

**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 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, held its second session at the Palais des Nations, Geneva, from 10 to 21 July 1995, in accordance with the decision taken at its first session. The Group held 21 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. Sohrab Kheradi, Deputy Director of the Centre for Disarmament Affairs, Department of Political Affairs, continued to serve as Secretary of the Group.

2. At the second 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, El Salvador, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Italy, Japan, Malta, Mexico, Mongolia, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. The following State signatory to the Convention also participated in the work of the Group: Myanmar.

3. At its first meeting, the Ad Hoc Group decided to commence 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". In this connection, the Group held a brief exchange of views in which a number of delegations participated.

4. At the same meeting, on 10 July 1995, the Chairman of the Ad Hoc Group announced that following appropriate consultations, he had decided to appoint Friends of the Chair to assist him in his consultations and negotiations on particular issues as follows:

Definitions of terms and objective criteria
- Dr. Ali Mohammadi (Islamic Republic of Iran)

Confidence-building and transparency measures
- Chairman of the Ad Hoc Group
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. In accordance with the programme of work, as adopted at its first session, the Ad Hoc Group held 21 meetings. Nine meetings were devoted to issues related to "Measures to promote compliance". Discussions and exchange of views on those issues were conducted by Mr. Stephen Pattison, assisted by Dr. Graham Pearson, of the United Kingdom. Seven meetings were devoted to issues related to "Definitions of terms and objective criteria". Discussions and exchange of views on those issues were conducted by Dr. Ali Mohammadi of the Islamic Republic of Iran. Two meetings were devoted to issues related to "Measures related to Article X". Discussions and exchange of views on that issue were conducted by Ambassador Jorge Berguño of Chile. Two meetings were devoted to the issue concerning "Confidence-building measures". Discussions and exchange of views on that issue were conducted by Ambassador Tibor Tóth of Hungary. The Friends of the Chair were assisted by Mr. Lin Kuo-Chung and Mr. Francesco Cottafavi of the Centre for Disarmament Affairs.

6. Following a preliminary exchange of views and to facilitate further discussions, the respective Friends of the Chair circulated the informal papers which are annexed to the present report (Annex III). The preparation and submission of those papers is without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the papers.

7. In addition to the documents presented at its first session (see paragraph 14 of document BWC/AD HOC Group/3), the Ad Hoc Group had before it the documents listed in Annex I, as well as a large number of informal working papers which had also been submitted by delegations or by the Friends of the Chair during the course of deliberations on the subject.

8. At its 16th meeting, on 19 July 1995, the Ad Hoc Group adopted, in accordance with the decision taken at its first session, the estimated costs of the second and the third sessions of the Group as contained in document BWC/AD HOC GROUP/4.

9. At the 20th meeting, on 21 July, the Ad Hoc Group adopted the programme of work for its third session, as contained in Annex II.

10. The Group took note of the proposal of the Chairman to have two sessions of the Ad Hoc Group in 1996 of two weeks each, which provisionally could be scheduled in April, July and September 1996 and of his intention to continue consultations concerning a possible third session in 1996, taking into account the overall disarmament calendar and the need to accommodate the Fourth Review Conference and its Preparatory Committee, with a view to finalizing a decision at the November/December 1995 session.

11. At its 21st meeting of the session, on 21 July, the Ad Hoc Group considered and adopted its draft procedural report for the second session, as contained in document BWC/AD HOC GROUP/WP.5/Rev.1, as orally amended, which is to be issued as document BWC/AD HOC GROUP/28.

ANNEX I

LIST OF DOCUMENTS

- (1) 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;

- (2) BWC/AD HOC GROUP/5 - "Discussion paper on measures", submitted by the United Kingdom of Great Britain and Northern Ireland;
- (3) BWC/AD HOC GROUP/6 - "The future role of confidence building measures (CBMs)", submitted by the Netherlands;
- (4) BWC/AD HOC GROUP/7 - "Programme of work: measures to promote compliance: agenda", submitted by the United Kingdom of Great Britain and Northern Ireland;
- (5) BWC/AD HOC GROUP/8 - "Elements for a possible verification regime in the framework of the Convention on Biological Weapons", submitted by Cuba;
- (6) BWC/AD HOC GROUP/9 - "List of biological and toxin agents significantly important for the Convention", submitted by Cuba;
- (7) BWC/AD HOC GROUP/10 - "List of equipment significantly important for the Convention", submitted by Cuba;
- (8) BWC/AD HOC GROUP/11 and Add.1 - "Investigation of alleged use of biological weapons", submitted by South Africa;
- (9) 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;
- (10) BWC/AD HOC GROUP/13 - "Compilation of questions for the item 'Definitions of terms and objective criteria'", submitted by France and Germany;
- (11) 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;
- (12) BWC/AD HOC GROUP/15 - "Definition of terms", submitted by the Russian Federation;
- (13) BWC/AD HOC GROUP/16 - "List of biological agents and toxins", submitted by the Russian Federation;
- (14) BWC/AD HOC GROUP/17 - "Declarations", submitted by the Friend of the Chair on compliance measures;
- (15) BWC/AD HOC GROUP/18 and Rev.1 - "List of biological agents and toxins", submitted by China;
- (16) BWC/AD HOC GROUP/19 - "List of agents", submitted by Brazil;
- (17) BWC/AD HOC GROUP/20 - "Criteria and list of animal pathogens", submitted by Portugal;
- (18) BWC/AD HOC GROUP/21 - "The role and objectives of information visits", submitted by the United Kingdom of Great Britain and Northern Ireland;

- (19) 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;
- (20) BWC/AD HOC GROUP/23 - "Discussion of potential Article X issues", submitted by the United States of America;
- (21) BWC/AD HOC GROUP/24 - "Japanese Cooperation in the field of biotechnology", submitted by Japan;
- (22) BWC/AD HOC GROUP/25 - "Some possible elements in a verification protocol", submitted by Sweden;
- (23) BWC/AD HOC GROUP/26 - "Criteria for the selection of biological agents to be included in a list", submitted by Brazil, France, Germany, Greece and the Russian Federation;
- (24) BWC/AD HOC GROUP/27 - "Definitions for some terms related to measures under discussion for strengthening the Convention on Biological Weapons", submitted by China;
- (25) BWC/AD HOC GROUP/CRP.1 - "Declarations as a component of a verification protocol", non-paper submitted by Australia;
- (26) BWC/AD HOC GROUP/CRP.2 - "Programme of work: Definition on terms", non-paper submitted by the Friend of the Chair;
- (27) BWC/AD HOC GROUP/CRP.3 - "US Agency for international development programs", non-paper submitted by the United States of America;
- (28) BWC/AD HOC GROUP/CRP.4 - "US Agency for international health activities", non-paper submitted by the United States of America;
- (29) 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";
- (30) BWC/AD HOC GROUP/INF.4 - "Provisional list of participants";
- (31) BWC/AD HOC GROUP/INF.5 - "List of participants";

ANNEX II

PROGRAMME OF WORK FOR THE THIRD SESSION
(27 NOVEMBER - 8 DECEMBER 1995)

FIRST WEEK - 27 NOV - 1 DEC 1995

	27 NOV	28 NOV	29 NOV	30 NOV	1 DEC
AM	AHG	CBM	DEF	CM	CM
PM	ART. X	CM	ART. X	DEF	ART. X

SECOND WEEK - 4-8 DEC 1995

	4 DEC	5 DEC	6 DEC	7 DEC	8 DEC
AM	CBM	CM	CM	CM	DEF
PM	DEF	DEF	DEF	ART. X	AHG

CM - 6
DEF - 6
CBM - 2
Art. X - 4
AHG - 2

ANNEX III/I

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

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

DECLARATIONS

PURPOSE

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

CBM response has been limited: further reflection is needed on reasons.

SCOPE

General Considerations

States could be required to declare activities/facilities/programmes of clear relevance to the objective of strengthening compliance according to the agreed scope of declarations. There is a need at the same time to avoid including irrelevant material which risks overload of information. Declaration requirements need to be precise and to take account of national security and CPI concerns.

Specific Criteria

A State Party might be required to submit a declaration if any one, or any combination of the following criteria apply in its territory:

(a) Military and military-related biodefence programmes/facilities

States Parties could be required to submit Declarations on:

- national biological defence programmes and facilities (as in CBM A(2) but augmented with information on production, acquisition of biological defence equipment (such as detection equipment, vaccines etc.) consistent with legitimate national security needs
- facilities which have been involved in military biodefence programmes which are not currently active
- past defensive and offensive programmes (as in CBM F) (perhaps only in initial declaration)
- military medical (such as clinical and laboratory diagnosis, prophylaxis, therapy and epidemiology etc.) programmes of protection against infectious diseases/toxins. Further consideration needs to be given to whether the infectious diseases and toxins should be further defined.
- activities in the civilian or non-military sector which are carried out at the request of, or funded, sub-contracted or proposed by military/defence agencies. Consideration should also be given to

including similar relevant activities carried out at the request of, or funded, sub-contracted or proposed by other government agencies.

- biological defence programmes for the civilian population, consistent with legitimate national security needs.

(b) High containment facilities

States Parties could be required to submit Declarations on:

- all BL4 (WHO criteria)/P4 facilities (as in CBM A(1))
- BL3 facilities

- Further consideration is required of whether all or only certain BL3 facilities need to be declared. Some considerations are

(i) BL3 facilities could be involved in work giving rise to a compliance concern (i.e. experimental work with new/genetically modified pathogens/toxins)

(ii) some BL3 facilities may be of less relevance e.g.

- food/drink fermentation facilities

- purely diagnostic facilities (whether military or civilian).

- One approach might be to combine triggers so that only BL3 facilities also meeting other criteria are declared. These criteria might include:

- work with listed agents (pathogens/toxins) (see (c) below)
- work in certain sectors e.g. scientific, military or production microbiology.

- a specific requirement might be needed to include relevant BL3 equivalent veterinary/botanical facilities

- changes occurring between declarations in the use of BL3 containment facilities, or in the containment level of facilities should be notified (see below)

- some BL2 containment facilities will be declared as a result of other criteria such as work with listed agents (as in CBM A(2)). Information on BL2 containment areas could be included in respect of other facilities declared as a result of criteria.

(c) Work with listed pathogens and toxins

Further consideration needs to be given to whether States Parties could be required to submit a Declaration on work with listed agents (pathogens and toxins). Further consideration also needs to be given to whether to limit this to facilities working with quantities above a certain threshold.

Some considerations are:

- (i) the speed with which large quantities of pathogens can be produced,
 - (ii) the complexity of establishing quantity thresholds given the diversity of organisms and their pathogenicity,
 - (iii) information about the scale of activities and quantities of specific agents (pathogens and toxins) being worked on, could be included in declarations triggered for other reasons.
 - (iv) the relevance of quantity thresholds to toxins may involve different considerations from pathogens.
 - (v) whether the list should include animal and plant pathogens as well as human pathogens will be further considered by the Definitions Group.
- It may be necessary to devise a way of excluding purely diagnostic facilities.
 - Further consideration should be given to whether facilities which possess listed agents (pathogens and toxins) but do not work on them need to be declared.

Some considerations are:

- (i) there is a potential for misuse of any holding of a listed agent (pathogen/toxin)
- (ii) a requirement to declare all culture holdings (particularly plant pathogens) could result in a large number of declared facilities
- (iii) whether the contents of culture collections - if declared - should be subject to validation.

(d) Aerobiology/aerosol dissemination

States Parties could be required to submit a Declaration on military facilities working with biological aerosols, including laboratories, open-air test ranges, aerosolisation activities, test chambers (further consideration should be given to whether all or just explosive test chambers should be included). These may already be declared under the military biodefence programmes/facilities trigger.

- It may be necessary to declare non-military aerosol test chambers and aerosolisation activities (including open air testing).

Some considerations are:

- (i) the declaration of routine agricultural work may not be appropriate.

(ii) whether declarations should be restricted to work involving only listed agents (pathogens or toxins), or should it include other organisms/materials (e.g. simulants).

(e) Production microbiology

States Parties could be required to submit declarations on human and animal vaccine production facilities.

Further consideration is required of whether a State Party should be obliged to declare activities in the area of production by fermentation of other pharmaceutical and animal health products.

Some considerations are:

(i) this may capture too many facilities not of direct relevance

(ii) pharmaceutical and animal health production facilities might easily be converted to production of listed agents and other pathogens.

(iii) this trigger might be better focussed if combined with other triggers e.g. containment levels, lists of agents.

(f) Genetic manipulation

States Parties could declare work involving genetic manipulation of listed pathogens.

- Further consideration is necessary of whether to declare other genetic manipulation work. This might include work involving genetic fragments of listed pathogens and other agents, and other genetic manipulation related to pathogenicity or to resistance to antibiotics.

(g) Equipment

Certain items of equipment may have a role as a trigger for declarations. But, given the dual use character of much equipment in this area, careful thought needs to be given compiling a list. Some proposals are contained in BWC/AD HOC GROUP/10. Further work could take place in the definitions group.

(h) Other criteria

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

- Vectors. Further consideration should be given to the breeding of vectors of micro-organisms e.g. insects above the laboratory scale as a criteria for declarations. There may be a need to avoid capturing irrelevant activities e.g. beekeeping.

OTHER CONSIDERATIONS

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

- Formats should be simple, easy to prepare and not too expensive with questions ideally in a yes/no formats. CBM formats could serve as a model.
- There could be declarations for each facility as well as national declarations.
- National legislation might be needed to meet the requirements of declaration contents.
- Declarations could be handled in such a way as to protect the confidentiality of the information they contain.
- Any future international organization could follow up gaps and ambiguities in declarations by requesting further information possibly through national authorities. This might obviate the need for visits/inspections in certain cases.

Notifications

- Changes in information already described in declarations, and other developments, could, if necessary, be recorded in subsequent notifications. Some examples are contained in BWC/AD HOC GROUP/8. Others could include changes in laboratory containment levels, or in the purpose of high containment facilities.
- Annual declarations could include advance warning of such changes.
- Further consideration should be given to whether and how transfer data could be recorded in notifications.

ANNEX III/2

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

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ON-SITE MEASURES

Introduction

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

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

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

4. Further consideration should be given to the view that on-site measures should be target specific, conducted in accordance with agreed lists of agents (pathogens and toxins) and equipment, and that their scope should be clear.

Recurrent Issues

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

- the role of lists;
- how to avoid unduly interfering with activity at the site;
- how to protect commercial proprietary and scientific information and national security information not of concern to the Convention. In this respect, consideration should be given in particular to:
 - a) access regulated by a multilaterally-agreed standing arrangement on applicable procedures;

- b) access regulated by ad hoc arrangements agreed between the inspecting and inspected parties for each facility to be visited or inspected;
- c) privileges and immunities of inspectors;
- the need to ensure the necessary access to sites;
- the need for balance between: i) the requirement to protect commercial proprietary and scientific information and national security information not of concern to the Convention, and avoid interfering unduly with the activities of the site; and ii) the obligation to address any concerns about compliance;
- the nature of the inspectorate or designated inspectors who could be responsible for conducting on-site measures; some considerations could include:
 - a) the need for impartiality and objectivity;
 - b) the need for an inspectorate with the skills and resources, including financial, to implement on-site measures effectively and impartially;
 - c) whether to set up an independent Organization to strengthen compliance with the Convention and if so how it might be structured. What alternatives there might be to this;
 - d) equitable geographical representation in the selection of inspectors and staff of the possible Organization;
- how to ensure that costs, including equipment costs, are carefully controlled and how they would be shared;
- what decision-making processes would be appropriate to the implementation of on-site measures;
- the question of appropriate and non-discriminatory access to collected data;
- how different types of visit or inspection could be initiated;
- whether different procedures would be necessary for different types of visit or inspection;
- whether the example of other relevant regimes may be useful in formulating measures, bearing in mind that biological weapons have their own inherent characteristics;
- the political costs involved.

Visits/Inspections

6. A number of broad types of visit/inspection were suggested. There were different views on how many types might be appropriate, and on the utility of each type in strengthening the Convention and enhancing transparency. Different views were expressed on the terminology to be used in referring to different types of visit/inspection.

- Validation/information visits. Their main purpose could be to check accuracy of declarations, encourage active demonstration of

compliance and enhance credibility of declarations. Such visits could provide information related to that in declarations, they could be arranged in advance and limited in number.

- Routine visits/inspections. Their purpose could be to help demonstrate compliance at particular declared facilities. Such visits could be limited to specific facilities, which might include military biodefence facilities, facilities that genetically manipulate listed pathogens, and facilities working with particular pathogens and toxins. Such visits could provide information related to declarations, and could be limited in number.

- Further consideration could be given to the possibility of merging validation/information visits and routine inspections, and what period of notice would be appropriate.

- Short notice visits/challenge inspections. Their purpose could be to investigate a specific compliance concern. Such visits/inspections would be to investigate a specific concern at a declared or undeclared facility. They would need to be carried out urgently because of the nature of biological agents. Political sensitivities could be involved. There could be strict and effective measures to prevent abuse. Such a visit/inspection might be a measure of last resort. Detailed consideration would therefore need to be given to how to initiate such visits/inspections: Would requests be limited to States Parties only? Would a request have to be accompanied by supporting data to demonstrate 'due cause'? There may be other filters which could be considered. A consultation and clarification mechanism to help resolve inconsistencies might avoid the need for such inspections/visits in some circumstances.

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

IMPLEMENTATION OF SPECIFIC ON-SITE MEASURES

Interviewing

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

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

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

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

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

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

- Interviewing should be carried out in such a way as to avoid unduly hindering the work of the site.
- Commercial proprietary information and national security information not of concern under the Convention would need to be protected.
- A list of pathogens and toxins may have utility in interviewing. For example, interviewers may wish to confirm the accuracy of information in declarations concerning work on listed pathogens and toxins.

Visual observation (VEREX measure: visual inspection)

- Visual observation could be an important on-site measure in combination with other measures. It is not always possible clearly to determine the intent of activity at a site with this measure alone.
- Those carrying out visual inspections would need to have the proper qualifications and skills.
- Visual inspection should be carried out in such a way as to avoid unduly hindering the work of the site. Negotiations might be needed to specify defined items/areas in advance.
- Where direct visual observation is not possible, alternative means of demonstrating compliance should be offered. Consideration could be given to alternatives such as use of a video camera, drawings of the area.
- Commercial proprietary information and national security information not of concern under the Convention would need to be protected.
- Negotiations might be needed to assure access to facilities. This may require national legislation for some States Parties.

Identification of key equipment

- Identification of key equipment could be an important on-site measure in combination with other measures. The identification of key equipment could help determine if the equipment is consistent with the purpose of the site.
- There could be a role for a list of key equipment in the implementation of this measure. Account should be taken of the fact that biotechnology equipment is extremely diverse, rapidly evolving and likely to be of dual use and equipment may be used for different purposes in different states. Care needs to be taken that a list of equipment does not result in erroneous judgements: presence of certain items of equipment is not the only factor. The absence of particular types of equipment and the quantity of equipment could also be important, since if a facility had been declared for a specific purpose, certain equipment would be expected to be present.
- Identification of key equipment should be carried out in such a way as to avoid unduly hindering the work of the site.
- Commercial proprietary information and national security information not of concern under the Convention would need to be protected.

Sampling and identification

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

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

- limiting the specific situations in which sampling would be available, or, while not excluding sampling, ensuring that it be used sparingly.
- limiting the numbers of samples to be taken.
- limiting the areas from which samples might be taken (for example process samples might be excluded).
- using only certain techniques of sampling and identification such as standard reagents and procedures.

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

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

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

- Sampling should not hinder legitimate activities/technical processes at the site.

- There may be national legislation considerations.

Auditing

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

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

- Commercial proprietary/scientific information and national security information not of concern to the Convention would need to be protected. Records of auditing would therefore need to be handled with care.

Medical examination

- Medical examination has very limited utility as an on-site measure. Given the legal, ethnic, religious and personal objections to the taking of biomedical samples, it would only be possible to take these with the consent of the individuals concerned.

- There may be some utility in examining certain medical records, although confidentiality would have to be respected.
- Medical examination would have utility and wider application in the investigation of alleged use or unusual outbreaks of disease.

Other on-site measures

- Exchange visits (international arrangements) could be considered in further work on CBMs.
- National or regional seminars involving personnel from any international organization established in this framework, and from a number of declared sites could be a cost effective way of gathering information, and could also be of benefit under Article X.
- Continuous monitoring by instruments/personnel could have serious cost and legal implications and little capability in distinguishing between prohibited and permitted activities.

ANNEX III/3

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

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OTHER MEASURES

Surveillance of publications

- Surveillance of publications could be a useful additional step towards greater transparency. It could also be useful in conducting inspections.
- Any organization set up to strengthen confidence in compliance could undertake this role, including the acquisition and setting up of a data base. It might feature in the existing review process.
- Consideration could be given to whether this should be linked to work on CBM C and to whether this could be incorporated in a mandatory system of measures.

Surveillance of legislation

- Surveillance of legislation could be a useful additional step towards greater transparency, although the absence of legislation would not by itself imply non-compliance.
- Any organization set up to strengthen confidence in compliance could undertake this role.
- Information held by the organization on legislation could be available to States Parties.
- Consideration could be given to whether this should be included in an enhanced CBM E (Declaration of legislation, regulations and other measures).

Transfer data

- Already addressed in considering declarations, where problems were identified.

Multilateral information sharing

- Further consideration is required on whether, and how, provision of information could be included in the proposed legally binding instrument.
- States Parties should have a right of access to such information. The standard of information requires further consideration.
- There may be a need to avoid an excessive volume of irrelevant information.

Off-site exchange visits

- This measure might contribute to strengthening the implementation of Article X.

- Any organization set up to strengthen confidence in compliance with the Convention might have a role in promoting such visits.

- Should CBM D (Active promotion of contacts) be strengthened?

Surveillance by satellite/aircraft

- Political, financial, legal and technical arguments have been presented against the inclusion of this measure, in particular that it would be costly, unduly intrusive and of no utility. But further consideration would have to be given to various issues related to satellite/aircraft information:

- provided under multilateral information sharing, if any?
- provided voluntarily by a State Party?
- available commercially?

Ground based surveillance (off-site)

- Similar to satellite and aircraft surveillance.

Sampling and identification (off-site)

- Very limited value and might provide misleading or ambiguous information.

Observation (off-site)

- Very limited value.

Auditing (off-site)

- VEREX described this as the examination of data available from national and international sources (public records, financial statements, patents, licences, budgets, statutory reports, etc.).

- This is likely to be of limited utility. As a follow-up to other measures, it might provide useful background which would help to avoid false suspicions of non-compliance.

- Could be a tool available for whatever body is set up to strengthen the Convention in building up its understanding of microbiological activities in a country.

ANNEX III/4

FRIEND OF THE CHAIR ON COMPLIANCE MEASURES

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

INVESTIGATION OF ALLEGED USE

- Investigation of alleged use could be a central provision in any system of measures to strengthen the Convention. Consideration is required on whether to address investigation of alleged accidents/tests.

Initiation

- Any investigation should be carried out urgently. Consideration could be given to whether there should be some degree of automaticity.

- Consideration needs to be given to who is entitled to request an investigation. Given the variety of possible situations, the ability to request an investigation might not be limited to a State Party.

- Consideration needs to be given to the procedure for requesting an investigation, and to procedures to deter abuse.

Implementation

- Investigations need to be carried out by impartial and qualified personnel.

- Consideration needs to be given to the adequacy of the facilities/funding available to any organization set up to strengthen the Convention.

- Consideration needs to be given to whether the specific on-site measures for investigation of alleged use will differ from the measures for other visits/inspections.

- A more intrusive investigation might be needed, including measures such as medical examination and sampling and identification. Further consideration needs to be given to time limits for visits/inspections to investigate alleged use.

- Any investigation of use should not obstruct a parallel national investigation.

Judgement

- Consideration needs to be given to the form and timing of the report or reports to be prepared by the investigators. Care needs to be taken in reaching any judgement especially if it is possible that an endemic disease could be responsible.

UNUSUAL OUTBREAKS

- Unusual outbreaks might be an indication of, inter alia, use, accidents, natural phenomena. Procedures for the investigation of such outbreaks could involve measures similar to those required for investigation of alleged use, or separate measures. Work in existing international organizations on unusual outbreaks could be relevant. It might also contribute to work on Article X.

- Further consideration could be given to the primary role of national authorities and to the need to consider endemic diseases.

ANNEX III/5

FRIEND OF THE CHAIR ON CONFIDENCE-BUILDING AND TRANSPARENCY MEASURES

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

1. Task and objective

1.1 Consider "the incorporation of existing and further enhanced confidence-building and transparency measures, as appropriate, into the regime" in the context of the AHG mandate.

1.2 Existing CBMs were established by the Third Review Conference and their amendment or modification falls within the purview of future Review Conferences.

1.3 As part of its work, the AHG should consider whether the elements contained in the existing CBMs and further enhanced confidence-building and transparency measures could be included, as appropriate, in a regime.

1.4 Existing CBMs

1.4.1 are currently the only multilateral tools that provide some transparency and confidence between States Parties.

1.4.2 need to be maintained until and even after a future legally binding instrument enters into force.

1.4.3 have not fulfilled expectations due to different factors in terms of participation in the data exchange; participation in the data exchange needs to be enhanced.

1.4.4 , as appropriate, could serve as a basis upon which the entire set of measures, like compliance measures and Article X related cooperative measures could be developed into a legally binding document.

1.4.5 could be further enhanced and incorporated, as appropriate, into a legally binding instrument.

1.5 Existing and further enhanced measures incorporated in the future legally binding regime should not detract from the existing regime.

2. Scope

2.1 Confidence-building measures by definition are non-mandatory, that is only politically binding, compared to mandatory measures, which are legally binding.

2.2 Some confidence-building and transparency measures would contribute to strengthening the effectiveness and improve the implementation of the Convention and could be included, as appropriate, in a legally binding instrument.

2.3 A legally binding instrument may besides mandatory measures include voluntary measures as well.

2.4 Confidence-building and transparency measures

2.4.1 Existing and further enhanced measures of the Third Review Conference.

2.4.2 Relevant VEREX measures (as referred to in 4.2).

2.4.3 Cooperative measures to enhance participation in the legally binding instrument and to enhance implementation of the Convention.

2.4.4 Data and information exchange undertaken under the aegis of other international organizations (e.g. WHO, FAO), but relevant as a voluntary measure for the implementation of the BWC and the Protocol.

2.4.5 Data and information obtained from bilateral and multilateral transparency arrangements, to be supplied as a voluntary measure.

2.5 CBM aspects of the broader regime

2.5.1 Other arrangements under the aegis of international organizations (e.g. WHO and FAO surveillance systems).

2.5.2 The issue of the scope of CBM aspects of the broader regime is to be considered and defined in the light of a variety of factors, among them cost-effectiveness, organizational structure, access to collected data, etc. and the final shape of concrete measures to be implemented.

3. Measures (General)

3.1 Some confidence-building and transparency measures could be incorporated, as appropriate, into a framework of mandatory, voluntary and other measures within a legally binding instrument. The concrete measures belonging to these categories can be considered and defined in the context of work on different mandate elements and in the light of the parameters to be elaborated for those measures.

3.2 Assessment and further development of other confidence-building and transparency measures may be left for consideration and improvement by the Fourth Review Conference.

4. Measures

4.1 Confidence-building measures of the Third Review Conference, from which some measures, elements and enhancements could be incorporated, as appropriate, in a legally binding instrument as mandatory or voluntary measures.

4.1.1 Declaration form on "Nothing to declare" or "Nothing new to declare":

Could be incorporated into a framework of mandatory (compliance) measures within a legally binding instrument?

4.1.2 Confidence-building measure "A":

4.1.2.1 Part 1: Exchange of data on research centres and laboratories. Could be incorporated into a framework of mandatory (compliance) measures within a legally binding instrument?

4.1.2.2 Part 2: Exchange of information on national biological defence research and development programmes. Could be incorporated into a framework of mandatory (compliance) measures within a legally binding instrument?

4.1.3 Confidence-building measure "B":
Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins. Could be incorporated into a framework of mandatory (compliance) or voluntary (supportive) measures within a legally binding instrument?

4.1.4 Confidence-building measure "C":
Encouragement of publication of results and promotion of use of knowledge. Could be with certain focusing incorporated into a framework of voluntary (supportive) measures within a legally binding instrument? If not appropriate as a voluntary (supportive) measure, to be considered by the Fourth Review Conference?

4.1.5 Confidence-building measure "D":
Active promotion of contacts. Could be incorporated into a framework of voluntary (supportive) measures within a legally binding instrument?

4.1.6 Confidence-building measure "E":
Declaration of legislation, regulations and other measures. Could be incorporated into a framework of mandatory (compliance) or voluntary (supporting) measures within a legally binding instrument?

4.1.7 Confidence-building measure "F":
Declaration of past activities in offensive and/or defensive biological research and development programmes. Could be incorporated into a framework of mandatory (compliance) measures within a legally binding instrument?

4.1.8 Confidence-building measure "G":
Declaration of vaccine production facilities. Could be incorporated into a framework of mandatory (compliance) measures within a legally binding instrument?

4.2 Measures identified by VEREX, which could be considered, as appropriate, for possible incorporation in a broad regime as voluntary measures (some of them could be combined with relevant, enhanced CBMs of the Third Review Conference).

4.2.1 Surveillance of publications

4.2.2 Surveillance of legislation

4.2.3 Data of transfers, transfer requests and on production (under consideration as a mandatory measure in the Compliance Measures FOC discussion)

4.2.4 Multilateral information sharing

4.2.5 Exchange visits (off-site)

4.2.6 Auditing (off-site)

4.2.7 Exchange visits - international arrangements

4.3 Cooperative measures to enhance participation in the legally binding instrument and to enhance implementation of the Convention.

5. Mechanism

5.1 Measures to enhance wider participation

5.1.1 Improved reporting mechanism

5.1.2 Cooperative measures to enhance the participation of States Parties in data and information exchange and other measures

5.2 Follow-up measures

5.2.1 Follow-up clarification mechanism

5.2.2 Distribution of the information

5.2.3 Improved processing and distribution of the information and improved format for their compilation

5.2.4 Involvement of an international body

5.2.5 Relationship to the implementation of Article X

6. Legal issues to be discussed

6.1 If the Fourth Review Conference retains and improves CBMs outside the legally binding instrument, these CBMs will continue to apply for all States Parties.

6.2 Should a State Party decide not to ratify a future legally binding instrument, all existing CBMs will remain politically binding for this State.

6.3 The relationship between existing CBMs and those measures which would be incorporated into a legally binding instrument can be addressed in three different timeframes:

6.3.1 Until the adoption of the instrument. During this phase the politically binding commitment on States Parties to provide annual declarations under the CBMs would continue.

6.3.2 Between the adoption and the entry into force of the instrument. It could be envisaged that the Fourth Review Conference could decide to endorse new standards of reporting and requests States Parties to make subsequent reports already according to the new, modified standards, but still on the basis of a political CBM.

6.3.3 After entry into force of the instrument. One will have to distinguish between two different groups of States.

6.3.3.1 States Parties of the BWC and the future Protocol which would report according to the mandatory and voluntary measures in compliance with the new formulae in the legally binding instrument.

6.3.3.2 States Parties which have not yet ratified the future protocol and which procedurally would continue to implement them as politically binding CBMs.

6.4 It is important to prevent the emergence of legal grey areas of implementation between different categories of States. The relationship between a legally binding commitment and the politically binding CBMs will require further consideration.

ANNEX III/6

FRIEND OF THE CHAIR ON CONFIDENCE-BUILDING AND TRANSPARENCY MEASURES

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

SUMMARY OF VIEWS

According to the mandate, the following discussions took place:

1. DEFINITION OF TERMS

The views were expressed that:

- The definition of essential terms in the Convention is necessary for measures to strengthen the Convention.
- Article I of the Convention has clearly explained the scope of the Convention and any attempt to define the terms therein would limit the scope of the Convention. However, some technical terms outside the Convention may need definitions.

This issue needs further discussion in the future sessions of the Group.

2. OBJECTIVE CRITERIA

- It was understood from the papers presented and views expressed by the States Parties that a list, or lists, of bacteriological (biological) agents and toxins could be a useful tool for specific measures designed to strengthen the Convention. Further consideration could be given to how a list, or lists, of animal and plant pathogens could be included in any list.
- Discussions occurred on the criteria for inclusion of human pathogens and toxins in a list, or lists, of bacteriological (biological) agents and toxins. The result of those discussions has been reflected in Annex III/7. The Group intends to continue in the future sessions the discussions on inclusion of animal and plant pathogens and the criteria for inclusion of those pathogens in the list, or lists, of agents.

3. Regarding threshold quantities and a list, or lists, of equipment and types of activities, a general exchange of views took place and it seems necessary to continue the discussions on those issues in a more detailed manner, particularly from the technical point of view, in future sessions of the Group.

ANNEX III/7

FRIEND OF THE CHAIR ON DEFINITION OF TERMS AND OBJECTIVE CRITERIA

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

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.

Human pathogens and toxins

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.¹

¹ 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.

ANNEX III/8

FRIEND OF THE CHAIR ON DEFINITION OF TERMS AND OBJECTIVE CRITERIA

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

A group of human pathogens and toxins which were found to be common in the working papers presented during the session (BWC/AD HOC GROUP/9; BWC/AD HOC GROUP/16; BWC/AD HOC GROUP/18; BWC/AD HOC GROUP/19), were discussed by the Group with a view to developing a list, or lists, of bacteriological (biological) and toxin agents, relevant for specific measures to strengthen the Convention, as listed in the attached table.

A compiled list of agents and toxins including human, animal and plant pathogens collected from all papers, but which are not common to all papers are also presented in the attached table for the future Group discussions.

Further consideration may be necessary with respect to pathogens and toxins not identified in the attached list.

HUMAN PATHOGENS			
	No.	TO BE DISCUSSED	DISCUSSED
VIRUSES	1.		Crimean-Congo haemorrhagic fever virus
	2.	Chikungunya virus	
	3.	Dengue virus	
	4.		Eastern encephalitis virus
	5.		Ebola virus
	6.	Guanarito virus	
	7.		Hanta virus
	8.	Hepatitis A virus	
	9.	Hepatitis B virus	
	10.	Herpes virus (Aujeszky's disease virus)	
	11.	Influenza virus	
	12.		Japanese encephalitis virus
	13.		Junin virus
	14.	Kyasanur forest virus	
	15.		Lassa fever virus
	16.	Louping ill virus	
	17.	Lymphocytic choriomeningitis virus	
	18.	Lyssa virus	
	19.		Machupo virus
	20.	Mayaro virus	
	21.		Marburg virus
	22.	Murray Valley encephalitis virus	
	23.	Omsk haemorrhagic fever virus	
	24.	Oropouche virus	
	25.	Porvo virus	
	26.	Powassan virus	
VIRUSES (cont.)	27.		Rift Valley virus

	28.	Rocio virus	
	29.	Sabia virus	
	30.	St. Louis encephalitis virus	
	31.		Tick-borne encephalitis virus (Russian spring-summer encephalitis virus)
	32.		Variola virus (smallpox virus)
	33.		Venezuelan encephalitis virus
	32.	Vesicular stomatitis virus	
	33.	Vesicular exanthema virus	
	34.		Western encephalitis virus
	35.		Yellow fever virus
BACTERIA			
	1.		Bacillus anthracis
	2.		Brucella spp
	3.	Chlamydia psittaci	
	4.	Clostridium botulinum	
	5.	Clostridium perfringens	
	6.	Clostridium tetani	
	7.	Corynebacterium diphtheriae	
	8.	Enterohaemorrhagic Escherichia coli, serotype 0157 and other verotoxin producing serotypes	
	9.		Francisella tularensis (tularemia)
	10.	Legionella pneumophila	
	11.	Leptospira interrogans	
	12.	Mycobacterium tuberculosis	
	13.	Mycoplasma mycoides	
BACTERIA (cont.)	14.	Nocardia asteroides	
	15.		Pseudomonas (Burkholderia) mallei

	16.		<i>Pseudomonas (Burkholderia) pseudomallei</i>
	17.	<i>Salmonella typhi</i>	
	18.	<i>Salmonella spp</i>	
	19.	<i>Shigella dysenteriae</i>	
	20.	<i>Vibrio cholerae</i>	
	21.		<i>Yersinia pestis</i>
	22.	<i>Yersinia pseudotuberculosis (mutated strain)</i>	
RICKETTSIAE			
RICKETTSIAE	1.		<i>Coxiella burnetii</i>
	2.	<i>Rickettsia mooseri</i>	
	3.		<i>Rickettsia prowazekii</i>
	4.	<i>Rickettsia quintana (Rochalimaea quintana)</i>	
	5.	<i>Rickettsia rickettsii</i>	
	6.	<i>Rickettsia spp</i>	
	7.	<i>Rickettsia tsutsugamushi</i>	
FUNGI			
FUNGI	1.	<i>Coccidioides immitis</i>	
	2.		<i>Histoplasma capsulatum (incl. var duboisii)</i>
TOXINS			
TOXINS	1.	Abrin (<i>A. precatorius</i>)	
	2.	Aerolysin (<i>Aeromonas hydrophila</i>)	
	3.	Aflatoxins (<i>Aspergillus flavus</i>)	
	4.	Amilyn	
	5.	Ammodytotoxin	
TOXINS (cont.)			
TOXINS (cont.)	6.	Anatoxin A (<i>Anabaena flos-aquae</i>)	
	7.	Anthrax toxins (A, R)	
	8.	Batrachotoxin (<i>P. aurotactania</i>)	

	9.		Botulinum toxins (Clostridium botulinum)
	10.	Brevetoxin	
	11.	Bungarotoxin (beta)	
	12.	Charybtotoxin	
	13.	Cholera toxin (Vibrio cholerae)	
	14.	Ciguatoxin (G. javanicus)	
	15.	Clostridium perfringens (tox)	
	16.	Cobra toxin (Naja naja)	
	17.	Conotoxins	
	18.	Corynebacterium diphtheriae (tox)	
	19.		Cyanginosins (Microcystins) (Microcystis aeruginosa)
	20.	D.A.S. (Diacetoxyscirpenol) (Fusarium equiseti)	
	21.	Dermophin	
	22.	Diamphotoxin	
	23.	Endothelin	
	24.		Enterotoxins (Staphylococcus aureus)
	25.	Erabutoxin (L. semifasciata)	
	26.	Exotoxin A (Pseudomonas aeruginosa)	
	27.	Latrotoxin	
	28.	Maitoxin	
TOXINS (cont.)	29.	Microtoxin	
	30.	Neosaxitoxin	
	31.	Modeccin	
	32.	Neurotoxin (Shigella dysenteriae)	
	33.	Notexin	

	34.	Noxiustoxin	
	35.	Palytoxin (P. toxia)	
	36.	Pertussigen (Bordetella pertussis)	
	37.		Ricin (Ricinus communis)
	38.		Saxitoxin (Ganyaulax catanella)
	39.	Scorpion toxins (alpha, beta)	
	40.		Shigatoxin
	41.	Taipoxin	
	42.	Tetanus toxin (Clostridium tetani)	
	43.		Tetrodotoxin (Spheroides rufripes)
	44.	Textilotoxin	
	45.	Toxin II (A. australis hector)	
	46.		Trichothecene mycotoxins
	47.	Verotoxin	
	48.		Verrucologen (Myrothecium verrucaria)
OTHER BIOLOGICAL AGENTS	1.	Trypanosoma vivax	

ANIMAL PATHOGENS		
No.	TO BE DISCUSSED	DISCUSSED
1.	African horse sickness virus	
2.	African swine fever virus	
3.	Avian influenza virus	
4.	Bluetongue virus	
5.	Bovine spongiform encephalopathy	
6.	Equine pox virus	
7.	Foot and mouth viruses	
8.	Fowl plague virus	
9.	Fowl smallpox virus	
10.	Goat pox virus	
11.	Herpes B virus (monkey)	
12.	Hog cholera virus	
13.	Lumpy skin virus	
14.	Newcastle disease virus	
15.	Peste des petits ruminants virus	
16.	Porcine enterovirus type 9	
17.	Rinderpest virus	
18.	Sheep pox virus	
19.	Teschen disease virus	
20.	White pox virus	

PLANT PATHOGENS		
No.	TO BE DISCUSSED	DISCUSSED
1.	<i>Ceratitidis capitata</i> (Wiedmann)	
2.	Citrus greening disease virus	
3.	<i>Drechslera maydis</i> (<i>Helminthosporium maydis</i>)	
4.	<i>Drechslera oryzae</i> (<i>Helminthosporium oryzae</i>)	
5.	<i>Erwinia amylovora</i> (Burrill)	
6.	<i>Erwinia stewartii</i>	
7.	<i>Microcyclus ulei</i>	
8.	Potato spindle tuber viroid	
9.	<i>Pronosporo hyoscyami</i>	
10.	<i>Pseudomonas solanacearum</i>	
11.	<i>Puccinia graminis</i>	
12.	<i>Puccinia striiformis</i> (<i>Puccinia glumarum</i>)	
13.	<i>Pyricularia oryzae</i>	
14.	Southern green mosaic virus	
15.	Sugar cane Fiji disease virus	
16.	<i>Ustilago maydis</i>	
17.	<i>Xanthomonas campestris</i> pv <i>citri</i>	
18.	<i>Xanthomonas campestris</i> pv <i>oryzae</i>	

ANNEX III/9

Working Paper submitted by the Friend of the Chair

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

ELEMENTS FOR STRUCTURED DISCUSSIONS ON ARTICLE X ON THE BWC

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

I. GENERAL REMARKS ABOUT ARTICLE X

1. Article X is an integral part of the BWC and should not be separated, in its application, from that context.
2. Article X is one of the four equally important areas singled out in the mandate of the Ad Hoc Group, leading towards the objective of strengthening the effectiveness and improving the implementation of the Convention.
3. Article X is an essential element in the overall balance of the Convention, with its mutually reinforcing objectives of eliminating biological weapons and facilitating the fullest possible exchange of biological technology for peaceful purposes.
4. Article X has a promotional aspect and a regulatory aspect, respectively reflected in its two sections, which must be addressed comprehensively.
5. Agreeing to consider specific measures designed to ensure effective and full implementation of Article X does not imply that the Parties to the BWC conclude Article X is presently not fully implemented.
6. Article X has a fundamental role to play in shaping a compliance regime for the BWC.

II. MANDATE

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

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

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

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

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

III. INTERNATIONAL CONTEXT OF A COMPLIANCE REGIME FOR THE BWC

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

1. The relative simplicity and worldwide diffusion of several technologies potentially relevant for biological warfare (BW);
2. The important civilian applications of most of the relevant equipment, technologies and agents;
3. The large number of facilities, activities and equipment which have potential BW application and which probably could not be excluded from the scope of the compliance measures;
4. The fact that, for a great number of countries, biological disarmament and non-proliferation are considered low-priority issues, especially if compared with public health problems, which sometimes compete for the same scarce resources.

IV. SCOPE AND CONTENT OF POSSIBLE SCIENTIFIC AND TECHNICAL EXCHANGES

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

- a) Exchange of data, including name, location, scope and general description of activities on research centres and laboratories.
- b) Wider transfer and exchange of information, materials and equipment among States on a systematic and long-term basis.
- c) Coordination of national and regional programmes and working out in an appropriate manner the ways and means of cooperation in this field.
- d) Coordination in providing information on national epidemiological surveillance and data reporting systems.

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

- a) Planned international conferences, seminar, symposia and similar events dealing with biological research directly related to the Convention.
- b) Lectures on scientific and technical questions of interest by qualified experts from the public and private sectors of participating States Parties.

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

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

- a) Basic research in biosciences, and particularly that directly related to the Convention, should be unclassified, as a general rule.
- b) To the extent possible and without infringing national and commercial interests, applied research should also be unclassified.
- c) States Parties are encouraged to provide information on their policy as regards publication of results of biological research.
- d) States Parties should provide information on relevant scientific journals and other relevant scientific publications generally available to States Parties.

4. Increased level of technical cooperation and assistance.

- a) Training programmes to developing countries in the use of biosciences and genetic engineering for peaceful purposes.
- b) Support for the establishment, operation and updating of biological databases.
- c) Assistance in the preparation of declarations and reports required or relevant to the Convention.
- d) Training of national authorities in areas such as biosafety, diagnosis, identification of agents, development and production of vaccines.
- e) Technical assistance for the gradual upgrading of national biological safety practices to reach multilaterally agreed standards.

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

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

procedures which may be applied in individual countries in order to meet those needs.

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

V. POSSIBLE INSTITUTIONAL ARRANGEMENTS

1. World Data Bank, under the supervision of the United Nations, entrusted with facilitating the flow of information in the fields of genetic engineering, biotechnology and other scientific developments. The WDB would solicit, collect and make available, data appropriate for various technological levels on Good Manufacturing Practices (GMP), safe laboratory procedures, biological containment, product standards, quality control, new or developing biotechnology methods and products and their potential applications in order to supplement existing data banks and further disseminate knowledge.

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

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

VI. POSSIBLE ADDITIONAL WAYS AND MEANS TO ENHANCE INTERNATIONAL COOPERATION

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

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

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

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

5. Network for Exchange of Epidemiologic Data (NEED). Electronic network for rapid reporting of disease outbreaks, including human, animal and plant diseases, with review by experts providing analysis and assistance, may be directly applicable to measures which will

strengthen the BWC. This network could be part of the existing PROMED system.

VII. FINANCIAL ARRANGEMENTS

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

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

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

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

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

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

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

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

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

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

IX. REPORTING, ADMINISTRATIVE AND REVIEW PROCEDURES

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

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

X. SAFEGUARDS AND LIMITATIONS

1. States Parties should refrain from any discriminatory practices that may hamper the international peaceful cooperation in bioscience and in related and applied research, as well as international trade

in related goods and equipment, consistent with the objectives and provisions of the Convention.

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

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

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

Articles I and III

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

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

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

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

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

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

Article V

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

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

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

Article VII

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

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

XII. ROLE OF ARTICLE X WITHIN A COMPLIANCE ASSURANCE REGIME

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

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

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

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

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

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

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

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

c) Such pattern of activity has the advantage of involving a large number of companies in the private sector, as well as research and production institutions, with compliance activities, while keeping to a minimum the element of intrusion and minimizing the risk of breach of CPI or national security requirements.

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

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

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

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