



# INTERNATIONAL COOPERATION IN THE COMBAT AGAINST NUCLEAR TERRORISM AND THE ROLE OF NUCLEAR ARMS CONTROL

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## CONFERENCE REPORT

A joint conference of  
Federal Foreign Office of Germany  
Peace Research Institute Frankfurt (PRIF)  
United Nations Institute for Disarmament Research (UNIDIR)

### ***Introduction***

In the area of international cooperation in the combat against nuclear terrorism, there clearly remains a great deal of work to be carried out. Perhaps most important, however, is overcoming political inertia. The CD dropped the issue of radiological weapons 10 years ago, due to difficulties over their definition. Even earlier - 16 years ago - there was a proposal to create an instrument to deal with radiological weapons. There were terrorist groups operating at that time also. Governments are slow. Today's environment means that such recommendations are not only still valid, but much more urgent. Today's terrorists want to kill in large numbers, and nuclear or radiological weapons lend themselves well to such purposes.

What follows below is a synopsis of the issues raised in the discussion sections of the conference 'International Cooperation in the Combat against Nuclear Terrorism and the Role of Nuclear Arms Control.' The main themes have been broken down into broad subject categories below.

### ***Dirty Bombs, and their technology***

Radiological weapons, or dirty bombs, are one of the central concerns regarding nuclear terrorism. The information on how to build this kind of weapon can be found on the Internet, but whether a dirty bomb has actually been constructed is uncertain. The fear may have been exaggerated in the media, but fear is perhaps one of the most destructive factors behind these weapons – even a tiny radiological weapon could cause widespread panic and terror, regardless of the physical damage that it might be capable of causing. There is no clear definition of a dirty bomb. Accurate threat assessments are needed,

detailing the risks, availability of material, consequences and the necessary responses. Types of material are important - waste material could certainly be useful to terrorists, but spent fuel is difficult to divert, and is unwieldy and radioactive, thus difficult to use. Concerns were raised regarding the utility of low-level, un-enriched nuclear waste in making a radiological weapon that would burn and spread radioactive material over wide areas. The level of radioactivity would affect its usefulness, but also the degree of difficulty in using it. There is little agreement as to how hazardous or useful different nuclear materials are. It is often assumed that terrorists would use the high-technological methods found in Western militaries, but so far, most terrorist acts have used low-technology approaches. More must be understood about how these can be made by terrorists. Beyond material, accessibility and motivation must also be born in mind.

There will be a great deal of future debate about how to define radiological weapons, and what materials should be included. A narrow definition may be preferable, as it would lead to a more binding regulation.

### ***Attacks on nuclear facilities***

An attack on a nuclear power plant could in theory create a situation similar to Chernobyl. The fear of an aircraft being flown into a reactor core and breaching it, which has perhaps become rooted in the public's mind, is unlikely - it would have to execute the almost impossible manoeuvre of flying in from directly above, due to reactor design. Nonetheless, there are still other vulnerabilities, such as attacking the ponds containing spent-fuel, using massive truck-bombs, or attacking the electrical components of nuclear plants. There are a great many scenarios that have not received sufficient examination, at least not publicly. The fact also remains that spent fuel contains heavy metals, which are highly toxic substances, and the resulting health effects could be very different from those generated by radioactivity.

The point was raised that, given the number of scenarios and loopholes, the cost of adequately protecting nuclear facilities was becoming punitively high, meaning that terrorists were effectively succeeding in one of their goals.

The definitions used in nuclear security were questioned, namely, the distinction between the terms nuclear 'safety', and nuclear 'security.' In many languages, there is no distinction. In the English arms control lexicon however, the term nuclear safety refers to the prevention of accidents. Security, on the other hand, is concerned with events that are pursued with intent. A probabilistic approach cannot therefore be used when thinking of security. These topics are distinct but interactive, and both should be considered simultaneously.

While some argued that the complete elimination of nuclear power would be the only way of truly eradicating the danger, a more immediate strategy would be a thorough assessment of all possible threat scenarios, and an application of international standards to reactor protection. While the development of international standards may result in compromises, this is still preferable to inaction.

### ***Non-state actors***

There were questions as to the definition of non-state actors, the role that they play, and how they can be brought within the arms control process.

While the broad definition of non-state actors includes NGOs, think tanks and other similar institutions, the term is increasingly coming to mean terrorist organizations. The groups of concern to us in this discussion are those who use nuclear material outside the bounds of state behaviour. To deal with such actors will require all the instruments at our disposal, with the focus on the most immediate, such as physical protection. This however, does not resolve the problem of transnational terrorist organizations in failed states, which are hard to tackle.

Within the broader definition, NGOs are essential in motivating governments to act, and to stimulate debate. In the area of nuclear security, debate is needed within states, as are linkages between policy makers on the one hand, and academics and NGOs on the other to bring legitimacy to decisions.

There was a strong sense from the state representatives that recent history has reaffirmed the primacy of the sovereign state within the international system, as well as the potential risks that lie ahead if the Westphalian order is experimented with too much. The entire global order could unravel. While NGOs and others have an important role, it was stressed that the state is still the fundamental institution of the international order.

### ***Arms control and disarmament through the prism of terrorism***

There was a concern that after the 2001 attacks on the Twin Towers and the Pentagon, the issues of arms control and disarmament were being viewed solely from the perspective of terrorism. Even the NPT and FMCT are being explained - by some - exclusively in terms of fighting terrorism. Considering such a complex issue in a simplistic way is not always useful, and carries the risk of forgetting some of the more serious aspects of arms control and disarmament, and therefore unravelling the existing structure of arms control. Disarmament can certainly help combat terrorism, but it has the wider aim of maintaining peace and security between states, and this seems in danger of being overlooked. Terrorism is not merely an arms control issue, and the September 11 attack was not an arms control failure.

Nonetheless, nuclear terrorism is a pressing problem that must be taken into consideration. Furthermore, there is little worry that 'traditional' security concerns will be forgotten – there have been enough of those to keep them firmly in our collective thinking, such as the recent South Asian nuclear confrontation, the concerns over Iraqi weapons of mass destruction, and the North Korean nuclear revelations and their pullout of the NPT. What perhaps is needed is a larger framework that encompasses all aspects of nuclear concern.

### ***Fissile Material Cut-off***

The importance of the fissile material controls was raised. A treaty on fissile materials would be a key instrument in controlling nuclear materials, reducing the dangers of it being stolen. However, there is no illusion that such an agreement is possible in the near future, and that in the short-term its effectiveness as a treaty cannot be assumed. It was suggested that bilateral or plurilateral measures, along the lines of the US-Russian-IAEA Trilateral Initiative, which has been quite effective, might represent a useful step here. Another approach would be to use the G-8 framework - agreement by the P-5 and others could strengthen this, as would an agreement on a moratorium on fissile material production, including making the moratorium universal. The issue of stocks and how to include them in a fissile materials control agreement is paramount for a large number of countries.

In the short-term, more attention needs to be paid to civil nuclear materials being obtained by non-state actors. Proposals for a fissile materials cut-off treaty have not thus far been designed to fight nuclear terrorism, and such a treaty would certainly help in these efforts through the limitation of nuclear materials.

### ***Transparency***

It was stated that transparency is more important now to international security than ever before. While there have been suggestions in the past which would have strengthened transparency, and even attempted to create a transparency regime, none of these ideas have seen fruition. At the conference, three processes of transparency were outlined: voluntary, involuntary, and coercive.

It was noted that, while many research institutes publish data on fissile materials, states have mostly shied away from full disclosure.

The concept of transparency may not always be universal, due to cultural factors. If transparency is considered to undermine unilateral security, then it will not be accepted. Nonetheless, common ground can be found, and indeed the purpose of the CD, and the UN more widely, is to prove a forum through which different states can come together and agree on such issues (this has been achieved in human rights for instance). Thus different understandings of transparency are not necessarily insurmountable obstacles. Additionally, transparency measures are only applied to ensure that treaties are complied with. They do not imply revealing sensitive information over and above what is necessary, for instance expertise, measures of physical protection and storage information.

Another point of discussion focused on the boundaries of transparency. Increased transparency is only useful if these are clear. Certain information must be released to ensure trust, but other information must remain classified within intelligence communities for security and non-proliferation purposes. Opinion on this varies widely, and does not always reflect the relative power between states – while certain

smaller states demand increased transparency from the strong, other small states are the least transparent. So where should the boundaries lie?

What is needed is a mechanism that distributes knowledge on a need to know basis. It was said that the IAEA could broadly be thought of as such an institution. It works on behalf of the international community, but on the condition of confidentiality.

There was a question as to the relationship between coercive transparency and international law. As the latter is based on equality, and has evolved to protect the weak, can it continue to evolve under a hegemonic order? The implementation of international law under these circumstances would therefore be based on coercion.

In cases such as Iraq, UNSCOM and UNMOVIC coercion is clearly related to international law in that a member state has not complied with UN Security Council resolutions. It would be far more problematic if the coercion did not carry legitimacy, and there was no broad support for the UN Security Council-backed coercive inspections.

### **Some final thoughts**

As stated at the beginning of this report, progress in this area is vital. Though the world has yet to suffer a devastating act of nuclear terrorism, if we do not overcome political inaction, and focus our collective attention on the issues raised at this conference, then present developments will surely lead to one. The objective of terrorists today is to cause widespread fear, death and destruction. There is nothing better suited to the task than radiological and nuclear weapons.