



Chemical and Biological Threats

Some comments

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In response to the presentations on the protection of critical infrastructure and the assessment of the threats posed by chemical and biological weapons (CBW) and the measures to counter these threats taken in the Nordic and European frameworks (European Union and NATO), I will make four sets of comments.

1. The threat posed by CBW has to be placed in perspective.
 - a. The total number of fatalities from chemical and biological warfare in the 20th century (including World War 1 and the 1980–88 Iran–Iraq war) is much less than the number of people who were massacred by machetes, etc. in Rwanda.
 - b. The World Health Organization (WHO) estimates that some 16 million people die each year from infectious diseases (the figure excludes non-infectious diseases). This means that every two hours more people die from infectious disease than the number of fatalities in the terrorist attacks of 11 September 2001.
 - c. After World War 2 more people lost their lives or had their health permanently damaged as a consequence of the human experiments related to the research and development of chemical and biological warfare agents and the development of defences against them in Western democracies than to the hostile use of such agents.
 - d. Studies suggest that since the beginning of the 20th century there have only been nine cases in which the possession of biological agents by terrorist organizations has been proven. (The other confirmed cases had criminal intent.) Of these only two led to casualties: the 1984 Rajneesh cult use of salmonella and the 2001 anthrax letter attacks.

These figures are not to diminish the threat posed by chemical and biological agents. However, the threat should not be considered in absolute terms as this may lead to misguided policies to protect the population (e.g., investment of massive amounts of money in a few relatively rare diseases like anthrax and smallpox, while neglecting a society's everyday health requirements) and draconian measures that could diminish the democratic content of our societies.

2. The terrorist attacks of 11 September 2001 have provoked a tendency to 're-nationalize' security, despite the fact that the consequences of an attack with chemical and especially biological agents (e.g., highly infectious diseases) might have important transnational consequences. Following the WHO warning regarding smallpox in 2001, some European Union (EU) countries believed that they could replenish their smallpox vaccine stocks by means of imports from neighbouring countries. However, they were rebuffed on grounds of national emergencies and had to set up their own research, development, and production programmes. Joint preparation and coordination within the EU should be an absolute priority in order to set up adequate and cost-effective defence against the

deliberate release of chemical or biological agents and to prevent the breakdown of procedures at the critical moment. The re-nationalization of security is also reflected to a certain extent in the proliferation of level-4 bio-safety laboratories (BSL-4) in Europe. The possession of such a lab contributes to the sense of national security, but they also increase the number of people with the critical knowledge and skills to handle the most dangerous pathogens. Here too, EU-wide coordination and cooperation may be advised. The Nordic cooperation with regard to the BSL-4 in Stockholm can serve as an example.

3. As noted earlier, the focus should not only be on the number of potential casualties. One should also look at the impact of the terrorist or criminal release of chemical and biological agents on infrastructure and economic activities.
 - a. The Brentwood postal facility, through which the anthrax letters passed in September 2001, has still not reopened. Parts of the US Senate buildings were closed for considerable time.
 - b. In terms of restarting economic activities, it should be noted that standards for safe decontamination (e.g., how many anthrax spores can be allowed to be present in a building) are lacking. Military standards may not be acceptable in civilian settings. Such standards should be established in advance in order to allow the speediest resumption of activities. This is one important lesson from the anthrax attacks in the United States.

4. Small countries should make their independent assessments of the threat posed by chemical and biological agents. The threat faced by the United States, as amplified through the US press, is not the threat to small European states, like the Nordic countries. Several generic measures can easily take care of 80 per cent or more of the threat with chemical and biological agents small countries might face. These include:
 - a. The development of national legislation penalizing all preparations for the release of chemical and biological agents with the intent of harming humans, animals, plant and crops, or the environment; the possession of such agents; and their use. In this way, terrorists or criminals can be apprehended even before they commit their acts. Such legislation can be based on the General Purpose Criterion in the Biological and Toxin Weapons Convention and the Chemical Weapons Convention. It should ideally be coordinated in the EU and Nordic frameworks, because the terrorists and criminals may seek out the country with the weakest legislation as a safe haven from which to plot their activities.
 - b. Most measures to deal with the consequences of the intentional release of chemical and biological agents can be generic. They include investments in the general health infrastructure, the establishment of sufficiently specialized laboratories in selected

hospitals for rapid identification of agents, the training of medical doctors as part of their annual courses in early recognition of the symptoms of unusual diseases (like anthrax or smallpox) and of first responders in dealing with such outbreaks or exposure to toxic chemicals, the distribution of appropriate analytical and diagnostic equipment to civil defence teams, the establishment of adequate stockpiles of medication and emergency equipment, and so on. Massive investments in preparing for low probability events (despite the potential for high consequences) will lead to questions regarding the return on investment similar to the those relating to, for example, the construction of nuclear shelters during the Cold War (Sweden and Belgium, for instance, answered them differently).

- c. As a consequence of their expertise and preparations for NBC warfare, the military are likely to play a central role in civil emergencies involving the deliberate release of chemical or biological agents. Careful advance consideration should be given as to whether such an event should be treated as a military or a civil emergency (especially if foreign involvement is suspected) and what roles different agencies shall play in order to protect the fundamental pillars of democracy.