

Monday 13th August 2018

MX2 wraps up scientific developments, look to MX3 on national implementation

The second in the series of 2018 Meetings of Experts (MXs) under the 1972 Biological and Toxin Weapons Convention (BWC/BTWC) concluded on Friday on the topic of ‘Review of Developments in the Field of Science and Technology Related to the Convention’. The Chair of MX2, Pedro Luiz Dalcero (Brazil), opened the day’s proceedings noting that many of the scientific and technological developments being discussed in the MX were unheard of just a few years ago.

After consideration of two sub-topics, MX2 adopted its formal report in the middle of the afternoon, after an initial draft had been circulated just before lunch. Some verbal amendments were made. After the report had been adopted, a discussion was held on how the MX2 in 2019 could build on the experience of this year. Just before the close of the meeting, the Chair of the Meeting of States Parties (to be held in December), Ljupco Jivan Gjorgjinski (former Yugoslav Republic of Macedonia), informed delegates that there would be an ‘impromptu meeting’ on Tuesday regarding the BWC finances which have suffered from late payments by some states parties.

As there were a large number of presentations within the sub-topics/agenda items discussed on Friday they were spread out across the available working time. For ease of reporting, the presentations are grouped together for each sub-topic in this summary.

Genome editing

Presentations were given by Switzerland, Australia, UK and Iran who each spoke to their working papers (WP.2, WP.3, WP.4 and WP.6, respectively). Other delegations taking the floor were the Netherlands, USA, India, France, Romania and Venezuela/NAM. Of the highlighted scientific and technological developments relating to genome editing, CRISPR/Cas9 was the most prominently mentioned. It was noted that genetic modification was just one element that might contribute to deliberate disease – many other technologies and techniques are needed for successful preparation of a biological weapon and so it is of limited risk in isolation. It was highlighted that while genome editing has clear potential for use for hostile purposes, it also has clear potential for helping develop medical countermeasures to disease, whether deliberate or naturally occurring. New technologies exist in a context, and it was noted that focus needed to be on regulation of what can be done with new processes, not simply the processes themselves as they can be used for many different products that can be good or bad. National threat assessments were mentioned, with the Netherlands noting that over next five years there was more likely to be a threat from the deliberate use of a naturally occurring organism than one that has been engineered. France expressed agreement with this. If a genomically manipulated organism were to be used in an attack, the precision of editing has particular implications for forensic examination of a scene, potentially creating challenging situations..

Any other developments and cooperation with international organizations

This sub-topic/agenda item was opened with a statement by the European Union followed by Switzerland talking to elements of its working paper not included in the earlier sub-topic.

Technical presentations were given by the Organization for the Prohibition of Chemical Weapons (OPCW), the World Organization for Animal Health (OIE) and the 1540 committee experts. Other delegations taking the floor were Mexico, UK, United Arab Emirates, Philippines and India. The European Union spoke of its outreach work on scientific and technological issues, including through four regional workshops in the past year in Ukraine, Mexico, Jordan and South Africa and a further one planned for the Philippines. Switzerland spoke of removal of bottlenecks in development of ‘DNA origami’ which involves folding strands of DNA into complex 3-dimensional shapes which then take on other properties, such as being able to exert mechanical forces or transport other chemical payloads within their structure that, for example, might not be able to cross barriers on their own. The OPCW described experiences of science advice, highlighting the importance not only of advice being put forward but of arrangements to take on board such advice. The OIE described work under its Biological Threat Reduction Strategy. The 1540 committee expert noted their review process for implications of emerging technologies and highlighted the issues of intangible transfers of technologies.

Reflections on MX2

Like MX1, MX2 has produced two days of intensive working. Again, more productive than MXs of recent years, despite the late confirmation of who would take the role of the Chair which reduced time for some preparations. However, the number of delegations with the willingness to take the floor to talk about scientific and technological issues remains small and this challenge must be faced.

This series of MXs continues to suffer from a challenge of where to discuss the overlaps between the main meeting topics. An example of this are the implications for national implementation of scientific and technological developments. While some of the implications were touched upon in the discussions in MX2, detailed discussion falls between the MXs. A partial corrective to this in future years may be to introduce an agenda item within each MX that prompts discussion on the implications for other MXs of the area it is dealing with.

Preparations for MX3

The series of MXs moves to MX3 for Monday, for which the overarching topic is ‘Strengthening National Implementation’. This will be the first of the one-day MXs. The importance of national implementation of Convention obligations has been regularly highlighted. For a number of years it has been observed that many states parties have incomplete domestic implementation measures with widespread acknowledgement that there is much room for improvement. There is now an increasing recognition that scientific and technological developments mean that regular reviews of national implementation measures help keep them effective and that development of regulatory measures tends to be at a slower pace than the rate of relevant scientific and technological developments. There remains a divergence of views of what forms of implementation activities should take place at a national vs international level. At the time of writing, seven MX3 working papers were available as official documents. There is also an ISU background information document.

Side events

There were two side events on Friday. One, before the start of proceedings, entitled ‘Disarmament and Technological Change’, was convened by the OPCW. The other, at lunchtime, was convened by China and was entitled ‘Development of a Model Code of Conduct for Biological Scientists’.

This is the fifth report from the series of five BWC Meetings of Experts which are being held from 7 to 16 August 2018 in Geneva. Reports are posted to <<http://www.cbw-events.org.uk/bwc-rep.html>> and <<http://www.bwpp.org/reports.html>>. An email subscription link is available on each page.

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