Outcomes of the 7th Review Conference of the Biological Weapons Conference: Implications of the Convergence of Chemistry and Biology
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Convergence of biology and chemistry – developing joint BTWC/CWC responses against misuse of chemical and biological agents and approaches to safety and security
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Summary. The Chemical Weapons Convention (CWC) and Biological Weapons Convention (BWC) mechanisms should support each other to meet the challenges of the convergence of chemistry and biology. It would be useful, from the perspective of the CWC and the OPCW, to examine national implementation of important legal controls on biological weapons proliferation and terrorism, the Biological Weapons Convention (BWC) as well as pertinent United Nations Security Council resolutions, including 1540 (2004), as well as the activities of the World Health Organisation (WHO), so as to identify and explain lessons for national implementation of CWC. The preparatory process for the CWC Third Review Conference and the Conference itself offer venues to develop the synergies and implement joint approaches to improve national responses against misuse of chemical and biological agents and chemical and biological safety and security. The cooperation between the CWC and BTWC regimes should be based on the building joint approaches at the national implementation of the CWC and BTWC.

1. At the OPCW the issues of chemical and biological convergence are systematically present. It was one of the four main topics of the OPCW Non-proliferation seminar held in April 2011, which covered the implications of convergence of biology and chemistry for the implementation of the Convention. This concept of “convergence” and its potential impact on the implementation of the Convention has been raised by the OPCW’s Scientific Advisory Board and recently by the Working Group on convergence.

2. The Advisory Panel established by the OPCW Director-General to provide advice on the future dimensions of the OPCW stated that convergence between chemistry and biology is an important challenge which comes with advances in science and technology. The Panel concluded that this convergence will require closer interaction in the implementation of the Conventions dealing with chemical and biological weapons. Convergence in the sciences does not, in itself, lead to convergence of the regimes. But exchanges of experience and joint technical reviews could be helpful to understand how the interface between chemistry and biology affects the implementation of both treaties. This is particularly pertinent as there is an overlap between the two treaties with regard to the prohibition of toxin weapons.

3. National implementation of prohibitions within the BTWC has carved altogether different issue paths from those for national implementation of the CWC. For the CWC implementation process, the primary issue is verification of compliance with extensive declaration requirements. Prohibitions within the BTWC focus on other high priority
issues: for example, how to keep dangerous agents secure, how to criminalize wrongful behaviour, and how to stimulate health and scientific benefits from bioscience.

4. Another distinction has to do with the mechanisms employed. The CWC established a central institution - the OPCW - with responsibility for promoting and supervising national implementation. The BWC has a small Implementation Support Unit in Geneva and five-year work plans engaging State Party delegations and other experts on specific policy questions. Instead of centralizing authority, implementation of the prohibitions within the BTWC increasingly seeks to link the work of many international organizations, NGOs, private sector participants and associations, and academia.

5. The implementation process of the prohibitions within the BTWC has actively engaged other stakeholders such as emergency responders, police, public health, and development proponents. This is because implementation of bio-restrictions has intimate connections with combating global disease, combating criminality and terrorism, and promoting sustainable scientific progress.

6. The 7th BTWC Review Conference and its Final Document highlighted the importance of bio-safety issues and offered venues for cooperation with the OPCW and other relevant international players.

7. There are important biological- and chemical-related requirements developed by the WHO in its International Health Regulations which should be implemented worldwide by April 2012. WHO has also developed a Global Chemical Incident Emergency Response Network, as well as vast expertise at national and international levels to enhance safety and security in the chemical and biological spheres.

8. The aspects of chemical and biological preparedness have barely been addressed in discussions within the UN system. This gap was filled by the recent report of the United Nations Counter-Terrorism Implementation Task Force, which is entitled “Interagency Coordination in the Event of a Terrorist Attack Using Chemical or Biological Weapons and Materials”. The report found that additional efforts are needed to build comprehensive response capacity against CBRN threats at the national level, and to develop mechanisms to share and transfer information between the national and international entities involved, from law enforcement to public health and safety response systems.

9. Growing importance of chemical and biological security, requires new approaches and practical cooperation in the CWC and BTWC implementation. The CWC and BTWC review mechanism should further combine their potential to develop these two Conventions as platforms for raising awareness and for disseminating best practices and training in the areas of biological and chemical safety and security. Since the WHO conducts complementary activities in its health regulations which cover chemical, biological and nuclear issues, it should be actively engaged in the process of comprehensive response capacity against CBRN threats at the national level.

10. The relevant stakeholders engaged in the building of national bio-chemical safety and security measures should be active players in the national implementation of the CWC and BTWC mechanisms. OPCW could offer its venue to combine national experts
and to discuss and propose measures to ensure more coherent and comprehensive implementation of BTWC and CWC. Since the OPCW possess a well prepared technical staff, vast logistic and organisational experience, the meetings of national and international exports could be well prepared and served.

11. The CWC and BTWC mechanisms should assist States Parties in the prevention of, preparedness for, and response to misuse of chemical and biological agents. They should facilitate collaboration between States Parties and relevant international and regional organisations, national agencies and institutions to enhance national capacity building in the areas of prevention and preparedness to counter threats related to misuse of chemical and biological agents.

12. One of the goals of the chemical and biological security programmes could be promotion of global security cultures in the chemical and biological activities.

13. National implementation of the CWC will be improved with better understanding of the prohibitions, restrictions and requirements under the BTWC and WHO. We must therefore address a set of relevant issues:
   - How has implementation of the prohibitions and bio-restrictions within the BTWC improved security controls over dangerous agents and strengthened criminalization of legal prohibitions?
   - How has implementation of the prohibitions within the BTWC and WHO regulations broadened information gathering, analysis, and sharing capabilities that are relevant to compliance?
   - How has the BTWC 5-year Work Plan promoted better ways to implement critical obligations? How have the UN 1373 and 1540 Committees promoted better ways to implement critical obligations?
   - How does the convergence of chemistry and biology influence the safety and security of chemical and biological facilities? and
   - How can relevant safety and security stakeholders be engaged in the work of the OPCW and BTWC to broaden the audience dealing with chemical and biological threats, and to enhance national safety and security in the areas of chemical and biological activities?

14. Since the convergence between chemistry and biology is now a reality, and as the development of effective biological and chemical security measures becomes a priority at national and international levels, the CWC and BTWC mechanisms should combine efforts. The officials who actually are responsible for implementing the CWC and BTWC and the relevant UNSC resolutions, especially 1540 (2004) are, in majority of States, the same people. The cooperation between the CWC and BTWC regimes should be based on the building joint approaches at the national implementation of the CWC and BTWC. The OPCW could become a venue to combine national experts and to discuss and propose measures to ensure more coherent and comprehensive implementation of BTWC and CWC.

15. The CWC Third Review Conference could actively engage relevant stakeholders from the BTWC and WHO, and other relevant partners, to address these questions and develop joint approaches and begin a process of joint meetings to improve national responses against misuse of chemical and biological agents and chemical and biological safety and security.