ambiguity or concern, and could, if necessary, request [or initiate] a visit for confirmation.]

[Consideration could be given to whether any compliance measures could help strengthen confidence in the implementation of Article III.]]

**FRIEND OF THE CHAIR ON DEFINITIONS OF TERMS
AND OBJECTIVE CRITERIA**

DEFINITIONS

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.

Some elements might need to be discussed in considering definition of individual terms, which are as follows:

(A) **Biological Defence Programme**

- 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**

- "work with" may include:
 - aerobiology
 - production
 - genetic modification
 - studying the properties of agents

- development of methods for detection, prophylaxis and treatment
- maintaining culture collections

(C) **Genetic Modification/Manipulation**

- Activities involving modified microorganisms or any nucleic acid sequences created in vivo or in vitro.
- The use of modified microorganisms or nucleic acid used under laboratory conditions, or being released into the environment, or marketed.
- Stability of such microorganisms in the environment.
- Elements which should be excluded from the definition might include classical genetic techniques such as selection, isolation, cross-breeding and mutagenesis; natural processes such as conjugation, transduction and transformation; the construction of somatic hybridoma cells i.e. for the production of monoclonal antibodies, and in vitro techniques such as cell and protoplast fusion and micro-injection.

(D) **Biological Defence Facility**

- It should be distinguished from other facilities undertaking short term contracts only. The principal work of a biological defence facility should be to support work in one or more of the areas of the national biological defence programmes.
- A biological defence facility may share an infrastructure, etc., with other facilities, i.e. those that work on chemical or nuclear defence.
- How a biological defence facility is funded and controlled. They may come under the military, a government ministry concerned with defence or security, or some other government ministry. Funding may be direct or indirect.
- The definition should exclude support contractors, providing generic items (such as vehicles, office equipment, etc.) that are not directly related to biological activities.

(E) **Vaccines**

- Licensing of vaccines is not universal. Even in countries

that have licensing arrangements there may be facilities producing unlicensed vaccines.

- Definition should focus on facilities producing vaccines which are in an advanced stage of evaluation, which are produced and marketed, or supplied for use by humans or animals, other than in an experimental or trials context.
- Indications of an advanced stage of vaccine evaluation may vary in different countries. They may include approval for clinical trials, approval for investigational new drugs status, or government approval for specific use of an unlicensed product.
- It may be necessary to include the veterinary vaccines made from antigens obtained from an animal or animals in a holding and that are used only for the treatment of that animal or other animal of that holding in the same locality.

(F) **Military Medical Programme**

- The term may be restricted to protection against infectious diseases and intoxications.
- It may also include research and development including trials of protective measures such as vaccines and anti-microbials, as well as actual protective arrangements and infrastructure. It may also include medical arrangements both for troops in front line and rear areas, and arrangements for their dependents.
- A national programme may have protection against naturally-occurring diseases and protection against BW attack as overlapping objectives.
- Emergency arrangements that may be made available for sectors of the civilian population suffering from natural outbreaks or BW incidents.

(G) **Diagnostic facility**

- Laboratory tests for the identification of human, animal or plant pathogens in human, animal, and plant samples, or identification in other samples such as food or environmental samples.

- Laboratory tests for the effects of microorganisms and toxins such as specific seroconversion in humans or animals, as well as in vivo tests may also be included.
- Tests intended to determine the pathology of illness or to investigate the etiology of a disease outbreak, with subsequent confirmatory tests and/or research performed by reference laboratories.
- Identification of microorganisms by taxonomists and by culture collections may be included.

(H) **Military-related biodefence programmes**

- It could be treated as a subset of the term "Biological Defence Programme", when there are other elements of the biodefence programme that are specifically related to the civilian population.
- It may also be restricted to programme elements under the direct/indirect control of the military, or may include elements controlled and/or funded in other ways but serving the biodefence needs of the armed forces.

(I) **BL3**

- The WHO Laboratory Safety Manual guidelines may be used as a basis for BL3 containment in the laboratory.
- The definition may need to include other "BL3 equivalent" containment provisions for laboratory work with animal pathogens, or plant pathogens, or genetically-modified organisms, or toxins, or for pilot plant/industrial scale activities.
- The variations among national BL3 and BL3-equivalent regulations may need to be taken into account.
- Process-related aspects could be dealt with separately from building related aspects such as (building) air handling arrangements and from organisational aspects such as restricting personnel access.
- The term may include laboratories or other units which have the essential physical features for operating at BL level or equivalent, but which are not currently operating at that level.

(J) **Production Capability**

- The presence of specific containment feature may be a factor.
- Research may best be excluded by applying a threshold based on the scale of work. Such a threshold could specify the actual amounts of agent produced over a time period, or the availability of production equipment, or the consumption of

specific resources such as growth media, tissue culture media or fertilised eggs.

- If quantitative indicators are used, then different indicators are needed for different types of agents.
- Actual values are required for production amounts or resources used, or else indications of where data fall in a set of specified ranges.
- The term could be restricted to actual production, or include production potential. Also the scale of production normally occurring in laboratories may be excluded.

(K) **Facility and Site**

- A Facility may be a relatively self-contained functional unit within its own clearly-defined perimeter. Alternatively, it may have operational relationships or share infrastructure or have budgetary links with one or more co-located units in an area enclosed by a common perimeter.
- The common perimeter could be a fence or wall bounding a geographical area, or the outer wall of a building or other structure.
- It would follow that the area within the common perimeter, which could be called the "site", could comprise a single facility or could include two or more facilities.
- Not all the facilities on a site may have the same owner or operator.
- Not all functional units within a facility or site may be directly engaged in activities involving microbiology or related scientific and technical fields of activity. Examples of other functions could be administration and personnel sections, storage areas, effluent/waste handling and treatment plants, first aid and fire emergency services, medical sections, and record-keeping functions.

The definitions of the following terms and the commentaries were dealt with in informal consultations and need further consideration including in the context of specific measures. The Ad Hoc Group held preliminary discussion of items 1-4.

1. Genetic modification or manipulation

Genetic modification involves a process of arranging and manipulating nucleic acids to produce a novel molecule or add new characteristics in the organisms.

Commentary

- It may include alterations in the genetic material of organisms in performing new functions like enhancement or reduction in pathogenicity and/or virulence; resistance to biotic or abiotic stress.
- There may be a need to exclude classical genetic techniques, natural processes, applications involving somatic hybridoma cells, and some in vivo techniques.
- There may be a need to cover all techniques of changing the genetic structure of a biological agent.

2. Military medical programme

Medical programme [carried out by the military] to monitor, maintain and/or restore the physical and mental health, including prophylaxis and treatment of infectious diseases and intoxications that occur naturally, of serving and/or retired military personnel and their dependents, other than in the context of defence against the use of microbial or other biological agents or toxins for hostile purposes or in armed conflict.

Commentary

- This term may have value to differentiate such programmes from biological defence programmes;

3. Biological defence programme

[Research and development] programme designed to detect and assess the impact of any use of microbial or other biological agents or toxins for hostile purposes or in armed conflict, and/[or] to prevent, reduce and neutralize the impact of

biological and toxin weapons on humans, animals or plants.

[Commentary

- Could be used for the purpose of triggering declarations;
- Could be included in declaration formats as details requiring declaration;
- Could be used in other measures.]

4. Biological defence facility

Facility which works in [one or more of the following areas of] a biological defence programme [as one of its principal and/or permanent roles:

research, development, testing, production and evaluation]

[Commentary

- Could be used for the purpose of triggering declarations;
- Could be included in declaration formats as details requiring declaration;
- Could be used in other measures.]

5. Diagnostic Facility

Any facility which tests samples for the purpose of diagnosis of human, animal and plant diseases by means of detection, isolation and identification of microbial or other biological agents or toxins, as well as by serological techniques. A diagnostic facility may also carry out the production and preparation of reagents for the above tests, and the development of diagnostic techniques.

6. Military related biodefence programme

Biological defence programme carried out by the military.

7. Biosafety Level 3

Biosafety level 3 comprises the safety practices, building designs and equipment used in research, development, production, testing or diagnostic activities with microbial or other biological agents, or toxins that pose a high risk of infection or intoxication.

Commentary

The applicable characteristics will differ according to

circumstances.

- In the instance of laboratories, characteristics could include buildings sealable for decontamination, with a ventilation system that establishes a directional airflow from the access space into the laboratory room, double door entry into the room, sealable windows, the exhaust air from safety cabinets that pass through high-efficiency particulate air (HEPA) filters and run off water disinfected. Equipment used inside could include biosafety cabinets and specialised autoclaves. Access controlled, the two person rule whereby no individual ever works alone in the laboratory applicable, biohazard warning signs displayed when work is in progress and, where applicable, protective laboratory clothing, worn inside.
- In the instance of production, organisms could be handled in a system which physically separates the process from the environment (closed system) with seals so as to prevent release of organisms from the system, exhaust gases from the system treated so as to prevent release and effluent treated before final discharge. Sample collection, addition of material to the system and transfer of viable organisms to another closed system, performed so as to prevent release. This system could be located within a controlled area.

8. Work with listed agents and toxins

Any manipulations with listed biological agents and toxins

Commentary

- This definition covers research and applied activities using listed biological agents and toxins including work related to study of properties of biological agents and toxins, detection and identification methods, genetic modification, aerobiology, prophylaxis and treatment methods, [maintenance of strain collection] and production and other work.

9. Vaccine

Preparations, including live-attenuated, killed or otherwise modified organisms or their components, and nucleic acids, which when introduced by any of multiple routes into an organism induces in it an active immune response, for both prophylactic or therapeutic use.

10. **Production capability**

Expertise and capability to produce microbial or other biological agents or toxins, whatever origin or method of production.

Commentary

- For triggering declarations an agreed quantification level might need to be applied.

11. **Facility**

A combination of physical structures, equipment, personnel and principal associated support infrastructure for the development, production, stockpiling, otherwise acquiring or retaining microbial or other biological agents or toxins."

Commentary

- This definition could include for example, a facility whether under construction, operational or non-operational or a facility which undertakes testing or processing.

12. **Site**

A geographically defined location or area having an identifiable boundary that contains [or has contained (in a timeframe to be specified)] one or more facilities.

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 haemorrhagic 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 burnetii
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 diphtheriae (tox)
5. Cyanginosins (Microcystins) (Microcystis aeruginosa)
6. Enterotoxins (Staphylococcus aureus)
7. Neurotoxin (Shigella dysenteriae)
8. Ricin (Ricinus communis)
9. Saxitoxin (Gonyaulax catanella)
10. Shigatoxin
11. Tetanus toxin (Clostridium tetani)
12. Tetrodotoxin (Spherooides 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 striiformis* (*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 - ability of the agent to retain its

^{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.

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. Lyophilizers (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.

Threshold quantities

The Group held preliminary discussions of the potential role of threshold quantities for specific measures designed to strengthen the Convention. Further consideration needs to be given to this. Three initial questions have been identified:

- 1) Whether threshold quantities have any role in such measures;
- 2) If they have, what are their potential uses;
- 3) What technical basis should be used to elaborate any thresholds?

With reference to the first question, views were expressed that the application of threshold limits to the possession of biological agents and toxins is not a useful means to strengthen the Convention and could undermine the provisions of Article I; this would clearly be outside the mandate of the Group. Peaceful quantities of an agent cannot be defined independently of the particular circumstances of the use, which means that fixed thresholds cannot be used. There would be a risk of a threshold for work for defence purposes being used to conceal offensive activities. The application of threshold limits could provide inaccurate impressions of the scale of activities at a facility because the self-replicating nature of microorganisms means that an agent amount at or below a threshold could be exceeded within a matter of hours. Finally, even small quantities of biological agents and toxins could, depending upon their intended purpose, violate the object and purpose of the Convention.

Another view was that the establishment of threshold quantities of biological agents and toxins is essential for an effective verification regime under the BWC. Such threshold limits could in no way contradict the mandate of the Group, since the mandate specifies that the Group shall, inter alia, consider "definitions of terms and objective criteria, such as lists of bacteriological (biological) agents and toxins, their threshold quantities, (emphasis added).....".

With reference to the second question, one view suggested that the possibility of establishing thresholds for storage of listed biological agents and toxins should be considered by the Group.

Another view was that there should be threshold quantities for biological materials containing listed agents that can be stored at facilities for the purposes of developing and testing means and methods of protection against BW. These thresholds would not cover quantities that are used in day to day work at these and other facilities that produce immune biological, medical and other preparations. This approach is not meant to limit the scope of Article I of the BWC.

On the third question, as to what technical basis could be used for any threshold, the above proposal for threshold quantities for biological materials stored at facilities for the purposes of protection against BW contains the following method of calculation which takes into account the specific concentration of each agent and its virulence:

- select an agent with the highest virulence (for example, pathogen "X" with $LD_{50} = 40$ cells);
- take a genuinely achievable concentration of the agent in biological material (for example $10 \cdot 10^9$ cells/ml);
- take the maximum quantity of biological material which can be held at the facility at one time (for example 5 kg);
- calculate the quantity K of LD_{50} which can be held at the facility at one time (for example, $K = 5 \cdot 1000 \cdot (10 \cdot 10^9) / 40 = 1,25 \cdot 10^{12} LD_{50}$)

In order to determine what is the quantity of another biological material containing another agent, or the same one with a different virulence or a different concentration, that can be held at the facility at one time, it is necessary to insert the actual concentration at LD_{50} of this agent into the following formula:

$$M = K \cdot LD_{50} / C \cdot 1000, \text{ where}$$

M is the quantity of biological material containing the agent of a given virulence and concentration which could be held at the facility at one time (kg):

C is the concentration of the agent (cells/ml).

In this context, the starting values for LD_{50} , concentrations and quantities must be defined by consensus after careful study. It was also suggested that the proposed approach relates only to the listed biological agents. With regard to toxins, that affect humans and animals, as well as biological agents and toxins that affect plants, other methodological

approaches may be considered.

Views were expressed that the limited relevance of LD₅₀s (and ID₅₀s) underscored the lack of utility of threshold quantities in strengthening the Convention:

- LD₅₀ values vary greatly with the affected species and route of administration, and the degree of variation between individuals can also vary. This means that widely different amounts of agent are needed for different types of experimentation. Even greater difficulties would be encountered in using virulence and pathogenicity as indicators because these are relative terms.
- For agents that are primarily incapacitating the use of lethal dose regardless of the calculation mode would provide an inappropriate risk assessment.
- The concept of NOAEL (no adverse effect level) is used widely rather than LD₅₀. It is currently used for the risk assessment of processes and products in regard to the health of humans, animals, plants and environment.

An opinion was expressed that the issue of establishing thresholds for toxins could be addressed separately and some quantitative approaches were proposed.

It was understood that the issue of thresholds for biological agents and toxins needs further consideration by the Group.

**FRIEND OF THE CHAIR ON CONFIDENCE BUILDING
AND TRANSPARENCY MEASURES**

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, GENE BANK, etc.).

4.3 Possible contribution from international organizations (WHO, etc.)

- 4.3.1 communication of information technically validated by staff in the field as part of a global alert system both on general and protected basis
- 4.3.2 provision of technical expertise through WHO's network of Collaborating Centres for the investigation of disease outbreaks and the confirmation of diagnosis
- 4.3.3 liaison with health authorities in developing countries through WHO staff and Collaborating Centres
- 4.3.4 liaison with military communicable disease surveillance and laboratory facilities
- 4.3.5 provision of information on national vaccination practices and coverage
- 4.3.6 guidelines on containment of specific pathogens in public health and laboratory settings
- 4.3.7 providing a focal point for global data and information exchange
- 4.3.8 revision of the International Health Regulations to provide a common policy for strengthening surveillance and reporting

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

The potential modalities could be arranged on a bilateral and/or multilateral basis. Such modalities could include:

6.1 measures to protect commercial and other information

6.2 frequency and duration of visits

6.3 adequate notification of visits

6.4 as appropriate, cooperation with a future organization

6.5 the funding of visits and the arrangements thereof.

FRIEND OF THE CHAIR ON ARTICLE X

ELEMENTS FOR STRUCTURED DISCUSSIONS ON ARTICLE X ON THE BTWC

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. 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, seminars, 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 sector 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 and applied research in biosciences, and particularly that directly related to the Convention, should be unclassified, as a general rule.
 - b) States Parties are encouraged to provide information on their policy as regards publication of results of biological research.
 - c) States Parties should provide information on relevant scientific journals and other relevant scientific publications generally available to States Parties.
 - d) A BTWC Organization is to collect and survey information continuously and make it accessible 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.

II. GREATER MULTILATERAL COOPERATION IN INTERNATIONAL PUBLIC HEALTH AND DISEASE CONTROL.

- 1) 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 Agricultural Organization (FAO) regarding epidemiological surveillance, with a view to improve the identification and timely reporting of significant outbreaks of human and animal diseases.

2) 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.

3) 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.

4) World Data Bank, 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.

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 BTWC. This network could be part of the existing PROMED system.

III. 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) Development of techniques for identification of agents and diagnostics.

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) 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.

IV. 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 BTWC.

5) Registering and supporting appropriate external international programmes.

V. INSTITUTIONAL, LEGAL AND FINANCIAL ARRANGEMENTS

Fundamental questions concerning the type of organizational arrangement, the legal framework and the financial assistance envisaged to establish appropriate machinery supportive of Article X should be taken into consideration and decided by the Ad Hoc Group as a whole.

INSTITUTIONAL

1) A small, cost effective BTWC Organization.

2) An organization associated to the Organization for the Prohibition of Chemical Weapons (OPWC).

3) 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, UNIDO, UNEP, etc. (a tentative suggestion would be to allocate the leading role to the Commission for Sustainable Development).

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

LEGAL

1) Specific measures that merit further consideration in a legally binding regime to strengthen the BTWC should be listed in a protocol or other legally binding instrument designed to that effect.

2) Other measures could be incorporated in a separate or associate instrument, or find their place in

preambular paragraphs of the protocol or other legally binding instrument.

FINANCIAL

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.

VI. MODALITIES, SAFEGUARDS AND LIMITATIONS

The paragraphs below under MODALITIES, SAFEGUARDS AND LIMITATIONS represent the range of views held by delegations.

The included language attempts to reflect the range of views presented. It in no way represents agreement among any group of delegations, nor does it reflect any necessary breadth of conviction by numbers of delegation.

1) States Parties should be encouraged to take the necessary measures to promote transparency and openness in all research which may have dual use.

2) States Parties should implement national measures and/or legislation, compatible with the provisions of the Convention, to regulate the transfer of dual-use technology of interest to the BTWC, in order to ensure that such transfers are compatible with Article III of the Convention and do not endanger international security.

3) States Parties should adopt specific measures to ensure full and effective implementation of provisions of the Convention on the peaceful use and the removal of all restrictions on transfer of material, equipment and technology for peaceful purposes to all States Parties without exception.

4) Nothing in this convention shall be interpreted in a manner that would be used to impose any restrictions on the peaceful uses of biotechnology.

5) The view was expressed that while peaceful uses of biotechnology, bioscience, and applied research are very important, it is absolutely essential that transfer of dual-capable technology should be stringently reviewed to ensure, to the highest degree possible, its eventual use is in accordance with the basic object and purpose of the Convention. Such precautions may, in specific cases, necessitate non-transfer.

6) States Parties should endeavour to prevent that the application of scientific and technological research in areas associated with the BTWC may benefit or induce any kind of qualitative improvement in the field of biological

weapons.

7) In order to efficiently address proliferation concerns, export control regimes need to be transparent, able to appropriately distinguish between civilian and non-civilian application of technologies and responsive to the legitimate aspirations of States Parties to promote their economic and social development.

8) The view was expressed that the objective of export control regimes should be transparent, and that export control regimes should be able to perform their responsibilities without interference with legitimate aspirations of States Parties. The mechanism of operation in detail of such regimes is a matter of national practice.

9) The economic and social development of all States Parties include the requirement for multi-laterally negotiated, universal, comprehensive and non-discriminatory sensitive technology transfer agreements.

10) The view was expressed that technology transfer is, in the final analysis, a matter of national, sovereign policy. Export controls do not compromise the ability to establish multi-lateral technology transfer agreements with nations that share the goal of preventing the spread of biological weapons.

11) The detailed impact of dual-use export controls on the social and economic development of States Parties should be further assessed within the context of the BTWC.

12) 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.

13) 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.

14) In adopting cooperative measures within the context of Article X, States Parties should duly account for national security concerns and the interests of proprietary information.

VII. REPORTING, ADMINISTRATIVE AND REVIEW PROCEDURES

- 1) Annual Report by the Secretary-General of the United Nations, on the implementation of Article X, collated from the national reports submitted to the United Nations Centre for Disarmament Affairs.
- 2) Analysis of the Secretary-General's report by the BTWC Review Conferences.
- 3) Alternative mechanism: a treaty Organization would solicit, collect and make available to BTWC States Parties information on the implementation of Article X.
- 4) Consideration of an intersessional mechanism of the States Parties entrusted with the examination of reports and the monitoring of reporting procedures.

VIII. ROLE OF ARTICLE X WITHIN A COMPLIANCE ASSURANCE REGIME

- 1) The aim of an effective compliance assurance regime for the BTWC should be to simultaneously strengthen the disarmament and deterrence elements of the Convention and to provide explicit incentives for the peaceful use and international cooperation in the biosciences.
- 2) Particular attention should be devoted to that end to technologies benefitting States Parties in Article X areas and supporting BTWC compliance (i.e. vaccine for peace international programmes).
- 3) Emphasis on the study of infectious diseases and similar occurrences caused by toxins that seem to deviate from the normal pattern as regards type, development, place or time of occurrence.
- 4) Formats and modalities of the exchange of information should enhance those elements which contribute to compliance with the BTWC purposes and objectives.
- 5) Cooperative measures, (which are not already politically binding CBM's) undertaken by the BTWC Organization to strengthen the compliance assurance regime, avoiding duplication with existing bilateral and multilateral programmes and endeavouring to rationalize the overall use of resources, which could include:
 - a) Cooperative measures implemented in connection with

validation or information visits, during which information may be gathered on biotechnological activities at one or several close facilities.

- b) Regional or national seminars on implementation of the BTWC, conduct of inspections, biosafety, identification of agents, diagnostics, vaccine production, etc. organized as appropriate in conjunction with other international organizations.
- c) Other measures and cooperative activities intended to involve universities, research and production institutions, and private enterprises in areas benefitting both Article X and compliance requirements.
- d) Training of the personnel of the future BTWC Organization.
- e) Promotion of institutional and technical cooperation among the institutions concerned with the BTWC compliance assurance regime.

Annex

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 this paper.

Part A of the paper includes a certain number of texts and materials which were originally in WP.28; and a discussion of the relationship between Article X and other key provisions of the BTWC.

Part B of the paper contains two non-papers (BTWC: ARTICLE X: EXPORT LICENSING PROCEDURES) (NOTES ON MULTILATERAL COOPERATION IN AREAS OF INTEREST TO ARTICLE X) which have not been the subject of detailed examination by the Article X Group and are proposed by the Friend of the Chair as a means to facilitate further discussions on the respective issues.

PART A

I. COMPILATION OF RELEVANT TEXTS

1. REPORT OF THE 1987 AD HOC MEETING OF SCIENTIFIC AND TECHNICAL EXPERTS FROM STATES PARTIES TO THE BTWC (EXCERPTS)..

" Modalities for the Exchange of Information.

Exchange of data on research centres and laboratories

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

Encouragement of publication of results and promotion of the use of knowledge

The Ad Hoc Meeting discussed the question of cooperation and assistance as regards the safe handling of biological material covered by the Convention. It concluded that other international fora were engaged in this field and expressed its support for efforts aimed at enhancing that cooperation.

Active promotion of contacts between scientists engaged in biological research directly related to the Convention including exchanges for joint research on a mutually agreed basis.

In order to actively promote professional contacts between scientists, joint research projects and other activities aimed at preventing or reducing the occurrence of ambiguities, doubts and suspicions and at improving international cooperation in the field of peaceful bacteriological (biological) activities, States Parties are encouraged to provide information, to the extent possible:

on planned international conferences, seminars, symposia and similar events dealing with biological research directly related to the Convention.

on other opportunities for exchange of scientists, joint research or other measures to promote contacts between scientists engaged in biological research directly related to the Convention. "

2. FINAL DECLARATION OF THE THIRD REVIEW CONFERENCE

" The Conference emphasises the increasing importance of

the provisions of Article X, especially in the light of recent scientific and technological developments ... which have vastly increased the potential for cooperation between States to help promote economic and social development, and scientific and technological progress, particularly in the developing countries, in the field of biotechnology, genetic engineering, microbiology and other related areas.

The Conference urges all States Parties actively to promote international cooperation and exchange with States Parties in the peaceful uses of biotechnology, and urges the developed countries possessing advanced biotechnology to adopt positive measures to promote technology transfer and international cooperation on an equal and non-discriminatory basis, in particular with the developing countries, for the benefit of all mankind.

The Conference also called upon "the Secretary General of the United Nations to propose for inclusion on the agenda of a relevant United Nations body, not later than 1993, a discussion and examination of the means of improving institutional mechanisms in order to facilitate the fullest possible exchange of equipment, materials and scientific and technological information regarding the use of bacteriological (biological) agents and toxins for peaceful purposes". "

3. REPORT OF THE AD HOC GROUP OF GOVERNMENTAL EXPERTS (VEREX)
EXCERPT :

" The Group examined the potential verification measures in terms, inter alia, of their impact on scientific research, scientific cooperation, industrial development and other permitted activities. In that context, delegations recalled Article X of the Convention according to which States Parties "undertake to facilitate, and have the right to participate in the fullest possible exchange of equipment, materials, and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes", and the related provisions of the Final Document of the Third Review Conference, in particular those on the examination of means of improving related institutional mechanisms and those on the adoption of positive measures to promote technology transfer, consistent with all the other Articles of the Convention. Delegations recalled as well that the

provisions of the Convention should no be used to impose restrictions and/or limitations on the transfer for purposes consistent with the objectives and the provisions of the Convention. "

4. MANDATE AGREED BY THE SPECIAL CONFERENCE

" 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/or 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 designed 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." "

5. GENERAL REMARKS ABOUT ARTICLE X

- a) Article X is an integral part of the BTWC and should not be separated, in its application, from that context.
- b) Article X is one of 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.
- c) 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.
- d) Article X has a promotional aspect and a regulatory aspect, respectively reflected in its two paragraphs,

which must be addressed comprehensively.

- e) Agreeing to consider specific measures designed to ensure effective and full implementation of Article X does not imply that the Parties to the BTWC conclude that Article X is presently not being fully implemented.
- f) Agreeing to consider such specific measures does not subject to question the legally binding nature of Article X.
- g) Article X has a fundamental role to play in shaping a compliance regime for the BTWC.
- h) Universal adherence to the BTWC would be positively assisted by further development of specific measures designed to ensure effective and full implementation of Article X.

II. INTERNATIONAL CONTEXT OF A COMPLIANCE ASSURANCE REGIME

1. In designing a compliance assurance regime for the BTWC, the following should be considered:
 - a) The BTWC bans the development, production, stockpiling and transfer of BTW agents but does not endeavour to prohibit research on BTW agents for defensive or peaceful purposes.
 - b) The high degree of internationalization in the biotechnology and genetic engineering market, combined with the relative simplicity and worldwide diffusion of technologies potentially relevant for biological warfare, contributes to the spread of capabilities throughout the world.
 - c) The large number of facilities, activities and equipment with potential biological warfare capacities which probably could not be excluded from the scope of agreed compliance measures.
 - d) Most of the relevant equipment, technologies and agents have important civilian application.
2. The overall balance of the BTWC requires that progress in the pursuit of the mutually reinforcing objectives of eliminating biological weapons and facilitating the fullest possible exchange of biological technology for peaceful

purposes should take place in a balance manner duly considering that:

- a) much of the necessary know-how and technology in this domain are dual-use with wide commercial applications.
 - b) because biotechnology and genetic engineering are information-intensive rather than capital-intensive it is extremely difficult to prevent the dissemination of weapon-relevant information.
 - c) disarmament and non-proliferation do not hold, for a number of countries, a high priority compared with more pressing demands for agriculture and public health and other social and economic objectives.
 - d) the provisions of the BTWC should not be used to impose restrictions and/or limitations inconsistent with the objectives and purposes of the Convention.
3. Within this context, a cooperative approach, building-up on a strengthened Article X, may provide an incentive for many countries to sustain active participation in the implementation of the BTWC and would thereby greatly increase political support for the overall compliance assurance regime of the Convention.

III. RELATIONSHIP BETWEEN ARTICLE X AND OTHER ARTICLES OF THE BTWC.

ARTICLE I

Article I prohibits the development, production, stockpiling or acquisition by other means, or retention of microbial or other biological agents, or toxins, as well as of weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Such prohibition is not absolute and applies only to types and quantities of biological agents and toxins that have no justification for "prophylactic", "protective" or "other peaceful purposes". While prophylactic and protective have been authoritatively defined, the term "other peaceful purposes" remains unclear but it has been suggested that it included all types of scientific experimentation. To that extent, the BTWC contains a balance between Articles I and X.

ARTICLE III

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 IV

Article IV requires from each State Party that it take any necessary measure to prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I.

Review Conferences have underlined the importance of national measures to implement the Convention, noting in particular:

- a) the need for legislation regarding the physical protection of laboratories and other relevant facilities to prevent unauthorized access and removal of pathogenic or toxic material.
- b) the usefulness of including in textbooks and in

medical, scientific and military educational programmes information dealing with the prohibitions of Article I of the BTWC and of the Geneva Protocol.

- c) the value of providing the texts of specific legislation and/or other relevant regulatory measures to the UN Department for Disarmament Affairs.

As is the case of Article III, measures adopted under Article IV should not be used to impose restrictions and/or limitations on the peaceful use of biological technology beyond the specific requirements of Article I.

Article IV measures may, on the other hand, benefit from a cooperative approach including exchange of information, consultation and assistance in drafting legislation or designing other specific measures to improve compliance with the BTWC.

ARTICLE V

Article V regulates consultation and cooperation in relation to the objectives of/or in application of the provisions of the Convention.

A number of Confidence-building measures (CBMs) adopted pursuant to Article V must also be considered measures to promote Article X.

When recommending adoption of these measures, the Review Conferences have used the expression "mindful of Article V and X ..".

The undertaking to consult one another and to cooperate in solving problems relating to the objective or the application of the provisions of the BTWC contained in

Article V is particularly relevant to the implementation of Article X.

ARTICLE VII

Article VII contains the obligation of support assistance to States Parties exposed to danger, risk or harm as a result of violations to the Convention.

A proposal has been put forward to include in a future BTWC compliance protocol a provision of the nature of Article X of the Chemical Weapons Convention (CWC) stipulating that each State Party would be under binding obligation to

provide assistance directly or through a BTWC Organization in areas such as detection, protective or decontamination equipment, or medical treatment to States Parties threatened or injured by biological weapons.

The nature of this cooperation is different from that of Article X. Reinforcing pledged of assistance to parties threatened with biological weapons or harmed by their use may attract new States to the BTWC, especially in conflict areas of the world. States Parties may consider to establish an international humanitarian fund to be resorted to whenever the stipulated cooperation and assistance are required.

Note: Article VI, containing possible responses to violations of the Convention is not directly related to Article X. In case of a controversy on the application of Article X, the relevant provision would be Article V. Article VIII refers to the Geneva Protocol, Article IX to the objective of effective prohibition of chemical weapons and the rest of the BTWC Articles are final clauses.

PART B

I. BTWC: ARTICLE X: EXPORT LICENSING PROCEDURES

At the November/December meeting of the Ad Hoc Group one delegation asked the Friend of the Chair to develop a paper addressing the question of the relevance of export control measures in the biological weapons field to the implementation of Article X of the Biological and Toxin Weapons Convention (BTWC). In response to this request the Friend of the Chair has developed the following background paper. This non-paper is not intended to present final views on this question, but to present formal or background information which the Friend of the Chair believes the Ad Hoc Group would wish to consider in developing its approach to this element of the group's mandate.

Concerns have been expressed about the impact of the export control measures on the operation of States Parties' rights and obligations under Article X of the BTWC. The Friend of the Chair suggests that consideration of this issue could proceed from an examination of the interaction between export control measures and the provisions of Article X within the broader context of the provisions of the BTWC and of the actual practice of States Parties to the Convention and how this might impact on specific obligations under the Treaty. It is accordingly suggested that further consideration of this issue within the scope of the work coordinated by the Friend of the Chair for Article X focus on the following:

- . Legal issues, in relation to obligations under the BTWC
- . Practical aspects, especially as these might shed light on the above.

Possible elements for consideration include the following:

Legal aspects

The debate over export licensing procedures is directly relevant to Articles III, IV, V and X of the BTWC.

- . **Article III** of the BTWC requires States Parties to prevent any assistance being provided to BW programmes. It states that "Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way

assist, encourage or induce any States, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in article I of the Convention.

- . **Article IV** requires that States Parties to the Convention take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition or retention of agents, toxins, weapons, equipment and means of delivery specified in Article I of the BTWC "within the territory of such State, under its jurisdiction or under its control anywhere". Does this obligation entail the enactment of export controls? National measures of legislative, administrative or regulatory nature must clearly specify the prohibitions and obligations to be observed by the natural and legal persons of the country concerned, and provide for the prosecution, trial and punishment of offenders. BTWC Review Conferences have operated under the assumption that the enactment of export controls compatible with the Convention is one of the measures to be taken under Article IV within areas of national jurisdiction. The question arises thence on how to ensure that such measures are fully compatible with the Convention and, in particular, with Article X.

- . **Article V** of the Convention requires States Parties to consult and cooperate in solving any problems which arise in relation to the Convention. It states that "The States Parties to this Convention 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. Consultation and cooperation pursuant to this article may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with its Charter".

- . **Article X** states that:

"1. The States Parties to this Convention undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes. Parties to the Convention in a position to do so shall also cooperate in contributing

individually or together with other States or international organizations to the further development and application of scientific discoveries in the field of bacteriology (biology) for prevention of disease, or for other peaceful purposes.

2. This Convention shall be implemented in a manner designed to avoid hampering the economic or technological development of States Parties to the Convention or international cooperation in the field of peaceful bacteriological (biological) activities, including the international exchange of bacteriological (biological) agents or toxins for peaceful purposes in accordance with the provisions of the Convention."

The obligation in Article III to not in any way assist the manufacture or acquisition of biological weapons as specified in Article I of the BTWC, is relevant to consideration of the legal basis in the BTWC of export licensing measures. The supply of agents or toxins, or other materials including biological production equipment when it is believed that these materials would probably be used in a biological or toxin weapons programme would clearly be in breach of this obligation under the BTWC, because of the potential of such transfers to assist the development of biological weapons. The concern that also needs to be considered is the view that some States Parties might take a wide approach to their obligations under this Article, with the result that transfers of materials or knowledge for peaceful purposes are also limited in a way which is contrary to their obligation under Article X to facilitate the fullest possible exchange in relevant areas for peaceful purposes.

Consideration of Article III by the Third Review Conference.

The Friend of the Chair paper (annex III/9 to the Report of the Ad Hoc Group) includes in its paragraph XI.1, a), b), c), d) and e) language used by the Third Review Conference in its assessment of Article III:

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

Arguments Against Export Licensing Procedures

A number of countries are opposed to export licensing procedures on the grounds that they serve to restrict the transfer of technology, equipment and materials to developing countries. Such restrictions act to impede the economic and technological development of these countries and are inconsistent with States Parties obligations under Article X of the BTWC.

While it is important for States Parties to comply with their obligations under Article III of the Convention and ensure that no assistance is provided to BW programmes through transfers of relevant materials or technology, this obligation can be fulfilled without the general application of export licensing procedures. In signing on to the BTWC a State Party is undertaking not to develop, produce or stockpile biological weapons. This undertaking should provide sufficient confidence to allow the unrestricted transfer of relevant materials and technology among States Parties.

A different approach starts from the acceptance of export licensing procedures as a legitimate tool provided they can be incorporated into the multilateral framework of the BTWC. The underlying assumption is, as in the case of the previous school of thought, that the implementation of BTWC provisions will suffice to deter any attempt at supporting BW programmes through the transfer of critical materials or technology. Within this context, the fundamental question is how to determine, with sufficient certainty, in the light of the implementation of the Convention, the agreed measures intended to prevent the spread of BW capabilities for purposes contrary to the objectives of the BTWC. One possible option would be to develop a set of rules governing the conditions under which export licensing procedures can be implemented. These rules would allow export licensing to be invoked only when it was clear that the transfer of relevant material or technology to a State Party would result in the provision of assistance to a BW

programme. A separate issue to be addressed is the reduction of export restrictions to States not Parties of the BTWC.

Some countries argue that closer ties between individuals and institutions involved in research and manufacturing not only promote economic development but also bring about the desired effects of compliance behaviour more effectively than export controls. They suggest that programmes designed to encourage technology transfer and development can demonstrate in a more efficient manner the value of full membership of the international community and wean potentially civilian technologies away from their dependence on military programmes. In this context, the need to focus on the modalities of exchanges in order to enhance their compliance ingredients must also be stressed.

Arguments For Export Licensing Procedures

Countries which have export licensing procedures in place consider that these measures are a particularly effective way for a State Party to fulfil its obligations under Article III of the BTWC. In fact, a number of countries believe that export licensing measures are the only effective means to ensure compliance with Article III and that they represent effective and responsible action to fulfil their obligations. They consider as well that export licensing measures fully correspond to the obligations imposed by the BTWC under its Article IV.

It is argued that proliferation countries target the international biotechnology industry as a source for materials for BW programmes. Sales of relevant materials or equipment to a proliferator would clearly fall into the category of illegal assistance to a BW programme. National export licensing measures for relevant materials make the task of countries seeking to achieve a BW capability more difficult. Representatives of the international biotechnology industry have made it clear that they have no desire to sell to BW programmes, and accordingly accept the rationale for export licensing measures to ensure their products are not used for such programmes. At the same time, all governments are under considerable pressure from their domestic industries to allow exports to proceed, and devote considerable effort to ensuring licensing measures have a minimal impact on legitimate trade. For this reason export licensing authorities are only able to stop a planned sale where real concerns about assisting BW proliferation exist.

UNSCOM's recent confirmation that Iraq was engaged in an active biological weapons (BW) programme prior to its invasion of Kuwait, has demonstrated that the threat of BW proliferation is serious and that active measures are required to ensure that States Parties are not inadvertently contributing to such programmes.

It is further argued that export licensing measures are wholly consistent with Article X obligations. Export licensing measures exist solely to prevent assistance to BW programmes, not to prevent legitimate, peaceful activity in the field of biotechnology. Export licenses are not bans. An export is only denied where there is a real risk that the sale would contribute to a BW programme. They operate to deter proliferation by monitoring trade in relevant materials, and provide authority to stop a sale in the infrequent cases where a prospective export is likely to contribute to a BW programme.

These countries do not favour the development of a set of rules to govern the implementation of export licensing procedures. If export licensing procedures could only be applied after an instance of non-compliance with the BTWC had been confirmed, a State Party could be forced into a situation where it had no choice but to breach its Article III obligations. It could be forced to transfer relevant technology or materials to a State Party it suspected was developing a BW programme; however, because non-compliance had not been confirmed, it would have no grounds on which to prevent the transfer.

The global context of biological export control

Efforts to control BW proliferation must take into consideration a number of limitations and realities, including the weakening factor to the BTWC of its impossibility of banning research on BTW agents for defensive or peaceful purposes and the lack of an effective verification regime. The biotechnology and genetic engineering market is characterized by a substantial flow of technology, know-how and material from the industrialized to the developing world. In addition, as is demonstrated by the Final Document of the BTWC Third Review Conference, a growing opinion opposes any further restrictions on technology and know-how transfer under the BTWC.

The transfer of dual-use technology related to weapons of mass destruction is made even more complicated owing to a number of other factors. The fast pace of developments in

the field of science and technology is one of those complicating factors. The widespread civilian applications of dual-use biological technologies is another one. The experience of UNSCOM demonstrates that only elaborate on-site inspections and monitoring devices can effectively prevent the transfer of sensitive technologies. But the prohibitive cost of deploying such devices worldwide makes them impractical.

A survey of the types of multilateral export control regimes would illustrate the complexity of this matter. While it is evident that the evolution of export controls has been affected by conditions prevailing in the international environment, each export control regime has a different focus: the old Coordinating Committee on Multilateral Export Controls (COCOM) which was dissolved in March 1994, sought to prevent exports that could contribute to the development to the military potential of a list of target countries; the Zangger Committee (1971) and Nuclear Suppliers Group (London Club) established in 1975, restrict the acquisition of elements that could contribute to the development of a nuclear potential by non-nuclear weapon States; the Missile Technology Control Regime (MTCR) created in 1987, seeks to limit the spread of delivery systems that are capable of delivering nuclear, chemical and biological weapons; the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies (1996) aims at the prevention of the destabilising accumulation of conventional weapons and transfers of arms and sensitive technologies to particular States or regions; the Australia Group of chemical weapons precursors, equipment used in the production of CW and BW, and biological warfare agents and organisms.

A code of conduct has been postulated for conventional arms transfers, including landmines. Some of the groundwork done in that direction could benefit dual-use technology transfers related to weapons of mass destruction, including BW. Experience gathered during six sessions of the Intergovernmental Group of Experts on the International Code of Conduct for Technological Transfers held prior to 1990 under the auspices of UNCTAD, and four years of hard work, starting in 1991, by the United Nations Disarmament Commission, endeavouring to formulate guidelines on "the role of science and technology in the context of international security, disarmament and other related fields", did not lead to success. This shows the sensitivity of the issue and the need to pursue a wider and more active dialogue on this matter.

Article V Considerations

Article V of the BTWC requires States Parties to consult and cooperate in pursuance of the objective of the Convention and in solving any problems which may arise in its application. A State Party which believes that another is unreasonably hampering trade, could have the matter resolved via this process.

Given the pivotal role played by Article V in the promotion of both confidence-building measures and measures designed to promote Article X, and its possible use in settling disputes arising under Article III, there could be scope for Article V to be further elaborated in the legally binding instrument to strengthen the BTWC.

Under the BTWC, problems relating to the objective or application of the Convention can be solved by bilateral consultations or by consultations undertaken through "appropriate international procedures". It was suggested at the first two Review Conferences that such procedures may include the convening of an inter-sessional body or a consultative meeting of experts open to all Parties.

Article V consultations could thus become a more accessible tool, enabling States Parties to resolve in a more expeditious manner questions arising from the application of export licensing procedures.

The example of the CWC

The Chemical Weapons Convention (CWC) has no export restrictions with regard to chemical trade for purposes not prohibited under the Convention between States Parties. The basic construction of the Convention envisages that all members submit to its rules, i.e. extensive disclosure obligations and production controls. In return, they can expect to be regarded in equal measure as members who are responsible and abide by the provisions of the CWC. Transfers to non-Parties of some items (schedule 2 chemicals) require an end-use certificate.

To what extent does the CWC provide a useful model for the BTWC? It is difficult to answer such a question but the point should be made that the allocation of equal duties and obligations to all CWC member States is safeguarded by a verification regime which becomes the cornerstone for the notion of replacing existing export control regimes by measures specific to the CWC. In the case of the BTWC, the proposal suggested in the paper by the Friend of the Chair

of replacing export controls on dual-use items by non-discriminatory reporting of critical items requires consideration within the framework of a BTWC endowed with a satisfactory compliance-assurance regime.

Conclusions, Approaches and Practical Issues

The objective of multilateral regimes is to achieve through joint action what individual States are not capable to enforce. Nevertheless, export control regimes are not truly multilateral. Their foundation rests upon the premise that States take independent action, collaborating only on specific measures to achieve certain objectives. For this reason (with a qualified exception for the MTCR) they are not predicated upon an embargo principle; they seek to regulate trade by applying certain conditions. Export control regimes establish a forum for consultation and information exchange. They are not the source of a binding international obligation.

As we have seen, the BTCW contains such obligation and the Review Conferences have welcomed statements and commitments by States not to transfer agents, toxins, equipments or weapons mentioned in Article I. The question to be addressed does not concern so much the validity and effectiveness of export controls but rather if such controls should continue to operate independently on the basis of informal agreements or understandings; or if they should become an integral part of the instrument intended to improve compliance with the Convention.

If this path is to be pursued, specific measures must be tailored to overcome confrontational strategies and to develop capability-based controls, linked to the activity undertaken rather than to the countries in which those activities occur. The issue must also be addressed of trade restrictions applicable to non Parties of the Convention and its additional protocols or annexes.

The risk that biological agents and toxins, as well as equipment for their processing, use of production for peaceful purposes, and technological know-how can be diverted to purposes prohibited by the BTWC can be reduced by well-designed CBMs. If States Parties supplying material and equipment requested the recipient countries to submit periodical and detailed statements about the use made of the received items, a further control would be established. Re-transfers and transfers to recipients non parties to the BTWC would, as emphasized before, require a more elaborate regime.

There is some wisdom in the view that current export controls, in isolation and without the support of additional compliance measures, are unlikely to be a strong barrier to the development and/or acquisition of BW. Such view does not invalidate or imply that export controls are per se ineffective tools, but rather that the fundamental problem is always one of compliance with acquired obligations and of cooperation in order to foster the objectives of international disarmament.

1. Approaches outlined in this non-paper are not necessarily contradictory. The author believes in the merits of complementarity.
2. Within every disarmament agreement, the issue is always to determine the circumstances under which a certain transfer involves the breach of an obligation. The prohibition, limitation or curtailment of transfers must also be fully compatible with the provisions of the relevant disarmament agreement.
3. Without any agreed standard against which to measure the conduct of States, the most elaborate export control regime is bound to fail. Nevertheless, export controls are the primary and essential components of a more comprehensive compliance regime.
4. It is clearly important that States Parties adopt an approach which does not give primacy to one area of treaty obligations over other areas. The actions of States Parties should be consistent with, and satisfy all obligations under the BTWC and not take a selective approach.
5. An effective method of examining this question would be to look at the practical operation of measures taken by the States Parties, as this would clarify the nature of these measures in a way which is not possible by other means. It is suggested that the discussion on the matter focus on these themes.

II. NOTES ON MULTILATERAL COOPERATION IN AREAS OF
INTEREST TO ARTICLE X

1. A survey of existing multilateral programmes has been suggested in order to assess both the existing level of implementation of Article X and the relevance of work of the Article X Group on specific and concrete measures. The examination of such work has been initiated by the Article X Group with the valuable assistance of representatives of other international organizations which have provided insight and information concerning:

- a) Multilateral activities carried out within the United Nations system and associated organizations.
- b) Activities carried out by other international organizations and agreements.
- c) Activities of relevant non-governmental organizations.

2. There is a broad range of international activities related to Article X of the BTWC, among which the following should be noted:

- a) The Declaration of Principles by the United Nations Conference on Environment and Development (Rio Declaration), in particular Principle 9).
- b) Agenda 21, adopted by the Rio Conference, in particular its Chapter 16 (Environmentally-sound management of biotechnology).
- c) The Convention on Biological Diversity, which entered into force in December 1993, and more specifically two CBD initiatives:
 - i) a Clearing-house mechanism, presently in a pilot phase, which will concentrate on utilising databases to promote the transfer of technology.
 - ii) the biosafety protocol to be negotiated in the "field of the safe transfer, handling and use of living modified organisms, specifically focusing on transboundary movement".
- d) The International Technical Guidelines on Safety in Biotechnology developed by the United Nations Environment Programme (UNEP) pursuant to a joint initiative by the United Kingdom and the Netherlands.

- e) The Global Bioinformatics Networks (BINAS) jointly developed by the United Nations Industrial Development Organisation (UNIDO) and the International Centre for Genetic Engineering and Biotechnology (ICGEB).
- f) ICGEB's programmes designed to assist developing countries and promote cooperation in the peaceful uses of genetic engineering and biotechnology.

3. As a follow-up to some of the actions called for in Chapter 16 of Agenda 21 and in support of the work of the Conference of the Parties to the Convention on Biodiversity, UNEP has hosted a number of regional and subregional consultations and is preparing a global intergovernmental meeting on biosafety, intended as well to review progress made in the implementation of the Technical Guidelines. The meeting will take place in Buenos Aires immediately before the Third Meeting of the Conference of the Parties to the Convention on Biodiversity to be held from 4 to 15 November 1996. Another important initiative by UNEP is the establishment of an interim International Register on Biosafety (IRB).

4. Attention has been drawn to impressive advances in the Human Genome Project set out by UNESCO in the early 1990s to completely sequence the genomes of a number of higher organisms of a range of complexity up to, and including, human beings. By late 1994 a good genetic map covering the entire human genome had been already completed. The concept that the vast amount of knowledge accumulated in the successful progression of this project may also have applications in the area of biological and toxin weapons. Nevertheless, progress in biomedical research and other peaceful uses generated by this project is also of interest to Article X concerns.

5. In developing declaration forms and procedures for processing and analysing them (work under consideration by the Group on CBMs but relevant to Article X concerns) it is necessary to refer to the expertise of the World Health Organization (WHO) the Food and Agriculture Organization (FAO) and the Office International des Epizooties (OIE) in processing and analysing declarations of unusual outbreaks of disease or intoxication. Worldwide concern about new and emerging diseases coalesced into Resolution WHO 4813 adopted by the forty-eighth World Health Assembly on 12 May 1995. The following developments are of particular importance for the BTWC:

- a) The global framework suggested by the first and second ad hoc meetings of international experts in emerging infectious diseases (Geneva, April 1994 and January 1995)

which includes four goals: strengthening global surveillance of communicable diseases, strengthening national and international infrastructures, strengthening preventive and control capabilities and conducting research in communicable diseases control.

- b) Training activities in immunology, vaccinology, biotechnology and biosafety training applied to communicable diseases.

- c) Assets of WHO in communicable disease surveillance and control, i.a.: mandate from Member States, its reporting and information capabilities, its presence in member countries, the ad hoc panel of international experts and its web of collaborating centres.

6. Attention should be drawn, in this connection, to ProMED, an international project of the Federation of American Scientists to promote the establishment of a global Program to Monitor Emerging Diseases. International programmes for the development and use of vaccines against dual threat agents (Vaccines for Peace Programme) (Biesenthal Vaccine Initiative) are also of significant value for Article X concerns. The ProCEID initiative, supplementing ProMED, and directed towards the increase of world capacity to produce and make available vaccines and other biologicals is basically designed to strengthen the BTWC through implementation of Article X and enhanced transparency in activities related to the Convention.

7. Although the survey of multilateral cooperation being carried out has opened a broad perspective for multilateral information sharing, a more focused orientation is required to assess its value for BTWC purposes. In particular, the need for a BTWC database and the creation of a computer network to integrate other existent databases through INTERNET connectivity emerge as issues for early consideration.

8. A certain number of criteria should be agreed in developing patterns for fruitful multilateral cooperation. Emphasis on the comparative advantage of the BTWC compared to other organizations or entities; cost-effectiveness; avoidance of duplication; and rational use of the resources have been often mentioned in this respect.

9. A requirement exists to develop also some operational principles. If a future BTWC organization is going to act as a catalyst or a "hub" between its States Parties and other international organizations for the sake of Article X a more detailed and pragmatic discussion of the options contained in

WP.98 (IV. ADDITIONAL WAYS AND MEANS TO ENHANCE INTERNATIONAL COOPERATION) seems appropriate.

10. WP.23 suggested the creation of a synergy and eventually mechanisms for cooperation and research with other institutional partners in areas of public health and biotechnology. Future work of the Article X Group should, nevertheless, concentrate on some of the practical aspects emphasized in this non-paper.

ANNEX II

**PROGRAMME OF WORK FOR THE SIXTH SESSION ENVISAGED FOR
3-21 March 1997**

First Week: 3 - 7 March 1997

	3 MAR	4 MAR	5 MAR	6 MAR	7 MAR
AM	AHG/CM, CBM	CM	INF CONS Tech.iss	INF CONS Tech.iss	CM
PM	Art.X	DEF.	CM/DEF	DEF.	Art.X

Second Week: 10 - 14 March 1997

	10 MAR	11 MAR	12 MAR	13 MAR	14 MAR
AM	CM	CM/DEF	INF CONS Tech.iss	INF CONS Tech.iss	CM/DEF
PM	DEF.	DEF	Art.X	DEF	DEF

Third Week: 17 - 21 March 1997

	17 MAR	18 MAR	19 MAR	20 MAR	21 MAR
AM	CM	CM	INF CONS Tech.iss	INF CONS Tech.iss	CM
PM	Art.X	Art.X	CM/DEF	CM	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
 INF CONS - Informal Consultations on technical issues
 Tech.iss.

ANNEX III**LIST OF DOCUMENTS****DOCUMENTS SUBMITTED AT THE FIRST SESSION**

<u>Document</u>	<u>Title</u>
BWC/AD HOC GROUP/1	Provisional agenda
BWC/AD HOC GROUP/2	Estimated costs of the first session
BWC/AD HOC GROUP/INF.1	Provisional list of participants
BWC/AD HOC GROUP/WP.1	Working paper by Canada entitled "The role of trial inspections in informing arms control negotiations and implementation, with particular emphasis on the Biological and Toxin Weapons Convention".
BWC/AD HOC GROUP/WP.2	Draft Procedural Report
BWC/AD HOC GROUP/WP.2*	Draft Procedural Report
BWC/AD HOC GROUP/3	Procedural Report

DOCUMENTS SUBMITTED AT THE SECOND SESSION

<u>Document symbol</u>	<u>Title</u>
BWC/AD HOC GROUP/4	"Estimated costs of the second and third sessions 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", submitted by the Secretariat
BWC/AD HOC GROUP/5	"Discussion paper on measures", submitted by the United Kingdom of Great Britain and Northern Ireland
BWC/AD HOC GROUP/6	"The future role of confidence building measures (CBMs)" submitted by the Netherlands
BWC/AD HOC GROUP/7	"Programme of work: measures to promote compliance: agenda", submitted by the United Kingdom of Great Britain and Northern Ireland
BWC/AD HOC GROUP/8	"Elements for a possible verification regime in the framework of the Convention on Biological Weapons", submitted by Cuba
BWC/AD HOC GROUP/9	"List of biological and toxin agents significantly important for the Convention", submitted by Cuba
BWC/AD HOC GROUP/10	"List of equipment significantly important for the Convention", submitted by Cuba
BWC/AD HOC GROUP/11	"Investigation alleged use of biological weapons", submitted by South Africa
BWC/AD HOC GROUP/12	"The application of intrusive measures on-site inspections, auditing, sampling and identification in order to strengthen the BWC", submitted by South Africa
BWC/AD HOC GROUP/13	"Compilation of questions for the

item 'Definitions of terms and objective criteria', submitted by France and Germany

- BWC/AD HOC GROUP/14 "Working document on criteria and lists of agents to be included in a verification protocol of the Convention on the prohibition of biological weapons", submitted by France and Germany
- BWC/AD HOC GROUP/15 "Definition of terms", submitted by the Russian Federation
- BWC/AD HOC GROUP/16 "List of biological agents and toxins", submitted by the Russian Federation
- BWC/AD HOC GROUP/17 "Declarations", submitted by the Friend of the Chair on compliance measures
- BWC/AD HOC GROUP/18 and Rev.1 "List of biological agents and toxins", submitted by China
- BWC/AD HOC GROUP/19 "List of agents", submitted by Brazil
- BWC/AD HOC GROUP/20 "Criteria and list of animal pathogens", submitted by Portugal
- BWC/AD HOC GROUP/21 "The role and objectives of information visits", submitted by the United Kingdom of Great Britain and Northern Ireland
- BWC/AD HOC GROUP/22 "Specific measures for implementation of Article X in the context of a compliance regime for the BWC", submitted by Brazil
- BWC/AD HOC GROUP/23 "Discussion of potential Article X issues", submitted by the United States of America
- BWC/AD HOC GROUP/24 "Japanese Cooperation in the field of biotechnology", submitted by Japan
- BWC/AD HOC GROUP/25 "Some possible elements in a verification protocol", submitted by Sweden
- BWC/AD HOC GROUP/26 "Criteria for the selection of biological agents to be included in a

GROUP/32

BWC/AD

HOC

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list", submitted by Brazil, France,
Germany, Greece and Russian
Federation

- BWC/AD HOC GROUP/27 "Definitions for some terms" related to measures under discussion for strengthening the Convention on Biological Weapons", submitted by China
- BWC/AD HOC GROUP/CRP.1 "Declaration as a component of a verification protocol", non-paper submitted by Australia
- BWC/AD HOC GROUP/CRP.2 "Programme of work: Definition on terms", non-paper submitted by the Friend of the Chair
- BWC/AD HOC GROUP/CRP.3 "US Agency for international development programs", non-paper submitted by the United States of America
- BWC/AD HOC GROUP/CRP.4 "US Agency for international health activities", non-paper submitted by the United States of America
- BWC/AD HOC GROUP/INF.3 "List 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"
- BWC/AD HOC GROUP/INF.4 "Provisional list of participants"
- BWC/AD HOC GROUP/INF.5 "List of participants"

DOCUMENTS SUBMITTED AT THE THIRD SESSION

<u>Document symbol</u>	<u>Title</u>
BWC/AD HOC GROUP/WP.3	The Role of Containment in Facility Declarations under the BTWC
BWC/AD HOC GROUP/WP.4	Ad Hoc Expert Group - Working document by Cuba - Some elements associated to the promotion of science and technology with peaceful aims within the framework of the Convention on Biological and Toxin Weapons
BWC/AD HOC GROUP/WP.5	Ad Hoc Expert Group - Working document by Cuba - Rights and obligations of the State Parties to the Convention on Biological and Toxin Weapons within the framework of the economic and technological development and in the field of international cooperation and assistance
BWC/AD HOC GROUP/WP.6	Discussion paper on declarations: list of agents and combinations of criteria
BWC/AD HOC GROUP/WP.6/ Corr.1	Working paper submitted by Canada
BWC/AD HOC GROUP/WP.7	BWC Article X: Areas of biological activity of direct relevance to the Convention
BWC/AD HOC GROUP/WP.7/ Corr.1	Working paper submitted by the United Kingdom
BWC/AD HOC GROUP/WP.8	Definition of containment facilities for plant pest laboratories
BWC/AD HOC GROUP/WP.8/ Corr.1	Working paper submitted by South Africa
BWC/AD HOC GROUP/WP.9	France/Germany Discussion paper -

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Declarations in a BTWC-Verification
Protocol

BWC/AD HOC GROUP/WP.10 Discussion paper of the Netherlands -
The relevance and effectiveness of
(combinations of) criteria for
declaration

- BWC/AD HOC GROUP/WP.11 Use of investigative epidemiology as a tool in the investigation of unusual outbreak of disease and alleged use of biological weapons
- BWC/AD HOC GROUP/WP.12 Friend of the Chair on Compliance Measures- Declarations
- BWC/AD HOC GROUP/WP.13 Alleged Use Investigation - Authority to Trigger - Working paper by Australia
- BWC/AD HOC GROUP/WP.14 Overview of some epidemiological factors relevant to the production and use of infectious agents as biological weapons - discussion paper submitted by Portugal
- BWC/AD HOC GROUP/WP.15 Working paper by Sweden - Short notice on-site information visits and inspections as parts of a verification regime for the BTWC
- BWC/AD HOC GROUP/WP.16 The relationship between investigations of alleged use of BTW and unusual outbreaks of disease and challenge inspections
- BWC/AD HOC GROUP/WP.17 Friend of the Chair for Compliance Measures - Proposed revision of paragraph 6 of FOC July paper
- BWC/AD HOC GROUP/WP.18 France/Germany - Working document on genetically modified organisms (GMO)
- BWC/AD HOC GROUP/WP.19 France - Convention de 1972 - Application de l'article X de la Convention
- BWC/AD HOC GROUP/WP.20 Friend of the Chair on Compliance Measures - Investigation of alleged use
- BWC/AD HOC GROUP/WP.21 Working paper submitted by Cuba - Investigation on the use or alleged use of biological or toxin weapons

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against a State Party to the
Biological Weapons Convention

- BWC/AD HOC GROUP/WP.22 Working paper by Cuba - Elements for a potential verification regime within the framework of the Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and their destruction (BWC)
- BWC/AD HOC GROUP/WP.23 Friend of the Chair on Article X - Informative Note concerning some activities of multilateral cooperation in areas related to the BWC and their relevance for cooperation under article X of the BWC
- BWC/AD HOC GROUP/WP.24 Working paper by Brazil - Recent trends in the biology of infectious agents and cooperation as an element of the BWC compliance regime
- BWC/AD HOC GROUP/WP.25 Paper submitted by the United States of America - Computer networking as a means of strengthening the BWC
- BWC/AD HOC GROUP/WP.26 Working paper by Japan - BWC definition: list of biological agents
- BWC/AD HOC GROUP/WP.27, Rev.1, Rev.2 and Rev.3 Friend of the Chair on Confidence Building and Transparency Measures
- Surveillance of legislation
- BWC/AD HOC GROUP/WP.28, Rev.1, Rev.2 and Rev.3 Friend of the Chair on Confidence Building and Transparency Measures
- Data on Transfers and Transfer Requests and on Production
- BWC/AD HOC GROUP/WP.29, Rev.1, Rev.2 and Rev.3 Friend of the Chair on Confidence Building and Transparency Measures
- Multilateral Information Sharing
- BWC/AD HOC GROUP/WP.30, Friend of the Chair on

Rev.1 and Rev.2

Confidence Building and Transparency
Measures

- Surveillance of Publications

BWC/AD HOC GROUP/WP.31,
Rev.1, Rev.2 and Rev.3

Friend of the Chair on
Confidence Building and Transparency
Measures

- Exchange visits

- BWC/AD HOC GROUP/WP.32 Czech activities in the field of biotechnology - Working paper submitted by the Czech Republic
- BWC/AD HOC GROUP/WP.33 New Zealand Delegation - 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.34 Definitions of terms and objective criteria - list of biological agents and toxins - Proposal by Turkey
- BWC/AD HOC GROUP/WP.35, Rev.1 and Rev.2 Friend of the Chair on Confidence Building and Transparency Measures - Exchange visits (off-site)
- BWC/AD HOC GROUP/WP.36 Friend of the Chair on Compliance Measures - Declarations
- BWC/AD HOC GROUP/WP.37 Friend of the Chair on Compliance Measures - On-site Measures
- BWC/AD HOC GROUP/WP.38 Friend of the Chair on Compliance Measures - Investigation of Alleged Use
- BWC/AD HOC GROUP/WP.39 and Rev.1 Friend of the Chair on the Definition of Terms and Objective Criteria - Human Pathogens
- BWC/AD HOC GROUP/WP.40 Working paper submitted by the Islamic Republic of Iran - Threshold quantities for toxins
- BWC/AD HOC GROUP/WP.41 Working paper submitted by the United Kingdom - The role of quantitative data in measures to promote compliance with the BTWC
- BWC/AD HOC GROUP/WP.42 The role of lists of key equipment in measures - Working paper submitted by the United Kingdom

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BWC/AD HOC GROUP/WP.43
and Rev.1

Working paper by the Friend of
the Chair on Definitions and
Objective Criteria - Types of
Activity

BWC/AD HOC GROUP/WP.44

Working paper submitted by the
Islamic Republic of Iran - Animal
Pathogens

- BWC/AD HOC GROUP/WP.45 Working paper submitted by the Netherlands - Implementation of Article X of the BTWC
- BWC/AD HOC GROUP/WP.46 Protection of intellectual property rights with regard to biotechnology - working paper submitted by Japan
- BWC/AD HOC GROUP/WP.47 Friend of the Chair on Article X
- BWC/AD HOC GROUP/WP.48 and Rev.1 Friend of the Chair on Definition and Objective Criteria - Criteria for animal pathogens
- BWC/AD HOC GROUP/WP.49 Friend of the Chair on Definition and Objective Criteria - Criteria for plant pathogens
- BWC/AD HOC GROUP/WP.50 and Rev.1 Friend of the Chair on Definition and Objective Criteria - Summary of views on definition and threshold quantities
- BWC/AD HOC GROUP/WP.51 Friend of the Chair on Definition and Objective Criteria - Summary of views on list of equipment and types of activity
- BWC/AD HOC GROUP/WP.52 Privileges and Immunities of the Organization and Inspectors - Working paper submitted by Japan
- BWC/AD HOC GROUP/INF.6 Provisional list of participants
- BWC/AD HOC GROUP/INF.6/
Rev.1 List of participants
- BWC/AD HOC GROUP/30 "Estimated cost of the fourth and fifth sessions 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" submitted by the
Secretariat.

DOCUMENTS SUBMITTED AT THE FOURTH SESSION

<u>Document symbol</u>	<u>Title</u>
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

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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

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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 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
- 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 and Corr.1 List of participants
- BWC/AD HOC GROUP/31 Procedural Report of the Ad Hoc Group and Add. 1 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

DOCUMENTS SUBMITTED AT THE FIFTH SESSION

<u>Document Symbol</u>	<u>Title</u>
BWC/AD HOC GROUP/WP.91, and Rev.1	Working paper submitted by Friend of the Chair on Implementation by the Inspection Team of specific on-site activities
BWC/AD HOC GROUP/WP.92, and Corr.1 (Spanish Only) Rev.1 and Rev.2	Working paper submitted by the Friend of the Chair on Types of information to be submitted with a request for an investigation to address a non-compliance concern
BWC/AD HOC GROUP/WP.93, Rev.1 and Rev.2	Working paper submitted by the Friend of the Chair on Non- challenge visits: core elements
BWC/AD HOC GROUP/WP.94, and Rev.1	Working paper submitted by the Friend of the Chair on Investigations to address a non- compliance concern: core elements
BWC/AD HOC GROUP/WP.95, Rev.1, Rev.2 and Corr.1 (English only)	Working paper submitted by the Friend of the Chair on Declarations: core elements
BWC/AD HOC GROUP/WP.96	Working paper submitted by South Africa - Investigations to address compliance concerns
BWC/AD HOC GROUP/WP.97	Working paper submitted by South Africa - Definitions of terms
BWC/AD HOC GROUP/WP.98 and Rev.1	Working paper submitted by the Friend of the Chair on Elements for structured

discussions on Article X on the BTWC

BWC/AD HOC GROUP/WP.98/
Add.1 and Rev.1

Working paper submitted the Friend of the Chair on Elements for structured discussions on Article X on the BTWC - Annex

BWC/AD HOC GROUP/WP.99

Working paper submitted by the Russian Federation on threshold quantities

BWC/AD HOC GROUP/WP.100

Working paper submitted by South Africa - Animal pathogens important for the BWC

BWC/AD HOC GROUP/WP.101

Working paper submitted by Canada - Information to be submitted with a request for an investigation to address a non-compliance concern

BWC/AD HOC GROUP/WP.102

Working paper submitted by Canada - Allegation of use

BWC/AD HOC GROUP/WP.103
and Corr.1 (English Only)

Working paper submitted by the Czech Republic - List of terms and definitions

BWC/AD HOC GROUP/WP.104

Working paper submitted by Brazil - Article X implementation in a BWC compliance regime: Aspects of a cooperative approach

BWC/AD HOC GROUP/WP.105

Working paper submitted by Sweden and the Netherlands - Further elaboration of concepts of on-site visits (other than those to investigate a non-compliance concern)

BWC/AD HOC GROUP/WP.106

Working paper submitted by India - Definition of terms

BWC/AD HOC GROUP/WP.107	Working paper submitted by New Zealand - Measures to prevent abuse of the right to request investigation of possible non-compliance
BWC/AD HOC GROUP/WP.108 (Withdrawn)	Working paper submitted by the Friend of the Chair
BWC/AD HOC GROUP/WP.109	Working paper submitted by the United Kingdom - Sampling and analysis in facility inspections: Means of addressing confidentiality and other concerns
BWC/AD HOC GROUP/WP.110 and Rev.1	Working paper submitted by the Friend of the Chair on definitions of terms and objective criteria
BWC/AD HOC GROUP/WP.111 and Corr.1 (English Only)	Working paper submitted by the Friend of the Chair - Investigations to address a non-compliance concern
BWC/AD HOC GROUP/WP.112 (Withdrawn)	Draft 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
BWC/AD HOC GROUP/WP.113	Working paper submitted by the Friend of the Chair on Definitions of Terms and of Objective Criteria
BWC/AD HOC GROUP/INF.8	List of Participants
BWC/AD HOC GROUP/Misc.1	Note verbale
BWC/AD HOC GROUP/32	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
