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THEMENSCHWERPUNKT

Non-integrative arms control

Assessing the effectiveness of new approaches to preventing the spread of weapons of mass destruction¹

Oliver Meier

Abstract: Non-integrative nonproliferation instruments, a relatively new form of arms control, are dominated by a few states that aim to control the supply of dual-use technologies to states of concern and non-state actors. Coercive mechanisms such as the Proliferation Security Initiative, United Nations Security Council Resolution 1540 and the Global Nuclear Energy Partnership, however, are hampered by weak compliance and a lack of institutional support. They are not as effective as proponents claim but can be improved by being brought in line with multilateral regimes to control the spread of biological, chemical and nuclear weapons.

Keywords: Rüstungskontrolle, Nicht-Weiterverbreitung von Massenvernichtungswaffen, Multilateralismus, US-Außenpolitik

A new type of arms control has emerged since 2003. Non-integrative nonproliferation instruments are different from multilateral regimes such as the 1968 Nuclear Nonproliferation Treaty (NPT), the 1972 Biological Weapons Convention (BWC), the 1993 Chemical Weapons Convention (CWC) and the 1996 Comprehensive Nuclear Test Ban Treaty. These global treaties aspire to universality and are based on the equality of member states. Rules, norms and procedures are agreed by consensus and detailed in legally binding documents. Nonproliferation, disarmament and cooperation are

linked in order to broaden participation. Last but not least, states voluntarily choose to be bound by these regimes.²

The general crisis in arms control, the Bush administration's opposition to binding multilateral agreements, the perception that the threat of terrorist attacks using weapons of mass destruction (WMD) is growing and declining faith in the ability of multilateral regimes to prevent the spread of nuclear, biological and chemical dual-use technologies have caused many Western states to shift political attention to non-integrative approaches to arms control. These are characterized by some or all of the following attributes:

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² On these traditional concepts underlying multilateral arms control see for example Harald Müller: *Die Chance der Kooperation: Regime in den Internationalen Beziehungen*. Darmstadt: Wissenschaftliche Buchgesellschaft, 1993.

- A select group of states («coalition of the willing») defines rules and norms.
- Institutional structures for implementation support are rudimentary, and legally binding obligations are avoided.
- The scope is narrow, issue-specific and focused on nonproliferation. Reciprocal commitments and issue linkages are rejected as diverting from the core purpose.
- Coercive measures, rather than inducements, are used to achieve compliance.

Export control regimes are a forerunner of such non-integrative approaches but differ in two ways. Export control regimes mainly aim to harmonize policies among participants, while non-integrative instruments do not necessarily oblige members to conform to specific standards or procedures. Also, the implementation of export control regimes rests on lists of controlled goods and technologies, while non-integrative mechanisms avoid specifications of obligations.

Politically, non-integrative arms control instruments put powerful states at an advantage and are designed to increase their freedom of action. These states set the agenda and define the rules. Most of these new approaches have been created by the United States or are at least strongly supported by the Bush administration.³

Proponents claim that, compared to old-style arms control, non-integrative approaches

- can be created more easily,
- have a better compliance record,
- are more flexible and
- are better suited to solving the problems created by the spread of modern weapons technologies.⁴

Thus, it has been argued that some traditional functions of arms control, such as constraining the militaries of great powers, should be deleted from the arms control agenda and that the new focus of arms control should be on preventing the spread of dangerous technologies to terrorist groups and so-called rogue states.⁵

This article will try to assess the performance of non-integrative arms control against the claims of the proponents of non-integrative instruments. Are states following the rules of such instruments more closely than under traditional regimes? How stable and robust are these mechanisms? And how effective are non-integrative instruments really in the fight against proliferation?

In order to answer these questions, the performance of three prime examples of non-integrative instruments, the Proliferation Security Initiative (PSI), United Nations Security Council (UNSC) Resolution 1540 and the Global Nuclear Energy Part-

nership (GNEP) are analysed. The article concludes with a few general observations about non-integrative approaches to arms control and some policy recommendations.

1. The Proliferation Security Initiative

On the morning of December 9, 2002, two Spanish warships intercepted the freighter *So San*, headed for Yemen, 600 miles off the Yemenite coast. Special forces boarded the ship, which was registered in Cambodia but did not show a flag. The Spanish soldiers discovered, hidden among its cargo, components for 15 Scud missiles, including warheads, as well as chemical agents suitable for the production of missile fuel. After Yemen's government, a U.S. ally in various counterterrorist operations, had given assurances that it would not export the missiles, that they would only be used for defensive purposes and that it would receive no similar shipments in the future, the *So San* was allowed to continue its journey and the missiles were unloaded in Yemen on December 14.

The *So San* episode triggered the creation of the PSI. On May 31, 2003, U.S. President George W. Bush announced the launch of the PSI during a state visit to Poland, arguing that »[w]hen weapons of mass destruction or their components are in transit, we must have the means and authority to seize them.«⁶ The President announced that a set of agreements would be reached so that planes and ships carrying suspect cargo could be searched and illegal weapons or missile transports could be interdicted. Subsequently, the PSI was hailed by Washington as a major innovation in the fight against the proliferation of WMD and described as the prototype for other nonproliferation efforts.

1.1. Compliance

On September 4, 2003, at the first international meeting of the PSI, eleven states endorsed »The Proliferation Security Initiative Statement of Interdiction Principles«.⁷ The two-page document is ambivalent on several key issues, including criteria for membership. The Interdiction Principles state that PSI members seek to involve »in some capacity« all states that are able and willing to take measures to stop the flow of proliferation-related items.

The issue of PSI membership is controversial among PSI participants and is seen as a trade-off between keeping the group small and reliable and involving states that can bring important assets to the PSI. Russia joined in May 2004, after concerns about the legality of the PSI had been resolved, but Moscow is keeping a low profile.⁸ China and India have so far not joined despite U.S. pressure. Both have concerns about the legality and

3 See for example Jofi Joseph: »The Exercise of National Sovereignty: The Bush Administration's Approach to Combating Weapons of Mass Destruction Proliferation«, in: *The Nonproliferation Review*, Vol. 12, No. 2, July 2005, pp. 373-387.

4 Similar points are made by the U.S. Special Representative for Nuclear Nonproliferation, Christopher A. Ford: »The Nonproliferation Bestiary: A Typology and Analysis of Nonproliferation Regimes«, in: *Journal of International Law and Politics* Vol. 39, No. 4, 2007, pp. 937-993.

5 See Michael A. Levi/ Michael E. O'Hanlon: *The Future of Arms Control*. Washington, D.C.: Brookings Institution Press, 2005, pp. 9-16.

6 White House, Office of the Press Secretary: *Remarks by the President to the People of Poland*. Wawel Royal Castle, Krakow, Poland, May 31, 2003.

7 The Proliferation Security Initiative: *Statement of Interdiction Principles*, Paris, September 4, 2003.

8 See Alexandre Kaliadine: *Russia in the PSI: The Modalities of Russian Participation in the Proliferation Security Initiative*, The Weapons of Mass Destruction Commission Report No. 29, Stockholm: WMD Commission, August 2005.

legitimacy of the initiative and also see it as interfering with national sovereignty.⁹

In reality, the PSI has three classes of members. An initial group of ten states was invited by the United States to join the PSI. That core group was dismantled in August 2005¹⁰ and has been replaced by the group of »active states«, which currently has 20 members. It is claimed that more than 80 states support PSI and its interdiction principles, but it is not clear who these states are, because only a fraction of them are willing to publicly state their support.¹¹ The United States has also signed boarding agreements that broaden the circumstances under which it has the right to search vessels sailing under the flags of several states on the high seas.¹²

Members and supporters of the Proliferation Security Initiative

Core members (2003)	Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the UK and the US	Participate in the Operational Experts Group
Active members (2007)	Argentina, Australia, Canada, Denmark, France, Germany, Greece, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Singapore, Spain, Turkey, United Kingdom and the United States	
PSI supporters	More than 80 countries	Support PSI Interdiction Principles
Boarding agreements	Belize, Croatia, Cyprus, Liberia, Malta, the Marshall Islands, Mongolia and Panama	Bilateral boarding agreements with United States

The Interdiction Principles state that PSI participants vow to work together to stop the flow of relevant items »to and from states and non-state actors of proliferation concern« without naming specific targets. Initially, the Bush administration saw

9 See for example The Ministry of Foreign Affairs of the People's Republic of China: *Proliferation Security Initiative*, June 29, 2004, <http://www.fmprc.gov.cn/eng/wjlb/zjzg/jks/kjlc/fkswt/fksaq/t141208.htm>.
 10 Then U.S. Under Secretary of State for Non-Proliferation and International Security, Robert Joseph, stated that the PSI »core group has done its job and we have now moved away from it« but others maintain that the core group was dismantled partly to address Indian concerns about the discriminatory nature of the PSI. See C. Raja Mohan: »Dismantling core group, US eases India's path to proliferation security«, *The Indian Express*, August 18, 2005.
 11 Mark J. Valencia: *The Proliferation Security Initiative: Making Waves in Asia*, Adelphi Papers 376, London: International Institute for Strategic Studies, 2005, p. 29.
 12 For details and texts of the agreements see <http://www.state.gov/t/isn/c12386.htm>.

the PSI as directed mainly against North Korea. At the first meeting of participants in Brisbane, the United States and Australia also tried to name Iran, Sudan, Syria und Libya as targets, but these attempts were blocked by other members of the core group.¹³ PSI has been criticised for applying double standards by assuring U.S. allies, and particularly the non-NPT states India, Israel and Pakistan, that they will not become targets.¹⁴

1.2. Institutional stability

John Bolton's catchphrase that »PSI is an activity, not an organization« has been used often to describe the fact that by comparison with other nonproliferation initiatives, the PSI has almost no institutional structure to support its activities. In essence, it is a network of bilateral relationships and arrangements between the United States and a select group of countries, which aims to stop WMD-related transports.

Rudimentary institutional structures include regular meetings by active members in the context of the Operational Experts Group and a list of national points of contacts. The Canadian government hosts a public PSI website¹⁵ but there exists no central repository for information sharing among PSI participants.

Domestic implementation on the part of the PSI participants is weak. For example, the State Department remains the key institution in charge of the PSI within the United States, but few other governmental agencies feel responsible for the initiative.¹⁶ To address the lack of accountability, the U.S. Congress has asked the administration to establish clear responsibilities for the PSI within each governmental department and to submit a budget for PSI-related activities.¹⁷ Nevertheless, weak institutionalization on the part of the participants – both internationally and domestically – makes the PSI susceptible to shifts in U.S. policy. Should a new U.S. administration decide to downgrade the PSI, there is likely to be no constituency and no permanent structure that would keep the initiative alive.

1.3. Effectiveness

Even five years after its launch, the effectiveness of the PSI is under dispute. Officials cite more than 20 cases of successful

13 Mark J. Valencia, *Making Waves*, op. cit., pp. 25-26.
 14 Asked whether the PSI would also try to control shipments of WMD-related goods to Israel, India and Pakistan, John Bolton replied in 2003 that »there are unquestionably states that are not within existing treaty regimes that possess weapons of mass destruction legitimately. We're not trying to have a policy that attempts to cover each and every one of those circumstances«. Wade Boese: »The New Proliferation Security Initiative: An Interview With John Bolton«, in: *Arms Control Today*, December 2003, Vol. 33, No. 10, p. 37.
 15 www.proliferationsecurity.info.
 16 See Ian Davis/ David Isenberg/Katherine Miller: *Present at the Creation: U.S. Perspectives on the Origins and Future Direction of the Proliferation Security Initiative*, BASIC Occasional Papers on International Security Policy, Number 54, London/Washington, D.C.: The British American Security Information Service, February 2007.
 17 U.S. Congress: *Implementing Recommendations of the 9/11 Commission Act of 2007*, 110-1, H.R.1, Washington, D.C., July 26, 2007, pp. 228-230. The House of Representatives also wanted to encourage the Bush administration to seek UN Security Council authorization for the PSI. See Miles A. Pomper: »House Approves Nonproliferation Initiatives«, in: *Arms Control Today*, Vol. 37, No. 2, March 2007, pp. 43-44.

PSI interdictions. But this number is hard to verify, not least because specifics are kept secret. There is, however, one notable exception.¹⁸ PSI participants have praised the October 2003 interception of the *BBC China*, a container ship sailing under German flag and transporting uranium centrifuges to Libya, as the initiative's biggest success. It has been argued that the interdiction was decisive in convincing Muammar al-Ghaddafi to give up his WMD programs.¹⁹ Regardless of whether this is true, key officials have admitted that the operation was part of a long-running scheme to unravel the nuclear network of A.Q. Khan, which was the supplier of nuclear technology to Libya, rather than a PSI success.²⁰

In June 2005, then U.S. Assistant Secretary of State for Arms Control, Stephen Rademaker, stated that in the end it is, »impossible to say whether an interdiction that took place involving a number of countries involved in PSI was a PSI interdiction«²¹ and it is partly this inherent vagueness about what constitutes a PSI activity that makes it difficult to define the added value of the PSI.

Practical limitations mean that the PSI is likely to have only a limited deterrence effect on proliferators. PSI participants can identify and interrupt only a small portion of relevant transports, making it easy to evade interdiction efforts. PSI is most likely to prevent illegal maritime transports of large goods, such as nuclear and missile-related cargo. Chemical and biological agents and related technologies may be all but impossible to detect. Likewise, PSI participants do not have the means to intercept transports by air and by land, unless such shipments cross the territory of a participating state.

Almost 30 PSI exercises to date have improved the capability of some participants to intercept relevant transports. However, it is difficult to assess whether the PSI has generally improved national interdiction capabilities or the exchange of intelligence information among participants, or whether participants have adopted relevant laws so that interdictions can take place. In June 2006, on the occasion of the third anniversary of the PSI's launch, U.S. Undersecretary of State Robert Joseph told PSI participants that the U.S. views improved information exchanges and the »need to sensitize and invigorate the attention to proliferation-related activities by our enforcement personnel across a range of disciplines, including financial regulators, customs officials, consular officers, and traditional law enforcement officers«²² as a future PSI priority, suggesting that more needs to be done to implement PSI nationally.

18 Two other cases of successful PSI interdictions have been cited, though specifics of those operations remain unclear. A senior U.S. official stated on the third anniversary of the PSI's launch that »PSI cooperation has stopped the export to Iran's missile program of controlled equipment and dual-use goods. One PSI partner has also stopped the export of heavy water-related equipment to Iran's nuclear program.« »Broadening and Deepening Our Proliferation Security Initiative Cooperation«, Remarks by Robert G. Joseph, Under Secretary for Arms Control and International Security, Warsaw, Poland, June 23, 2006.

19 See for example Donald Mahley: »Dismantling Libyan Weapons: Lessons Learned«, in: *The Arena*, No. 10, Chemical and Biological Arms Control Institute, November 2004.

20 Wade Boese: »Key U.S. Interdiction Initiative Claim Misrepresented«, in: *Arms Control Today*, Vol. 35, No. 6, July/August 2005, pp. 26-27.

21 Statement made June 3, 2005. Cited in Wade Boese: »Key U.S. Interdiction Initiative«, op. cit.

22 »Broadening and Deepening«, op. cit.

2. United Nations Security Council Resolution 1540

On April 28, 2004, the UNSC adopted Resolution 1540.²³ Its purpose is to prevent the spread of WMD, their means of delivery and related technology to non-state actors, and it obliges all states not to support non-state actors that attempt to acquire such technologies. States are also required to adopt effective laws and implement domestic controls so that access of non-state actors to WMD-related materials and technology is prevented.

Resolution 1540 builds on a number of legal precedents. A 1992 UNSC Presidential Statement (S/13200) for the first time called the proliferation of all WMD a threat to international peace and security, thus referring to Chapter VII of the UN Charter, which enables the Council to take coercive measures. In UNSC Resolution 1373, adopted on September 28, 2001, the Security Council noted with concern the close connection between international terrorism and »the illegal movement of nuclear, chemical, biological and other potentially deadly material«.

The Security Council has been criticised for assuming legislative powers because it adopted Resolutions 1373 and 1540 under chapter VII, thus forcing states to adopt stringent laws to prevent terrorist activities.²⁴ Initially, some non-aligned countries such as Brazil and Pakistan together with some non-governmental organizations also criticised Resolution 1540 for being unbalanced because of its insufficient emphasis on the disarmament obligations related to WMD.²⁵ Some also believed that the sponsors of the resolution, particularly the nuclear weapons states, were trying to legitimise their own nuclear weapons by including language on »illicit« weapons of mass destruction programmes, thereby implying that there could be »licit« WMD. Finally, some were suspicious that Resolution 1540 was an attempt to create a legal basis for interdictions in the context of the PSI. The agreed text allayed most of these concerns by referring to the full implementation of arms control and disarmament obligations and because references to the PSI were considerably weakened.

2.1. Compliance

The Security Council has set up a committee charged with implementing the obligations contained in the resolution. The record of compliance with Resolution 1540 has been mixed. Only 51 states fulfilled the requirement of submitting national reports within six months after the adoption of the resolution. At the end of 2006, about 75 per cent of all states had submitted reports, but their quality varies greatly. This record is comparable to the performance of other WMD regimes regar-

23 See also Volker Beck, this issue.

24 See for example Daniel Joyner: *UN Security Council Resolution 1540: A Legal Traveesty?* CITS Briefs, The University of Georgia: Center for International Trade and Security, August 2006; Andreas Zimmermann/Björn Elberling: »Grenzen der Legislativbefugnisse des Sicherheitsrats: Resolution 1540 und abstrakte Bedrohungen des Weltfriedens«, in: *Vereinte Nationen. Zeitschrift für die Vereinten Nationen und ihre Sonderorganisationen*, Vol. 52, No. 3, June 2004, pp. 71-77.

25 See for example Merav Datan: »Security Council Resolution 1540: WMD and Non-state Trafficking«, in: *Disarmament Diplomacy*, No. 79, April/May 2005, pp. 47-55.

ding obligations to translate international commitments into a national framework, suggesting that the threat of sanctions under Article VII of the UN Charter has not had a noticeable effect on compliance.

A more detailed look reveals that some states have merely adopted regulatory frameworks without taking effective measures to implement and enforce such rules and regulations.²⁶ Africa, the Middle East and South Asia are of particular concern, and many non-signatories to multilateral nonproliferation regimes come from these regions. Compliance has been bad, particularly in Africa, because of lack of capacity and other priorities.²⁷ The resolution recognises that states may need assistance to implement obligations. However, matching the donors and recipients of such assistance has been difficult. More than 40 states have requested assistance in implementing Resolution 1540, but many requests are vague and unspecific.²⁸

2.2. Institutional stability

When Resolution 1540 was adopted, the United States insisted on limiting the mandate of the 1540 Committee to two years. This was extended for another two years by UNSC Resolution 1673 of April 27, 2006, but it is not clear how long the committee will continue to operate beyond April 2008.

Another weakness is the lack of measures to follow up national reports. The 1540 Committee's role is limited to stocktaking and some basic analysis of national laws and regulations. However, it has so far not been able to evaluate how obligations relevant to Resolution 1540 are actually implemented. Such an analysis would be valuable in order to assess the quality of measures taken under the resolution and to enable decisions on more targeted improvements of domestic controls.²⁹

Because there are no binding controls on missile technologies and no international organization exists to implement the BWC, Resolution 1540 is the first time that a requirement has been created to report on national measures to control technologies related to biological weapons and missiles. At the same time, its obligations overlap with those of existing treaties. The BWC, CWC and NPT already oblige states parties to control chemical and biological weapons technologies. BWC and CWC prohibit the transfer of controlled items to »any recipient«, including non-state actors. The Organisation for the Prohibition of Chemical Weapons and the International Atomic Energy Agency (IAEA) are pursuing their own programmes to improve national implementation. Relations between the 1540 Committee and those multilateral institutions have not been

without tension, with each bureaucracy trying to protect its own turf.

2.3. Effectiveness

Resolution 1540 has increased general awareness of the dangers of proliferation of weapons of mass destruction and related technologies to non-state actors. Since nonproliferation accords are understood to be primarily agreements between governments and intended to control state programs, the transnational focus is a useful addition to the nonproliferation toolbox. Peter van Ham and Olivia Bosch have pointed out that Resolution 1540 »provides a framework within which nations can question one another about activities that suggest illicit trafficking or other proscribed activities. Evasive answers cast doubt on a state's commitment to preventing the misuse of a dual-use technology or other activity proscribed by Resolution 1540.«³⁰

Resolution 1540 also led states to comprehensively review existing legislation. By making these reports available, the resolution has added valuable transparency to an otherwise rather obscure and opaque area of nonproliferation. The major innovation of Resolution 1540 is the obligation on *all* states to implement relevant controls, including those that have not signed relevant treaties such as the BWC, CWC and NPT. Several important non-signatories to multilateral regimes have submitted national reports.

3. Multilateral fuel assurances and the Global Nuclear Energy Partnership

Preventing the misuse of nuclear technology for hostile purposes has been a concern for more than 50 years. The dilemma: Facilities to enrich uranium or to separate plutonium can produce fuel for nuclear reactors, but they can also easily be converted for the manufacture of fissile material that can be used in nuclear weapons.

Recently, there has been a new push to prevent the spread of enrichment and reprocessing technology to countries that do not yet possess such technology. The crisis around Iran's nuclear program, the uncovering of the nuclear black market network centred around Pakistani nuclear scientist A.Q. Khan, and the declared interest of several countries in establishing nuclear fuel cycles has created a new sense of urgency, particularly among Western countries.

Two different approaches can be distinguished. In February 2004, U.S. President Bush proposed that participants of the Nuclear Supplier Group (NSG) deny access to nuclear fuel cycle

26 See Peter Crail: »Implementing UN Security Council Resolution 1540: A Risk-Based Approach«, in: *The Nonproliferation Review*, Vol. 13, No. 2, July 2006, pp. 355-399.

27 See *United Nations Seminar on Implementing UN Security Council Resolution 1540 in Africa, 9-10 November 2006, Accra, Ghana*, ODA Occasional Papers No. 12, New York: United Nations Office for Disarmament Affairs, New York: May 2007.

28 See Johan Bergeras: *The role of regional and sub-regional organizations in implementing UN Security Council Resolution 1540: a preliminary assessment of the African continent*, Paper prepared for the UNIDIR-MIIS cooperative project on regional organizations and Resolution 1540, Geneva, 2007, p. 3.

29 Peter Crail, »A Risk-Based Approach«, op. cit., p.382.

30 Peter van Ham/Olivia Bosch: »Global Non-Proliferation and Counter-Terrorism: The Role of Resolution 1540 and Its Implications«, in: Peter van Ham/Olivia Bosch (eds): *Global Non-Proliferation and Counter-Terrorism: The Impact of United Nations Security Council Resolution 1540*. The Hague/London/Washington, D.C.: Clingendael Institute/Chatham House/Brookings Institution Press, 2007, pp. 3-23, p. 19.

technologies to nuclear newcomers by strengthening supply-side mechanisms.³¹

This approach is seen by many as being incompatible with NPT Article IV, which grants all member states in good standing the »inalienable right« to research, produce and use nuclear energy for peaceful purposes. As an alternative, IAEA Director-General Mohamed ElBaradei proposed restricting enrichment and reprocessing to facilities under multinational control.³²

Subsequent IAEA statements have stressed that fuel supply mechanisms should be free of political constraints and should not limit the right of states parties to choose their fuel options.³³ During the last three years, current or potential suppliers of nuclear fuel have developed more than a dozen proposals on different aspects of a multilateral nuclear fuel system.³⁴

The United States has added new elements to its own proposal. Most notable is the Global Nuclear Energy Partnership (GNEP), launched on February 6, 2006. The GNEP combines two main ideas, namely

- the development of an international system of lend-lease arrangements for the use of proliferation-safe nuclear fuel reactors,
- research and development of new, advanced reprocessing technologies with the aim of reducing the amount of domestic nuclear waste.³⁵

Taking this initiative as an example of a non-integrative approach towards addressing fuel-cycle issues, several conclusions can be drawn regarding compliance, institutional stability and effectiveness of fuel-supply arrangements.

3.1. Compliance

Proposals to establish multilateral nuclear fuel supply arrangements suffer from a major weakness. So far, potential recipients have not voiced their interest in participating in such schemes. Instead, key developing countries fear that fuel-supply proposals are a pretext to cut off their access to nuclear technologies. At an IAEA-sponsored special event in September 2006, South Africa captured the mood of many non-aligned countries when it warned that »any decision taken in this regard may not place any unwarranted restrictions on the inalienable right of States to the peaceful application of nuclear energy« and warned of »the creation of another kind of cartel«. Specifically, such pro-

posals were criticized for being based on the notion that sensitive technologies are safe in the hands of some but not all states, and proposals like the GNEP were seen as having the potential to undermine multilateral institutions such as the IAEA.³⁶

In May 2007, an international partnership was launched in an apparent attempt to ratchet up global support for the GNEP. Currently, the GNEP has 19 partners from all regions of the world. The only formal requirement for GNEP membership is to »share the common vision of the necessity of the expansion of nuclear energy for peaceful purposes in a safe and secure manner.«³⁷ At its core, however, the GNEP remains an exclusive club. Participation is by invitation only and even observer and candidate countries are not eligible to take part in decision-making.³⁸

The second ministerial meeting, in September 2007 in Vienna, adopted a one-page statement of principles, which states that GNEP participants »would not give up any rights«. Previously, Washington had insisted that only states that forego the right to establish their own reprocessing and enrichment capabilities would be eligible to participate in U.S.-sponsored fuel-supply arrangements.³⁹

Despite this toning down of its position, Washington continues to push for support in the NSG and among G8 states for denying access to sensitive nuclear technologies to non-possessors.⁴⁰ Both groups have so far refused to adopt the U.S. proposal as general guidelines but exercise *de facto* moratoria on the export of fuel cycle technologies.⁴¹

GNEP Partner States:

Australia, Bulgaria, Canada, China, France, Ghana, Hungary, Italy, Japan, Jordan, Kazakhstan, Lithuania, Poland, Romania, Russia, Slovenia, South Korea, Ukraine, USA.

GNEP Candidate Partner and Observer Countries:

Argentina, Belgium, Brazil, Czech Republic, Egypt, Finland, Germany, Mexico, Morocco, The Netherlands, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom.⁴²

31 *Remarks by the President on Weapons of Mass Destruction Proliferation*, Fort Lesley J. McNair - National Defense University, Washington, D.C., February 11, 2004.

32 Mohamed ElBaradei: »Towards a safer world«, in: *The Economist*, October 18, 2003, pp. 43-44, p. 44.

33 See in particular the 2005 report of an international expert group appointed by Mohamed ElBaradei *Multilateral Approaches to the Nuclear Fuel Cycle*, Vienna, International Atomic Energy Agency, February 2005. A June 2007 IAEA report on assurance of nuclear fuel supply makes the same case. See *Report to IAEA Board Addresses Options for Assurance of Supply of Nuclear Fuel*, IAEA Staff Report, Vienna, June 15, 2007.

34 For an overview, see, for example, Oliver Meier: »The Growing Nuclear Fuel-Cycle Debate«, in: *Arms Control Today*, Vol. 36, No. 9, November 2006, pp. 40-44; Harald Müller: *Multilateralisierung des Brennstoffkreislaufs: Ein Ausweg aus den Nuklearkrisen?*, HSFK-Report 10/2006, Frankfurt am Main., Hessische Stiftung für Friedens- und Konfliktforschung.

35 See Stephanie Cook: »Just within reach?«, in: *Bulletin of the Atomic Scientists*, Vol. 62, No. 4, July/August 2006, pp. 14-17, p. 15.

36 *Statement by Ms. Buyelwa Sonjica, Minister of Minerals and Energy of the Republic of South Africa at the Special Session on »New Framework for the Utilization of Nuclear Energy in the 21st Century: Assurances of Supply and Non-Proliferation«*, Vienna, September 19, 2006.

37 *Global Nuclear Energy Partnership Statement of Principles*, Vienna, September 16, 2007.

38 GNEP candidate countries are those states that are currently considering an invitation to join. States, but not international organizations, may also become GNEP observers »for a reasonable period of time.« *Global Nuclear Energy Partnership Operating Documents*, Vienna, September 16, 2007.

39 Dennis Spurgeon, Assistant Secretary of Energy for Nuclear Energy clarified in October 2007 that the United States would not be »asking countries to sign a statement that they will never enrich or never reprocess.« Quoted in Miles A. Pomper: »Bush Nuclear Fuel-Cycle Program Suffers Blows«, in: *Arms Control Today*, Vol. 37, No. 10, December 2007, pp. 34-36, p. 35.

40 In September 2006, the U.S. representative to the IAEA, Gregory Schulte, stated that U.S. proposals to create fuel supply mechanisms would not affect the U.S. position in this regard. See Oliver Meier: »The Growing Nuclear Fuel-Cycle Debate«, op. cit.

41 Quoted in Wade Boese: »U.S. Nuclear Trade Restriction Initiatives Still on Hold«, in: *Arms Control Today*, Vol. 34, No. 10, December 2004, p. 19.

42 <http://www.gnep.energy.gov/pdfs/gnepMinMtgSept07partnersAndAttendeesList.pdf>; »South Korea joins GNEP«, *World Nuclear News*, December 11, 2007, www.world-nuclear-news.org/nuclearPolicies/South_Korea_joins_GNEP-111207.shtml.

3.2. Institutional stability

Because reliable energy supplies are of paramount importance to all states, the credibility of fuel supply assurances is critical for the success of any multilateral approach that aims to induce recipient states to forgo national enrichment or reprocessing capabilities. Developing countries have been cut off from nuclear fuel supplies in the past and, for many, mastering the fuel cycle is a symbol of national independence.⁴³

Several fuel-supply schemes foresee a role for the IAEA as a guarantor, guardian or broker and assume that the involvement of an international agency would increase reliability by delegating decisions about access to an agency that is supposed to be independent of political pressure. Though the GNEP would be implemented »in cooperation with the IAEA«,⁴⁴ the initiative's structure is unlikely to allay concerns about fuel supply reliability. Decisions on fuel supply would rest with suppliers, who would also be responsible for the safe disposal of nuclear waste.⁴⁵ Recipients would not be part of the decision-making process unless they became a GNEP partner.

3.3. Effectiveness

All fuel-supply mechanisms have two weaknesses. First, these schemes do not address the most likely proliferation scenario. They are supposed to prevent the potential misuse of declared civilian fuel cycle facilities for the production of nuclear weapon materials, but historically most nuclear proliferators have set up parallel, clandestine programmes to enrich uranium or produce plutonium. Second, it is also questionable how long the current group of fuel-supply nations will be able to effectively control relevant technologies.⁴⁶

On the positive side, the lend-lease scheme envisaged under the GNEP would ensure that weapons-relevant material or technologies would remain firmly in the hands of current technology holders. However, this strength may be cancelled out by U.S. intentions to resume plutonium reprocessing as part of the GNEP. The long-standing U.S. opposition to plutonium separation for energy production has in the past helped to discourage states from using this proliferation-prone technology. A reversal of the U.S. policy on this issue is likely to cause other countries to follow suit, leading to a dangerous spread of reprocessing capabilities.

The technologies upon which the GNEP would be based, and new reprocessing techniques in particular, may not be available within the next few years. The U.S. Department of Energy admits that, in the short-term, the GNEP will have to rely on

conventional, less proliferation-resistant technologies.⁴⁷ These technological uncertainties and political problems have led to a reassessment of the GNEP within Washington. Meanwhile, other proposals to establish multilateral capacities for the supply of nuclear fuel are moving ahead.⁴⁸ The GNEP as an international nonproliferation instrument may have become outdated by the time it becomes technologically feasible.

4. When new arms control meets old: clarity, compliance, conflict, and convergence

The arms control approaches outlined above try to tackle important and urgent nonproliferation problems. The spread of dual-use technology, gaps in knowledge about illicit trade patterns, lack of interdiction capabilities and insufficient national measures to control dangerous materials and technologies need to be addressed as part of an effective strategy to prevent the spread of biological, chemical and nuclear weapons. The question is whether non-integrative arms control approaches are the right answer to these problems and whether their (potential) benefits and strengths outweigh their costs and shortcomings.

Obviously, non-integrative instruments have been created much faster than traditional multilateral regimes. PSI was launched less than six months after the *So San* incident, and the core group had been assembled and a statement of principles agreed only a further four months after that. UNSC Resolution 1540 and the GNEP have likewise been agreed within a short period of time, particularly compared to the many years that it takes to negotiate legally binding agreements.

Such haste, however, comes at a price. Lack of clarity, weak compliance, conflicts with existing regimes and shaky institutional structures are some of the side effects that should be taken into account when evaluating the overall effectiveness of non-integrative approaches.

4.1. Lack of clarity

There is a remarkable ambiguity about the scope, means and purpose of non-integrative arms control approaches. These instruments are based on vague and ambivalent principles because the participants have not gone through the lengthy, difficult and often painful process of agreeing on joint understandings and definitions as is the case with traditional arms control instruments. As a result, different interpretations of the nature of initiatives such as the PSI and the GNEP persist even after their launch. Even UNSC Resolution 1540, which was agreed in the UN context, is vague on specifics.⁴⁹

43 For a summary of the Iranian experience in this regard see Oliver Meier: »Iran and Foreign Enrichment: A Troubled Model«, in: *Arms Control Today*, Vol. 36, No. 1, January/February 2006, pp. 26-27.

44 »Global Nuclear Energy Partnership Statement of Principles«, op. cit.

45 The Executive Committee decides on policies, which are implemented by GNEP Executive Committee. See »Global Nuclear Energy Partnership Operating Documents«, op. cit.

46 See Thomas L. Neff: *The Nuclear Fuel Cycle and the Bush Nonproliferation Initiative*, Presentation to the World Nuclear Fuel Cycle 2004, Madrid, World Nuclear Association/ Nuclear Energy Institute, April 1, 2004, p. 7.

47 *The Global Nuclear Energy Partnership: A Reliable Fuel Services Program*, U.S. Department of Energy Fact Sheet, Washington, D.C.: no date, www.gnep.doe.gov.

48 Miles A. Pomper: »Bush Nuclear Fuel-Cycle Program Suffers Blows«, op. cit.

49 This applies to the lack of definition of goods to be controlled as well as the lack of clear standards with regard to effective control measures. See for example Wade Boese: *Implications of UN Security Council Resolution 1540*, Presentation to the Institute of Nuclear Materials Management Panel Discussion, March 15, 2005. At the same time, it was pointed out that the resolution does not cover radioactive materials.

Sometimes, such ambiguity may also be a deliberate strategy to win the support of different constituencies. Thus, some European governments insist on the PSI being firmly rooted within international law, while U.S. proponents see it as a means to create a new legal basis for interdictions. The GNEP's twin goals of reducing nuclear waste and developing proliferation-resistant nuclear technologies make the initiative attractive in the U.S. domestic context and internationally.

Such imprecision has negative repercussions on effectiveness and legitimacy. For example, reporting under Resolution 1540 is hampered by a lack of clarity regarding requirements for national legislation and controls. And key states still harbour suspicions about the legality of the PSI because of conflicting statements about the initiative's true nature.

4.2. Lack of compliance

Adding coercive elements to nonproliferation regimes does not necessarily improve compliance. This finding is in line with earlier compliance studies, which argue that fear of penalties is only one of several factors that causes states to fulfil international obligations. The massive threat of coercive measures to enforce compliance misses the target when the majority of treaty violations are caused by a lack of capacity to implement treaty stipulations, political neglect or bureaucratic ignorance.⁵⁰

Assistance, not coercion, will be the key to improving the control of WMD-related agents and technologies in most states that have not yet complied with Resolution 1540. And in some cases, the threat of coercive measures may even be counter-productive. Threatening to cut states off from trade in nuclear technology unless they forego the right to own sensitive fuel-cycle facilities has spurred a new push for technological autarky rather than inducing reliance on fuel-supply mechanisms.⁵¹

4.3. Conflicts with multilateral regimes

The common view that non-integrative instruments complement existing nonproliferation instruments neglects three areas of tension between multilateral regimes and non-integrative instruments. First, non-integrative approaches stretch the boundaries of international law, upon which integrative regimes are based. International law is constantly changing and being brought in line with new requirements, but in the context of non-integrative approaches, it is a select group of powerful countries that promotes such changes. This exclusiveness has negative repercussions on the legitimacy of such attempts.

Second, non-integrative approaches may be attempts to alter the rights and obligations of states parties to existing regimes. For example, even though the GNEP claims that states will not

have to give up any rights to participate, in other contexts the Bush administration has made a strong case that Article IV of the NPT constitutes »a loophole« that needs to be closed. Likewise, it took considerable effort to ensure that Resolution 1540 contained even vague references to the nuclear disarmament obligations contained in the NPT, implying that the resolution was also an attempt to back-up selective interpretations of multilateral commitments.

Third, non-integrative instruments divert political attention and resources away from multilateral regimes. In many cases, the same institutions and officials that used to spend their time working on multilateral regimes now have to split their time between traditional and new approaches and in some cases, whole institutions are redirected towards new approaches.⁵²

5. Conclusions and recommendations

Despite claims that non-integrative instruments are different from traditional regimes, both types of arms control seem to be converging. The need to involve key actors in the creation of the new instrument (as in the case of Resolution 1540) or its implementation (as with the PSI) has led to a broadening of participation and a softening of divisions between different classes of members.

In order to increase international support, the rules of some non-integrative approaches have been brought in line with multilateral regimes. Thus, the U.S. proposal for a strict supply arrangement for nuclear technology outside of the NPT seems to be supplemented by other proposals that do recognise the right of all NPT states parties to the peaceful use of nuclear technology, including the right to set up a nuclear fuel cycle.

Generally, the effectiveness of non-integrative approaches is exaggerated. Instruments such as the PSI have not proven that they are able to contribute significantly to preventing the spread of WMD. Under some circumstances, they can extend the reach of nonproliferation norms, improve coordination among states or help to tighten national controls, but there are also considerable risks associated with non-integrative approaches. Governments should carefully weigh the risks and benefits before supporting such instruments, in particular because their weak institutional structure suggests that they may not have a long life.

For states such as Germany that support multilateral arms control, it seems sensible to continue to push for the multilateralization of non-integrative approaches by strengthening the principles of equality, reciprocity and legality. First, obligations under non-integrative approaches and the procedures for applying such instruments need to be spelled out more clearly in order to improve their effectiveness.⁵³ Second, these instru-

50 See for example Abram Chayes/Antonia Handler Chayes: »On Compliance«, in: *International Organization*, Vol. 47, No. 2, Spring 1993, pp. 175-205.

51 See for example Charles D. Ferguson/ William C. Potter: »Lining up to enrich uranium«, in: *International Herald Tribune*, September 12, 2006.

52 The Bush administration, for example, has weakened U.S. arms control efforts by exchanging key officials and reorganizing the foreign policy bureaucracy in a politically motivated way. See Dean Rust: »Reorganization Run Amok: State Department's WMD Effort Weakened«, in: *Arms Control Today*, Vol. 36, No. 5, June 2006, pp. 12-17.

53 See for example Monika Heupel: *Implementing UN Security Council Resolution 1540: A Division of Labor Strategy*, Carnegie Papers Number 87, Washington, D.C., Carnegie Endowment for International Peace, June 2007.

ments need to be made more inclusive. Involving additional states in the establishment and implementation of non-integrative arms control initiatives will not only improve compliance but also reduce tensions with existing regimes. Third, these instruments need to be aligned more closely with existing multilateral regimes and norms.⁵⁴

⁵⁴ For example Mark J. Valencia has proposed bringing PSI into the UN context. See Mark J. Valencia: »The Proliferation Security Initiative: A Glass Half-Full«, in: *Arms Control Today*, Vol. 37, No. 5, June 2007, pp.17-21.

Existing multilateral regimes certainly have their own weaknesses and adapting them to the challenges posed by transnational terror groups and the spread of dual-use technologies will require patience and perseverance. But non-integrative approaches are no alternative in the fight against proliferation. In a globalized world, effective instruments to control weapons of mass destruction need to be global in reach, fair and equitable, instead of discriminatory and coercive.

Stand der Implementierung der Sicherheitsrats-Resolution 1540 (2004)

Volker Beck¹

Abstract: On 28 April 2004, the UN Security Council adopted Resolution 1540. Based on Chapter VII of the UN Charter, the resolution obliges UN Member States to implement national legislation and to take measures to prohibit and prevent the spread of nuclear, chemical or biological weapons and relevant dual-use materials. States are also requested to provide reports on the state of national implementation. The 1540 Committee examines the reports and informs the Security Council. Recognizing the difficulties some states have in implementing the provisions of the resolution, the Committee acts as a clearing house for bilateral assistance between states and international organizations offering and states requesting help.

Keywords: Vereinte Nationen, Nichtverbreitung von Massenvernichtungswaffen, nationale Umsetzung internationaler Normen, Terrorismus

1. Einleitung

Die am 28. April 2004 vom Sicherheitsrat der Vereinten Nationen verabschiedete Resolution 1540 zählt zum Instrumentarium der Verhinderung der Weiterverbreitung von Massenvernichtungswaffen² (MVW). Sie ist gleichzeitig in der Kontinuität der Resolutionen 1267 (1999)³ und 1373 (2001)⁴ zur Bekämpfung des internationalen Terrorismus zu sehen. Mit den Resolutionen hat der Sicherheitsrat drei Ausschüsse als sogenannte Counter-terrorism Bodies eingerichtet⁵. Aufgrund der unterschiedlichen Zielsetzungen der Resolutionen 1267, 1373 und 1540 waren die drei Ausschüsse bisher weitgehend unabhängig voneinander tätig.

In diesem Beitrag werden der Charakter und die durch die Resolution 1540 begründeten Pflichten der Mitgliedstaaten beschrieben. Es schließt sich eine Darlegung und Einschätzung der Arbeit des 1540-Ausschusses an. Der Text schließt mit einer Bewertung und Einschätzung einer möglichen Fortsetzung der Arbeit des Ausschusses.

2. Resolution 1540 (2004)

Die Resolution 1540 wurde auf der Grundlage von Kapitel VII der Charta der Vereinten Nationen beschlossen. Artikel 39 der Charta legitimiert den Sicherheitsrat, über Bedrohungen des Friedens zu entscheiden und Maßnahmen zur Aufrechterhaltung von Frieden und Sicherheit zu beschließen. Mit der Bezugnahme auf dieses Kapitel erklärt der Sicherheitsrat, dass die Weitergabe von MVW *per se* eine Bedrohung des internationalen Friedens und der Sicherheit darstellt. Zur Wahrung von Frieden und Sicherheit verpflichtet er alle Mitgliedstaaten zu nationalen gesetzgeberischen und anderen Maßnahmen, welche die Verbreitung von MVW und MVW-relevanten Materialien unterbinden sollen. Dem Beschluss ging eine mehr-

¹ Dr. Volker Beck, bis April 2006 Koordinator der Expertengruppe des 1540-Ausschusses.

² Massenvernichtungswaffen: Atom-, chemische und biologische Waffen.

³ Das »Al-Qaida and Taliban Sanctions Committee« listet Personen und Einrichtungen auf, die vom Ausschuss als mit Al-Qaida, Osama bin Laden und/oder den Taliban in Verbindung stehend eingestuft werden.

⁴ Das Counter Terrorism Committee (CTC) soll mit Hilfe des mit der Resolution 1535 (2004) eingesetzten Counter Terrorism Executive Directorate (CTED) bei der nationalen Terrorismusbekämpfung Hilfe leisten.

⁵ Siehe UN-Webseite <http://www.un.org/aboutun/mainbodies.htm>.