# Research Group for Biological Arms Control

# News and Activities 10 March 2011

A year has gone since the publication of our last activity report. 2010 was a year of quiet work during the first half and a multitude of different activities during the second. The Hamburg Research Group took on responsibility for two projects of the BioWeapons Prevention Project (BWPP) in Spring 2010. Together with BWPP network partners we produced the first edition of the new BioWeapons Monitor – a collection of country reports aimed at increasing transparency of bioweapons relevant activities – and organized the BWPP online discussions in preparation of the Seventh Review Conference of the Biological Weapons Convention (BWC). Information on both projects can be found on BWPP's website at www.bwpp.org.

In May, we concluded the conceptualization phase of our trade monitoring project, which over the past five years had been funded by the MacArthur Foundation. Our trade monitoring concept and the associated policy process at the World Customs Organization in Brussels is described in detail in an Occasional Paper (see below). Gunnar Jeremias, who had been the principal researcher for this project, has since focussed most of his efforts on writing his dissertation.

Detailed information on the work of the Hamburg Research Group, copies of publications and regular activity updates can be found on our website at **www.biological-arms-control.org**.

### **New Projects**

#### Civil society engagement 2010

The Hamburg Research Group received funding to carry out two 2010 BWPP projects. The German Foreign Office and the Norwegian Ministry of Foreign Affairs provided support for the BioWeapons Monitor 2010. The Norwegian ministry, in addition, funded preparatory work for the BWPP Review Conference Project, a series of online discussions in preparation of the Seventh BWC Review Conference in December 2011. Both projects were managed by Iris Hunger.

### **Civil society monitoring**

"Civil society arms control. NGOs as actors in compliance monitoring" is the title of Gunnar Jeremias' PhD thesis, on which he has been focussing his efforts since June 2010. Gunnar analyses factors that encourage or hinder an active role of NGOs in monitoring compliance with arms control agreements. A grant from the German Academic Exchange Service (DAAD) enabled Gunnar to kick-off the writing process at the Stockholm International Peace Research Institute (SIPRI) that hosted him as a guest researcher from June

until August 2010. With additional funding from the Institute for Peace Research and Security Policy Hamburg, Gunnar plans to complete his thesis in 2011.

# The issue of technology transfers in nonproliferation efforts for biological and chemical weapons

The Institute for Peace Research and Security Policy Hamburg (IFSH) provided funding for a short-term project looking at how (the lack of) technology transfer arrangements influence the legitimacy of the biological and chemical non-proliferation regimes. This Research Group project provides input for a more comprehensive project on the same issue at the IFSH. It will run from January to June 2011. Iris Hunger is the principal researcher.

### **Ongoing Projects**

The following additional projects were undertaken at the Research Group during 2010. Detailed information on these projects is available on our website at www.biological-arms-control.org:

- ♦ Economic, social and legal aspects of biodefence research (funded by the German Ministry of Education and Research).
- ♦ Neither safety nor security without cooperation. Control measures for biological high risk research in European Union states (funded by the Fritz Thyssen Foundation).
- Strengthening the Confidence Building Measure regime under the BWC (currently not funded).
- Tracking the global movement of biological dual use items (funded by the MacArthur Foundation).

### **New Publications**

### 2010 Reader on publicly available CBMs

The 2010 CBM Reader provides information on states' participation in the BWC's Confidence Building Measures (CBMs) in 2010, summarizes the information contained in the publicly available CBMs, and provides information on recent CBM-related developments and publications. Following the decision at the Sixth BWC Review Conference in 2006 to limit access to the CBMs to states, we publish the CBM Reader annually to highlight the importance of transparency in the area of biological dual use activities.

Research Group for Biological Arms Control. Carl Friedrich von Weizsäcker Centre for Science and Peace Research. University of Hamburg, December 2010, http://www.biological-arms-control.org/publications/CBMReader2010-finalannex.pdf.

#### **BioWeapons Monitor 2010**

The BioWeapons Monitor is a BWPP initiative to help monitor compliance with the international norm prohibiting biological weapons. It takes the Landmine Monitor as its model. The 2010 inaugural edition of the BioWeapons Monitor contains reports on four countries – Brazil, Germany, India and Kenya – presenting open-source information of relevance to the verification of the BWC. The BioWeapons Monitor is not a technical verification system, but an effort of civil society to hold governments accountable for their obligations to eliminate biological weapons permanently and to prevent their re-emergence.

Hunger I (ed.) (2010) BioWeapons Monitor 2010, BioWeapons Prevention Project, http://www.bwpp.org/documents/BWM%202010%20WEB.pdf.

### Building transparency in the world wide trade in biological dual use equipment

This Occasional Paper describes in detail our trade monitoring concept and the associated policy process at the World Customs Organization (WCO) in Brussels. It starts with some general remarks on the value and forms of transparency and goes on to describe the UNSCOM/UNMOVIC export/import monitoring mechanism which served as the model for our trade monitoring concept. The trade monitoring for biological dual use equipment foresees the use of trade data as collected by customs services. Comprehensive data on volume, value and time of every trans-border movement is available in open source international databases. If the customs code system would identify biological dual use equipment in an appropriate manner, this data could be used to analyse global trade in biotechnology equipment for non-proliferation purposes. Since this is not yet the case, a process to amend the customs code system has been initiated.

Jeremias G, Hunger I (2010) Occasional Paper, Research Group for Biological Arms Control. Carl Friedrich von Weizsäcker Centre for Science and Peace Research. University of Hamburg, http://www.biological-arms-control.org/projects\_trademonitoring/TradeMonitoring-OccPaper2010-Final.pdf.

# Dual use research and technological diffusion: reconsidering the bioterrorism threat spectrum

This peer-reviewed article summarises what research activities are considered to be of special concern due to their high potential of being misusable by terrorists. These areas of so-called dual use research of concern (DURC) were identified by reviewing existing assessments. The article further provides an analysis of the different areas of DURC, considering the likelihood of such research being misused by terrorists trying to obtain a biological weapon. It argues that it is more likely that "low tech" instead of "high tech" activities are attractive to bioterrorists because of the limited need of expertise and equipment.

Suk JE, Zmorzynska A, et al. (2011), PLoS Pathogens 7(1): e1001253, doi:10.1371/journal.ppat.1001253.

### Limits, rules and the need for transparency in biosecurity research

This poster was presented at the *Future Security 2010 Conference* in September 2010 in Berlin. It describes recent trends in biodefence and biosecurity research, outlines risks associated with biosecurity research, proposes a list of research of particular concern, and suggests that the high misuse potential of biodefence and biosecurity research could be reduced by 1) prohibiting any research that involves the weaponization of biological agents, even if for threat assessment purposes; 2) regular compliance assessments of biodefence projects; 3) strict national and international oversight for all dual use research of concern; 4) applying the principle of "maximum disclosure"; and 5) appropriate training and awareness raising for all life scientists.

Research Group for Biological Arms Control. Carl Friedrich von Weizsäcker Centre for Science and Peace Research. University of Hamburg, September 2010, http://www.biological-arms-control.org/projects\_economicsocial.html.

### Statement to the 2010 Meeting of the States Parties to the BWC

In its 2010 statement to the Meeting of the States Parties to the BWC in Geneva, the Research Group looked ahead to the Seventh BWC Review Conference, arguing that the most important issue to be attended to in December 2011 is how to increase transparency around treaty-relevant activities. Transparency is not only indispensable for the well-being of the BWC, it is also inevitable. The high degree of relevant activities by non-governmental actors such as private industry and academia, coupled with the strong dynamic of the life sciences make it difficult to keep data restricted or secret.

Research Group for Biological Arms Control. Carl Friedrich von Weizsäcker Centre for Science and Peace Research. University of Hamburg, December 2010, http://www.biological-arms-control.org/publications/BWC\_MSP\_2010-ReserachGroupForArmsControl-101206.pdf

### **Workshops and Seminars**

# Annual Meeting of the German Working Group on CBW Disarmament and Nonproliferation

The Hamburg Research Group was co-organizer of the annual meeting of the German Working Group on CBW Disarmament and Nonproliferation, which took place on 25 October 2010 in Berlin and dealt with "Strengthening the international regimes prohibiting biological and chemical weapons". After short reports from the 2010 BWC and CWC meetings in Geneva and The Hague, presentations were made and discussions centred on two topics: firstly, how the different instruments of national and international law work together in controlling chemical and biological weapons; and secondly, what experts expect from the Seventh BWC Review Conference in 2011 and what concrete proposals are already on the table.

### **NATO Advanced Research Workshop**

The Hamburg Research Group, in cooperation with Prof. Vladan Radosavljevic from the Military Institute of Preventive Medicine in Belgrade, Serbia, organized the Workshop "Exploring synergies between bioterrorism preparedness and general public health measures" at the Serbian Academy of Sciences and Arts in Belgrade. The workshop took place 15 to 17 November 2010 and was supported by NATO's Science for Peace and Security Programme. 34 experts from 20 countries plus a number of local guests participated in the workshop. More information is available on our website at http://www.biological-armscontrol.org/natoarw.html.

#### **BWPP Lunchtime Seminar**

The Research Group organized the BWPP Lunchtime Seminar "The BioWeapons Monitor 2010 and other 2010 activities of the BioWeapons Prevention Project" on 10 December 2010 in Geneva. During the seminar, BWPP launched the inaugural edition of the BioWeapons Monitor. Information was also provided on two other projects: the Daily Reports providing concise daily summaries on BWC-related meetings in Geneva, and the BWPP RevCon Project, a series of online discussions on conceptual and practical questions relevant to the success of the Seventh BWC Review Conference in 2011.

### **Teaching**

During 2010, members of the Research Group were engaged in the following teaching activities:

- Lecture "Contributions of the natural sciences to peace research", University of Hamburg;
- ♦ Lecture "Natural science, society, responsibility", University of Hamburg;
- Seminar "Ethics for engineers", Technical University Hamburg-Harburg;
- Seminar "Natural science and peace research", University of Hamburg;
- Seminar "The politics of science", Technical University Hamburg-Harburg;
- ♦ Tutorial "Introduction to sociological theory", University of Hamburg.

### **Staff Activities**

Jan Hoppe dedicated a major part of his time to designing and conducting a survey on biosecurity issues in the curricula of German universities. He is currently working on publishing the survey findings. Since December 2010, Jan has been managing the BWPP RevCon Project, a series of online discussions in preparation of the Seventh BWC Review Conference in December 2011, available on the BWPP website. He continued looking after the websites of BWPP and the Hamburg Research Group and contributed to administrative tasks of our host organization, the Weizsäcker Centre for Science and Peace Research.

Iris Hunger continued work on her project "Economic, social and legal aspects of biodefence research", managed the Research Group in all its aspects, and was responsible for two 2010 BWPP projects, the BioWeapons Monitor and the BWPP RevCon Project. In March 2010, she spoke on chemical and biological weapons and terrorism at the Berlin Colloquium organized by the Federal College for Security Studies, and participated in a meeting of the EU Institute for Security Studies' BTWC Working Group in Paris. In April 2010, she moderated the panel on vaccine production facilities during the third Geneva Forum workshop on "Options and proposals to strengthen the CBM mechanism of the BWC" in Berlin. In September 2010 she presented a poster at the Future Security Conference in Berlin, gave a presentation on the Hamburg Research Group's activities during the annual meeting of the Research Association for Science, Disarmament and International Security (FONAS) in Osnabrück, and spoke on the BWC CBMs at the Wilton Park Conference "Prospects for the 2011 BWC Review Conference". Iris shared her experiences on teaching peace and security issues to life scientists at the workshop "Preparing for social responsibility" in October 2010 in Delft. Also in October, she co-moderated discussions at the annual meeting of the German Working Group on CBW Disarmament and Nonproliferation in Berlin. Together with Anna she went to Belgrade in November for the NATO Advanced Research Workshop. Iris travelled to Geneva for the BWC Meeting of Experts and the BioWeapons Monitor authors' meeting in August 2010 and the BWC Meeting of States Parties in December 2010.

Gunnar Jeremias successfully completed the trade monitoring project in Mai 2010. The trade monitoring concept developed in the course of this project – one of the longest-standing projects of the Hamburg Research Group – is described in detail in an Occasional Paper (see above). Since June 2010, Gunnar has focused his efforts on his PhD thesis, which deals with the role of civil society in monitoring arms control agreements. With financial support from the German Academic Exchange Service (DAAD) he spent June, July and August as a guest researcher at the Stockholm International Peace Research Institute (SIPRI). Gunnar attended the annual meeting of the German Working Group on CBW Disarmament and Nonproliferation in October 2010 in Berlin, and travelled to Geneva in December, where he presented the Research Group's statement at the BWC Meeting of States Parties and conducted a number of interviews for his PhD with delegates and NGO representatives.

Anna Zmorzynska continued working on her project "Neither safety nor security without cooperation". She interviewed the heads of the two German maximum biological containment laboratories in Marburg and Hamburg as well as their regulatory authorities. Anna presented the results of these interviews at the 31st Pugwash CBW workshop on 4-5 December 2010 in Geneva. She was also responsible for the Research Group's 2010 CBM Reader on publicly available CBMs. Anna attended the annual meeting of the German Working Group on CBW Disarmament and Nonproliferation in October 2010 in Berlin, and travelled to Belgrade in November 2010 to support Iris during the NATO Advanced Research Workshop.

We are happy to announce that Gunnar joined the ranks of "BWC parents". He became father to a beautiful baby girl in September 2010. Congratulations!



Launch of the BioWeapons Monitor 2010 on 10 December 2010 in Geneva.



Participants of the NATO Advanced Research Workshop in November 2010 in Belgrade.

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