First Meeting
Geneva, 10 – 14 November 2003

Meeting of Experts
Geneva, 18 – 29 August 2003
Items 5 and 6 of the provisional agenda

BIOTECHNOLOGY, BIOLOGICAL WEAPONS AND BIOTERRORISM
Notes from Paris Seminar of 9 April 2003

Prepared by France

Session 1: Bioterrorism: a post-9/11 assessment

1. 9/11 was an attack of strategic dimension, intended to kill a mass of people, to overwhelm and disrupt administration and daily life in the United States and provoke financial consequential effects on international trade and the banking system. This strategic dimension links it to biological weapons which in essence are of strategic use.

2. 9/11 changed our perception of risk assessment and risk minimisation. It provoked world panic largely increased by the disproportionate attention of the media and unsurprisingly was followed by an explosion of hoaxes.

3. Terrorists are not bound by international treaties.

4. Proliferation is on the increase. Bioterrorism appears to be more and more accessible to terrorist groups. Terrorist attacks may happen in any country. Large-scale attacks are forecast. Control of biological terrorism will become increasingly difficult in coming decades. The dual-use nature of the agents and research, development and production of agents (for vaccine by example) add to the complexity of the task.

5. Terrorist attacks can strike not only humans, but animals and plants and can also target facilities producing agents. Risks are increasing with technology and therefore remain a concern for the future. However, this is not a reason for being inactive. Solutions must be sought in order to prevent disasters.

---

1 All views expressed in this summary are based on the recollection of the organizers and do not necessarily reflect the views of the participants.

2 Submitted by France and reproduced without change.
6. As risks increase with science, the temptation to prohibit research and science would be the wrong solution. Progress for humanity needs to be made. The issue is to be able to prevent scientists from taking the wrong way: codes of conduct, courses at university for technicians and scientists may be of assistance in that regard. The media may be used as well to inform scientists. Transparency in works/research and studies is to be re-examined; recipes must not be given to terrorists.

7. A lack of interest with regard to individual rights seems to be developing, especially in parts of the US.

8. Among the lessons learned is the development in many countries of networks of laboratories and techniques to detect and identify biological agents. The level of preparedness has increased.

9. There is a need for an integrated set of policies and regulations to be put into place internationally and nationally as soon as possible.

Session 2: Legislation and regulations on lab safety, transfer and trade of biological agents, biotech security, cooperation.

10. The Protocol has come to an end and we have to find new ways to fight against proliferation and bioterrorism. The road has been opened by the success of the 5th Review Conference and the annual meeting of experts that will compare notes and review some national legislation related to bio-security and BW prohibitions, including bio-terrorism.

11. Two aspects must be present during discussions: identification of national concerns for each States Party, and necessity of coordination among States Parties. It is essential to standardise as far as possible these regulations. Any weak point that leaves room to manoeuvre will be used by terrorists who will take advantage of it to proliferate.

12. With the demise of the protocol, three important aspects have disappeared:
   a. A forum for debating,
   b. Knowledge of many people (new diplomats will handle the future Review Conferences and work; continuity and experience in that field are essential assets),
   c. The international organisation that could have done a lot.

13. Before 9/11, EU countries had already put into place some legislation and most have improved it since.

14. The questions that were addressed during the session were:
   - Have we implemented the Biological Weapons Convention and created a framework of:
     a) Laws, decrees?
     b) Criminalisation?
What do we have or should we do about biological agents?
   a) Ensure their security (where they are stored),
   b) Limit access (control, transfers and commerce
   c) Limit genetic modifications, especially those aimed at increasing pathogenicity.

Awareness of the scientific community?

What about codes of conduct and information at University?

Is strengthening the Australia Group enough to control dual use equipment access?

Eventually, how do we intend to co-ordinate our actions?

There is an increasing demand for exchanges at a national level among people of industry, academia and governments. State actors have to switch their defensive work from battlefield to bioterrorism.

15. Setting regulations and legal measures against bioterrorism is a very hard and complex task.

16. Export controllers have the feeling that their work is a success but people working around the Convention know how difficult and even incorrect this may be. Export controls alone are not the solution but just a part of it. No measure in itself will be sufficient to prevent proliferation. Synergy among measures is certainly the key.

Session 3: European Union: adaptation to the post 9/11 context.

17. European States have compiled their legislation and identified deficiencies. Their response to the bio-threat must be unified, follow a common strategy and must be adapted to this dynamic international environment. Policies should go in three directions:
   a. Address the EU-internal dimension, ensuring the coherence of EU policy and thereby its compatibility with the European project;
   b. Aim at strengthening the Biological Weapon Convention as a whole;
   c. EU policy has to engage the US, but also regional actors, outside the context of the global regime.

18. Activities of EU policy should include threat assessment, norm expansion and strengthening, as well as issues of compliance with the norms.

19. A regional approach would be most helpful: the Organisation of American States (OAS), the Association of South East Asian Nations (ASEAN) or the Economic Community of the West African States (ECOWAS) could be interested in comparing the current state of their legislation with what is being carried out among the original EU members. Why not dream about a “Bio-weapons free zone”? Such an approach could prove itself innovative and useful as it could avoid the "classical" negotiating Groups (WEOG, NAM) and their specific dynamics.
20. New regulations must apply to the largest number of countries and especially to those experiencing problems of competitiveness. Industry is not opposed to a set of measures to reinforce the biological convention but would like to see those applied universally. There is no reason to adopt measures that penalise only western countries.

21. No measure should be imposed on the industry if the US doesn't apply it to itself. The US must be on board.

22. Science and industry need to be involved in the fight against proliferation and in the identification and elaboration of regulations that may be taken by countries.

Session 4: Epidemiological surveillance: training, detection, research.

23. This session addressed public health. Dangerous pathogens abound in nature and have to be dealt with. There is a common need for a scientific and administrative/organisational tool allowing member-states to face this bio-threat, whether it is linked to bio-terrorism or nature-borne.

24. A public health approach allows us to counter both threats. The World Health Organisation (WHO) is the key player in this field. WHO has strengthened its epidemiological capability to add deliberate use of biological agents. It is based on three pillars:
   a. Containing known risks, (plague, malaria, anthrax, influenza, smallpox, etc.) and developing guidelines and norms;
   b. Improving prevention. Work done at the Lyon WHO Centre was presented, necessity to transfer as soon as possible samples for analysis in order to avoid a burst of outbreaks, existence of booklets;
   c. Answering the unknown. WHO information is available to a limited number of specialists all over the world, 144 regional centres help to fight new outbreaks. Development of epidemiological networks (Gphin, Promed, etc.) has changed access to information and now an outbreak is known very quickly and allows WHO to react very quickly. Some countries still do not accept or request help from WHO quickly enough to stop an outbreak when it appears and take necessary measures. However, this is not frequent and the current example of China with SARS will hopefully serve as a lesson to all of us.

25. States need to trust WHO to exchange information. At the same time they will do it if they know that they will be helped if necessary.

26. Biological agents have a natural tendency to mutate easily and pose new threats. It is obvious that the world will have to face new diseases or emerging diseases. This happens every year at one place or another. To face this, worldwide collaboration is the only solution. The WHO is not the answer in itself, just a part of it.

27. Training, detection of an outbreak and fundamental research become extremely important. Training and education may also be the most effective preparation for a terrorist. Unlike chemical terrorism, the first responders to a bio-terrorist event may be physicians in clinics and hospitals.
28. Education of citizens, emergency responders and political leaders is also absolutely essential.

29. It would be of utmost importance to have detectors able to react very quickly against biological agents. Such detection would allow authorities to stop the outbreak in its early stages when only a very small number of people are infected. However, real time detection is not for tomorrow and seems independent of the huge amount of money that has been spent.

30. It is very important to favour early diagnosis to block outbreaks. Some actions are done in the US with doctors in hospitals. They have available information and pictures on disease symptoms.

31. Improving medical surveillance and other public health capabilities will serve for classical health monitoring as well as for bio-terrorist-induced outbreaks. Basic medicine that supports vaccine, drug and diagnostic development will also contribute to the general health and well-being of citizens of the world.

32. Establishing the proof of an attack and identifying the responsible attacker will always be difficult, even with progress of science.

**Forum conclusions**

33. Bio-terrorism is a reality. States all around the world have to deal with it. Governments plan protective measures on a local, regional and national level, but have to undertake joint planning with other institutions. Improved co-ordination and planning is an urgent need.

34. It is up to all of us, officials, business executives, scientists, academics and research institutes to take up the challenge: first of all on the national level by heightening public awareness, then by recommendation of concrete measures in a regional framework, and finally through international co-operation with the help of WHO.

35. The organisers of the seminar hope that the BWC meetings of August and November 2003 will validate the pragmatic approach tested during the seminar and use the same methodology:
   a. comparing notes;
   b. common understanding about best practices;
   c. regional approaches and co-operation; and,
   d. international co-operation.