



ILLICIT TRAFFICKING OF NUCLEAR AND RADIOLOGICAL MATERIALS

Workshop on Legal Cooperation to Control Non-State Nuclear Proliferation: Extra-Territorial Jurisdiction and UN Resolutions 1540 and 1373

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Introduction

1. Good afternoon everyone. First, let me thank the Nautilus Institute for Security and Sustainability for their kind invitation to be here today. Peter's first question to me over the phone was whether those who try to tackle the illicit trafficking of nuclear and radiological materials face a 'crazy quilt work of mismatched approaches' and whether this effort needs to be brought onto a treaty base. This is a difficult question, obviously, and well beyond my ten minutes.
2. This presentation addresses the problem of illicit trafficking of nuclear and radiological materials across international borders. At VERTIC, we have been looking at this under a seed project funded by the UK Foreign & Commonwealth Office. In part, our work falls under our National Implementation Measures (NIM) Programme.
3. Since we established the NIM programme, we have conducted over 100 qualitative legislative surveys (on biological weapons relevant regulations). We have, in addition, conducted more than 30 assistance actions worldwide, and have contributed to the enactment of several legal instruments in the countries we work with. Our work has showed, over and over again, that the quantitative analysis produced by, for instance, the 1540 Committee only addresses part of the problem. Each individual piece of legislation in each country needs to be reviewed—this is a mammoth task.

Effectiveness of legislative response

4. We had a very interesting discussion about the deterrent effect of legislation. In my mind, the effectiveness of any legislative response ultimately rests on three variables:
5. The *perceived benefits* for the criminal to conduct the criminal act. This is, of course, a subjective element. Not all criminal acts are rational—I would argue that many are far from that.
6. The *subjective risk of getting caught* while conducting the act, or afterwards. Again, this is a subjective element. The legislation may prove to be a deterrent if the criminal thinks that the risk of getting caught is high, even if it objectively is low. Again, some criminals will not be deterred by a high detection rate. The act may be irrational.
7. The *consequences—from the viewpoint of the criminal—of being caught*. Quite obviously, if the criminal is undeterred by the punishment, he will conduct the act anyway. A fundamentalist may not be deterred by capital punishment, for instance.

The scale of the problem

8. According to the Database on Nuclear Smuggling, Theft and Orphan Radiation Sources (DSTO), run by Stanford University, a total of 39 kg of HEU and plutonium have been seized by law-enforcement forces worldwide between 1992 and 2005. Some instances of smuggling have clearly been caught in the net—the question is, of course, how fine the net is. If only one kilogram in ten has been picked up, there could be very significant amounts of weapons usable material available on criminal markets. This is a point often made by Lyudmila Zaitseva and Friedrich Steinhausler at the University of Salzburg. The concern is, of course, that professional smuggling networks—like those involved in the drugs trade—may also be involved in trafficking materials.
9. Most instances of illicit trafficking, however, do not involve weapons usable materials such as uranium and plutonium. The Illicit Trafficking Database, for instance, has catalogued 1773 incidents from January 1993 to December 2009. Of these, ‘351 involved unauthorized possession and related criminal activities’. But only fifteen incidents in this category involved high enriched uranium (HEU) or plutonium.
10. We have heard today that making an improvised nuclear device may be quite simple. However, it cannot be done without access to fissionable materials. ‘*Mass-effect terrorism*’ may just as well involve the use of radiological materials. While rare, these still exist in relative abundance, and seem to be the preferred commodity for many trafficking rings.
11. So what international authority exists to tackle the illegal movement of radiological materials across international borders?

The response by the Security Council

12. United Nations Security Council Resolution 1540 may cover this phenomenon. However, its language leaves many open questions. It is interesting, for instance, that the Council recognizes that ‘most States have undertaken binding legal obligations under treaties to which they are parties, or have made other commitments aimed at preventing the proliferation of nuclear, chemical or biological weapons’. When most say ‘nuclear weapons’, for instance, they do not have radiological weapons – so called dirty bombs – in mind. Instead, they would likely think about fission or fusion weaponry.
13. The resolution defines related materials as ‘materials, equipment and technology covered by relevant multilateral treaties and arrangements, or included on national control lists, which could be used for the design, development, production or use of nuclear, chemical and biological weapons and their means of delivery’. This would suggest that the materials covered by the IAEA Statute—primarily uranium and plutonium—would be the primary focus of the resolution.
14. Hence, it would be logical for the resolution to cover radiological materials also. And indeed, the resolution does refer to ‘effective measures to account for, secure and physically protect sensitive materials, such as those required by the Convention on the Physical Protection of Nuclear Materials and those recommended by the IAEA Code of Conduct on the Safety and Security of Radioactive Sources’.

15. Operative paragraph 3 (c) of the resolution contains the imperative language. It stipulates that all states shall ‘develop and maintain appropriate effective border controls and law enforcement efforts to detect, deter, prevent and combat, including through international cooperation when necessary, the illicit trafficking and brokering in such items in accordance with their national legal authorities and legislation and consistent with international law’.

Trafficking of nuclear materials

16. The illicit trafficking of nuclear materials is covered by several instruments.
17. The principal instrument is the Convention on the Physical Protection of Nuclear Materials. The treaty now has 145 parties (five years ago the number stood at 116). It’s a complicated treaty, but calls for the criminalization of, for instance, ‘An act or attempted act undertaken without lawful authority which constitutes the receipt, possession, use, transfer, alteration, disposal or dispersal of nuclear material and which causes or is likely to cause death or serious injury to any person or substantial damage to property’
18. The Convention contains rules relating to jurisdiction, extradition, and guarantees the fair treatment of persons suspected of crimes under it.
19. By contrast, the illicit trafficking of radiological materials is primarily covered by the IAEA Code of Conduct on the Safety and Security of Radioactive Sources. This code recommends that the state, amongst other things, enact ‘security measures to prevent, protect against, and ensure the timely detection of, the theft, loss or unauthorized use or removal of radioactive sources during all stages of management’.
20. The code of conduct is not legally binding. It is not a convention. However, anecdotal evidence suggests that it is being implemented in several dozen states. More research is needed to assess the effectiveness of such measures.
21. The International Convention for the Suppression of Acts of Nuclear Terrorism may be applicable on acts of trafficking of nuclear and radiological materials, but only under certain conditions. Someone simply moving materials for a terrorist group must do so intently with the aim of furthering the objectives of that group or in the knowledge that the group will use the material to cause death, serious bodily injury or substantial damage to property or the environment. This may be difficult to prove in a court of law.

Implementation assistance and future action

22. Legislative assistance and implementation guidance are being provided by the International Atomic Energy Agency. However, there has been no public study into how harmonized these regulations are. There is, of course, a risk that all countries implement as much, or as little, as they see fit, and that they employ their unique legislative traditions in so doing. I say, ‘a risk’, since this is a trans-boundary problem, which requires, I would argue, a transnational solution.
23. However, it would be premature to push for the establishment of a new international legal instrument until a proper assessment has been done on the adequacy of already existing documents.