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NON-STATE ACTORS IN THE NUCLEAR BLACK MARKET: PROPOSING AN INTERNATIONAL LEGAL FRAMEWORK FOR PREVENTING NUCLEAR EXPERTISE PROLIFERATION & NUCLEAR SMUGGLING BY NON-STATE ACTORS

THOMAS BURCH

*"Today, every inhabitant of this planet must contemplate the day when this planet may no longer be habitable. Every man, woman and child lives under a nuclear sword of Damocles, hanging by the slenderest of threads, capable of being cut at any moment by accident or miscalculation or madness."¹
~ JFK*

I. INTRODUCTION

There is a distinct possibility that “madness” will lead to the next nuclear conflict. Terrorist groups, and even terrorist individuals, have the money, means, and motive to build or purchase their own nuclear device² and some have already tried.³ Unfortunately, the terrorist attempt to acquire and use nuclear weapons is a natural progression of events. However, the rapidity of the progression is disturbing. Terrorists are utilizing computerized files, e-mail, and encryption software in order to

¹ President John F. Kennedy, Address at the United Nations General Assembly (Sept. 25, 1961). While it is more likely that President Kennedy was referring to the instability of certain despotic leaders when he spoke of “madness,” the same general principle still applies to individual terrorist or terrorist groups.

² See *Dirty Bombs and Basement Nukes: The Terrorist Nuclear Threat: Hearing Before the Senate Comm. on Foreign Relations*, 107th Cong. 4 (2002) (statement of Senator Joseph Biden, Chairman, Senate Comm. on Foreign Relations).

³ See *Worldwide Threats: Hearing Before the Senate Comm. on Armed Services*, 106th Cong. 9 (1999) (testimony of George J. Tenet, Director, Central Intelligence Agency) [hereinafter *Worldwide Threats I*].

hasten the accomplishment of their objectives.⁴ It may not be a question of if they acquire nuclear weapons, but only a question of when.

While there are a number of disincentives that prevent states from participating in the nuclear black market, most of these deterrents do not apply to non-state actors. What actions should the international community take in order to enforce these same restrictions against non-state actors and thereby reduce the possibility of nuclear conflict? This comment proposes two options. First, member parties could amend one or all of several existing treaties on the subject. Second, the international community can draft a new treaty or convention on nuclear smuggling and proliferation that focuses on preventing non-state actors from participating in the nuclear black market. This paper addresses both options and concludes that the latter alternative would be the most effective means of combating nuclear terrorism. Part II explains the background of the terrorist threat by discussing why non-state actors may have access to, and be willing to use, nuclear weapons. Part III discusses why the expansion of existing treaties and the extension of universal jurisdiction to cover these crimes are not satisfactory preventative measures. Part IV calls for a new international convention that focuses on efforts to forestall nuclear terrorism.

II. ESCALATING THREATS: NUCLEAR PROLIFERATION & THE EVOLVING TERRORIST OBJECTIVE

The U.S. Secretary of Defense recently stated that weapons of mass destruction “will increasingly find their way into the hands of individuals and groups of fanatical terrorists or self-proclaimed

⁴ *Worldwide Threats: Hearing Before the Senate Comm. on Armed Services*, 106th Cong. 617 (2000) (testimony of George J. Tenet, Director, Central Intelligence Agency) [hereinafter *Worldwide Threats II*].

apocalyptic prophets.”⁵ Several terrorist groups have shown an interest in, or actively sought, nuclear materials in recent years, believing it to be part of their “religious duty.”⁶ In recognition of this risk, President Bush is seeking a thirty percent spending increase for programs that aim to keep nuclear material out of terrorists' hands.⁷ Most of the money will go to help Russia secure its nuclear facilities, which are probably the most prolific sources of black market nuclear material.⁸

Nevertheless, while spending money on physical protection of the materials is important, the scope of the problem is greater than a need for physical security alone. The international community should adopt explicit legal guidelines for the prevention and punishment of nuclear smuggling and nuclear expertise proliferation. The connection between these activities and international terrorism is well-accepted and extensively documented.⁹ Developing an international convention that unequivocally proscribes these activities and establishes legitimate preventative measures may do more than delay the inevitable; it may help to avoid the problem altogether.

There are three broad explanations for the increased risk that terrorists will acquire and use nuclear weapons in the near future: (1) the proliferation of nuclear information, (2) the availability of nuclear weapons & improvised nuclear devices, and (3) the evolving terrorist

⁵ OFFICE OF THE SECRETARY OF DEFENSE, *PROLIFERATION: THREAT AND RESPONSE* at i (2001).

⁶ See *Worldwide Threats I*, at 9.

⁷ *Bush Wants to Spend More to Safeguard Nuclear Materials; Most of the Money Would Help Russia*, ST. LOUIS POST-DISPATCH, Jan. 30, 2003, at A6.

⁸ *Id.*

⁹ See, e.g., G.A. Res. 1373, U.N. SCORG AOR, 4385th Mtg. U.N. Doc. S/RES/1373Meeting (2001) available at http://www.una-ukundcp.org/pdf/crime/terrorism/sc1373res_1373_english.pdf.

objective.¹⁰ The following sections discuss these problems and lay the foundation for developing the proposed legal framework.

A. Proliferation of Nuclear Expertise

Since the beginning of the nuclear age, numerous books, journals, and websites have published blueprints for creating nuclear devices. However, these resources are of minimal value for anyone actually wanting to build such a weapon because this undertaking requires highly specialized knowledge. Persons equipped with the proper technical knowledge hold a Damoclean sword because selling or sharing this information could result in the wrong person or groups possessing nuclear capabilities.

The two most notable sources of information proliferation are the “brain drain” and insider theft.¹¹ These two categories are not completely distinguishable as they both produce the same result. In both scenarios, terrorists receive information necessary for building a nuclear weapon. However, insider theft encompasses a slightly broader set of crimes and includes a somewhat larger group of individuals. The concept of “brain drain” only applies to a limited group of highly skilled employees. Nevertheless, the brain drain dilemma poses a greater risk exactly because of these special skills.

¹⁰ See *Nuclear Terrorism and Countermeasures: Hearings Before the Military Research and Dev. Subcomm. of the House Comm. on Nat'l Sec.*, 105th Cong. 54-59 (1997) (statement of Jessica Eve Stern, Former Director of Russian and Ukrainian Affairs, Nat'l Sec. Council) [hereinafter *Nuclear Terrorism and Countermeasures*].

¹¹ See Adam Treiger, Comment, *Plugging the Russian Brain Drain: Criminalizing Nuclear-Expertise Proliferation*, 82 Geo. L.J. 237, 238 (1993); BRUCE HOFFMAN, ET AL., U.S. DEP'T OF ENERGY, *INSIDER CRIME: THE THREAT TO NUCLEAR FACILITIES AND PROGRAMS* 7-30 (1990).

1. Brain Drain

“Brain drain” refers to the problem of experienced and knowledgeable scientists moving to countries that have no nuclear program and sharing their knowledge and experience with those countries. It may be the most dangerous form of information proliferation and the problem is particularly troublesome in Russia and the former Soviet Union.¹² Thousands of Soviet scientists and engineers worked on developing one of the largest nuclear arsenals in the world before suffering severe pay cuts or job loss after the collapse of the Soviet empire.¹³ Although most probably recognize the dangers of disseminating their knowledge to third world countries or terrorist groups, it only takes a few scientists to actually build a nuclear device.¹⁴ Because the economic incentives to sell nuclear information may be too strong, the international community has a strong security interest in eliminating the threat.

It is only fair to mention that the problem does not rest solely in the former Soviet Union. Pakistan recently arrested two nuclear scientists who allegedly met with Osama Bin Laden to discuss nuclear capabilities for the al-Queda terrorist network. Pakistan detained the scientists after receiving a report of their meeting from U.S. law enforcement officials, but released the two men after a brief period of interrogation.¹⁵ “Although Pakistani authorities concluded the scientists violated a secrecy oath during trips into Taliban-controlled Afghanistan ... [a] trial, officials said, would generate further international embarrassment and risk disclosure of

¹² See Treiger, *supra* note 11, at 238.

¹³ See *id.* at 237-41.

¹⁴ See *id.* at 241.

¹⁵ Peter Baker & Kamran Khan, *Pakistan to Forgo Charges Against 2 Nuclear Scientists; Ties to Bin Laden Suspected*, WASH. POST, Jan. 30, 2002, at A1.

Pakistan's nuclear secrets.”¹⁶ Pakistan placed its national interests ahead of international security.

Even if Pakistan made a sound decision in this particular case, the international community cannot continue to place its security in the hands of individual nations. Controlling the flow of nuclear expertise is a global problem and it calls for a global response. There may be too many incentives for individuals to divulge information about, or help in the creation of, nuclear weapons. Additionally, even if the proliferator's native country prohibits nuclear expertise proliferation, as was the case with Pakistan, there may be too many reasons for the individual country not to prosecute. Creating an international convention which would proscribe these activities is a logical step in the direction of effective prevention.

2. *Insider Theft*¹⁷

Nuclear facilities face threats from a variety of “potential adversaries with ideological, economic, and personal motives.”¹⁸ Unfortunately, the greatest threat comes from their employees. While a number of factors contribute to an employee's decision to steal, age is the most likely indicator.¹⁹ In a study of insider/outsider crime performed for the Department of Energy, approximately one half of the employees who conspired with an outsider were less than thirty years old.²⁰ Nevertheless, even long term employees may resort to stealing nuclear information for

¹⁶ *Id.*

¹⁷ There are three general categories of insider theft: (1) crimes committed by insiders conspiring with outsiders, (2) crimes committed by insiders conspiring with other insiders, and (3) crimes committed by lone insiders. Nevertheless, the first category is the most likely scenario because terrorists working with an insider are probably more likely to attempt a crime against a nuclear facility than either set of individuals in (1) or (2). HOFFMAN, *supra* note 11, at 7-30.

¹⁸ *See id.* at 1.

¹⁹ *Id.* at 7-9.

²⁰ *Id.*

profit, believing they have been overlooked for promotions or believing the facility has not guaranteed that the employee will retire in comfort.²¹

The problem of insider theft at nuclear facilities is almost as serious as the threat of scientists selling their knowledge in the nuclear black market. It certainly includes a larger section of the scientific community because even low level employees may have access to, or the ability to obtain, sensitive information.²² It also produces the same general result in that terrorists receive classified nuclear secrets. Because this is a constant, the international community should address the issue in a new convention in nuclear terrorism.

B. Nuclear Smuggling

The International Atomic Energy Agency (IAEA) has documented 181 cases of nuclear trafficking since 1993.²³ The majority of these cases involved materials that could be used in an improvised nuclear device, which is a makeshift device intended to result in the formation of a low-yield nuclear reaction. However, twenty cases involved “weapons-grade” nuclear material, the most perilous form of nuclear material because of its potential use in full-scale, high-yield nuclear weapons.²⁴ For example, in December of 1994, police officials in Prague arrested three nuclear workers from Eastern Europe who were transporting three kilograms of highly enriched uranium. Officials believed that the material came from either a Russian Navy storage facility or a fuel fabrication site in the

²¹ *Id.* at 9.

²² *Id.* at 7-9.

²³ Elizabeth Sullivan, *Nuclear Security is Frighteningly Lax All Over*, THE CLEVELAND PLAIN DEALER, June 30, 2002, at H5.

²⁴ *Id.*

former Soviet Union.²⁵ Russia and the former Soviet Union are the most likely suspects in these type of situations because only one third of their facilities are considered secure.²⁶

What are other countries doing to prevent smuggled material from entering their borders? In the United States, the Customs Service recently issued pocket-sized radiation detectors to customs inspectors at more than 300 entry points across the nation.²⁷ However, with lengthy borders and such an expansive coastline, it may be difficult, if not impossible, to catch all such material before it enters the country. Nevertheless, the U.S. is fortunate because most countries do not have the means to enact such preventative measures. Consequently, international cooperation is essential in the fight against nuclear smuggling. The international community must work together to effectively close down the nuclear black market and eliminate the nuclear threat by creating a new international agreement that focuses on two specific forms of nuclear smuggling: (1) the transportation of uranium or plutonium that can be used in building an improvised nuclear device, and (2) the transportation of a completed nuclear weapon.

1. Improvised Nuclear Devices

Building an improvised nuclear device (IND) is not a complicated process. “If you had a softball-sized lump of enriched uranium, some materials mostly available at Radio Shack and an engineering grad from an American university, you would have a reasonable chance of making a

²⁵ Barry Kellman & David S. Gualtieri, *Barricading the Nuclear Window: A Legal Regime to Curtail Nuclear Smuggling*, 1996 U. ILL. L. REV. 667, 672 (1996). This shows that insider crime and nuclear smuggling are often interrelated.

²⁶ Vicki Haddock, *Loose Nukes: A Radioactive “Dirty Bomb” Could be Headed for Your Neighborhood*, SAN FRANCISCO CHRONICLE, April 28, 2002, at D1.

²⁷ Jeannine Aversa, *Customs to Issue Radiation Detectors; Agency Offers No Guarantees*, SUN-SENTINEL, May 30, 2002, at A11.

crude nuclear weapon.”²⁸ The only difficult part of the equation is finding the nuclear material. However, even this is not a complicated problem because there are two main sources where the material is readily available: (1) the former Soviet Union , and (2) nuclear reprocessing facilities.²⁹

Senator Joe Biden explains where one side of the risk originates:

Over the past two years, the Senate Foreign Relations Committee has held a series of hearings outlining the threat posed by weapons of mass destruction to U.S. national security. In the course of these hearings, one simple fact has stood out. There are many sources for weapons of mass destruction, and it can take years to obtain or build them. But there's one place that has it all. That place is Russia.³⁰

In fact, Russia still possesses approximately 1,000 metric tons of highly enriched uranium, and 160 metric tons of weapons grade plutonium.³¹ “Some of this material is secured with the equivalent of bicycle locks.”³² INDs do not require a critical mass of uranium or

²⁸ *The Role of the International Atomic Energy Agency in Safeguarding Against Acts of Terrorism: Hearings Before the International Operations and Human Rights Subcomm. of the House Comm. on Int'l Relations*, 107th Cong. 2 (2001) (statement of the Hon. Ileana Ros-Lehtinen, Chairperson, Subcomm. on International Operations and Human Rights) (quoting Graham Allison, Director, Harvard Belfer Center) [hereinafter *International Atomic Energy Agency*]. Experts often dispute terrorists' abilities to produce even an improvised nuclear device. However, most seem to agree that, with the right materials and time, it is entirely possible. See GAVIN CAMERON, *NUCLEAR TERRORISM: A THREAT ASSESSMENT FOR THE 21st CENTURY* 131 (1999).

²⁹ See Kellman & Gualtieri, *supra* note 25, at 671-75.

³⁰ *Loose Nukes, Biological Terrorism, and Chemical Warfare: Using Russian Debt to Enhance Security: Hearings Before the House Comm. on International Relations*, 107th Cong. 65 (2002) (statement of Senator Joe Biden, Chairman, Senate Comm. on Foreign Relations) [hereinafter *Loose Nukes*]. This paper is not an attempt to criticize Russia and the former Soviet Union. However, these regions present a major risk and they provide a good example of why certain measures need to be taken to reduce the risk of a nuclear terrorist conflict.

³¹ *Id.*

³² *Nuclear Terrorism and Countermeasures*, at 56.

plutonium, and the material may not have to be “weapons-grade.”³³ In fact, plutonium oxide, which is often stored at reprocessing plants, can be converted to plutonium metal in a straightforward chemical process.³⁴ This is a frightening prospect considering the lack of security at reprocessing plants worldwide. Nuclear energy supporters often attempt to allay security fears by using phrases like “nuclear plants are probably the most hardened commercial structures in the world.”³⁵ This is not a legitimate answer. There are seventy-plus storage centers in the U.S. alone and, internationally, ninety-three new reactors will be operating by 2016.³⁶ Certainly the best answer for security concerns cannot be that these facilities are “hardened.” Storage centers and reprocessing plants suffer from a severe lack of financial support and the international community should carefully address this need in a new convention on nuclear terrorism.

2. *Loose Nukes*

While finding and purchasing a completed nuclear weapon might be incredibly complicated, it is not impossible. At a recent hearing before the House Committee on National Security, a former Director of Russian and Ukrainian Affairs for the National Security Council stated that “[s]enior Russian officials have expressed grave concerns about inadequate security for warheads in transit as well as in storage.”³⁷ Also, the Russian military “faces ‘chronic shortages’ of specially equipped trains

³³ See CAMERON, *supra* note 28, at 131-32.

³⁴ *Id.* at 132.

³⁵ Senator Pete Domenici, *The Need for Nuclear Energy – Four Years after the Harvard Speech*, Address at Texas A & M University (November 19, 2001) available at <http://nuclearanswer.tamu.edu/Domenici.pdf>.

³⁶ *Id.*

³⁷ See *Nuclear Terrorism and Countermeasures*, at 56.

to protect against acts of sabotage.”³⁸ The possibility that terrorists can acquire a completed nuclear weapon is not unthinkable. Many countries are unable to provide adequate security for these weapons because of their depressed economic conditions.³⁹

Inadequate security at nuclear facilities is a serious threat that requires significant attention. During the last decade, Congress authorized more than three billion dollars for a Cooperative Threat Reduction (CTR) program aimed at securing Russian facilities.⁴⁰ However, this is a unilateral approach and involving the international community is necessary for reducing the potential threat. Creating an international convention that focuses on, among other things, securing nuclear facilities will go a long way in preventing terrorists from achieving their new objectives.

C. The Evolving Terrorist Objective

Until recently, most terrorist activities involved relatively low-level violence. However, many terrorist groups are progressively loosening their moral or political inhibitions.⁴¹ Radicals are no longer constrained by fear of reprisal because they are obsessed with extremist ideas of immortality. The pursuit of immortality produces a frightening prospect in that terrorist are now willing to take extreme measures to achieve catastrophic results.

In March of 2002, several news sources reported an alleged plan to bring a nuclear device to New York City.⁴² This turned out to be a hoax, but it raises awareness about a new set of terrorist objectives. Nuclear terrorists may “be intent on inducing casualties, perhaps immediately as

³⁸ *Id.*

³⁹ *See id.*

⁴⁰ PROLIFERATION: THREAT AND RESPONSE, *supra* note 5, at 73.

⁴¹ *See id.* at 56-57.

⁴² *See, e.g.,* Megan Turner, *Terror ‘Plot’ to Nuke N.Y. Revealed*, N.Y. POST, March 4, 2002, at A3.

the result of radiation sickness, or longer term, as the result of cancers that might be induced by radiation exposure.”⁴³ Introducing nuclear weapons to a densely populated environment exemplifies the new terrorist goal. Prior to World War II, no one worried about such a possibility, but today, this is a constant threat.

Terrorists have the ability to achieve at least some of their objectives and several courses of action are necessary to prevent this from happening. Section III discusses existing conventions on nuclear terrorism but it concludes that such conventions are inadequate preventative measures. They are not comprehensive and most focus on punishment rather than prevention. Nevertheless, understanding the weaknesses of these instruments will help to develop the proposed convention in Section IV.

III. EXPLORING EXISTING TREATIES, CONVENTIONS & OTHER INTERNATIONAL LAWS

States have numerous reasons to avoid participating in the nuclear black market: economic sanctions, military reprisal, etc. However, most deterrents do not apply to non-state actors. What actions should the international community take in order to enforce these same restrictions against individuals or terrorist groups, and thereby reduce the possibility of nuclear conflict?

As a preliminary matter, the international community should recognize nuclear smuggling and nuclear-expertise proliferation by non-state actors as international crimes. One way of accomplishing this recognition would be to amend or expand any or all of the following international instruments: (1) the Non-Proliferation Treaty,⁴⁴ (2) the

⁴³ See *Dirty Bombs and Basement Nukes*, *supra* note 2, at 16 (statement of Dr. Steven E. Koonin, Provost, California Institute of Technology).

⁴⁴ See Treiger, *supra* note 11, at 241-46.

Convention on the Physical Protection of Nuclear Materials;⁴⁵ (3) the Rome Statute,⁴⁶ or (4) the International Convention for the Suppression of Terrorist Bombing. However, amending these treaties and conventions may prove unworkable. Expanding jurisdiction under customary international law is another option, but many, if not most, nations require lawmaking bodies to incorporate customary international law into domestic law before the nation's courts will recognize such law in judicial proceedings.⁴⁷ Thus, drafting a new convention that focuses on preventing non-state actors from participating in the nuclear black market is essential. Amending the existing treaties or expanding jurisdiction under customary international law are not satisfactory methods for reducing the terrorist nuclear threat.

A. Amending the Non-Proliferation Treaty to Cover Non-State Actors

1. Scope of the Agreement

The Treaty on the Nonproliferation of Nuclear Weapons (NPT) is the most comprehensive attempt to control the spread of nuclear materials and nuclear expertise.⁴⁸ It is more than thirty years old and every nation is a party to the treaty except for Cuba, India, Israel, Pakistan, and North Korea.⁴⁹

⁴⁵ See Kellman & Gualtieri, *supra* note 25, at 714-15.

⁴⁶ Rome Statute of the International Criminal Court, July 17, 1998, art. 121, 37 I.L.M. 999. [hereinafter Rome Statute].

⁴⁷ See Treiger, *supra* note 11, at 250-58; INTERNATIONAL COUNCIL ON HUMAN RIGHTS, *HARD CASES: BRINGING HUMAN RIGHTS VIOLATORS TO JUSTICE ABROAD*, A GUIDE TO UNIVERSAL JURISDICTION 39 (1999), available at <http://www.ichrp.org/ac/excerpts/10.pdf> (last visited Jan 26, 2004).

⁴⁸ See Jeffrey B. Fugal, Comment, *A Brief Survey of the Smuggling of Fissile Material: An Embryonic Phenomena with a Terrifying Future in the European Community*, 6 IND. INT'L & COMP. L. REV. 289, 301 (1995).

⁴⁹ PROLIFERATION: THREAT AND RESPONSE, *supra* note 5, at 73.

Under the NPT, the five nuclear weapons states⁵⁰ agree not to export nuclear weapons to other nuclear states and not to assist any non-nuclear weapon state in the manufacture of nuclear devices.⁵¹ The non-nuclear states agree not to acquire nuclear weapons and to work with the IAEA to ensure that they only use nuclear energy for peaceful purposes.⁵² The acceptance of, and adherence to, these duties is essential for the government to perform effectively.

Article I of the NPT states:

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.⁵³

Article II covers the duties of non-nuclear nations:

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in

⁵⁰ Nuclear weapons states only include those countries which had manufactured and exploded a nuclear device prior to January 1, 1967. That includes the U.S., the United Kingdom, France, Russia, and China. *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ Treaty on the Non-Proliferation of Nuclear Weapons, July 1, 1968, art. I, 21 U.S.T. 483, 487, 79 U.N.T.S. 161, 171 [hereinafter Non-Proliferation Treaty], available at <http://disarmament.un.org/wmd/npt/npttext.html> (last visited Jan 26, 2004).

the manufacture of nuclear weapons or other nuclear explosive devices.⁵⁴

Expanding Articles I & II to include non-state actors will automatically make nuclear expertise proliferation and nuclear smuggling an international crime.⁵⁵ This would not only send a message that the international community will not tolerate a nuclear black market; “it would also lead to the establishment of affirmative programs of enforcement” in each member state.⁵⁶ Finally, it would establish virtual universal jurisdiction over the crimes since all but five nations are members of the NPT, making the actions punishable in almost every country in the world.

2. The Amendment Process & Questioning the Stability of the NPT

The amendment process for the NPT is fairly straightforward. One-third of the member-nations must request a conference to consider the amendment, and a majority of the countries at the meeting must approve the modification.⁵⁷ At the 2000 conference of NPT members, the parties agreed to extend the Treaty indefinitely and to eventually accomplish total nuclear disarmament.⁵⁸ However, the circumstances surrounding the NPT have changed tremendously since 2000, and amending the Treaty may be a difficult task because it is unstable as it stands.⁵⁹

In January 2003, North Korea dropped out after more than seventeen years as a member of the agreement.⁶⁰ This decision allows

⁵⁴ *Id.* at art. II.

⁵⁵ See Treiger, *supra* note 11, at 241-45; Fugal, *supra* note 44, at 301-05.

⁵⁶ See *id.* at 248.

⁵⁷ Non-Proliferation Treaty, at art. VIII.

⁵⁸ PROLIFERATION: THREAT AND RESPONSE, *supra* note 5, at 73.

⁵⁹ See Treiger, *supra* note 11, at 244.

⁶⁰ Sonni Efron & Lianne Hart, *The World Diplomatic Standoff: North Korean Action Draws Global Condemnation*, L.A. TIMES, Jan. 11, 2003, at A1.

North Korea to completely avoid the regulations of the IAEA, and, according to Deputy Secretary of State Richard Armitage, North Korea poses a severe threat in terms of nuclear proliferation to non-state actors.⁶¹

This fact alone should make the parties to the NPT focus on the relative weakness of the NPT's enforcement controls. Rather than attempting to change the face of the NPT by including non-state actors, member countries should strongly consider amending the Article X to strengthen the Treaty's enforcement mechanisms.⁶² Strengthening the existing Agreement will still assist in preventing nuclear smuggling and information proliferation. In addition to this, however, the international community should draft a new agreement that specifically focuses on non-state actors and the problems discussed in Section II of this paper. The new agreement will extend the protections in the NPT and the international community should draft the new agreement with the principles of the NPT in mind.

B. Amending & Expanding the Convention on the Physical Protection of Nuclear Materials

1. Background on the CPPNM

Sixty-eight nations have adopted the Convention on the Physical Protection of Nuclear Materials, making it the second most widely adopted treaty on nuclear proliferation.⁶³ Under the agreement, all signatory parties agree to criminalize “the receipt, possession, use,

⁶¹ James Dao, *U.S. Official Says North Korea Could Sell Bomb Material*, N.Y. TIMES, Feb. 9, 2003, at A1.

⁶² Non-Proliferation Treaty, at art. X. At the very least, an amendment to Article X should: (1) include stiff sanctions for countries that violate the NPT and then decide to drop out, and (2) extend the current three month notice period to provide more time for negotiations and more time for countries to reconsider their decision. *See* Non-Proliferation Treaty, at art. X.

⁶³ *See* Kellman & Gualtieri, *supra* note 25, at 714-15.

transfer, alteration, disposal or dispersal of nuclear material” and the “theft or robbery of nuclear material” by non-state actors.⁶⁴ However, the Convention only covers nuclear materials that are used for peaceful purposes.⁶⁵ It does not apply to nuclear materials in military stockpiles, which actually poses one of the most serious threats.⁶⁶ Thus a considerable gap exists in the Convention's coverage.⁶⁷ While the current restrictions in the Convention are important, extending the Convention's coverage to nuclear material that is not used for peaceful purposes is absolutely necessary because this is the most prolific source of material on the nuclear black market.⁶⁸

Under Article XX of the CPPNM, any state party may propose an amendment to the Convention.⁶⁹ The proposed amendment is circulated to all parties, and if two-thirds of the parties call for a conference to vote on the proposal, a conference will take place no sooner than thirty days after invitations to the conference are issued.⁷⁰ If the amendment is approved by two-thirds of all state parties, then it will enter into force for each party that ratifies the provision thirty days after the ratification.⁷¹

2. *An Effective yet Limited Agreement*

The United States or any other state party to the Convention could propose an amendment to make the convention apply to nuclear material not used for peaceful purposes. The earlier the amendment is proposed,

⁶⁴ Convention on the Physical Protection of Nuclear Material, Mar. 3, 1980, art. VII(1)(a)-(b), 18 U.S.C. § 831 (2000), [hereinafter Physical Protection Convention] available at http://www.undcp.org/odccp/terrorism_convention_nuclear_material.html.

⁶⁵ *Id.* at art. II(1).

⁶⁶ Kellman & Gualtieri, *supra* note 25, at 714-15.

⁶⁷ *Id.* at 715.

⁶⁸ See *Nuclear Terrorism and Countermeasures*, at 56-57; *Loose Nukes*, at 65.

⁶⁹ Physical Protection Convention, at art. 20(1).

⁷⁰ *Id.*

⁷¹ *Id.* at art. 20(2).

the easier the amendment process should be because fewer countries will need to agree with the proposal and all future signatories will be bound by the terms of the agreement when they sign.

However, one can never predict the potential political complications of such a process and it may take time to obtain the amendment. Furthermore, even if the parties to the agreement approved such an amendment, the CPPNM would still be too limited in scope because it would not cover nuclear information proliferation. The CPPNM only applies to the illegal transfer of “material,” and, according to the definition provided in the text of the Convention, “material” only includes plutonium and uranium.⁷² Changing the definition to include some form of nuclear knowledge may be somewhat outside of the scope of the Convention and may be difficult to pass in an amendment process.

Nevertheless, members of the Convention should encourage other countries to participate in the current agreement. More nations need to criminalize nuclear smuggling to reduce the number of safe havens for non-state actors that participate in the nuclear black market. The CPPNM is an effective tool for combating nuclear smuggling, but it is just too limited in scope. Drafting an entirely new agreement is still the best option, and it is necessary to fill the gap left by other conventions.

C. A Liberal Interpretation of the Rome Statute

Negotiations for the establishment of the International Criminal Court began with a United Nations resolution in 1995 and ended with the adoption of the Rome Statute in 1998.⁷³ The statute has 128 Articles,⁷⁴ is

⁷² *Id.* at art. 1(a).

⁷³ John Washburn, *The Negotiation of the Rome Statute for the International Criminal Court and International Lawmaking in the 21 st Century*, 11 PACE INT'L L. REV. 361, 363 (1999).

⁷⁴ *Id.*

signed by 120 nations,⁷⁵ and is intended to have “jurisdiction over persons for the most serious crimes of international concern....”⁷⁶

Amending the Rome Statute would be the most difficult means of classifying nuclear smuggling and nuclear expertise proliferation as international crimes. The Treaty cannot be amended until seven years after it entered into force (2008), and any amendment requires approval by seven-eighths of the State Parties.⁷⁷ Additionally, the Rome Statute is the subject of some amount of controversy. Some believe that it undermines the authority of the UN Security Council and that it improperly asserts jurisdiction over citizens of countries that are not parties to the Agreement.⁷⁸ Because of these perceptions, many nations have not signed the Treaty.⁷⁹ Finally, there may be a problem with including nuclear smuggling and nuclear expertise proliferation in the Rome Statute because the Treaty only covers genocide, crimes against humanity, war crimes, and the crime of aggression.⁸⁰ Classifying nuclear smuggling or nuclear information proliferation within any of these categories is a bit of a stretch.

1. Crimes Against Humanity

The definition of crimes against humanity is extremely vague. The Rome Statute describes this category of crimes as activities that (1) “are

⁷⁵ *Id.* at 361.

⁷⁶ Rome Statute, at art. 1.

⁷⁷ *Id.* at art. 121(1).

⁷⁸ M. Tia Johnson, *The American Service Members' Protection Act: Protecting Whom?*, 43 VA. J. INT'L L. 405, 475-76 (2003). Ms. Johnson is a Colonel in the Judge Advocate General's Corps, U.S. Army. Since June 2002, she has been deployed to Bosnia as the Senior Legal Advisor to the NATO Peacekeeping Force.

⁷⁹ *See id.*

⁸⁰ Rome Statute, at art. 5(1); *see also* L EILA NADYA SADAT, *THE INTERNATIONAL CRIMINAL COURT AND THE TRANSFORMATION OF INTERNATIONAL LAW: JUSTICE FOR THE NEW MILLENNIUM* 132-64 (M. Cherif Bassiouni ed., 2002).

among the most serious crimes of concern to the international community as a whole,” (2) “warrant and entail individual criminal responsibility,” and (3) “require conduct which is impermissible under generally applicable international law, as recognized by the principle legal systems of the world.”⁸¹ The crimes of nuclear expertise proliferation and nuclear smuggling could satisfy these elements, thereby granting jurisdiction over these activities to the International Criminal Court. However, the international community leans toward a rigid interpretation that includes only the most horrendous activities, such as genocide. Nuclear smuggling and proliferation do not fit within this category.

2. *Crimes of Aggression*

Nuclear smuggling and nuclear expertise proliferation could also qualify as crimes of aggression if members of the Treaty adopt a liberal definition of this category of crimes. Crimes of aggression theoretically include state actions that severely intrude upon the sovereignty of another state, but no official classification of the crime actually exists.⁸² The Rome Statute explicitly states that the ICC will not exercise jurisdiction over the crime of aggression until members of the Treaty adopt a provision defining the crime in accordance with Articles 121 & 123 of the Agreement.⁸³ However, states are unlikely to classify the crime in its conventional sense anytime soon, because then any attack or use of force by one state against another might be punishable under this category.⁸⁴

Adopting a definition of crimes of aggression that focuses on non-state actors rather than nation-states should be more acceptable to the members of the Treaty because it eliminates the potential threat to national

⁸¹ Rome Statute, at art. 7(1).

⁸² SADAT, *supra* note 80, at 132-34.

⁸³ *Id.*

⁸⁴ *See id.* at 133, n. 20. Note 20 defines the “conventional” crimes of aggression.

sovereignty. Members should not disagree over whether to prosecute persons for these activities since it would not involve State liability. Therefore, including these provisions should alleviate any concerns over State liability and should improve the chances of adding such an amendment to the Treaty.⁸⁵ However, nuclear smuggling and nuclear information proliferation are truly not crimes of aggression. This category of crimes just happens to have a name that theoretically could include a broad number of offenses. Actually, the category of crimes of aggression is somewhat limited in scope and the proper method of addressing nuclear smuggling and nuclear information proliferation is through a new draft convention.

3. A Final Consideration

There is one more concern for amending the Statute to include nuclear crimes. The original negotiators of the Rome Statute intentionally excluded the use of nuclear weapons from the list of weapons that are illegal per se. However, this was because of political differences between nuclear and non-nuclear states and it has nothing to do with the terrorist acts of non-state actors.⁸⁶ The parties to the Treaty should be willing to codify nuclear smuggling and nuclear expertise proliferation as international crimes because these activities, unlike the use of nuclear

⁸⁵ The amendment to the Rome Statute would have to include a bright line rule that anyone apprehended for nuclear smuggling or nuclear expertise proliferation is presumed to be acting in an individual capacity, not on behalf of the State. However, many nations may have a problem with including a provision that would theoretically allow another country's court system to prosecute the outside nations' State Officials as non-state actors. In fact, the ICJ recently ruled that State officials have immunity from prosecution in the national courts of another country while they are in office. *See Case Concerning the Arrest Warrant of 11 April 2000 (Democratic Republic of the Congo v. Belgium)* (Feb 14, 2002) [(hereinafter Congo v. Belgium]. *But see In re Pinochet Ugarte*, 38 I.L.M . 68 (1998) (holding that national officials are not protected by sovereign immunity for acts that are prohibited by treaty or customary international law).

⁸⁶ SADAT, *supra* note 80, at 267.

weapons by a State Party, are per se objectionable. Nevertheless, the proper means of explicitly classifying these activities as international crimes is to draft a new convention, not force nuclear smuggling and proliferation into an ill-fitted document simply because it already exists.

D. Shortcomings of the International Convention for the Suppression of Terrorist Bombing

The International Convention for the Suppression of Terrorist Bombing (TBC) criminalizes the delivery, discharge, placement, or detonation of an explosive device in “ a place of public use, a State or government facility, a public transportation system or an infrastructure facility.”⁸⁷ The United States started negotiations for the TBC in 1996 after terrorists placed a bomb in the Khobar Towers in Dhahran, Saudi Arabia, killing seventeen members of the United States Air Force.⁸⁸ However, even though the U.S. started the TBC negotiations, and was the first country to sign the Convention, Congress has not ratified the agreement. Nevertheless, twenty-seven countries are currently members of the TBC.⁸⁹

The creation of the TBC further proves that the international community is taking important steps to prevent terrorist activities. However, this Convention is too limited in scope. It fails to cover nuclear

⁸⁷ International Convention for the Suppression of Terrorist Bombing, Jan. 12, 1998, entered into force May, 2001, art. II(1) 37 I.L.M. 239 [hereinafter Terrorist Bombing Convention], *available at* http://www.undcp.org/odccp/terrorism_convention_terrorist_bombing.html (entered into force May, 2001) (last visited Jan. 26, 2004).

⁸⁸ Sean D. Murphy, *Conventions on the Suppression of Terrorist Bombings and on Financing*, 96 AM. J. INT'L L. 255, 256 (2002).

⁸⁹ CAMPAIGN FOR U.N. REFORM: BRINGING INTERNATIONAL TERRORISTS TO JUSTICE, BACKGROUND ON THE INTERNATIONAL CONVENTION FOR THE SUPPRESSION OF TERRORIST BOMBINGS, *available at* <http://www.cunr.org/priorities/International%20Convention%20for%20the%20Suppression%20of%20Terrorist%20Bombings.htm>. (last visited Mar. 25, 2003).

expertise proliferation and, since the TBC only applies to completed explosive devices, it neglects the smuggling of nuclear material that has not yet been made into an explosive device. Even if the parties to the TBC liberally interpret the provisions of the Convention to cover the smuggling of nuclear material as an “accomplice” activity,⁹⁰ countries could still only punish the smugglers after the material is used to build an explosive device that is delivered, placed, detonated, or discharged. At this point, the terrorist already achieved his goal. Either the bomb has detonated and caused mass destruction, or, at the very least, someone has delivered or placed the device in a public facility, spreading intense public fear when the public learns of the event. Countries should focus on preemptively curtailing these activities, not on punishment after the fact.

Additionally, the TBC requires a specific intent “to cause death or serious bodily injury” or a specific intent “to cause extensive destruction of such a place, facility or system, where such destruction results in or is likely to result in major economic loss.”⁹¹ The specific intent standard is too high. Simple possession of plutonium or uranium should suffice for prosecution since courts can presume intent to harm from the possession of such dangerous materials. Considering the scope of the TBC's insufficiency with regards to nuclear smuggling and nuclear information proliferation, an amendment to cover these activities would almost require a redrafting of the entire Convention.

E. Expanding Jurisdiction under Customary International Law

1. The Principle of Universal Jurisdiction

Universal jurisdiction may attach to the crimes of nuclear smuggling and nuclear information proliferation under customary

⁹⁰ See Terrorist Bombing Convention, at art. II(1).

⁹¹ *Id.*

international law.⁹² However, expanding universal jurisdiction to cover these crimes will require an active judiciary. To date, no court has been faced with the issue of whether these activities are atrocious enough to fall within the scope of universal jurisdiction, and courts may be unwilling to expand the application of the doctrine without valid justification, i.e. prior case history to support their decision.⁹³ However, the exercise of jurisdiction over these crimes is acceptable so long as it is reasonable, and reasonable is a loose term.⁹⁴ A brief survey of analogous case law and relevant literature will show that such an expansion may be justified.

Universal jurisdiction allows states to punish “certain conduct outside its territory by persons not its nationals that is directed against the security of the state or against a limited class of other state interests.”⁹⁵ The doctrine is based on the theory that some crimes are so universally condemned that the perpetrators are enemies of all people and can be punished in any and all jurisdictions.⁹⁶

Originally, only piracy and slave trading qualified for universal punishment.⁹⁷ However, the category of qualifying offenses has significantly expanded over the last fifty years to include “certain terrorist acts, hijacking and sabotage of aircraft, apartheid, torture, and other human rights violations.”⁹⁸

⁹² See Kenneth C. Randall, *Universal Jurisdiction under International Law*, 66 TEX. L. REV. 785, 791-801 (1988); Treiger, *supra* note 11, at 253-58; Kellman & Gualtieri, *supra* note 25, at 719.

⁹³ See, e.g., *United States v. Suerte*, No. 00-0659, 2001 WL 1877264 *5 (S.D. Tex. Jun 06, 2001), *rev'd on other grounds*, by *United States v. Suerte*, 291 F.3d 366 (5th Cir. 2002).

⁹⁴ RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 421(2) (1987). For example, exercising jurisdiction is reasonable if “the person ... had carried on outside the state an activity having a substantial, direct, and foreseeable effect within the state.”

RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 421(2)(j) (1987).

⁹⁵ RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 402(3) (1987).

⁹⁶ *United States v. Vasquez-Velasco*, 15 F.3d 833, 840 (9th Cir. 1994).

⁹⁷ See Randall, *supra* note 9293, at 791-801.

⁹⁸ *Id.* at 788-89.

Perhaps one of the more interesting U.S. cases involving universal jurisdiction is *United States v. Yunis*.⁹⁹ Yunis was one of four hijackers that took control of Royal Jordanian Airlines Flight 402 shortly before its departure from Beirut, Lebanon. After a series of forced cross-Mediterranean flights, which included several layovers for fuel and supplies, the four men directed the pilot to return to Beirut. Once in Beirut, the hijackers released the passengers, held a press conference, blew up the plane, and fled from the airport. An American investigation determined that Yunis was the leader of the group, which prompted the FBI to plan for Yunis' arrest - even though Yunis was still in Lebanon.¹⁰⁰

Undercover FBI agents lured Yunis onto a yacht in the eastern Mediterranean Sea with promises of a drug deal, and arrested him once the vessel entered international waters. The agents transferred Yunis to a United States Navy munitions ship and interrogated him for several days as the vessel steamed toward a second rendezvous, this time with a Navy aircraft carrier. Yunis was flown to Andrews Air Force Base from the aircraft carrier, and taken from there to Washington, D.C. In Washington, Yunis was arraigned on an original indictment charging him with conspiracy, hostage taking, and aircraft damage. A grand jury subsequently returned a superseding indictment adding additional aircraft damage counts and a charge of air piracy.¹⁰¹

⁹⁹ 924 F.2d 1086 (D.C. Cir. 1991) [Yunis II].

¹⁰⁰ *Id.* at 1089.

¹⁰¹ *Id.* Yunis argued that the court should have declined to exercise jurisdiction in light of the government's conduct; however, the court disagreed, stating that "while the government's conduct was neither 'picture perfect' nor 'a model for law enforcement behavior,'... we now find nothing in the record suggesting the sort of intentional, outrageous government conduct necessary to sustain appellant's jurisdictional argument." *Id.* at 1093.

The Federal Court for the District of D.C. held that hijacking an aircraft is a crime that is universally condemned, basing its decision on several international treaties that specifically covered the subject.¹⁰² The D.C. Circuit Court of Appeals agreed that the hijacking of an aircraft may be subject to universal jurisdiction, but the Court decided to rule against Yunis on other grounds,¹⁰³ leaving open the question of whether activities which are proscribed by Treaty are subject to the doctrine of universal jurisdiction.

The general rule is that “jurisdiction does not lie under the Universal Principle merely because the crime is subject to an international agreement. Rather, customary law must accept the crime as subject to universal jurisdiction.”¹⁰⁴ However, implicit in that statement is the idea that international law will accept a crime as subject to universal jurisdiction if the crime is prohibited by a Treaty that is signed by a substantial number of parties.¹⁰⁵ In fact, crimes that are subject to universal jurisdiction are often a matter of international convention or treaty.¹⁰⁶

This is an important issue in terms of nuclear smuggling. The Convention on the Physical Protection of Nuclear Materials prohibits “the receipt, possession, use, transfer, alteration, disposal or dispersal of nuclear material” and the “theft or robbery of nuclear material” by non-

¹⁰² *United States v. Yunis*, 681 F. Supp. 896, 899-903 (D.D.C. 1988) *rev'd on other grounds*, 859 F.2d 953 (D.C. Cir. 1988) [Yunis I].

¹⁰³ *Yunis II*, 924 F.2d at 1092.

¹⁰⁴ *United States v. Suerte*, No. 00-0659, 2001 WL 1877264, at *5 (S.D. Tex. Jun 06, 2001), *rev'd on other grounds*, by *United States v. Suerte*, 291 F.3d 366 (5th Cir. 2002).

¹⁰⁵ See *Demjanjuk v. Petrovsky*, 776 F.2d 571, 582 (6th Cir. 1985) *rev'd on other grounds*, by *Demjanjuk v. Petrovsky*, 10 F.3d 338 (6th Cir. 1993) (stating that crimes condemned by the world community and subject to prosecution under universal jurisdiction are often a matter of international conventions or treaties. The only requirement is that these treaties be signed by a significant number of states.); see also *Yunis I*, 681 F.Supp. 899-903 (holding that airplane hijacking is universally condemned based on several international treaties that specifically forbid hijacking).

¹⁰⁶ *Demjanjuk*, 776 F.2d at 582.

state actors.¹⁰⁷ Also, sixty-eight countries are party to the agreement, which is a substantial number of nations. This may be enough for the international community to consider nuclear smuggling a crime that is so widely condemned that it is subject to the doctrine of universal jurisdiction. However, it is problematic that the Convention applies solely to nuclear material used for peaceful purposes. Nevertheless, courts might be willing to expand this to include military nuclear material when deciding whether universal jurisdiction should apply. Nuclear smuggling, whether it involves peaceful or military material, should certainly fit within the category of “certain terrorist acts” that are covered under universal jurisdiction.

2. Solution of Last Resort

Yet, the international community should still explicitly criminalize nuclear smuggling and nuclear expertise proliferation by passing domestic laws that recognize these activities as international crimes because in many states customary international law must be incorporated into domestic law before the nation's courts will recognize such law in judicial proceedings.¹⁰⁸ Courts are less likely to assert jurisdiction if the assertion requires a distinct measure of judicial creativity. Learned Hand once stated that “[w]e should not impute to Congress an intent to punish all whom its courts can catch....”¹⁰⁹ Therefore, relying solely on the doctrine of universal jurisdiction should be the last resort for punishing the crimes of nuclear smuggling and nuclear expertise proliferation. The most viable options are for states to explicitly define these activities as international

¹⁰⁷ Physical Protection Convention, at art. VII(1)(a)-(b), 18 U.S.C. § 831 (2000), available at http://www.undcp.org/odccp/terrorism_convention_nuclear_material.html).

¹⁰⁸ See INTERNATIONAL COUNCIL ON HUMAN RIGHTS, *supra* note 47, at 39.

¹⁰⁹ See *United States v. Aluminum Co. of America*, 148 F.2d. 416, 443 (2d Cir. 1945).

crimes through the treaty process and to enact domestic laws in furtherance of those treaties.

IV. DEVELOPING A MORE COMPREHENSIVE CONVENTION ON NUCLEAR SMUGGLING AND PROLIFERATION

A. The UN Call to Arms

The United Nations Ad Hoc Committee is in the process of developing a “comprehensive legal framework of conventions dealing with international terrorism.”¹¹⁰ It is highly probable that one of these conventions will cover nuclear terrorism since U.N. Resolution 1373 “notes with concern the close connection between international terrorism and...the illegal movement of nuclear, chemical, biological, and other potentially deadly materials...”¹¹¹ The U.N. will play a pivotal role in developing this convention on nuclear terrorism and it should continue to advocate for a comprehensive approach to preventing terrorist activities that addresses regional conflicts and the full range of global issues that are necessary to achieve international cooperation.¹¹²

B. Learning from Existing Treaties

The U.N. Ad Hoc Committee must resolve a number of issues before actually drafting the new convention.¹¹³ Most importantly, it must

¹¹⁰ G.A. Res. 56/88 U.N. GAOR, Fifty-Sixth Session, 8th plen. mtg. at 4, U.N. Doc. A/RES/56/88 (2002).

¹¹¹ G.A. Res. 1373, U.N. GAOR, 4385th mtg. at 3, U.N. Doc S/RES/1373 Meeting (2001), available at http://www.undcp.org/pdf/crime/terrorism/res_1373_english.pdf (emphasis added) (last visited Jan. 26, 2004).

¹¹² See G.A. Res. 1377 U.N. GAOR, 4413th mtg., U.N. Doc. S/RES/1377 Meeting (2001), available at <http://ods-dds-ny.un.org/doc/UNDOC/GEN/N01/633/01/PDF/N0163301.pdf?OpenElement> (last visited Jan, 26, 2004).

¹¹³ See G.A. Res. 56/88 U.N. GAOR, *supra* note 111. Fifty-Sixth Session (2002).

decide how to address the inadequacies of the existing treaties.¹¹⁴ The NPT is a good case study because its language is broad enough to cover both nuclear smuggling and nuclear information proliferation. However, the NPT only applies to states. Any future convention on international terrorism must focus on preventing non-state actors from participating in the nuclear black market. The current lack of coverage for individuals is surprising and the international community should address the problem as soon as practicable.

Furthermore, the new convention on nuclear terrorism should focus on prevention rather than punishment. It should attempt to preemptively curtail nuclear smuggling and information proliferation and not concentrate on punishment after the fact. Finally, the U.N. should expand the role of the International Atomic Energy Agency (IAEA) to act as a monitoring body that observes and implements the convention's regulations. This is a practical decision because the International Atomic Energy Agency already performs such duties under its relationship with the NPT.

C. The Role of the IAEA

The International Atomic Energy Agency works in tandem with the Non-Proliferation Treaty by establishing and enforcing safeguards to ensure that non-nuclear States do not use nuclear materials, equipment, and facilities to further a military purpose.¹¹⁵ The Agency is a perfect complement to the NPT,¹¹⁶ and it should also work extremely well under the new convention on nuclear terrorism. In 1994, “the Agency developed a program to address illicit trafficking of nuclear material,” which “focuses on helping countries strengthen their nuclear laws and

¹¹⁴ *Id.*

¹¹⁵ See LAWRENCE SCHEINMAN, THE NONPROLIFERATION ROLE OF THE INTERNATIONAL ATOMIC AGENCY: A CRITICAL ASSESMENT 21-30 (1985).

¹¹⁶ See *id.* at 29.

infrastructures to ensure greater ... security over these materials.” The new program also helps countries “detect and respond to illegal movements of radioactive materials....”¹¹⁷ Therefore, the IAEA is the ideal agency for combating nuclear terrorism under the new convention. Nevertheless, the IAEA faces several problems,¹¹⁸ including the fact that the Agency can only act through, and with the cooperation of, the governments of the countries it regulates.¹¹⁹ In order for the IAEA to be effective, governments must be willing to support and implement the Agency's proposed safeguards.

The U.N. should adopt policies to strengthen the role of the IAEA, possibly even giving the IAEA control over the entire nuclear cycle.¹²⁰ However, most countries, especially the nuclear states, are probably not willing to relinquish total control. The best answer is to give the IAEA more funding and broader, though not unlimited, discretionary power. This will allow the agency to more aggressively and consistently enforce the rule of law.

D. Enlisting the Services of Interpol

Interpol is an international police organization that facilitates cross-border criminal investigations among the organization's 181 member countries.¹²¹ Enlisting the services of Interpol and strengthening its international police capabilities pursuant to a treaty on nuclear terrorism are vital steps for overcoming inadequacies that are inherent in domestic

¹¹⁷ See *International Atomic Energy Agency*, at 3.

¹¹⁸ See generally, SCHEINMAN, *supra* note 117, at 32-59 (Scheinman focuses on politicization and credibility as the major problems facing the IAEA).

¹¹⁹ See Fugal, *supra* note 48, at 307.

¹²⁰ See *id.* at 308.

¹²¹ Interpol, *An Overview*, at

<http://www.interpol.int/Public/Icpo/FactSheets/FS200101.asp>.

investigatory techniques.¹²² The international character of nuclear smuggling and proliferation “implies that police efforts should transcend national boundaries.”¹²³ Therefore, the U.N. and the IAEA should establish a working relationship with Interpol to more effectively combat these terrorist activities. Interpol has extensive experience with international terrorism, and it could help considerably in the efforts to prevent nuclear smuggling and proliferation by non-state actors.

E. Passing Domestic Laws on Money Laundering

The frequency of international terrorist acts is proportionate to the financing that terrorists receive. Therefore, the elimination of funding should result in the elimination of the activity. “It is critical that law enforcement target the financial sponsors of terrorist activities, not just the actual perpetrators of the terrorist acts.”¹²⁴ U.N. Resolution 1373 calls for all nations to take “additional measures to prevent and suppress, in their territories through all lawful means, the financing and preparation of any acts of terrorism.”¹²⁵ Since terrorist funds are laundered through legitimate businesses, the U.N. should encourage countries to pass domestic laws that require greater scrutiny of suspect financial transactions.

IV. CONCLUSION

The nuclear black market poses a serious threat to the international community. Since existing treaties are inadequate with regards to nuclear smuggling and nuclear expertise proliferation by non-state actors, the

¹²² See Kellman & Gualtieri, *supra* note 25, at 720.

¹²³ *Id.* at 719-20.

¹²⁴ See Interpol, *The Financing of Terrorism*, available at <http://www.interpol.int/Public/Terrorism/financing.asp> (last visited Jan. 26, 2003).

¹²⁵ See G.A. Res. 1373, U.N. SCOR, *supra* note 112, at 1.

international community should specifically define these activities as international crimes under a new convention on nuclear terrorism. The new convention should focus on prevention rather than punishment, and it should encourage nations to enact domestic laws that support the character of the agreement. International cooperation is necessary for the convention to succeed and the U.N will play a pivotal role in ensuring this collaboration. Finally, enlisting the help of agencies like the IAEA and Interpol should greatly reduce the future occurrences of nuclear smuggling and nuclear information proliferation because both agencies have extensive experience with international terrorism. While these suggestions may not completely eliminate the possibility of non-state actors initiating future nuclear conflict, they should significantly reduce the threat.