Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

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National Measures to Address Dual Use Research

Submitted by Indonesia, Malaysia, Netherlands and the United States of America

Background

1. The topic of dual use research in the life sciences has been discussed with increasing frequency during the current intersessional program, with many delegations attesting to its importance. Some States Parties have taken national measures on this subject, and collectively they represent diverse ways to deal with the many different aspects of the dual use research dilemma, from codes of conduct to education and outreach to policies governing research.

2. The BWC captures the need to prohibit use for hostile purposes (in Article I) while promoting peaceful uses (in Article X). The collective national measures of States Parties to implement this Convention represent the world's strongest efforts to prevent hostile uses of the life sciences. But we must turn our attention to preventing the misuse of life sciences research that is conducted for peaceful purposes with particular focus on the riskiest types of dual use research. Several States Parties across geographic regions have taken a variety of national measures to address the risks posed by dual use research in the life sciences.

3. To that end, Malaysia, Indonesia, the Netherlands and the United States co-hosted a side event yesterday to present our national measures and to foster a discussion of how States Parties can best manage these risks while preserving the benefits of peaceful uses. The impetus was to stimulate discussion about measures already in place and ideas for the future efforts in this area. Below we outline our respective national measures and make a few recommendations. In so doing, we hope to stimulate discussion of this important topic at the December Meeting of States Parties.

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Indonesia

4. As an attempt to strengthen national measures to prevent the development and production of biological weapons as obligated under the Biological Weapons Convention, the Indonesian Academy of Sciences (AIPI) launched the Indonesian Code of Conduct on Biosecurity on 26 May 2015, coinciding with the Silver jubilee of the Academy. The Code of Conduct contains key components to address dual use research, including awareness raising, safety and security, education and information, accountability and oversight, as well as best practices on bio-risk management.

5. Since 2009, AIPI, together with the Royal Netherlands Academy of Arts and Sciences (KNAW) and U.S. National Academy of Sciences (NAS) held a series of events related to Biosecurity. In August 2014, AIPI, KNAW and NAS co-organized a Biosecurity workshop that took place in the context of the 9th ASEAN Science and Technology Week. The aim of the workshop was to raise biosecurity awareness in relevant institutions, academies and industry in ASEAN states, and to share experiences and lessons for education and awareness raising in biosecurity.

6. Recognizing the importance of sharing best practices on biosecurity, and as follow-up to the launch of the Code of Conduct on Biosecurity, the Indonesian Academy of Sciences, together with NAS, co-organized a follow-up workshop in August 2015. The workshop was based on the experience of the NAS and international partners in the Middle East/North Africa (MENA) and South/Southeast Asia in developing networks of faculty that teach biosecurity using "active learning" methods. The discussion that took place in the workshop provided useful insights on the implementation of the Code of Conduct. In this regard, the Indonesian Academy of Sciences, together with other relevant institutions, will continuously promote the implementation of the Code of Conduct.

Malaysia

7. At present, Malaysia is going through the process of adopting legislation to meet its obligations under the Biological Weapons Convention. To this effect, the legislation is expected to prevent the proliferation of biological weapons, and the intentional release or misuse of regulated biological agents and toxins. In addition, Malaysia is also looking to adopt a Code of Conduct on Biosecurity. This Code of Conduct would supplement and extend the prohibition/restrictions of the Convention to the wider scientific community. The new legislation and Code of Conduct would simultaneously promote a safe and secure environment, and encourage responsible conduct in all works related to life sciences.

8. It is with these aspects in mind that, in June 2015, the Malaysian Ministry of Defence's Science and Technology Research Institute for Defence (STRIDE) and Academy of Sciences Malaysia (ASM), with the U.S. Defense Threat Reduction Agency (DTRA) Cooperative Biological Engagement Program (CBEP) as the co-organisers, carried out the Workshop on the Development of a National Code of Conduct for Biosecurity in the Framework of Biological Weapons Convention. Workshop participants included officials, representatives of academia and policy makers from government agencies, universities, as well as NGOs and industries. Participants concluded in agreement on the need of a strong culture of responsibility in laboratories and institutions as an important foundation to advance and maintain public trust in sciences. The two-day event further cemented that a National Code of Conduct would enhance the existing systems for biosecurity, which also encompass (1) safety and security; (2) accountability and oversight; (3) communication; (4) transfer and control; and (5) response to potential misuse.

9. Participants of the workshop agreed that an adopted National Code of Conduct would serve as a comprehensive framework/outline that could be implemented in all institutions and laboratories. The implementation of the Code of Conduct at the operational

level would call for greater responsibility and accountability among lab practitioners and officials. STRIDE will continue its engagement with all stakeholders and will use the outcomes of its engagement and the workshop in the development of the new Code of Conduct in Biosecurity.

Netherlands

10. The Dutch approach is a comprehensive approach that combines elements from both biosafety and biosecurity and is aimed at preventing the misuse of biological agents by terrorists or state actors, while being careful not to impede legitimate biological (research) activities. Government policy objectives focus on a shared responsibility between the scientific community and government. Research institutes and individual researchers are responsible for assessing risks of specific projects. Government policy is aimed at stimulating and facilitating the necessary awareness and capabilities through training, funding and legislation.

11. Specific instruments that the Netherlands have developed include the sounding procedure, where the export control authorities are able to advise early in a process on the feasibility of specific projects. Also, the Royal Netherlands Academy of Arts and Sciences developed a code of conduct for biosecurity, to help individual researchers in their assessment of risks and benefits. The Netherlands Biosecurity Office serve as national knowledge and information center for biosecurity and forms a linking pin between the government and the scientific community. Its awareness raising and capacity building products include a biosecurity toolkit and a vulnerability scan to help organizations implement biosecurity.

United States of America

12. In 2012, the United States Government issued the *Policy for Oversight of Life Sciences Dual Use Research of Concern*, requiring U.S. federal departments and agencies that fund life sciences research to identify and manage the risks associated with dual use research of concern (DURC). The 2012 USG DURC policy seeks to mitigate risks created by DURC by establishing regular federal review of federally-funded or -conducted research involving specific high-consequence pathogens and toxins. The aim of this federal oversight is to preserve the benefits of life sciences research while minimizing the risk of misuse of the knowledge, information, products, or technologies generated by such research.

13. In recognition of the pivotal role of research institutions and their scientists in identifying and managing DURC, the U.S. Government released in August 2014 a second policy that expands DURC oversight to research institutions receiving U.S. federal funding. The *Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern* – or the "institutional DURC policy" – articulates the practices and procedures required to ensure that DURC is identified at the institutional level and that risk mitigation measures are implemented as necessary. Both USG DURC policies note that oversight, including implementation of risk mitigation measures, should minimize, to the extent possible, adverse impact on legitimate research; should be commensurate with the risk; should include flexible approaches that leverage existing review processes; and should endeavor to preserve and foster the benefits of research.

14. In light of recent concerns regarding biosafety and biosecurity, the U.S. Government on 17 October 2014 paused new funding for gain of function research on influenza, MERS or SARS viruses. This research funding pause will be effective until a robust and broad deliberative process is completed that results in the adoption of a new USG gain of function research policy. Currently ongoing are semi-quantitative and qualitative risk and benefit assessments of gain of function research, defined as research that improves the ability of a

pathogen to cause disease. The National Science Advisory Board for Biosecurity (NSABB) will use the results of the risk and benefit assessments, along with inputs from two public workshops held by the U.S. National Academy of Sciences, to advise the USG as the new policy is drafted.

Side event discussion

15. During the 12 August side event, we presented our respective national measures to address dual use research to attending States Parties. These presentations, and the discussion that followed, illustrated some similarities among our approaches. First, all approaches emphasize the need to sensitize scientists and educate them about dual use research issues. Second, all approaches encourage development of a sense of shared responsibility among scientists, government and other relevant stakeholders. Third, all approaches acknowledge that addressing dual use issues is a continual process that will be affected by S&T advances.

Recommendations

16. We would welcome other States Parties in a position to do so to offer presentations about their current or future national measures to address dual use research.

17. We encourage States Parties to express their views about the risks and benefits of dual use research, even if their governments have not yet undertaken national measures. We believe it is important that States Parties share their ideas about how best to manage dual use risks, whether those ideas will be implemented or not.

18. Last December, States Parties "noted the value of continued discussion at future meetings on oversight of dual-use research of concern, including specific approaches to: identifying relevant criteria; assessing both risks and possible benefits; and mitigating identified risks."[1] We suggest comprehensive examination of appropriate oversight criteria, of optimal methods to assess risks and benefits, and of optimal approaches to mitigating identified risks at BWC meetings.

[1] BWC/MSP/2014/5, Report of the Meeting of States Parties, 15 December 2014, para. 36.