University of London Statement

Biological Weapons Convention Meeting of States Parties Geneva, 4 December 2017



Mr Chair, Distinguished Representatives:

The University of London* welcomes your clear statement, Mr Chair, in your letter to States Parties dated 5 September that this MSP has the shared objective of <u>strengthening</u> the BWC. In order to strengthen it, between now and the Ninth Review Conference, the first requirement is to agree a more effective structure for the intersessional process and to ensure that its open-ended working groups and the Implementation Support Unit are securely funded—as outlined in the Joint NGO statement, which we fully endorse. We urge all States Parties to combine their efforts to achieve agreement on a substantive work programme, and then to launch it with a renewed sense of purpose.

There are, moreover, parts of the Convention which hold latent potential, not yet fully realised. In particular, Article V contains possibilities for strengthening the BWC which deserve fuller exploration. Cooperation and consultation, going beyond the CBMs alone, could do much to promote confidence in the Convention. These possibilities need not be limited to just the one procedure identified in 1980 which gave rise to the Consultative Meeting elaborated by the Second and Third Review Conferences. Other procedures and approaches to problem-solving could be developed which would fit equally well within the framework of Article V. In order to exploit the full value of its versatile provisions, we encourage States Parties to undertake a fresh and thorough study of Article V alongside the work of the open-ended working groups.

Recent peer review and compliance assessment exercises undertaken by an increasing number of States Parties are very encouraging in this regard. They promote transparency and build confidence between States Parties, and they demonstrate, and provide reassurance, on implementation. Other approaches also exist. Over the last year, for example, King's College London was invited to visit a set of high-containment labs in Portugal, as well as the Razi Vaccine and Serum Research Institute in Iran. These occasions promote and encourage transparency in more interactive ways than through annual CBM submissions, and form welcome additions to CBM submissions, and to peer review and compliance assessment exercises.

Trust and transparency in biodefence form significant research interests for King's College London and we welcome opportunities to partner with States Parties as we develop research projects in this area going forward.

Another significant research interest is the historical context of the origins of the BWC. The four-year University College London-Sussex University project to provide a deeper and richer historical analysis of the context and conception of the BWC has recently been completed. Funded by the UK Arts and Humanities Research Council (AHRC), the project drew primarily on archival work and oral history. Copies of the final report are available at the back of the room, and more details are available online: www.ucl.ac.uk/sts/cbw

Mr Chair, Distinguished Representatives, We thank you for your attention.

Biological Weapons Convention Eighth Review Conference 7-25 November 2016 NGO Statements



Mr President, Distinguished Representatives:

The University of London* appreciates the opportunity to contribute to this Review Conference through the NGO Statements. We welcome your call to States Parties, in your letter of 6 October, "to consider how best we can work to ensure that the Review Conference makes a significant and sustainable contribution to improving the implementation of the BWC." Our statement is accordingly organised around these two criteria.

A significant contribution

The first contribution we ask of the Conference is to welcome the transparency initiatives some States Parties have taken to provide reassurance that they themselves are implementing all Articles of the Convention. They have done this in various ways, from peer review to compliance assessment, from implementation review to on-site compliance visits. All these initiatives have three things in common: they are voluntary, they are innovative, and they are designed to provide reassurance through transparency. Through sharing these experiences States Parties may develop a common understanding as to how best to reassure one another, and the wider world, that they are indeed fully compliant with their BWC obligations. We ask the Conference to give a wholehearted welcome to what has been pioneered already and to ensure that the process continues by setting up an Open-Ended Working Group on Providing Reassurance. This OEWG should aim to encourage participation and transparency, focussed on the concept and practice of reassurance as a key element in strengthening the BWC.

The second contribution we recommend is a decision to organise the <u>review of relevant developments in science and technology (S&T)</u> more systematically, and resource it more fully, through an Open-Ended Working Group on S&T professionally served by a Scientific Secretary in the ISU. We recognise the work that has gone into examining proposals for different ways of improving the S&T review process but now is the time for decision.

The third significant contribution we hope the Conference will make concerns the CBMs. Many well-considered proposals for improvement were left over from the Seventh Review Conference and fell outside the very narrow mandate of the biennial item on CBMs in the last intersessional process. We recommend a Technical Working Group on CBMs to revise the forms as necessary, further develop the electronic platform and continue fine-tuning the CBM process so that it succeeds in actually building confidence. This could be seen as an Appendix to the Conference, like the 1987 meeting which "finalised the modalities" of the original CBMs.

And fourthly we recommend a decision to strengthen this new intersessional structure with a <u>Steering Committee</u>. This would bring together what up to now have been the loosely distributed tasks of various office-holders. Together they should be mandated to watch over the health of the Convention and promote its constructive evolution, acting on behalf of all the States Parties and the wider BWC community. The Steering Committee we envisage would work closely with the ISU and report to each Annual Meeting.

A sustainable contribution

Mr President, we applaud your emphasis on a <u>sustainable</u> contribution because otherwise there is a danger that any fresh impetus the Conference gives to the BWC will be quickly dissipated, long before 2021. Sustainability rests in large part, as always, on the depth of commitment of States Parties and their readiness to demonstrate that commitment in practice. But it also rests in part on the adequacy of the supporting structures. If these are weak the BWC will not prosper. Only this Conference has the authority to set up subsidiary bodies, determine their

functions and give them the resources to carry out those functions effectively. We strongly encourage the Conference to use that authority.

Specifically, the <u>Annual Meeting of States Parties</u> needs a mandate enabling it to take decisions within the framework set by the Review Conference. It has already taken decisions on the dates and chairing of meetings within the intersessional period and, last December, on improving the preparatory process for this Conference. Now it should be empowered to take decisions on such matters as adjustments to the detail of the intersessional work programme, as recommended by its Open-Ended Working Groups or the Steering Committee, and to give effect to the recommendations of the Technical Working Group on CBMs. It should also be authorised to make recommendations for action to the States Parties, year by year, and not have to wait until the Ninth Review Conference. The consensus rule would continue to apply to the Annual Meeting, as it does here, so there is no reason to fear that giving limited powers of decision-making to the Annual Meeting could disadvantage any State Party or detract from the authority of the Review Conference.

In the case of the Implementation Support Unit, it is resources of extra staff and a realistic budget that are needed. We recommend the renewal of its mandate along existing lines but adapted to enable it to give professional support to the new Working Groups and Steering Committee as well as to the Annual Meeting. What holds back the ISU from making a more sustainable contribution is under-resourcing. It has done its best but is hampered by having too small a staff and an inadequate budget. Five years ago the Seventh Review Conference added new tasks but in effect, at the last minute, refused to pay for them. As a result, the ISU has had to draw attention in each of its annual reports to the work it has not been able to do, for lack of resources. To fund a staff of five would merely restore the ISU to where it ought to have been throughout the last intersessional period. We therefore encourage this Conference to treat five, rather than three, as the baseline from which to calculate the extra number needed to give adequate support to the new structure, and to enable the ISU to function on a secure and sustainable basis.

A <u>realistic budget</u> for the BWC would still only ask of States Parties less than 5% of what almost all of them are required to contribute to the OPCW as parties to the CWC. Even allowing for major differences between the two Conventions in respect of international verification and permanent institutions, this is surely quite disproportionate: the BWC is not <u>that</u> much less important than the CWC. But to run the BWC on an inadequate budget suggests it <u>is</u>; and so sends completely the wrong signal. The disparity is unacceptably large: it ought to be reduced, by decision of this Conference.

Conclusion

In conclusion, Mr President, we wish you and the Conference success in achieving your twin goals of a significant contribution and a sustainable contribution, so that the BWC can realise its latent potential and become the treaty to which its advocates in the disarmament community and the professions of science have so long aspired.

Mr Nicholas Sims, Department of International Relations, London School of Economics & Political Science

Dr Filippa Lentzos, Department of Global Health & Social Medicine, King's College London **Prof Brian Balmer**, Department of Science & Technology Studies, University College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. University College London (founded 1826) and King's College London (founded 1829) were the original colleges of the University of London, while the London School of Economics & Political Science (founded 1895) joined in 1900.

Biological Weapons Convention Preparatory Committee NGO Statements 8-12 August 2016



Mr Chairman, Distinguished Representatives:

The University of London* appreciates the opportunity to contribute views to this Preparatory Committee through the NGO Statements. First of all we want to encourage you to prepare the way for a successful Eighth Review Conference. We encourage you to put this week to the fullest use, with determination to build on the many good ideas that are available and shape them ready for November.

We welcome your guidance to the PrepCom that before turning to an Article-by-Article discussion it should first consider two cross-cutting issues: the structure of the next intersessional process, and the Implementation Support Unit. Experience has shown that these are two areas in which a Review Conference can fail at a late stage. So careful preparation is vital. We hope the new PrepCom process this time will enable proposals in both these areas to go forward to the Review Conference fully costed, thoroughly examined and enjoying wideranging cross-regional support.

Restructuring the Intersessional Process

Regarding the next intersessional process, the aim should be to make this one more purposeful than the third ISP has been: more productive of common understandings and, especially, effective action. The purpose of the ISP for 2017-2020 should be to take the Convention forward, so that it is in better health at the end of the four years than it was at the beginning: more credible, more effective, and made relevant to the world of the 2020s. This will only happen with structural change. So we want to see a restructuring which produces a pattern of meetings fit for purpose. We believe that such a restructuring can be achieved within the estimated cost of BWC/CONF.VIII/PC/6 if States Parties make full use of four weeks in each year from 2017 to 2020.

The structure we recommend retains the Annual Meeting of States Parties but replaces the Meetings of Experts with new Working Groups.

Within each year, one week should be given over to reviewing advances in science and technology related to the Convention. A strong case has been made for this review to be conducted more systematically in the next ISP. The best structure suggested for enabling this more systematic review is an Open Ended Working Group and we hope delegations this week will be more explicit than before in expressing support for this proposal. It is vital to be inclusive of all States Parties; we think this principle is widely accepted but we also hope provision will be made for contributions from academies of science and other relevant sources so that the S&T review each year can benefit from a full range of expertise, from outside as well as inside governments.

A second week should be devoted to another Open Ended Working Group. This one would address providing reassurance on implementation of the Convention. We see the new Working Group as the forum in which States Parties would share their experiences in demonstrating their commitment to making the Convention work, whether by engaging in peer review, or compliance assessment, or implementation review, or compliance visits, or transparency measures of any kind. All these initiatives have common features: they are voluntary, they are innovative, and they are designed to provide reassurance. Through these initiatives States Parties may develop a common understanding as to how best to reassure one another, and the wider world, that they are indeed fully compliant with their BWC obligations. Up to now, the lack of such a common understanding has weakened the Convention. Hence our appreciation for those States Parties which have pioneered pilot exercises in reassurance and our recommendation for a Working Group focussed on the concept and practice of reassurance as a key element in strengthening the BWC.

Dr Filippa Lentzos Department of Global Health & Social Medicine and Department of War Studies, King's College London

Mr Nicholas Sims Department of International Relations, London School of Economics & Political Science

Prof Brian Balmer Department of Science & Technology Studies, University College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. University College London (founded 1826) and King's College London (founded 1829) were the original colleges of the University of London, while the London School of Economics & Political Science (founded 1895) joined in 1900.

We also recommend a third week for a Technical Working Group to revise the CBM forms as deemed necessary, to further develop the electronic platform, and to continue fine-tuning the CBM process.

The fourth week should be for the Annual Meeting of States Parties. This should become more than merely a forum for receiving reports and restating well-known positions. We hope this PrepCom will reconsider the role of the Annual Meeting, and encourage the Review Conference to let it take decisions on a limited range of matters, such as adjustments to the detail of the intersessional programme, and of the CBMs. It should also be authorised to make recommendations for action to the States Parties, year by year, and not just to the Ninth Review Conference in 2021. These decisions and recommendations would naturally be informed by what the working groups produce each year, but always within the framework laid down by the Eighth Review Conference. The consensus rule would still apply as much to the Annual Meeting as to the Review Conference, so it is difficult to understand how giving limited powers of decision-making to the Annual Meeting could disadvantage any State Party or detract from the authority of the Review Conference.

A further element in restructuring the intersessional process which we recommend is a Steering Committee. This would bring together what up to now have been the loosely distributed tasks of various office-holders, so that together they can watch over the health of the Convention and promote the constructive evolution of the ISP through to 2021, acting on behalf of all the States Parties and the wider BWC community. We envisage this Steering Committee to include the Chairs and Vice-Chairs of the Annual Meetings, the Chairs of Working Groups, and representatives of the Depositaries. Naturally we would see it working closely with the ISU. And, like the ISU, it would report to each Annual Meeting of States Parties.

Strengthening the Implementation Support Unit

Turning now to the ISU, we see a strong case for renewing its mandate and extending it where the restructuring of the intersessional process produces additional requirements. This has obvious implications for staffing. In particular, a Scientific Secretary is needed to give professional support to the more systematic review of S&T which we recommend should be conducted by an Open Ended Working Group. Staff support for the Open Ended Working Group on Providing Reassurance and the Technical Working Group on CBMs will also be vital to their success.

However, we must not forget that the existing staff is already over-stretched because the Seventh Review Conference added new tasks but, at the last minute, refused to pay for them. As a result, the ISU has had to draw attention in each of its annual reports since 2012 to the work it has not been able to do, for lack of resources. This PrepCom has before it the estimated costs for an ISU with two additional posts. To fund a staff of five would merely restore the position to where it ought to have been throughout the last ISP. Five is a very small staffing complement for such an important treaty. We encourage States Parties to treat five, rather than three, as the baseline from which to calculate the extra resources needed to give adequate staff support to the new structure for the next ISP. In this regard, as in others, we ask this PrepCom to give a strong lead to the Review Conference.

We wish you a successful week in laying the groundwork that will enable the Review Conference to steer the constructive evolution of the BWC over the next five years.

Dr Filippa Lentzos, Department of Global Health & Social Medicine, King's College London **Mr Nicholas Sims**, London School of Economics & Political Science **Prof Brian Balmer**, Department of Science & Technology Studies, University College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. University College London (founded 1826) and King's College London (founded 1829) were the original colleges of the University of London, while the London School of Economics & Political Science (founded 1895) joined in 1900.

Biological Weapons Convention Meeting of States Parties NGO Statements 14-18 December 2015



Mr Chairman, Distinguished Representatives: The University of London appreciates the opportunity once again to participate in the NGO Statements offered to the Meeting of States Parties. We attach great importance to the BWC and our message is one of encouragement. We encourage you to bring this Intersessional Process to a productive conclusion and so set the scene for success at the Eighth Review Conference. This will require the formulation of clear consensus recommendations and widely acceptable text, so that all the necessary materials are ready for the Conference to take decisions: decisions which will reinforce the Convention with the strengthening it needs for its effective operation, including an Implementation Support Unit resourced so as to match the tasks entrusted to its staff, a dedicated forum for the collective discussion of annual CBM returns, and updated mandates for this annual Meeting and other elements of a restructured Intersessional Process. We encourage you to make every effort to achieve such outcomes.

Our statement first addresses **Standing Agenda Item II**: **Review of Developments** in **Science and Technology**

We have long taken a particular interest in the impact of developments in science and technology (S&T) on the health of the BWC and how you as the States Parties review this, latterly as a Standing Agenda Item. While this guaranteed frequency is an improvement on what happened before 2011, the overall experience has been disappointingly uneven. For the Convention to flourish there has to be a strengthening of its S&T review procedure.

S&T would benefit from upgrading into a dedicated forum such as an Open Ended Working Group with its Chair and Vice-Chairs appointed for several years at a time and a Scientific Secretary added to the establishment of the ISU to give the Group continuous professional support. Moreover, there would be advantage in having the Group meet separately from the Meeting of Experts in a restructured Intersessional Process and feed its recommendations to the States Parties directly. It should have a mandate as an organ of the Convention carrying forward the S&T review function envisaged from the start in Article XII - but henceforth on a more systematic basis.

Upgrading S&T to a dedicated Open Ended Working Group finds its justification in the wide extent of developments affecting the health of the BWC that need to be kept under review, across the range of the life sciences and beyond. Some appear to threaten the Convention while others may be of benefit. Certain gene editing technologies and 'gain-of-function' experiments with potential pandemic pathogens appear threatening; while advances in microbial forensics appear beneficial. These are just some examples. There are many more. S&T developments must be assessed collectively, and an Open Ended Working Group would be inclusive, open to all States Parties and (we would hope) to academies of science and other relevant organisations which could help in making these collective judgments.

One important way in which States Parties can demonstrate their commitment to the BWC is through applying the precautionary principle to dual-use research of concern (DURC) and ensuring that such research is prudently constrained. DURC is not banned by the Convention but if not sufficiently regulated it can damage the

BWC. Experiments deemed to carry excessive risks, broadly understood, should not be allowed at all. All DURC should be subject to comprehensive risk assessment and only allowed under rigorous justification - and then always under stringent control.

Within Standing Agenda Item III: Strengthening National Implementation, we attach particular importance to identifying those improvements in implementation, and transparency in reporting it, which will provide the most reassurance that the Convention is being observed. We welcome the initiative taken by the cross-regional sponsors of the Working Paper on Providing Reassurance in Implementation and hope they will pursue this initiative with ever-widening support, so that there can develop a full analytical and conceptual discussion of what is involved. To put it simply, States Parties need to find the best ways in which they can reassure one another, as treaty partners, and reassure all of us, that everything they are doing and everything they allow others to do is in line with the letter and the spirit of their BWC obligations. The prevention criterion in Article IV is relevant here: it is not enough to prohibit BW activities, they must be prevented.

The credibility of the Convention will suffer if States Parties do not give this task of reassurance the high priority it requires. It is basic to the treaty relationship. We hope one outcome of this Meeting of States Parties will be a clear recommendation to the Eighth Review Conference that, whatever form a restructured Intersessional Process may take, it must include this 'reassurance agenda'.

In conclusion, Mr Chairman, we recall the 40th anniversary of the BWC's entry into force which we marked in March, and the 90th anniversary of the Geneva Protocol's signature which followed in June. These were occasions for all of us to commit ourselves afresh to nurturing these two treaties and keeping them relevant through changing times. We encourage everyone to join our extended discussion about the Geneva Protocol, at the lunchtime side event sponsored by UNIDIR and France.

Finally, we would like to highlight our new textbook coming out in early 2016 on biological disarmament and nonproliferation. The edited collection, by nearly 40 leading academics and experts, introduces readers to the politics, people, science and historical roots of contemporary biological threats.

We wish your Meeting of States Parties success in reaching consensus and in your important task of steering the BWC collectively into a constructive path of evolution. We thank you for your attention to our statement.

Thank you, Mr Chairman.

Mr Nicholas Sims

Emeritus Reader in International Relations, London School of Economics & Political Science

Dr Filippa Lentzos

Senior Research Fellow, Department of Social Science, Health & Medicine, King's College London

Prof Brian Balmer

Professor in Science Policy Studies, Department of Science & Technology Studies, University College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. University College London (founded 1826) and King's College London (founded 1829) were the original colleges of the University of London, while the London School of Economics & Political Science (founded 1895) joined in 1900.

Biological Weapons Convention Meeting of Experts NGO Statements 10-14 August 2015



Mr Chairman, Distinguished Representatives: The University of London greatly appreciates the opportunity to address this BWC Meeting of Experts.

With other academic colleagues and representatives of governments and civil society we were glad to take part in the commemorative event on 30 March 2015 which marked the 40th anniversary of the entry into force of the Convention. That commemoration gave States Parties an opportunity to commit themselves afresh to sustained actions in support of biological disarmament. Sustaining the BWC in the years ahead requires much hard work to be done behind the scenes both here in Geneva and in capitals. We recognise the 'invisible' work that produced the BWC and that remains needed today to uphold the BWC and make it work better in the interests of all. That applies to every one of the items on the agenda of the Meeting of Experts, which this statement will address.

This is also the first BWC meeting after another anniversary: It is 90 years since the Geneva Protocol was signed on 17 June 1925. We have used that anniversary to celebrate the Geneva Protocol as a crucial anchor for CBW arms control and the foundation on which the international legal architecture has been constructed to prohibit and prevent all CBW activity. Both treaties—BWC and CWC—complement the principles established in 1925.¹

Looking back over the history of the treaty-building processes, we recognise the contributions of many states and individuals determined to solve problems and overcome obstacles. The same tenacity of purpose and sustained effort in multilateral diplomacy will be just as necessary over the next forty years of the BWC as it was throughout the first forty, but increasingly this requires new or renewed engagement with non-state actors.

Your standing agenda item on **Strengthening National Implementation** is key to how effectively all BW activity is both prohibited and prevented. Although the legal framework of implementation varies from one State Party to another, as foreseen in Article IV, its stringency when applied must be effective worldwide with no gaps. And that is why the sharing of national experience is so valuable. Experiences, proposals and initiatives discussed here contribute to an international repertory of good practice. This applies to education and awareness-raising, to codes of conduct for life scientists, to biosafety and biosecurity, as well as to legislative and administrative provisions which enforce the prohibitions of the BWC. Your sessions devoted to this agenda item can benefit from the pooling of national experiences in more widely shared practices. These are no threat to state sovereignty: On the contrary, there is much to be gained from international bio-risk standards and comparable procedures to strengthen national implementation.

What is more, it should be possible to welcome a wide range of initiatives and include them in the documentation of the BWC, without necessarily conferring collective approval on every proposal or initiative mentioned. The basic change of mind-set required is from seeking consensus by deletion to the harder but more rewarding pursuit of consensus by inclusion. If such a change of mind-set can be carried forward from this Meeting of Experts to the Meeting of States Parties in

December, the delegations drafting the resulting Report may be less preoccupied with blocking opponents' draft language and concentrate rather on searching for more widely acceptable language. We encourage States Parties to be more inclusive.

Turning next to Science and Technology (S&T), there is a strong case for upgrading the annual review of relevant S&T developments into an Open-Ended Working Group of a full week's duration each year and with more adequate resources. This upgrading would be a major element in creating a robust and effective intersessional process at the Eighth Review Conference.² However, within the constraints of the existing intersessional process, we hope your Meeting of Experts will make full use of the time allocated to this agenda item. The review of S&T has several aspects across the specified range of topics. Sharing knowledge is essential for the health of the BWC. So too is a comprehensive analysis of risk. Prudent and precautionary regulation of all activity in the life sciences is vital to confidence in the Convention, and this could well be the subject of recommendations going forward to the Meeting of States Parties. We draw your attention particularly to the relevance of gene-editing technologies and gain-of-function experiments.^{3,4}

On every agenda item this week we hope the Meeting of Experts will bear in mind the BWC's overall need to find means of reassurance. This is where the BWC is weakest. Many efforts have been made to remedy this weakness and it is vital that they should continue. We particularly encourage the production of working papers and initiatives that cross the boundaries of the existing Groups and demonstrate imaginative solutions with wide-ranging support. All States Parties, and the wider world of civil society, need to be reassured in two respects: First, that everything their own and other governments are doing is consistent with their BWC obligations; and second, that all activity in the life sciences is regulated and conducted in ways that do not threaten the BWC or test its limits. Greater transparency in areas such as dual-use research of concern is to be commended. Information that really builds confidence needs to be identified and exchanged, and stronger mechanisms for declaring, documenting and demonstrating adherence to the Convention need to be developed.5

Mr Chairman, Distinguished Representatives: We wish you a successful and productive week, and we thank you for your attention to our statement.

Dr Filippa Lentzos

Senior Research Fellow, Department of Social Science, Health & Medicine, King's College London

Mr Nicholas Sims

Emeritus Reader in International Relations, London School of Economics & Political Science

Prof Brian Balmer

Professor in Science Policy Studies, Department of Science & Technology Studies, University College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. University College London (founded 1826) and King's College London (founded 1829) were the original colleges of the University of London, while the London School of Economics & Political Science (founded 1895) joined in 1900.

Spelling, Balmer & McLeish, 'The Geneva Protocol at 90: An Anchor for Arms Control,' The Guardian 17 June 2015 ² Pearson, Lentzos & Sims, 'Reviving the intersessional process: Achieving effective action,' Bradford Briefing Paper July 2015

Lentzos, van der Bruggen & Nixdorff, 'Can we trust scientists' self-control?,' The Guardian 26 April 2015

Lentzos, van der Bruggen & Nixdorff, 'Can we trust scientists' self-control?,' The Guardian 26 April 2015

Lentzos, 'Mutational technologies: Engage public in gene-editing policy,' Nature Vol.521(7552): 289

⁵ Lentzos, '3D BIO: Declare, Document & Demonstrate' EU Non-Proliferation Consortium Paper No.45 April 2015

Biological Weapons Convention Meeting of States Parties NGO Statements 1-5 December 2014



The University of London greatly appreciates the opportunity to address this Meeting of States Parties. Our statement today addresses standing agenda items 2 and 3.

Mr Chairman, thank you for distilling the ideas and proposals from the Meeting of Experts into a helpful Synthesis paper. There are a number of points in the text where we would encourage the MSP to go further than the MX.

Standing Agenda Item 2: Review of Developments in Science and Technology

On the review of science and technology, we note the Synthesis paper says "States Parties reiterated the value of continuing to consider, in future meetings, possible ways of establishing a more systematic and comprehensive means of review" (Section II.G paragraph 2).

We encourage this MSP to go further and recommend to the Eighth Review Conference that the best way forward is to establish an **Open Ended Working Group** (OEWG). This proposal has been gathering support, as was evident at the MX. We want to see it brought forward ready for 2016 by a wide range of States Parties crossing Group boundaries. They will need to show in some detail how an OEWG would provide "a more systematic and comprehensive means of review" than is possible under the present arrangement. More adequate allocation of time to each S&T development under review would be one benefit. Staff support possibly in the shape of a Scientific Secretary might be another, and this should be a priority within any expansion of the ISU. The more thoroughly the OEWG proposal is worked out, the better should be its prospects for success at the Review Conference.

This paragraph of the Synthesis paper recognises the importance of thoroughly and effectively reviewing S&T developments relevant to the Convention, of keeping pace with rapid changes in a wide range of fields, and exploring opportunities for enhanced cooperation and sharing of the technology identified by such reviews. All three of these aims would be better pursued in an OEWG.

States Parties at the MX discussed **gain-of-function work** and "agreed on the value of continuing to consider such developments in future meetings" (Section II.G paragraph 1). We would like the MSP to go further and endorse the US de facto moratorium on gain-of-function research that came into effect on 17 October 2014. We encourage the MSP to agree that States Parties carry out a comprehensive risk assessment to quantify the risks of release of gain-of-function viruses into the community in terms of loss of human life, costs to health care systems, financial and socio-economic costs, and liability costs. We also encourage the MSP to agree that States Parties identify and ban the specific types of experiments that should not be undertaken because of the disproportionately high risk they carry. National arrangements for oversight of gain-of-function work should take its implications for the Convention fully into account and should be documented in the annual CBM returns on Form E. Any gain-of-function work carried out as part of national biological defence research and development should be specifically identified and outlined in CBM Form A.

Standing Agenda Item 3: Strengthening National Implementation

On Strengthening National Implementation, we hope this MSP will develop the Synthesis paper statement that "States Parties reiterated the value of continuing discussion on measures to strengthen national implementation of the Convention, including in light of various proposals made by States Parties" (Section II.G paragraph 2).

There are two things that could usefully be achieved this week. First, a Common Understanding that national implementation is closely bound up with confidence in compliance, so the two need to be pursued together, as strengthening the first benefits the second.

Second, Effective Action in terms of welcoming the transparency initiatives that several States Parties have pioneered in Compliance Assessment and Peer Review and recommending that other States Parties either join in such effective actions or find their own preferred methods of demonstrating transparency. No one is making exclusive claims for any one method but everyone can contribute their own. Whatever differences States Parties may have on the eventual compliance framework they want to see and how to move towards it, they should all be able to agree on the value of promoting transparency in national implementation. We encourage this MSP to go beyond the bare statement in the Synthesis and lay the foundations for progress in this area on which the Eighth Review Conference can build.

Side Event Announcement

Mr Chairman, King's College London will be launching a report on Confidence and Compliance at the lunchtime side event today. The report details a workshop King's jointly organized with the Geneva Centre for Security Policy on the margins of the MX.

The side event will also be making the link between transparency and scientific research through a discussion of gain-of-function work. We are pleased to have two eminent speakers for you: Professor of virology Simon Wain-Hobson from the Pasteur Institute and Professor of epidemiology Marc Lipsitch from Harvard University.

You are all warmly invited to attend.

We thank you for your attention and we wish you a productive week.

Mr Nicholas Sims

Emeritus Reader in International Relations, London School of Economics & Political Science

Dr Filippa Lentzos

Senior Research Fellow, Department of Social Science, Health & Medicine, King's College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. King's College London (founded 1829) was one of the two original colleges of the University of London. The London School of Economics & Political Science (founded 1895) became a college of the University of London in 1900.

Biological Weapons Convention Meeting of Experts NGO Statements 4-8 August 2014



Mr Chairman:

The University of London greatly appreciates the opportunity to address this Meeting of Experts.

Yesterday, here in Geneva, King's College London in partnership with the Geneva Centre for Security Policy convened a one-day workshop on confidence and compliance with the BWC. The workshop was organised around three core questions: To what extent is the BWC verifiable? Do the CBMs build confidence? What would a legally-binding mechanism look like today? The aim of the workshop was to enable an informal exchange of views in preparation for the Eighth Review Conference. A report of the workshop will be launched at the Meeting of States Parties in December. We are grateful to the Foreign & Commonwealth Office of the United Kingdom for financial support of our work.

Our statement today addresses standing agenda items 2 and 3.

Standing Agenda Item 2: Review of Developments in Science and Technology

On Wednesday 6 August we will be launching a report on Synthetic Biology and Biosecurity by King's College London researchers in a side-event showcasing developments in science and technology relevant to the BWC. This side-event is cosponsored by the US National Academy of Sciences, the Royal Society, the International Union of Microbiological Societies, the Inter-Academies Panel, UNIDIR and King's College London. In addition to a presentation of our report on Synthetic Biology and Biosecurity it will also feature talks on microbial forensics and pathogenicity. You are all warmly invited to attend.

We are pleased to note that our report has proved useful to the Implementation Support Unit in its preparation of the background document for this Meeting of Experts reviewing developments in science and technology, and that it is cited as part of the key material for the newly identified trend on tacit knowledge along with a second article co-authored by a King's College London researcher.

Standing Agenda Item 3: Strengthening National Implementation

This is the third year that Strengthening National Implementation has been a standing agenda item and at this stage in the Intersessional Programme a clear consensus should be emerging on the way forward. Recommendations need to be agreed in good time for the Eighth Review Conference. We offer three guidelines:

1. National implementation needs strengthening in prevention as well as prohibition, in practice as well as on paper, since both prohibition and prevention are specified in the stringent requirements of Article IV. This prevention criterion must always be kept in view.

- 2. National implementation needs to be sufficiently transparent to build confidence in compliance, so we welcome the call for a focused discussion of what constitutes compliance and how a State Party can best demonstrate its own compliance. Such a discussion fits well within this standing agenda item, and should help shape its outcome in recommendations to the Review Conference.
- 3. Each State Party implements Article IV in accordance with its own constitutional processes, and each must decide for itself what method will best demonstrate its own compliance. Several have already pioneered distinct approaches, such as peer review and compliance assessment. Others should follow such examples or come up with their own alternative means of reassurance. No one is making exclusive claims for their particular approach, so it remains wide open to every State Party to choose its own way of shaping its national implementation so as to demonstrate compliance. We encourage everyone to take initiatives and, in the words of this agenda item, share best practices and experiences.

The important thing is that States Parties recognise their responsibility as treaty partners to find ways of reassuring one another that they are indeed fulfilling their treaty obligations and are seen to do so.

Strengthening National Implementation is thus integrally related to the demonstration of compliance. This standing agenda item will have enriched the Intersessional Programme if it feeds into the Review Conference a common understanding to that effect and a set of recommendations to promote this vital aspect of the BWC treaty regime.

Conclusion

Mr Chairman:

This treaty regime will soon be 40 years old. The anniversary of entry into force next March will be a good moment to recommit States Parties to the regime of biological disarmament and to plan for its reinforcement, in particular for the decisions a well-prepared Eighth Review Conference can take to remedy its weaknesses and reinforce its strengths. The BWC can count on us in the academic and scientific professions and NGOs for support, sustained over many years; but by the nature of the treaty relationship it is ultimately for its States Parties as treaty partners to make it work.

Mr Chairman, we wish you all a productive week and look forward to continuing our engagement with the Meetings of Experts and of States Parties in the service of the BWC.

Mr Nicholas Sims

Emeritus Reader in International Relations, London School of Economics & Political Science

Dr Filippa Lentzos

Senior Research Fellow, Department of Social Science, Health & Medicine, King's College London

* The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. King's College London (founded 1829) was one of the two original colleges of the University of London. The London School of Economics & Political Science (founded 1895) became a college of the University of London in 1900.

Biological Weapons Convention Meeting of States Parties NGO Statements 9-13 December 2013



Madame Chair:

The University of London* greatly appreciates the opportunity to address the States Parties to the Convention.

This meeting marks the end of the CBM discussion for this intersessional cycle. One of the key substantive topics that has been raised in the discussion concerned the future evolution of the CBM regime: How can it be adapted to today's political, security and scientific contexts?

The underlying purpose of the CBMs has traditionally been seen to be about reducing the occurrence of ambiguities, doubts and suspicions. Our view is that this underlying purpose remains essential to the health of the Convention. However, to give effect to that traditional purpose in present-day conditions requires a new, expanded understanding of what builds confidence. Confidence building in the biological field today must also be about setting appropriate examples for others to emulate.

Here's why: The traditional "artefact-centric" approach to regulating unconventional weapons – which seeks to control the materials, methods and products involved in misuse – is becoming ever-more ill-suited to the life sciences, where the technologies are less about hardware, equipment and tools, and more about people, processes and know-how. Dual-use, or multi-use, life science technologies are increasingly diffuse, globalised and multidisciplinary and are often based on intangible information rather than on specialised materials and equipment. This changes the definition of the problem from a material- and equipment-based threat that can be eliminated to a knowledge-based risk that must be managed.

Risk-based regulation involves a plurality of public and private actors, instruments and purposes that can be grouped into three modes of governance: "hard law", "soft law" and "informal law":

- "Hard-law" is based on the authority of the state and accompanied by penalties for noncompliance; it includes statutory regulations, reporting requirements, and mandatory licensing, certification and registration.
- "Soft-law" is less formal and based on conceptions of what is socially desirable; it includes professional self-governance, codes of practice, and guidelines.
- "Informal law" involves the emulation of successful practices and models of behaviour; it includes national and international standards, education and awareness-raising.

All three modes of governance play important roles in influencing, identifying and inhibiting those who seek to misuse the life sciences. Truly effective management of the knowledge-based risk posed by dual-use life science technologies must therefore couple hard-law with both soft-law and informal law.

So in addition to national implementation of the BWC, it is important that governments support bottom-up codes of practice initiatives; education, outreach and

awareness-raising initiatives; and so on. But, at the same time, governments also have to act as the ultimate role model. Governments have to look inward at themselves and demonstrate outward to others that their own house is in order.

And this is where the CBMs of the BWC come in.

The process of collecting and submitting information for CBM submissions provides a mechanism for individual governments to draw domestic stakeholders together, to focus internal inter-agency or inter-departmental coordination, and to increase their awareness and oversight of relevant national biological activity.

Complete, accurate and annual CBM submissions demonstrate to your peers in government and to peers in other governments that you have your house in order. And for the growing number of States Parties who choose to maximise transparency and make their CBMs publicly available, you also demonstrate that you have your house in order to other – equally significant – stakeholders in managing the risks that biology may be misused.

We strongly encourage States Parties, in their preparations for the next Review Conference, to make explicit their understanding of what builds confidence and what expansion this requires in giving effect to the traditional purpose of CBMs in present-day conditions. We hope they will also say how they see the CBM regime evolving in the future.

Madame Chair, before we conclude, we would like to take this opportunity to thank you for the work you've done this year, especially your efforts to bring in more voices. The future of biological disarmament and non-proliferation lies in outreach to the ever-growing number of stakeholders and in effective links and partnerships between governments, civil society, national and international scientific and medical associations, and industry. Your efforts, Madam Chair, to broaden the active participation of both states and others, like ourselves, in the formal meetings is an important part of fostering and benefiting from the multi-level stakeholdership crucial to managing biological threats today.

We wish you all a productive week, and look forward to continuing our engagement with you on CBMs and on other BWC-related issues.

Mr Nicholas Sims

Emeritus Reader in International Relations, London School of Economics & Political Science

Dr Filippa Lentzos

Senior Research Fellow, Department of Social Science, Health & Medicine, King's College London

The 11-2 and 1-2 and

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. King's College London (founded 1829) was one of the two original colleges of the University of London. The London School of Economics & Political Science (founded 1895) became a college of the University of London in 1900.

Biological Weapons Convention Meeting of Experts NGO Statements 12-16 August 2013



Madame Chairman:

The University of London* greatly appreciates the opportunity to address the States Parties to the Convention. The standing agenda item on *Strengthening National Implementation* opens up the possibility, for this Meeting of Experts and for the Meeting of States Parties in December, of the discussion going beyond existing measures. This contribution falls within sub item *e: any potential further measures, as appropriate, relevant for implementation of the Convention and also addresses the 2012-2013 agenda item on CBMs.*

States Parties are rightly busy implementing the Convention. They should also be busy reassuring one another that their own implementation is working well, and demonstrates their own compliance.

One of the key means through which compliance is actively demonstrated multilaterally is the national compliance reports submitted by States Parties to the quinquennial Review Conferences. Demonstrating compliance, however, involves more than just providing information. It involves **communication**, and this entails at least two actors, one providing information and one receiving information. In the BWC context, there is currently no structure for States Parties to collectively consider the reports submitted and give feedback on them. States providing information do not know whether the kind of information they provide is reassuring to others, or whether they dismiss it as irrelevant.

A dedicated forum is needed in which States Parties can compare notes on how they are carrying out their obligations under the Convention, and consider, discuss and give feedback on one another's reports. Such a forum would provide an opportunity to offer comments constructively and amicably, not adversarially, and to learn from one another's implementation experience with a view to each state considering for itself where its own national implementation might be strengthened. In the course of such discussion, compliance assurance should be enhanced; or, alternatively, it may become clearer what additional information, not initially provided, would constitute more convincing evidence of compliance in the eyes of other States Parties.

It is essential to emphasise that States Parties would be invited, not instructed, to participate in the new forum. Nothing mandatory is being suggested. Nor is it assumed that take-up would be near-universal. Instead the assumption is that the forum would shape and channel a movement beyond the compliance assurance initiatives pioneered by Canada, Switzerland, the Czech Republic and France in recent years towards a gradually widening multilateralism.

Madame Chairman: The Confidence Building Measures (CBMs) of the Convention provide another opportunity for States Parties to continually demonstrate their compliance. The regular exchange of data they provide for strengthens compliance monitoring by maximising the transparency of national patterns of normal activity.

In the interest of maximizing transparency, and disseminating the relevant information as widely as possible, many States Parties are now making their CBM

returns publicly available or are working toward doing so. Making these submissions public can greatly enhance their function. Restricting access to CBM returns risks building suspicion rather than confidence among important stakeholders, and misses an opportunity to engage these same stakeholders in processes that might actually enhance the quality and completeness of the information submitted.

Given, however, that most CBM returns will continue to be published on the restricted area of the BWC website, the CBMs will only enable limited transparency. They cannot be utilized by the BWC community as a whole. In an effort to remedy this, the current mandate of the ISU should be expanded from "compiles and distributes data on CBMs" to "compiles, <u>analyses</u> and distributes data on CBMs" to allow for an objective trend analysis that highlights qualitative and quantitative aspects without making reference to individual countries.

Transparency is about something more than just the availability of relevant information. It is also about analysing that information, and ensuring that any outstanding questions are answered. There is currently little knowledge of how States Parties use the completed returns submitted by other states. We do not know to what extent States Parties feel these measures provide the necessary level of transparency or whether they actually build confidence. We do not know if the shortage of arrangements for translation out of the language of submission is a hindrance to their use. We do not have periodic, collective reviews of the returns and opportunities to seek clarification about the information submitted.

A dedicated forum is needed in which States Parties can consider, discuss and give feedback on one another's CBM returns on a regular basis. Like the forum on national compliance reports, States Parties would be invited, not instructed, to participate and the emphasis would be on offering comment constructively and amicably, not adversarially. The "cycles of engagement" these forums establish would build a clearer picture of how national compliance reports and CBMs operate in practice, and whether they inspire a satisfactory level of confidence. Once this emerges, an expert working group could be established to develop a clearer, collective vision of their purpose and longer-term evolution.

Madame Chairman, distinguished delegates:

It is with great pleasure we invite you to a lunchtime seminar and launch of a policy brief to continue our discussion on compliance with the BWC. The side event immediately follows this session and will take place in Room XXIII. We are aiming for an informal, frank and lively dialogue, and encourage you all to attend.

Mr Nicholas Sims

Emeritus Reader in International Relations, London School of Economics & Political Science

Dr Filippa Lentzos

Senior Research Fellow, Department of Social Science, Health & Medicine, King's College London

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. King's College London (founded 1829) was one of the two original colleges of the University of London. The London School of Economics & Political Science (founded 1895) became a college of the University of London in 1900.

Biological Weapons Convention Meeting of States Parties NGO Statements 10-14 December 2012



Mr Chairman:

The University of London* greatly appreciates the opportunity to address the States Parties to the Convention.

We welcome one phrase in particular from your letter to States Parties dated 21 September. You asked for "ideas on how we can make the Meeting of States Parties, and the Intersessional Process in general, more responsive to the needs and aspirations of States Parties in genuinely improving the effectiveness of the Convention and reducing the risks posed by biological weapons." **Genuine improvement** is the yardstick by which the outcome of this week will be judged. So we look forward to an outcome document in which genuine improvements are recommended. The mandate conferred on this MSP allows it, like previous MSPs, to report that it has reached consensus on conclusions or results – and these should embrace both common understandings and agreement on effective action.

Moreover, within the limits imposed by the Seventh Review Conference, the outcome document should be ambitious and comprehensive. It may well benefit from cross-fertilisation across the range of agenda items and topics. The aim should be a well-integrated treatment of this week's varied subject matter: one which cuts across categories. For example, recommendations need to be agreed about education, awareness-raising and stronger structures and practices to encourage responsible behaviour among life scientists. Such recommendations will bridge the standing agenda items on science and technology and on strengthening national implementation.

Education can be about 'implanting' facts and knowledge, and instructing people in what to think. We believe, however, that in this context education is about something rather different. It is about 'eliciting' understanding and teaching people how to think for themselves. It is about equipping life scientists with sensitivity to the risk that the knowledge gained from the experiments and research they carry out can be misused.

A real commitment to this requires leadership from States Parties. To build a reinforcing synergy between the disparate and fragile educational activities we've seen to date, States Parties need to actively promote and fund collaborations between countries, institutions and individuals so that their experiences, achievements, problems and concerns can be shared.

But education is not an end in itself, it is a means to an end; in this case, to provide an avenue by which to affect behaviour. The ultimate aim is that life scientists behave responsibly, as well as provide a layer of oversight about the work carried out in their laboratories and in their specialized fields. The rapid pace and nature of change in the life sciences today means that anyone other than practising life scientists is hard pressed to have the sort of current, technical expertise required to provide adequate oversight. Education and awareness-raising efforts must, therefore, go hand-in-hand with the development of supportive structures and

professional practices for flagging any suspect activities or worrying advances in the field.

Mr Chairman:

There needs to be a common understanding that the Convention requires continual nurture at every level. Its strength rests in part on individual life scientists and the systems and safeguards where they work; on education to raise awareness of dualuse problems and structures to encourage responsible behaviour; on biosafety and biosecurity and all the elements of good practice for those engaged in relevant science and technology. But it rests also on national implementation within states and on international procedures between states for exchanging CBM information and providing compliance assurance through consultation and clarification. At every one of those levels the Convention requires continual nurture and strengthening.

But a common understanding is not enough. Effective action must also be agreed: action to strengthen structures wherever the treaty architecture or the practical application of the BWC shows signs of weakness, from the individual level to the international.

No one knows where the next threat to the Convention will come from: not even whether its source will be a state or a non-state entity or some malign combination of the two. That is a good, precautionary, reason for introducing genuine improvements to the BWC at every level, so that it is kept always as well prepared as human ingenuity can ensure, to respond effectively wherever the threat may come from. Biological disarmament requires perpetual vigilance.

Mr Chairman, distinguished delegates:

This week's Meeting of States Parties bears a heavy responsibility because its discussions and the conclusions or results it embodies in its outcome document will set the pattern for the rest of the Intersessional Process. We encourage you to aim high: to keep seeking genuine improvements which you can recommend in your report. We wish you a productive week and thank you for your attention.

Mr Nicholas Sims Emeritus Reader in International Relations, London School of Economics & Political Science

Dr Filippa Lentzos Senior Research Fellow, Department of Social Science, Health and Medicine, King's College London

The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. King's College London (founded 1829) was one of the two original colleges of the University of London. The London School of Economics & Political Science (founded 1895) became a college of the University of London in 1900.

Biological Weapons Convention Meeting of Experts NGO Statements 16-20 July 2012



Mr Chairman, distinguished delegates:

The University of London* greatly appreciates the opportunity to address the States Parties to the Convention. Our statement deliberately addresses just one of the items on your agenda this week: **Agenda item 8: How to enable fuller participation in the CBMs**. For the Convention to get the most value out of this agenda item in 2012 and 2013, this Meeting of Experts needs to gather as many good ideas as possible and transmit them in a form that will enable the Meeting of States Parties to make progress on them in December.

We recognise that more work needs to be done on practical ways of encouraging fuller participation. For example:

Governments should be aware of the lessons learned from experience of collating national CBM returns. For instance: 1) Collating CBMs requires some interpretation as to what should be included and what should not; technical expertise with an understanding of the political aim of the CBM mechanism is therefore crucial. 2) There is confusion and at times different understandings between States, and also between those collating the information and those providing it, of the level of information required and the kind of information that is useful on the submitted forms. 3) There are significant differences between States in their ability to obtain the required information due to disparities in resources and legal powers and to language difficulties. 4) Continuity through collator rotations can be greatly aided by comprehensive and up-to-date handover notes, as well as through close working relationships between predecessors/successors and technical experts.

If more widely understood, these lessons would encourage more governments to organise themselves so that their CBM returns can be collated efficiently, with benefits of continuity in institutional memory, and also made as manageable a workload for each government as is consistent with completeness and accuracy in the information collated.

Much thought has also been given to improving the **procedures for submission and processing of CBM returns, and to their availability**. This is an area in which many friends of the Convention regret that progress has been too slow. The better its procedures, the more likely the Convention will be to attract fuller participation in its CBMs.

In the interest of maximizing transparency, and disseminating the relevant information as widely as possible, many States Parties are now making their CBM returns publicly available or are working toward doing so. Making these

submissions public can greatly enhance their function. The knowledge, experience and expertise of civil society can contribute to the CBM communication process and to enhancing transparency between States Parties in several ways, including through: assisting States to collect and collate information for the CBMs; monitoring States' biodefense activities; collecting data from open sources; and processing the data submitted to generate accessible information. Restricting access to CBM returns risks building suspicion rather than confidence among important civil society stakeholders, and misses an opportunity to engage these same stakeholders in processes that might actually enhance the quality and completeness of the information submitted. However, given that most of the CBM returns will continue to be published on the restricted area of the BWC website, the CBMs will only enable limited transparency. They cannot be utilized by the BWC community as a whole. In an effort to remedy this, we propose that the current mandate of the ISU be expanded from "compiles and distributes data on CBMs" to "compiles, analyses and distributes data on CBMs" to allow for an objective trend analysis that would highlight qualitative and quantitative aspects without making reference to individual countries.

Last but not least, the Meeting of Experts needs to ask what it is about the existing CBMs themselves that inhibits fuller participation. Are they as well defined as they might be? Do the agreed forms ask the best questions for building confidence, or would additional categories of information or different questions be more useful? Are there ways in which the CBM process might be re-designed, in order to strengthen the Convention? Underlying your work on this agenda item will be conceptual differences and uncertainties. If these can be brought to the surface and recognised and discussed, in a conceptual consideration of CBMs, so much the better; otherwise the agenda item on 'enabling fuller participation' will be treated too narrowly.

Mr Chairman, distinguished delegates: We wish you a productive meeting and thank you for your attention.

Dr Filippa Lentzos Senior Research Fellow, Department of Social Science, Health and Medicine, King's College London

Mr Nicholas Sims Emeritus Reader in International Relations, London School of Economics & Political Science

^{*} The University of London dates from 1836, and is a major component of the higher education sector in the United Kingdom and beyond. It has evolved into a confederation of academically and financially autonomous colleges, which continue to share some central University of London institutions and a long history of joint endeavours in education and research. King's College London (founded 1829) was one of the two original colleges of the University of London. The London School of Economics & Political Science (founded 1895) became a college of the University of London in 1900.

Biological Weapons Convention Seventh Review Conference NGO Statements 5-22 December 2011



Mr President, distinguished delegates:

The London School of Economics and Political Science (LSE) greatly appreciates the opportunity once again to address the States Parties to the Convention. We see this Review Conference as the moment to move ahead to the next stage in steering the Convention along a pathway of constructive evolution. It offers the chance to organise for closer cooperation, on a systematic basis: to operate an increasingly robust treaty regime of biological disarmament.

In this statement we have chosen five areas in which to encourage you to reach agreement.

1.Implementation Support Unit

The ISU has proved itself a successful innovation. Its members have been rightly praised. But States Parties need to be realistic about the tasks you allocate and the resources required for the effective fulfilment of those tasks.

Being realistic about the tasks allocated means recognising that the ISU can support existing States Parties in implementing the Convention more fully, as well as advising non-parties on what they will need to do when they join. Support for national implementation in all its aspects needs to be fully integrated into the mandate. So too does the provision of a clearing-house for relevant assistance and cooperation under Article X. And the ISU should also be tasked to play its part on behalf of the Convention in strengthening the interagency capacity of the UN system to manage biological threats and challenges.

Being realistic about the resources required means recognising that merely to meet the volume of requests arising from the original mandate of 2006 would necessitate more staff in any case; and that this must be further augmented if the ISU is to do justice to a wider range of tasks. We are confident that your evaluation will lead to an emphatic vote of confidence and renewal of the ISU's existence. But that renewal should be coupled with resolve to make fuller use of the ISU and to fund it accordingly. So we recommend a considerably larger ISU, one whose resources will match the expanded role of implementation support which we hope this Conference will approve.

2. Intersessional work programme: reshaping the intersessional process

We share the widespread view that the interval between review conferences should be filled more productively and that the Conference should seize this opportunity to reshape the intersessional process.

We hope the Conference will decide on an annual Meeting of States Parties supported by meetings of working groups or standing expert groups, to push ahead work on several topics in parallel. Some groups may need more time than others. Allocation of time among groups is one of the types of decision that the Conference should specifically authorise the Meeting of States Parties to take by consensus, each year, in the interests of flexibility.

What is most important for the next five years is to strengthen this treaty regime through a balanced programme which intensifies work on the Convention in all its aspects, through national and international action. We hope you will commit yourselves, the States Parties, to more continuous and purposeful work together. But to achieve this will require a reshaped intersessional process.

3. Confidence-building measures

Revisiting the content of the information exchanged through CBMs is a key task for this Conference. We hope you will take full advantage of the extensive work that has gone into recommending detailed revisions.

The primary aim of the CBMs is to enhance transparency about national activities. Transparency, however, is about more than just the availability of relevant information. It is also about usefulness.

How useful are the CBMs in building confidence? To develop a clearer, collective vision of their purpose and longer-term evolution, a CBM working group should be established by this Conference. It should enquire whether the existing CBMs provide the transparency needed for reassurance, or whether additional categories of information or different questions would be more useful. The working group could also review the implementation of CBMs, contribute to raising awareness and stimulating greater involvement, and sustain attention in governments focussed on the CBM process and how to make best use of it.

4. Science and technology

We share the view that scientific and technological developments of relevance to the Convention need ongoing collective assessment, and new structures designed to provide this. We hope the Conference will ensure that such assessment takes place in a working group or other forum comprising scientific advisers from academia, industry and government, with input from a wide range of sources including national academies of science and NGOs. We recommend that you also task and resource the ISU to follow developments in science and technology, in support of the Convention.

What you as States Parties should expect from the new arrangements you put in place is an annual report on general trends, supplemented by in-depth reports on specific topics, such as synthetic biology. This will be a vital strand in the intersessional process, as ongoing work in support of the Convention intensifies.

5. Compliance and the future

We encourage you to raise your sights, in the spirit of ambitious realism: look ahead to the Eighth Review Conference and identify the steps that will need to be taken before 2016 if the Convention is to emerge strengthened in operation and recognised as the cornerstone of biological disarmament. These steps will include States Parties demonstrating their compliance to one another, as treaty partners should, in an acceptable framework of accountability, and using agreed procedures to clarify and resolve any compliance concerns that may arise.

This is not too much to hope for. But it will not happen of its own accord. It needs to be properly conceptualised and planned; and we see this conceptualisation and planning as a major function of a working group on compliance, reporting annually to the Meeting of States Parties and finally to the Eighth Review Conference.

Mr President, distinguished delegates: We wish you a productive Conference and thank you for your attention.

Mr Nicholas Sims Emeritus Reader in International Relations

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Biological Weapons Convention Meeting of States Parties NGO Statements 6 December 2010



Mr Chairman, distinguished delegates:

The London School of Economics and Political Science (LSE) greatly appreciates the opportunity once again to address the States Parties to the Convention. This year's topic has raised the question of closer cooperation in one particular, extreme, eventuality: 'provision of assistance and coordination with relevant organisations upon request by any State Party in the case of alleged use of biological or toxin weapons, including improving national capabilities for disease surveillance, detection and diagnosis and public health systems.'

We agree with this emphasis on capacity-building; and we recognise, should the worst happen, the role the Convention itself could play in addressing that eventuality, as highlighted in your Synthesis document from the August Meeting of Experts.

But we also believe that it is desirable for the States Parties in any case to organise for closer cooperation on a systematic basis, as a BWC community in the making; and to do so in order to enhance the credibility of the Convention and the operation of an increasingly robust treaty regime of biological disarmament.

The Seventh Review Conference offers a great opportunity to take the necessary decisions for the next stage in moving the Convention forward. We welcome its inclusion as Item 9 on this week's Agenda. In the rest of this statement we identify five aspects of the Convention ripe for progress, without having to wait for decisions at a later date. We offer these proposals in the hope that States Parties will share our determination to see the treaty regime of biological disarmament strengthened and will spare no effort to steer it in the right direction for its constructive evolution.

This effort must be twofold: to create consensus on which decisions constitute realistic outcomes for the Conference, and to ensure that these next steps make sense in a longer perspective for the Convention.

1. The practice of meeting every year is now well established. The Meeting of States Parties should be upgraded into an **Annual Meeting** without the constraints on its agenda, which were imposed for the first two intersessional processes. We have all seen the value of annual reports on progress towards universality and on the work of the Implementation Support Unit (ISU) including the current status of confidence-building measures (CBM) returns. Now the time is ripe for the Review Conference to take the next logical step, recognise the Annual Meeting for what it is, and allow it to take decisions across a wider agenda so that the Convention is considered in the round, as an integrated whole. A well-structured Annual Meeting, dealing comprehensively with the ongoing life of the Convention, would confer the additional benefit of giving future review conferences at five-year intervals a clearer identity and a sharper focus on longer-term review.

- 2. States Parties exist in a treaty relationship with one another. They strengthen the Convention when they demonstrate their compliance with BWC treaty obligations regularly, as a matter of good practice, not waiting for raised voices of accusation. This regular, good practice can best be organised within an **Accountability Framework**, established by decision of the Review Conference. It is for each State Party to decide how it demonstrates its own compliance, but there must be an opportunity for the States Parties to consider one another's reports systematically, in a forum devoted to collective scrutiny. This forum could most conveniently be provided by accountability sessions at the Annual Meeting. An Accountability Framework, well organised, should promote a developing sense of common purpose and shared experience within the Convention, as well as helping allay doubts and resolve uncertainties.
- 3. **Science and technology** do not stand still. Developments of relevance to the Convention should be assessed and discussed collectively. The Review Conference will need to do two things. It needs to set aside time within its own three weeks for collective assessment based on the science and technology papers to be submitted next year; and it needs to decide how best to organise regular collective assessment between review conferences, bringing together scientific advisers at agreed intervals to keep pace with developments.
- 4. The **Implementation Support Unit** (ISU) has proved its value time and again since its launch in 2007. We welcome the widespread recognition of the service the ISU has already given in helping States Parties to implement the Convention. We hope the continuing existence of the ISU will be assured. We also propose that it should have its mandate strengthened and its resources increased, so that it can perform its functions more effectively.
- 5. Finally, a review of the **Confidence-Building Measures** (CBMs) of the Convention is long overdue. New threats, risks and security challenges have emerged since the end of the Cold War when the forms were last modified, and the significant advances we have witnessed in the life sciences over the last two decades are now coupled with knowledge and technology becoming increasingly available, accessible and affordable. There is therefore a need to revisit the role CBMs play in today's context, and to assess whether the current mechanism and the questions it asks still represent the best way of increasing transparency and building confidence between States Parties. Much work has already been done to prepare for the Review Conference discussion on CBMs, and we encourage all States Parties to take an active part in these ongoing efforts in the lead up to December 2011, so that by the time of the Review Conference decisions on how best to revise the forms can be taken.

Mr Chairman, distinguished delegates:

We wish you a productive week and thank you for your attention.

Mr Nicholas Sims Emeritus Reader in International Relations

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Biological and Toxin Weapons Convention Meeting of Experts NGO Statements 23 August 2010



Mr Chairman, Distinguished Representatives:

The London School of Economics and Political Science greatly appreciates the opportunity to offer this statement.

Various allegations of biological or toxin weapons use have been made by governments, journalists and humanitarian organizations since the end of World War II. These allegations have arisen during international or internal armed conflict, or where there has been deep antagonism between the parties involved. This calls attention to the importance of impartial, multilateral investigations of alleged attacks. The involvement of a diverse array of countries in an investigation tends to generate greater international credibility and legitimacy than evidence based on national intelligence alone, and for this reason, provide a stronger basis for a response.

In the absence of a BWC verification mechanism, and in light of the constraints on WHO's field investigation capability, the UN Secretary-General's mechanism is currently the only multilateral vehicle available for investigating allegations of biological weapons use.

The record of UN field investigations under the mechanism reveals, however, that past findings have largely been inconclusive because of recurrent problems with timeliness, access, cooperation by the host country, and chain of custody. All of these shortcomings must be addressed and corrected if future investigations of alleged use are to be effective.

In particular, the historical record has highlighted the need for the investigation team to do the following: arrive as soon as possible after an alleged attack; obtain unrestricted access to the affected area; and conduct prompt medical examinations of the sick and deceased.

Prompt sample collection and analysis is essential in the case of biological agents, which often tend to degrade rapidly in the environment and may not be detectable after a period of days or weeks. It is also vital to document a continuous and secure chain of custody for all samples. Past investigations have taught that an allegation of use can only be confirmed with high confidence if environmental and biomedical samples are analyzed by at least two independent reference laboratories.

Mr Chairman.

I support previous efforts by the EU and individual EU countries to review and update this mechanism. I particularly want to highlight Germany's concern that all previous experience with the Secretary-General's mechanism has involved the alleged use of chemical or toxin weapons, and that the current investigation guidelines and procedures must be made suitable for incidents involving microbial pathogens as these require

different techniques for medical examination and the collection and analysis of environmental and biomedical samples.

As has been emphasized by civil society, the mechanism can also be strengthened in a number of other ways. First, under the present mandate, the Secretary-General can only initiate an investigation at the request of a UN member state and not in response to allegations made by a humanitarian organization, such as the ICRC. Giving the Secretary-General greater flexibility to launch investigations based on credible information provided by non-governmental organizations and other unofficial sources would significantly strengthen the mechanism.

Second, it should be clarified that the Secretary-General's mandate not only covers the use of a biological agent by a state against another state (international armed conflict), but that it also covers the use of a biological agent by: (1) a rebel army against a state (insurgency warfare); (2) a state against a rebel army or against civilians who are supporting it (counterinsurgency warfare); (3) a sub-state group against another sub-state group (civil or ethnic warfare); and (4) a sub-state group against unarmed civilians (terrorism).

Third, a formal means should be established by which the Secretary-General's mechanism can integrate data held by WHO, OIE and FAO into an investigation, as these are our key collective resources for technical data on unexplained outbreaks.

Fourth, a strengthened mechanism should include a political commitment by all UN member states to cooperate fully with field investigations.

Fifth, the lack of a dedicated source of funding to maintain the lists of experts and reference laboratories and to conduct field investigations needs to be rectified.

And finally, since allegations of biological or toxin attacks are likely to be rare, it would be desirable to hold periodic training exercises for the experts on the roster to encourage the sharing of knowledge and expertise, to keep the group current with any advances in science and technology, and to foster the interpersonal relationships needed for a strong *esprit de corps* and effective intra-team communication. In addition to the roster of qualified experts, a list of "interpreter-experts" skilled in a broad range of languages should be established and maintained.

Mr Chairman, Distinguished Representatives

I wish you a productive week and hope you will have a chance to discuss some of what has been said here today. I thank you for your attention.

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Biological and Toxin Weapons Convention Meeting of States Parties NGO Statements 7 December 2009



Mr Chairman, Distinguished Representatives:

The London School of Economics and Political Science greatly appreciates the opportunity to offer this statement.

Capacity building in the fields of disease surveillance, detection, diagnosis, and containment of infectious diseases is a key component in preventing the spread of disease – whether deliberately initiated or not. But like the topics in the other years of the intersessional process, capacity building, in the context of the BWC, is not a goal in and of itself. While important, it can only form a limited contribution to the main objectives of the Convention.

We would like to take this opportunity to remind ourselves that the Convention still lacks an effective framework to ensure that biological weapons are not used for hostile purposes or in armed conflict. We agree with those who argue that a fully effective verification system for the BWC is exceptionally difficult. Biological activities, materials and equipment can be used for beneficial as well as harmful purposes. Compliance therefore ultimately depends on the underlying intent, and evidence for the intent to use biology as a weapon is hard to discern: Nefarious purposes can easily be concealed within a host of legitimate activities, such as biodefence programmes, pharmaceutical development, and general life sciences research. However, we firmly believe that there are arrangements that could be put in place which would satisfy States Parties that they are not exposing themselves to unacceptable risks.

These arrangements need to allow States to continually demonstrate their compliance with the BWC. In other words, they need to allow States to persuade other States Parties that they are engaged in a coherent pattern of peaceful activity and that their compliance is full and genuine.

The Confidence Building Measures (CBMs) of the Convention do this to some extents. The regular exchange of data they provide for – on, among other things, biodefence programmes, laboratories and research centres, outbreaks of infectious diseases, and vaccine production facilities – strengthens the regime of compliance by maximising the transparency of national patterns of normal activity. Yet, the level of participation in the CBM mechanism is still, after more than twenty years, unacceptably low and must be improved; as must the completeness and accuracy of the declarations that are submitted. Many, ourselves included, would also argue that the mechanism could benefit from a thorough review in light of the new threats, risks and security challenges that have emerged and the significant advances in the biological and life sciences that have taken place since the CBMs were conceived, developed and agreed at the end of the Cold War.

An additional arrangement that would complement the CBMs is the practice of national compliance reporting that some States have voluntarily undertaken since it was first

requested by the PrepCom to the First Review Conference in 1980. Although there is currently no standardised structure or set of categories for these reports, the Articles of the Convention could be used in a somewhat extended and modified form as the basic structure from which States can declare how they are implementing the BWC. An indicative, but not exhaustive, list of questions might help give further shape to the reporting structure. Care would need to be taken though so as not to make the questions so prescriptive that they constrain what should be each State Party's choice of how best to demonstrate compliance with the BWC in its own unique circumstances.

To ensure that these arrangements convincingly demonstrate compliance, we believe it is crucial to build in a forum for the regular consideration of both CBM declarations and national compliance reports. We therefore strongly support the introduction of a 'CBM review' session and an 'accountability' session at each of the annual meetings between Review Conferences. The repeated and collective scrutiny of CBM declarations and national compliance reports in such dedicated sessions should provide a powerful incentive for States Parties to take the reporting seriously.

Mr Chairman,

The Biological Weapons Convention states that no effort should be spared in ensuring that biological weapons are not used for hostile purposes or in armed conflict. Yet, a great deal of political work remains to strengthen and ensure the robustness of the Convention.

In closing, therefore, we would encourage States Parties to put greater efforts into increasing transparency, into building more confidence among States Parties that no programmes or activities are taking place in contravention of the Convention, and into providing an accountability mechanism. We have laid out some of what we see as key components in these efforts, and urge you to give this your due consideration in the runup to the 2011 Review Conference.

We thank you for your attention.

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Mr Nicholas Sims Reader in International Relations, Department of International Relations

Biological and Toxin Weapons Convention Meeting of States Parties NGO Statements 1 December 2008



Mr Chairman, Distinguished Representatives:

The London School of Economics and Political Science greatly appreciates the opportunity to offer this statement. As we did at the Meeting of Experts, we will again limit our focus to just one of the many important topics covered this year, namely education.

In our August statement we noted that there were many outstanding questions about education. These include: Who is it we are aiming to educate? What it is we want to educate them about? And, how are we going to educate them? In this statement we would like to provide some brief answers to these questions and to offer some suggestions for how States Parties might prioritise their outreach efforts.

For States Parties that have yet to initiate educational activities, we suggest first and foremost targeting practising life scientists working in academia. Open up a dialogue with your national universities and educational institutions, as well as with any relevant professional and industry associations and national science academies. The development of an informational leaflet, either from scratch or by adopting those that have already been produced by others, can be a simple and cost-effective way of doing this. Identifying key opinion formers and leaders in the field and engaging them to raise awareness at the local level can also be a way to open up the dialogue that involves relatively little cost and effort.

What we suggest the scientists should first and foremost be educated about is the dual use potential of life science research and the risks of misuse, and how they can recognise the security risks of their own work. And while the field of life sciences can include a bewildering array of disciplines, it can be helpful to start by targeting the most relevant ones: microbiology, cell biology, molecular biology and genetics.

It has been demonstrated by our colleagues Brian Rappert and Malcolm Dando that a useful way of teaching practising life scientists is through interactive seminar discussions, and our colleague Marie Chevrier has shown that role playing exercises can form an important element within such seminar discussions.

For States Parties that are more ambitious and have the resources available, we suggest also targeting life science students in universities and secondary education. Work with your universities and schools to introduce modules or individual lectures into the life science curricula, that aim to raise awareness about dual use and misuse as well as about the history of offensive biological weapons programmes and the Biological Weapons Convention. Provide support for training teachers, developing appropriate teaching materials and adapting textbooks.

Continue your efforts to educate practising life scientists, but expand the range of disciplines targeted.

Bring together the relevant stakeholders to discuss the kind of research you are concerned about in your individual contexts, and to develop guidance on risk assessment criteria. The US National Science Advisory Board for Biosecurity has done a lot of work on identifying what it terms 'dual use research of concern' which can helpfully be drawn on by others.

For States Parties that are more ambitious still, we suggest broadening the focus of your educational activities even further to also include scientists in government institutions, in private industry and in the military, as well as the wider public. We would encourage you to support the development of websites, videos, publications and other sources of information, alongside the development of accredited courses specifically dedicated to dual use potential and the risks of misuse.

We have so far focused on what individual State Parties can do, but there is also a role for you as a group. As collective States Parties you this year have the opportunity to provide an important signal to those associated with the life sciences regarding the need to maintain and reinforce the prohibition against the deliberate spread of disease. To build a reinforcing synergy between the disparate and fragile educational activities currently underway, States Parties need to actively promote and fund collaborations between countries, institutions and individuals so that their experiences, achievements, problems and concerns can be shared. You, more than most people, are well placed to show national leadership on educational activities, as well as to take coordination of national efforts forward on a multilateral level. It is critically important that States Parties use this year's opportunity to foster concrete and effective action on education to further the aims of the BWC.

In closing, we feel it appropriate to remind ourselves that, in the context of the BWC, education along with the other topics discussed at this year's meetings and in the other years of the intersessional process, are not a goal in and of themselves. While important, they can only form a limited contribution to the main goal of the Convention. Let us not forget that there are other, more effective ways to ensure that biological weapons are not used for hostile purposes or in armed conflict, and as the Convention states, no effort should be spared to minimize this risk. There is still a great deal of political work ahead to strengthen and ensure the robustness of the BWC. We encourage States Parties – now that we are at the halfway point between the two Review Conferences of 2006 and 2011 – to start refocusing efforts to increase transparency and build more confidence among States Parties that no programmes or activities are taking place in contravention of the Convention.

We thank you for your attention.

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Mr Nicholas Sims Reader in International Relations, Department of International Relations

Biological and Toxin Weapons Convention Meeting of Experts NGO Statements 18 August 2008



Mr Chairman, Distinguished Representatives:

The London School of Economics and Political Science greatly appreciates the opportunity to offer this statement. We will limit our focus to just one of the many important topics covered at this year's meetings, namely education. Earlier meetings have already acknowledged the value of education and awareness raising in relation to the BWC. Yet, there are still many outstanding questions about education which we urge you to consider over the coming week.

One of the central questions we must ask ourselves is **WHY** we are educating. Is our goal to 'implant' facts and knowledge and to instruct people in what to think, or is it rather to 'elicit' understanding and to teach people how to think for themselves? And what action do we want people to take on the basis of their education and increased awareness, if any? Do we want life scientists to not conduct certain experiments? Or maybe to shift away from certain areas of research all together? Do we want them not to collaborate with particular scientists, postdoctoral fellows or students? Do we want them to restrict their communication about their research: to limit their conversations with colleagues and the wider public, to modify their presentations at conferences, and to censor their journal articles? Of course we want scientists to take responsibility for their work, but what does this mean in practice? How do we determine what appropriate action is to reduce the risk of misuse?

It is a discussion about how we move from ideals to implementation – from statements about the value of education to effective and sustainable educational activities – that needs to be initiated at this meeting. It is time we moved beyond a simple acknowledgement that 'education is good' and consider what education would entail in practice.

Another key question we must ask ourselves is **WHAT** it is we want to educate people about? Do we want to raise awareness about dual use potential and the risks of misuse, about the Convention, or about the history of offensive programmes? Do we want the focus to be on ethics and responsible conduct, or on classifications of high risk agents, lab security and constant vigilance? There has been much emphasis on 'research of concern', but what research does this actually involve? Many of us will be familiar with the Anglo-American 'select agents' and 'schedule 5 pathogens', as well as with the Fink Committee's list of 7 experiments of concern and the risk assessment criteria developed by the US National Science Advisory Board for Biosecurity. But these frameworks might not necessarily cover all the work we are concerned about. What is the research we are concerned about? Who decides?

We also need to consider **WHO** it is we are aiming to educate. Is it practicing life scientists, pathogen investigators, biodefence contractors, military scientists, students, research administrators, the public? Even if we limit ourselves to practicing life scientists it is still difficult to define who to include. 'Life scientists' hold different degrees and

specialize in different fields. They can focus on cell biology, molecular biology, genetics, biochemistry, pathology, pharmacology, epidemiology, environmental toxicology, even agronomy, food sciences, and animal sciences. And the lines between biology and other disciplines are increasingly blurred as multidisciplinary approaches are employed for addressing complex biological problems. For example, mathematical modelling and chemical engineering approaches are often combined with more traditional biological techniques to solve a problem. Consequently, disciplines not ordinarily considered to fall within the life sciences may yield dual use biological information. Moreover, life scientists do not belong to any single association in the way, for instance, physicians belong to national medical associations. They also differ in where they work: from academia to government, to industry, hospitals and clinics, and the non-profit sector.

In addition to considering who it is we're educating, we need to consider who the educators are. Are they schools, universities, employers, professional associations, scientific societies, specialised companies? And closely related to this, we need to consider **HOW** we are educating. Would education form elements of undergraduate and/or postgraduate science courses? Should we have accredited courses specifically dedicated to our concerns? What roles do seminar discussions, online modules, risk assessment exercises, informational videos, presentations and exhibitions at scientific meetings, targeted leaflets, international roundtables, codes of conduct and aspirational statements play? Is education to be voluntary or made mandatory?

And how do we measure the success of educational activities? Correctly answered questions on an exam? An increase in the number of 'experiments of concern' carried out or of journal articles censored? What happens if there is no visible action posteducation? States Parties have to address the many questions I have raised in their particular national contexts, but I wish to offer some suggestions based on my experience at the poster session Thursday morning and hope to see many of you there.

A real commitment to education requires leadership from States Parties to develop and to sustain national educational activities. Through this year's meetings, States can provide an important signal to those associated with the life sciences regarding the need to maintain and reinforce the prohibition against the deliberate spread of disease. To build a reinforcing synergy between the disparate and fragile educational activities currently underway, States Parties need to actively promote and fund collaborations between countries, institutions and individuals so that their experiences, achievements, problems and concerns can be shared. You, more than most people, are well placed to show national leadership on educational activities, as well as to take co-ordination of national efforts forward on a multilateral level. It is critically important that you use this year's opportunity to foster concrete and effective action on education to further the aims of the BWC.

We thank you for your attention, and wish you all success in your efforts this week.

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Mr Nicholas Sims Reader in International Relations, Department of International Relations

Biological and Toxin Weapons Convention Meeting of States Contributions from Civil Society 10 December 2007



Thank you Mr Chairman for providing this opportunity for us to share some of our thoughts and initiatives with you. I will focus my remarks on national implementation.

I start from the understanding that national implementation comprises three components:

- Legislation to transpose treaty obligations into national law
- · Means of enforcing the legislation once breaches are identified
- Methods for monitoring relevant work with biological agents and toxins within the national territory

A thorough discussion on national implementation needs to consider <u>all three</u> of these components.

For States Parties that have not yet implemented their BWC commitments, dialogue needs to continue on how to transpose treaty obligations into national law. Also important is a continuation of the discussion on appropriate means of enforcement once breaches are identified.

However, enacting legislation and enforcing that legislation only form <u>part</u> of national implementation. Once national measures are in place you cannot just tick the box for national implementation and say it has been accomplished.

States Parties – and particularly those that already have legislation transposing BWC obligations into national law – need to focus their efforts on the <u>adequacy</u> of the oversight frameworks they have in place. They need to consider how their present oversight frameworks actually operate in practice and how best to address any gaps that may exist.

I was pleased to see that this point has been noted in the Chairman's synthesis document, which states, and I quote, that "as implementing the Convention is a continuing process, States Parties should regularly review the efficacy and efficiency of their national measures."

The point was also echoed in some of the statements we've heard today, with the NAM noting that "national implementation...requires regular review" and the JACKSNNZ noting that national implementation is "not a one-time project".

But I would suggest that the process or project of implementation comprises even more than this. And this is where the third element of national implementation comes in.

To provide adequate oversight of the rapid pace and nature of change in the life sciences we need <u>ongoing monitoring</u> of relevant work with biological agents and toxins at the bench-top level.

This monitoring can come through various mechanisms. Some of it may be prescribed by statutory measures, some might be based on voluntary guidelines from regulators or from professional organizations, and some might simply be based on the tacit rules of

the life sciences. To my mind, we need to draw on all these mechanisms. We need top-down approaches as well as bottom-up approaches.

Statutory measures that require oversight mechanisms to be put in place are unquestionably crucial to effectively addressing the potential misuse of the life sciences. However, oversight and ongoing monitoring can not be limited to an exclusively governmental function. Even when laws and regulations are in place (and operating properly!), other forms of oversight also play very significant, and often underappreciated, roles.

To provide <u>adequate</u> oversight we also need to draw on the up-to-date, technical expertise of the people actually doing the science. We need peer review of:

- draft projects
- funding applications
- laboratory procedures and practices
- laboratory documentation
- manuscripts for publication
- patent applications
- scale-up

In other words, we need to build in overlapping methods for monitoring at <u>multiple</u> stages in the R&D process. I describe this in more detail in an article in the current issue of *Disarmament Diplomacy*. But the key point to take away from what I'm saying is that in addition to putting legislation and enforcement measures in place, national implementation of the BWC also involves ensuring that mechanisms are in place for the ongoing monitoring of the life sciences. Part of the ongoing monitoring should be based on laws and regulations, but part of it needs to build on the soft law, bottom-up approaches of oversight that are already present in the life sciences community.

States Parties play a crucial role in expanding and fostering these more informal systems for monitoring the life sciences to ensure they can <u>also</u> provide oversight of potential misuse, and I was particularly encouraged to see that the Chairman's synthesis document included the short line on the need for "developing best practices and engendering an atmosphere of self-governance". I hope this is a point that will be picked up by States and further elaborated in the coming meetings.

Dr Filippa Lentzos Senior Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Sixth Review Conference of the States Parties to the Biological and Toxin Weapons Convention NGO Statements 21 November 2006



Mr President, Distinguished Representatives:

The London School of Economics and Political Science greatly appreciates the opportunity to offer this statement.

Universalisation and National Implementation

As noted in a number of the working papers submitted by States Parties, as well as in statements and documents produced by the broader non-governmental community supporting the Convention, the universal adoption of the BTWC by all States is a fundamental element in wholly achieving the Convention's purpose and objectives. And, as also noted, universalisation alone is not sufficient and must be accompanied by full national implementation of the Convention's obligations and provisions by all States Parties.

We firmly support the calls for action on universalisation and national implementation, and endorse the EU Joint Action to promote ratification of and accession to the BTWC by States not Party, and to provide assistance to States Parties for transposing the international obligations of the BTWC into their national legislation and administrative measures.

Operating and Delivering National Legislation

National implementation first and foremost means national legislation. But, of equal importance from a control-system perspective to translating the Convention into national legislation is ensuring an appropriate system is put in place for operating and delivering the aims of that legislation. To develop <u>effective</u> national regimes regulating biological agents and toxins there must be coherence between 1) the standards and objectives outlined in the legislation, 2) the ways of monitoring and gathering information about relevant work with biological agents and toxins within the national territory, and 3) the ways of enforcing and changing behaviour to meet the standards and objectives in the legislation.

In practice this means, firstly—as highlighted in the *EU Paper on Assessment of National Implementation of the BTWC*—that sufficient resources must be devoted to the monitoring and enforcement of the national legislation, and that appropriate expertise is obtained within the implementing authorities.

In addition to this, an effective regulatory regime to implement the BTWC in the national context would also require that a degree of flexibility be built in. Because the risks arising from biological R&D are often difficult to quantify, a certain level of discretion and flexibility must be afforded the regulators and researchers evaluating the risks of projects and programmes. Regulation is not a linear process, whereby rules are made and then enforced. Rather, regulation is a continuous process of rule adjustment and individualisation, rooted in communication and discussion. Encouraging the continuous

process of adjustment and individualisation at the implementation stage is particularly pertinent to regulating rapidly evolving biological R&D.

Key to facilitating such "regulatory conversations" are broad, rather than specific and detailed, regulations that provide a better, more comprehensible guide to behaviour whilst at the same time increasing flexibility and allowing for adjustments to individual circumstances. However, rooting a control system in communication and discussion also raises issues of consistent, fair and objective treatment, and of access, participation and accountability. To be effective, then, as well as acceptable, or indeed legitimate, national legislation implementing the international obligations of the BTWC requires the commitment of regulators and research centres to a meaningful discourse, opportunities for civil society to have appropriate access to the conversations, a balanced distribution of power and authority between the different actors, and, finally, trust and accountability between participants.

Harnessing "Soft Law"

In parallel to formalising the aims of the BTWC through national implementation, it can also be helpful to acknowledge the very important role informal regulatory measures or "soft law" can play in furthering the aims of the Convention and in providing oversight of potential misuse of biological R&D.

There are many different kinds of biological laboratories—they may be situated within universities, public or private institutions, commercial companies, hospitals, or military facilities; they may be very small or very large, or anything in between; they may be working on benign organisms or highly infectious pathogens; they may not be working with whole organisms at all, but with tissue cultures, in-vitro cell systems, small molecules, or gene sequences—and the effectiveness of different regulatory measures or oversight mechanisms will vary depending on the context and configuration of individual laboratories. There is no one-size-fits-all answer to the problem of regulating biological R&D so as to prevent its misapplication.

Regulatory measures that are legally binding have a significant role to play. As an addition to this, however, self-governance by scientific experts and practising researchers can also play an important part. As many scientists repeatedly stress: "You cannot develop regulations fast enough to follow evolving research. It has to be self-policed." Self-governance, or self-policing, can take many forms. Recognising these and finding constructive ways of incorporating concern about potential misuse into the professional norms of biological scientists, their training and research practices, their standard operating procedures and manuals, their peer observation in the laboratory, and their peer review of funding applications, research projects, and publications can be fruitful regulatory measures that also deserve serious consideration.

We thank you for your patience and your attention, and wish you all success in your efforts to relaunch the process of constructive evolution of the BTWC.

Dr Filippa Lentzos Research Fellow, BIOS Centre for the Study of Bioscience, Biomedicine, Biotechnology and Society

Mr Nicholas Sims Reader in International Relations, Department of International Relations