

Chapter 5

Chemical and Biological Agents

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In the first lecture, Masashi Matsuo dealt with the subject of “Illicit trafficking in chemical agents” under the terms of the Chemical Weapons Convention (CWC). He began by highlighting the differences between the States Parties and those countries which have still not ratified the treaty, and the importance of obtaining full compliance with Article I (Rights and Obligations).

He stressed that the sanctions which would be applied in response to cases of violation of the Convention had still not been established for they were shortly to be drafted at the initial meetings of the Conference of States Parties of the Organisation for the Banning of Chemical Weapons (OBCW).

The speaker explained that there were dual-purpose chemical substances which were not included in any of the CWC lists and were therefore not subject to its control. This presented the practical danger that chemical products which were close—in their synthesis path—both to agents and to precursors could be used by a proliferating country to develop a military programme.

Concerning the phenomenon of the internationalization of the chemical industry, it was stated that the boundaries between the three historical categories of nations (countries possessing raw materials, producer-processor countries and consumer countries) were becoming blurred, which was making the detection and monitoring of the chemical substances to be controlled more and more complicated.

This situation also arose in the case of dual-purpose equipment, which again is not controlled under the CWC. It gave rise to the need for each country to draft measures to be enforced at national level which would enable any gaps which might appear to be dealt with.

Within this context, the role of intelligence in the detection of illicit trafficking was again underlined, with the importance of achieving collaboration between the various national services and the construction of a “network” with the aim of establishing a more effective system for detecting and preventing proliferation.

It was stressed that the CWC provided a mechanism for inspection following a complaint in the event that a State Party is suspected, but that there was no established mechanism in the case of non-member States.

Based on this, a remote detection system had been proposed, using satellites which would enable the monitoring not just of chemical weapons, but of biological, nuclear and conventional weapons as well.

Specifically, it was intended to use satellite images with resolution levels of 1-3 m, with the aim of conducting systematic and regular monitoring of installations in any part of the world.

In the second lecture, Louise Hand also spoke on the problem of the illicit trafficking in chemical agents, but from the perspective of the Australian Group.

Giving some historical background, she explained that this system has its origins in a series of events which occurred in the 1980s, among them the violation of the Geneva Protocol during the Iran-Iraq war, the obtention of materials and equipment by Iraq and Libya in the international market and the realization by a group of nations of the practical deficiencies of the 1925 Protocol.

It was explained that the Group currently has 30 members, in addition to the European Commission (it is intended to increase it significantly) and that its basic objective is to promote control of the proliferation of chemical and biological weapons through the implementation—at national level—of export control measures on the precursors of chemical agents, micro-organisms and dual-purpose equipment.

The system is based on the granting of export licences issued by the relevant authority of each of the member countries in this Group. In terms of criteria it was felt that these should be practical and easy to fulfil, so as not to have a negative effect on the legal trade (something which has been achieved if it is taken into account that only 0.03 per cent of the world trade in chemical substances was subject to refusal).

It was also emphasized that the licences have proved useful for exporters because it enables them to ensure that they have not become involved in the development of a proliferating programme.

To conclude, the collaboration between the Australian Group and the CWC was highlighted, as were the successes achieved by the system in respect of the blocking of the obtention of capability in the chemical-biological field by some proliferating countries, which in many cases abandoned their initial intention to develop this type of weapon.

In the second part of the session of Working Group II, Malcolm Dando and Ms Louise Hand dealt with subjects linked to the issue of biological weapons.

It was stressed that during the Cold War little importance was placed on the potential dangers of this type of weapon in comparison with all the other types of weapons of mass destruction (WMD).

In fact, it was explained that it was as recently as this decade that people became aware of the threat they represent, especially when the inspections carried out by UNSCOM in Iraq led to the discovery of a large biological arsenal. This had been developed in only five years and included different types of agents suitable for use in tactical, strategic (Al Hussein warheads with anthrax, botulinum toxin and aflatoxins) and economic (pathogenic fungi to attack cereal crops) weapons.

In this respect, it was recalled that in the past there were various programmes for the production of agents on a military scale; among those which stood out were those developed by Japan, the United States, the United Kingdom, the former USSR and of course, Iraq.

It was pointed out that application of the techniques and knowledge resulting from the current biotechnology revolution could facilitate and even reduce the costs of production of biological agents on a military scale.

Similarly, these developments had opened up new dangers in this field, among which were:

1. Using the techniques of genetic engineering, organisms could be created which would adapt more closely to warfare requirements;
2. The advances in the Human Genome Project present the danger of the development of ethnic weapons;
3. The important advances in the understanding of the human nervous system could also lead to new opportunities for the development of anti-personnel agents.

To this paradigm are added the resurgence of diseases which were thought to be under control (tuberculosis) and the emergence of new diseases (ebola) in a context in which it is not possible clearly to distinguish epidemic outbreaks caused by natural mutations of micro-organisms from others which could have been induced by genetically manipulated pathogens.

Similarly, it was explained that generally in the face of a biological attack it is only possible to confirm its occurrence when the symptoms appear, which makes identification of the possible attacker more complicated due to the time

elapsed between the actual attack and its discovery. The attack presents similar characteristics to an indiscriminate act of terrorism, but in reality it could constitute a planned act of war.

It was considered that, due to the unlimited extension of the NPT and the fact that the CWC was soon to come into force, biological weapons could come to be the option selected by the potential proliferating countries; especially if account is taken of the fact that there is no existing mechanism for verification and that technically, biological weapons are comparable in their destructive capability to strategic nuclear weapons.

This danger will be increased if it is borne in mind that the knowledge, materials and equipment needed to carry out a biological agent programme are technically and economically accessible to a large number of countries (in fact it is suspected that there are approximately ten which have already made progress in this field).

In this context the major differences which separate the biological option from the nuclear stand out, as the time and financial and human resources required for the execution of an atomic programme are much greater.

On the basis of what had been stated above, it was concluded that the BTWC is the weakest link in the context of the counter-proliferation of WMD as it still does not have a system of verification to monitor compliance with the Treaty in the field.

In this respect, emphasis was placed on the importance of reaching an agreement to achieve acceptance of the measures resulting from VEREX on the part of the signatory countries, which could be achieved during this year if they can reconcile the industrial and economic interests associated with the biotechnology sector and the international issues.