

Monday 18th August 2008

The 2008 Meeting of Experts: Biosecurity and Education

The opening of the 2008 Meeting of Experts (MX) marks the second year of the second inter-
sessional process for the 1972 Biological and Toxin Weapons Convention (BTWC/BWC).
The MX will be followed by a one-week Meeting of States Parties (MSP) in December. The
BWPP daily reports from the 2006 Review Conference and the Meetings in 2007 are
available via the BWPP website at <http://www.bwpp.org>.

The topics for discussion at the MX and MSP this year are 'National, regional and
international measures to improve biosafety and biosecurity, including laboratory safety and
security of pathogens and toxins' and 'Oversight, education, awareness raising, and adoption
and/or development of codes of conduct with the aim of preventing misuse in the context of
advances in bio-science and bio-technology research with the potential of use for purposes
prohibited by the Convention'. The topics were agreed at the Sixth Review Conference for
the BTWC which was held at the end of 2006. The MSP may also discuss 'universalisation
and comprehensive implementation of the Convention'. Comprehensive implementation would
include such topics as national implementation, scientific and technological developments,
confidence-building measures (CBMs), and coordination with other international bodies.

By the weekend before the opening of the MX, 4 background papers by the
BTWC's Implementation Support Unit (ISU) and 15 (out of at least 17 submitted) Working
Papers by States Parties had been made public in electronic form. These can be found via the
ISU website at <http://www.unog.ch/bwc> as well as via the dedicated BWPP web page for
this MX at <http://www.bwpp.org/2008MX/MX2008Resources.html>.

Issues of biosafety and biosecurity

Safety and security of dangerous pathogens in all laboratories are important contributors to
public protection. Similar issues were raised in the 2003 Meetings of Experts/States Parties
when the topics for discussion included 'national mechanisms to establish and maintain the
security and oversight of pathogenic microorganisms and toxins'.

There has been some difficulty with coming to clear and precise definitions of
'biosafety' and 'biosecurity', not least because in a number of languages these translate into
the same term. One broad distinction between the two that has been generally accepted is that
biosafety broadly deals with preventing the unintended release of dangerous materials from
laboratories and laboratory equipment while biosecurity broadly deals with preventing the
deliberate removal of dangerous materials from laboratories by persons who may use them for
hostile purposes. Biosecurity has also had other meanings in other contexts.

Revelations earlier this month that Bruce Ivins, a civilian researcher in a US Army
laboratory, is considered by the Federal Bureau of Investigation as the sole suspect in the
investigation into the 2001 anthrax attacks that killed five people and left 17 injured, have
prompted much attention on the issues relating to biosecurity. One notable issue is the

question of where the balance of risk lies in the increase in the numbers of scientists handling dangerous pathogens in the interest of 'biodefence' – a larger number of scientists may lead to a greater capability to respond to an attack and reduce its effects, yet, as illustrated by recent revelations, it may also increase the chances that those very scientists may make hostile use of their knowledge and access. It is clear that there is no international consensus on where this balance lies.

Issues of education and codes of conduct

Education and awareness raising for scientists involved in the life sciences are seen as important to help them understand the potential for hostile uses of their knowledge and research. These efforts include codes of conduct for the activities of the scientists themselves. Similar issues were raised in the 2005 Meetings of Experts/States Parties when the topics for discussion were 'the content, promulgation, and adoption of codes of conduct for scientists'.

While the inclusion of such measures in arms control efforts is often seen as a recent addition, the suggestion has been around for a considerable time. For example, Polish Deputy Foreign Minister Winiewicz addressed the Conference of the Committee on Disarmament at the time of the BTWC negotiations stating 'Another possible important administrative measure connected with the implementation of article 5 of the draft convention might be the inclusion in the textbooks of schools and universities dealing with chemistry and biology of a precise indication that the use of any chemical formula or any biological agent for any warlike purposes constitutes a violation of international law and will be prosecuted in accordance with the appropriate national legislation. Every individual must become aware of the danger represented by chemical and bacteriological (biological) weapons and must be prepared for some form of participation in the enforcement of the convention prohibiting the development and production of those inhuman means of warfare.' [CCD/PV. 464, 14 April 1970]

Recognizing that education and codes of conduct can have beneficial effects is just the first step. A number of States Parties will be outlining their experiences in education, oversight and awareness raising in the coming week.

Copeland Prize

On Wednesday 20 August 2008 a new initiative to raise awareness of the dangers of the misuse of the biological sciences in a way designed to appeal to the next generation of life science practitioners will be launched by the BWPP in association with the ISU. More details will be published in Thursday's daily report.

Progress on Universalization

The 2006 Review Conference took a decision on 'Promotion of Universalization' to encourage countries outside of the BTWC to join the Convention. At the time of that decision, the BTWC had 155 States Parties. Since the 2007 Meeting of States Parties, Zambia (15 January) and Madagascar (7 March) have acceded to the Convention and the United Arab Emirates (19 June) has ratified it, bringing the total of States Parties to 162.

This is the first report from the Meeting of Experts for the Biological and Toxin Weapons Convention which is being held from 18 to 22 August 2008 in Geneva. The reports are designed to help people who are not in Geneva to follow the proceedings.

The reports are prepared by Richard Guthrie on behalf of the BioWeapons Prevention Project (BWPP) in co-operation with the Acronym Institute for Disarmament Diplomacy. Copies of these reports are available via <<http://www.bwpp.org/2008MX/MX2008Resources.html>> or <<http://www.acronym.org.uk>>.

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Tuesday 19th August 2008

The 2008 Meeting of Experts: The Opening Day

The 2008 Meeting of Experts (MX) for the 1972 Biological and Toxin Weapons Convention (BTWC/BWC) opened as scheduled on Monday morning, with Ambassador Georgi Avramchev (The Former Yugoslav Republic of Macedonia) in the Chair.

The meeting started with the usual administrative decisions such as the adoption of the agenda, the programme of work and participation in the meeting. Normally these sessions are considered the most mundane elements of such meetings and pass without incident. However, the meeting had been less than a few minutes old when extremely loud construction noise started, forcing a suspension of the meeting. The construction work was delayed for a few hours to allow the morning's meeting to continue. This also provided enough time to prepare another meeting room for use in the afternoon so that the construction work and the MX could each continue without interfering with each other.

General debate

After the administrative arrangements had been dealt with, States Parties then had the chance to make 'introductory statements'. This is equivalent to the 'general debate' session in other inter-governmental meetings and offers the chance for States Parties to make open statements. However, as it was clear some time ago that there would be other chances for delegations to make on-the-record statements on the specific topics under discussion, many introductory statements were of a general nature; although there were a number of previews of more detailed presentations to be made later or of working papers to be introduced.

Statements were made in the morning (in the following order) by France (on behalf of the EU and associated states), Cuba (on behalf of the NAM states parties to the BTWC), Pakistan, South Africa, Japan, United States, Russia, China, Republic of Korea, Indonesia, Nigeria, Libya and Iran. In the afternoon, statements were made by Peru, Colombia, Albania, India, Germany, Georgia and Morocco. Statements that were circulated at the meeting in hard copy are being posted on the BWPP website at the address given overleaf. Some States Parties that would normally have made introductory statements at earlier MXs declined the opportunity this time in order to allow more time later for detailed presentations on specific subjects. The statements were almost entirely positive in tone. Where the statements had any negative tone in relation to biological issues, they were mostly in connection with the scope of the challenges that the control of the hostile uses of the life sciences represent. A notable exception was the statement by Georgia which was focused on the military situation in that country. Russia, exercising its right of reply, said that subjects not relevant to the agenda of the meeting should not be introduced.

Many statements noted that the nature of the issues under discussion meant that there were many benefits in learning from each other's experiences. A number included details of new biosafety or biosecurity measures adopted or undertaken by states parties or of

particular efforts for education and outreach, such as seminars or other events – an example of this was the statement by Pakistan which outlined a number of initiatives taken domestically. Some raised concerns that controls on biosafety and biosecurity should not hamper legitimate uses of the life sciences. Notably, the Cuba/NAM statement suggested that codes of conduct ‘should avoid any restrictions on exchange of scientific discoveries in the field of biology for prevention of disease and other peaceful purposes’ – a specific concern that does not seem to have been raised earlier. Russia noted that codes were not suited to preventing state-run offensive biological programmes – which it sees as the greatest threat to the Convention – and that there was a need to return to international negotiations on verification. The United States indicated its intention to provide funding through the OECD to develop laboratory biosecurity risk assessment guidelines and a plan to sponsor a workshop in 2009 to review progress on education and awareness raising.

After the completion of the statements by States Parties there was a short presentation by the World Organization for Animal Health (OIE) which was also made on behalf of the Food and Agricultural Organization (FAO).

NGO statements

Following the OIE presentation, the formal meeting was suspended to allow non-governmental organizations to make statements to the participants in the MX. Statements were made, in the following order, by the BioWeapons Prevention Project; Center for Arms Control and Nonproliferation Scientists Working Group on Biological and Chemical Weapons; Center for International Security Studies at Maryland; Institute for Security Studies; Landau Network-Centro Volta & University of Bradford; London School of Economics; National Defense Medical College of Japan & University of Bradford; Pax Christi; University of Exeter; Verification Research Training and Information Centre (VERTIC); and the Asia Pacific Centre for Military Law. Copies of these statements will be posted on the BWPP website at the address given below.

Side Event

Monday’s lunchtime seminar, entitled ‘Synthetic Biology: Engineering Life Science’, was convened by the Geneva Forum together with the BTWC Implementation Support Unit (ISU). This was the first side event of this Meeting of Experts.

The presenters were Piers Millett of the ISU and Robert M Friedman of the J. Craig Venter Institute. The seminar was introduced by Patrick McCarthy of the Geneva Forum. The first presentation took a novel approach, including the use of a number of video clips, to help delegates understand the developments in synthetic biology – essentially new techniques to not only manipulate but also to manufacture basic building blocks of life. The second presentation introduced a recent report, entitled ‘Synthetic Genomics – Options for Governance’, that is based on the results from a group of specially convened experts examining the implications of the new developments and which policy tools would be most suitable to reduce the possibility they might be used for hostile purposes. The report can be found at <<http://www.jcvi.org/cms/research/projects/syngen-options/overview/>>.

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Wednesday 20th August 2008

The 2008 Meeting of Experts: The Second Day

The 2008 Meeting of Experts (MX) for the 1972 Biological and Toxin Weapons Convention (BTWC/BWC) continued on Tuesday morning, with Ambassador Georgi Avramchev (The Former Yugoslav Republic of Macedonia) in the Chair. However, the activities of the day started an hour earlier than usual with the holding of a 'poster session' – the first time this has happened at a BTWC meeting (see side events section overleaf).

The morning's formal proceedings started with the first of three themed sessions on the first of the topics under discussion at this year's meeting. The theme was 'concepts of biosafety and biosecurity'. The intention had been to hear from intergovernmental organizations, followed by States Parties, then convene a panel of people from the private sector and conclude with presentations from 'guests of the meeting' – specially invited individuals from professional associations and scientific bodies. While the meeting got through a considerable number of presentations and discussions, this timetable could not be kept to owing to the sheer number of requests for the floor.

Intergovernmental organizations gave presentations in the following order: the World Health Organization, the Organization for Economic Cooperation and Development, the United Nations Environment Programme/Global Environment Facility, and the European Commission (DG SANCO).

The morning session was completed with presentations from Canada, United States, Switzerland, Indonesia and Germany. After lunch, presentations continued from: Nigeria, Denmark, Cuba (speaking in its national capacity rather than as NAM coordinator), United Kingdom, Pakistan, Bulgaria, Norway and India. After the private sector panel, South Africa, Argentina, Australia, Ukraine and Morocco gave their presentations.

The level of detail in the presentations is substantially greater than in previous years and indicates a level of engagement within countries on BTWC-related issues. To take an example, the presentation of Morocco illustrated the involvement of many participants in the domestic developments of policies relating to this year's topics for the MX. Other countries highlighted the particular contexts they have to work within, such as Nigeria reminding delegates of the high level of naturally occurring infectious disease in its region. There is also a much greater level of openness in this year's MX, with all of the sessions thus far being held in public.

Private sector panel

At around 4.30pm, Ambassador Avramchev introduced a panel of four experts from the private sector. The panelists were Gary Burns (AstraZeneca, but indicated his statement was endorsed by Association of the British Pharmaceutical Industry [ABPI]), John Keddie

(GlaxoSmithKline), Robert Friedman (J. Craig Venter Institute), and Shrikumar Suryanarayan (Association of Biotechnology Led Enterprises of India [ABLE]). The format of this session was very similar to that of the NGO roundtable held on the opening day of the Meeting of States Parties last December in that each panelist gave a brief statement and there was then an on-going question and answer session, the first part of which consisted of questions from the Chairman himself.

The panel session lasted around an hour. Further panels on biosafety and biosecurity risk management and on education and awareness are scheduled for Wednesday and Thursday.

Poster session

A poster session, consisting of 16 posters from a variety of sources such as States Parties, professional bodies and NGOs on the subjects of biosafety and biosecurity, was held before the start of the morning's meetings. This kind of session was an innovation as nothing like this has been held at BTWC meetings previously. [For those not familiar with poster sessions at scientific conferences, they take the form of posters on display boards. The authors of each poster stand next to it and so can engage with delegates who are interested in the information they have provided.] Delegates found the opportunity for focused, yet informal, interaction very useful. BWPP is exploring ways that information from the poster session can be made available to those who had been unable to attend. A second poster session will be held on Thursday morning on the education and outreach topic.

The role of guidelines

It became clear during the day's sessions that there are some differing understandings of the concept of guidelines, especially with regard to whether they have legal force. In the case of the UK legal system, to take an example, guidelines are commonly used to establish principles for aspects of occupational health and safety as each situation has to be evaluated on its merits, making detailed regulation difficult. Such guidelines have a form of legislative effect as, if there happened to be a workplace accident, any prosecution (and possible penalties if found guilty) would take into account of whether relevant guidelines had been followed. If guidelines had not been followed, the defence would then have to show why such guidelines had not been considered.

Side Event

Tuesday's lunchtime seminar, entitled 'Dual-Use at the Cutting Edge: What to do about Oversight?', was convened by a group of European academic bodies. The seminar was introduced by Ambassador Avramchev (The Former Yugoslav Republic of Macedonia). The presenters were Alexander Kelle (University of Bath), Kathryn Nixdorff (Darmstadt University of Technology), David Friedman (Institute for National Security Studies), Elisa Harris (Center for International Security Studies at Maryland). The seminar was moderated by Malcolm Dando (University of Bradford).

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Thursday 21st August 2008

The 2008 Meeting of Experts: The Third Day

The 2008 Meeting of Experts (MX) for the 1972 Biological and Toxin Weapons Convention (BTWC/BWC) continued on Wednesday, with Ambassador Georgi Avramchev (The Former Yugoslav Republic of Macedonia) in the Chair. Once again the activities of the day started an hour early with the holding of an additional side event before the day's usual proceedings as all lunchtime slots for such events had been filled.

The morning's formal proceedings started with the continuation of the theme of 'concepts of biosafety and biosecurity' with the last presentation on the subject by a State Party which was given by Germany. This was followed by a number of presentations from representatives of scientific bodies as 'Guests of the Meeting': the American Biological Safety Association, the Asia Pacific Biosafety Association, the European Biological Safety Association, the Inter Academy Panel for International Issues, the International Network of Engineers and Scientists for Global Responsibility (INES), the International Union of Biochemistry and Molecular Biology and ABSA Canada.

The scientific bodies have spread of perspectives. The biosafety associations are focused on sharing experiences and finding best practice. The Inter Academy Panel has a working group on biosecurity which drafted a 'Statement on Biosecurity' which now has over 70 academies of sciences signed up to it. INES stressed that biosecurity needs to be seen as wider than just physical security.

In the afternoon the focus of discussion moved onto 'biosafety and biosecurity capacity building' with presentations from intergovernmental organizations followed by States Parties. Presentations were given (in the following order) by the International Centre for Genetic Engineering and Biotechnology (ICGEB), the UN Security Council 1540 Committee, the World Health Organization (WHO), France (on behalf of the EU), United States, Japan, China, Nigeria, United Kingdom, Indonesia, Norway, Cuba (in its national capacity), Australia, Turkey, Malaysia, Argentina and Sudan.

The presentations and consequent question and answer sessions illustrated how broad the subject of capacity building is. For example, the ICGEB emphasised that capacity building is more than simply provision of training. France, for the EU, spoke of the new Joint Action supporting the WHO in biosafety and biosecurity activities. Nigeria spoke of the need to build capacity to support disaster management. The UK highlighted how the implementation of new legislation had built up the capacity of laboratories in that country to protect dangerous pathogens. Indonesia illustrated the difficulties of establishing its first level-3 laboratory and Norway spoke of its assistance in the establishment of that laboratory.

Risk management panel

At around noon, Ambassador Avramchev introduced a panel of six experts on the subject of biosafety and biosecurity risk management. The panelists were May Chu (WHO), Iain

Gillespie (Organization for Economic Cooperation and Development), Keith Hamilton (World Organization for Animal Health [OIE]), Paul Huntly (Det Norske Veritas), Brooke Rogers (King's College London) and Cathy Roth (WHO). The format of this session was like that of the private sector panel on Tuesday and continued to the lunch break.

The discussion included distinctions between methods of quantitative and qualitative risk assessment methods. It was also noted that 'risk communication' should not necessarily be counted as a separate activity as good communication of risks should be carried at all stages of risk management. While the panel was useful for many delegations to help promote common understandings, it may have been too detailed for some.

Side Events

Two side events were held on Wednesday – one early in the morning and one at lunchtime. The morning seminar was convened by the International Biosafety Working Group (IBWG) and focused on the roles that biosafety associations can perform. The presenters were Ursula Jenal (European Biological Safety Association), Mary Louise Graham (ABSA Canada), Christina Thompson (American Biological Safety Association) and Gary Burns (AstraZeneca, but who spoke on the Pharmaceutical Biosafety Group). The seminar was moderated by Heather Sheeley (IBWG). Further information on the IBWG can be found at <<http://www.internationalbiosafety.org/>>, which includes links to the bodies represented above.

The lunchtime seminar was convened by the BWPP. The seminar offered an opportunity for the BWPP and some of its network members to inform delegations of their activities. The presenters were Kathryn Nixdorff (INES), Alan Pearson (Center for Arms Control and Non-Proliferation Scientists Working Group on Biological and Chemical Weapons), Gert Harigel (Geneva International Peace Research Institute), Sergey Batsanov (Pugwash International) and Kathryn McLaughlin (BWPP). The seminar was moderated by Marie Chevrier (Center for Arms Control and Non-Proliferation Scientists Working Group on Biological and Chemical Weapons) who chairs the BWPP board.

Coupland prize

At the lunchtime seminar, the BWPP launched the Coupland Prize competition as a new initiative to raise awareness of the dangers of the misuse of the biological sciences in a way designed to appeal to the next generation of life science practitioners. The competition is open to undergraduate students in any country engaged in the study of life science disciplines. To enter, they should imagine how they would draft a letter, no more than 800 words long, to their University Dean explaining why the BTWC should be included as a mandatory component in the curricula of undergraduate courses in the life sciences. The first prize is US\$2000 with a runner-up prize of US\$800.

The award is named after Robin Coupland who is funding the prize money from the proceeds of the sales of his paintings from the exhibition *XXYX: the Biology of Love*. Robin's paintings can be viewed at <www.pic2d.com/robincoupland>.

More information on the competition can be found on the BWPP website.

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Friday 22nd August 2008

The 2008 Meeting of Experts: The Fourth Day

The 2008 Meeting of Experts (MX) for the 1972 Biological and Toxin Weapons Convention (BTWC/BWC) continued on Thursday, with Ambassador Georgi Avramchev (The Former Yugoslav Republic of Macedonia) in the Chair. This was the day that activities moved from the first topic of this year's MX on biosafety/biosecurity to the second – 'Oversight, education, awareness raising, and adoption and/or development of codes of conduct with the aim of preventing misuse in the context of advances in bio-science and bio-technology research with the potential of use for purposes prohibited by the Convention'. This changeover of topic had been scheduled for Wednesday afternoon.

The morning's formal proceedings started with the last presentations on biosafety and biosecurity. Presentations were heard from Canada (with a co-presenter from the Kyrgyz Republic), France, Cameroon, and France. The Canadian-Kyrgyz presentation described a joint project for a laboratory in the latter country as a capacity building project as part of Canada's support for the G8 Global Partnership programme and emphasized that good biosafety and biosecurity arrangements are not just a question how a laboratory is established, but are on-going processes. Cameroon, which is not yet a State Party, provided an illustration of its preparations for joining and implementing the BTWC. The two French papers were on setting standards and biosafety risk management.

The rest of the morning's formal proceedings were dedicated to the theme of 'oversight of science', with presentations from the United States, Japan, Germany, the United Kingdom, the International Union of Pure and Applied Chemistry, and the World Health Organization. After lunch, presentations continued with the US National Academy of Sciences, Pakistan, Cuba (in its national capacity) and Brazil. The presentations illustrated that there is substantial overlap between biosafety/biosecurity and oversight of science. For example, the US detailed the activities of the National Science Advisory Board for Biosecurity. Japan spoke of its lessons learned from the experiences of dealing with the Aum Shinrikyo group's efforts in the biological field and how these can be applied to discouraging people with scientific expertise from getting involved in such activities. Germany spoke on security vetting of people handling dangerous pathogens.

Although the next theme on the programme of work was education and awareness raising, the Chairman allowed Germany to give a presentation on codes of conduct as the visiting expert was due to depart. The presentation focused on the role of funding bodies in encouraging codes of conduct and other best practice in BTWC-relevant areas in academic research.

France, the United Kingdom, Switzerland, United States, and the UN Security Council 1540 committee then addressed the meeting on education and awareness raising. While most NGO representatives had assumed this subject would relate to awareness raising for practising scientists or students of science, the US chose to talk about synthetic biology

and the 1540 committee spoke about awareness raising of 1540 within states. Switzerland introduced a pamphlet entitled 'Biology for Peace: Preventing the Misuse of the Life Sciences' which can be downloaded from <<http://www.seco.admin.ch/dokumentation/publikation/>>. The UK reported on the results of a seminar it held with academia in March.

Education and awareness panel

In the late afternoon, Ambassador Avramchev introduced a panel of four experts on the subject of education and awareness raising. The panelists were Robin Coupland (International Committee of the Red Cross), John Crowley (United Nations Educational, Scientific and Cultural Organization), Decio Ripandelli (International Centre for Genetic Engineering and Biotechnology), Terence Taylor (International Council of the Life Sciences & Global Health and Security Initiative). The format of this session mirrored that of the other panels held earlier in the week, although time constraints reduced the period available for questions and answers.

Draft report

The draft of the procedural section of the final report was circulated, together with a first draft of the Chairman's compendium of recommendations and other ideas so far expressed during the MX which is to be appended to the report. In recent MXs there has been no controversy about these reports.

Poster session

A poster session, in a similar format to that held on Tuesday morning, was held on Thursday morning on the second topic of the MX. A comment from one delegate was that he found it very useful as he could take time to interpret the technical details on the posters which were not in his native language at his own speed and have somebody there he could ask questions of. The Implementation Support Unit has asked poster providers to supply an electronic copy of each poster so that these can be put on the ISU website <<http://www.unog.ch/bwc>>.

Side Events

The lunchtime seminar was convened by a group of scientific academies to report on the *Second International Forum on Biosecurity* held in Budapest during 30 March-2 April this year. The seminar was moderated by Sergio Pastrana (Cuban Academy of Sciences) and Barbara Schaal (US National Academy of Sciences [NAS]) with presentations from Alastair Hay (University of Leeds), Ben Rusek (Committee on International Security and Arms Control, NAS) and Ralf Trapp (independent consultant). Further information about the Budapest Forum can be found at <<http://www7.nationalacademies.org/biosecurity/>>.

By coincidence, the Royal Society in the UK published a paper on Thursday summarising activities on reducing the risk of the misuse of scientific research in the life sciences which is available from <<http://royalsociety.org/page.asp?tip=1&id=7947>>.

Please note: there will be an additional MX report covering the final day of the Meeting. This will be published early next week and will be posted at the web locations given below.

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Monday 25th August 2008

The 2008 Meeting of Experts: The Final Day

The 2008 Meeting of Experts (MX) for the 1972 Biological and Toxin Weapons Convention (BTWC/BWC) concluded on Friday. A procedural report was adopted, together with a compilation of 'Considerations, Lessons, Perspectives, Recommendations, Conclusions and Proposals Drawn From the Presentations, Statements, Working Papers and Interventions on the Topics Under Discussion at the Meeting'. The format of the report and of the compilation follow the pattern of earlier MXs. The intention of the compilation is to summarize the ideas raised at the Meeting in order to help officials from States Parties consider which of them might be relevant for them in their own circumstances. This is both the greatest strength and greatest weakness of the inter-sessional process – ideas can be raised that States Parties can accept or reject as they see fit, without any kind of decision-making process at the meetings which might recommend that particular measures should be adopted by all States Parties.

The morning started with the last presentations on the second topic of this year's MX – 'Oversight, education, awareness raising, and adoption and/or development of codes of conduct with the aim of preventing misuse in the context of advances in bio-science and bio-technology research with the potential of use for purposes prohibited by the Convention'. Presentations were made on the themes of 'education and awareness' and 'codes of conduct'. Presentations (in the following sequence) were heard from Australia, Argentina, India, Georgia, Pakistan on the theme of 'education and awareness', and from Australia, Netherlands, United States, Ukraine, China, Bulgaria, Brazil, the Republic of Korea and Sweden on the theme of 'codes of conduct'. The meeting then broke for lunch.

Universalization report

Just before the adoption of the report from the MX, the Chairman, Ambassador Georgi Avramchev (The Former Yugoslav Republic of Macedonia), gave an interim report on progress towards universalization of the Convention and noted the three new States Parties so far this year – Zambia, Madagascar and the United Arab Emirates. He indicated that Cameroon (which had participated in the MX) and Mozambique were well advanced in their preparations for becoming States Parties to the BTWC and noted that Myanmar, Nepal, Comoros and Côte d'Ivoire were also known to have made some progress in their preparations. Ambassador Avramchev urged States Parties to coordinate their efforts to encourage universalization and to inform the Implementation Support Unit of contacts they have with relevant countries.

The Chairman's formal report on universalization will be given at the Meeting of States Parties in December.

Side Event

Friday's lunchtime seminar was convened by Verification Research Training and Information Centre (VERTIC) on its *National Implementing Measures for Effective Biosafety and Biosecurity* project. It was introduced by VERTIC's director, Angela Woodward. The seminar heard from representatives from the governments funding this project, Ambassador Johannes Landman (Netherlands) and Jacqueline Daley (United Kingdom). A detailed presentation on the current and future activities of this project was given by Scott Spence, VERTIC's CBW legal officer. Further details of the project can be found at <<http://www.vertic.org/NIM>>.

Reflections

A conscious effort is taken in writing these daily summaries to report the facts and not give opinion. However, there are many times that the question is raised – 'so what do you think about what happened?' The following are some personal reflections that do not necessarily represent anyone's views other than the author's own.

The Meeting of Experts was undoubtedly a success within the terms of its remit, giving plenty to build upon at the Meeting of States Parties in December. The flipside of this is a slight frustration at the limited mandate from the Sixth Review Conference in 2006 – much more could have been done, had it been allowed to be done.

In 2008 there was much more openness of information, possibly owing to the subject matter involved in these meetings. However, this is what was said about the subject matter in 2007. In 2008 there was not a single working session that was held behind closed doors – unprecedented in the BTWC inter-sessional process. Hopefully the experience of this MX will set a useful precedent as it would seem apparent that there have been no negative consequences to any State Party or NGOs seeing all of the working session presentations. The subject matter for next year, which includes 'enhancing international cooperation, assistance and exchange in biological sciences and technology for peaceful purposes' and 'promoting capacity building in the fields of disease surveillance, detection, diagnosis, and containment of infectious diseases', should also be conducive to this level of openness.

There has been much more detailed information given in statements – by States Parties as well as by other participants, including NGOs. One of the frustrations of the past was the lack of details and of concrete ideas or experiences being communicated at meetings – many statements were simply too general to be of use to others. This meeting benefited considerably from this additional level of detail.

This meeting continued the innovative nature of the renewed inter-sessional process. The roundtable/panel discussions followed the precedent set last year, although one of the panels this year may have been too detailed. This year's innovation of the poster sessions were an unqualified success with perhaps the only difficulty being a lack of time for interested delegates to be able to examine all of the posters in detail.

This is the sixth and final report from the Meeting of Experts for the Biological and Toxin Weapons Convention which is being held from 18 to 22 August 2008 in Geneva. The reports are designed to help people who are not in Geneva to follow the proceedings.

The reports are prepared by Richard Guthrie on behalf of the BioWeapons Prevention Project (BWPP) in co-operation with the Acronym Institute for Disarmament Diplomacy. Copies of these reports are available via <<http://www.bwpp.org/2008MX/MX2008Resources.html>> or <<http://www.acronym.org.uk>>.

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