

## Legislation for and Enforcement of Nuclear-Weapon-Free Zones

None of the early NWFZ treaties required states parties to take, in accordance with their constitutional processes, any necessary measures to implement their obligations under the respective treaties. To a certain extent, the Treaty of Pelindaba did so, explicitly requiring that parties prevent the dumping of radioactive waste by effectively implementing or using as a guideline the Bamako Convention and the Convention on Physical Protection of Nuclear Material. Going further, the Treaty of Semipalatinsk required its parties to take all necessary measures for effective implementation of the purposes and objectives of the treaty. Even without such explicit provision, it is a general duty for each state to bring its national law into conformity with its obligations under international law. The 1969 Vienna Convention on the Law of Treaties provides that treaties in force are binding upon the parties to them and must be performed by them in good faith. Its Article 27 provides further that a party to a treaty may not invoke the provisions of its internal law as justification for its failure to perform a treaty.

Consequently, even though the treaties are silent in this respect, their texts should be examined to determine whether national measures will be necessary in order to implement the treaty. These could range from: (a) statute(s) and/or penal code provisions adopted or amended by the national legislature to (b) the promulgation of complementary ordinances and regulations by the executive branch. The prevention of the development of nuclear explosive devices implies that import/export controls will be established or amended to include all nuclear materials, technology and equipment under safeguards.

This is particularly important in respect of enforcement of the treaties. While the treaties do not explicitly state that there is an obligation to impose criminal sanctions on natural and legal persons for breaches of the prohibited activities, it is inherent that activities prohibited at an international level will be proscribed and enforced at a national level.

Although it is unlikely that a militarily significant nuclear weapon could be developed outside the state's purview, it has been suggested that the development of a nuclear explosive device by non-state actors, including terrorist cells, is possible. As Luis W. Alvarez<sup>1</sup> stated "[m]ost people seem unaware that if separated U-235 is at hand it's a trivial job to set off a nuclear explosion, whereas if only plutonium is available, making it explode is the most difficult technical job I know".<sup>2</sup> The determination of terrorists to buy, build or steal a nuclear weapon is being recognized at the highest echelons of government as a likely possibility.<sup>3</sup> The magnitude of the threat is such that the United Nations Security Council adopted a binding resolution in 2004 requiring States to adopt measures to prevent proliferation among non-State actors, as will be discussed below. In addition, the Nuclear Terrorism Convention was opened for signature in 2005 and already entered into force in 2007.

As a matter of public policy, it can be argued that implementing legislation for the NWFZ treaties is important even for state actors. The NWFZs are durable treaties while governments and national policies change. Covert weapons programmes are a standard feature of military history. National legislation criminalising the research, development, production, possession or use of nuclear weapons and nuclear explosive devices would make it more difficult for successive government administrations to alter the non-proliferation position adopted by a state when concluding a NWFZ treaty. Only Mongolia and New Zealand have adopted legislation criminalising violations of the NWFZ norms. Some states, such as Austria, Iraq, Palau and the Philippines, have entrenched the concept at the constitutional level.

Even in legal systems where the treaty automatically forms part of national law, the criminalisation of prohibited activities is essential. None of the NWFZ treaties criminalise the prohibited activities and none proscribe penalties. The fundamental principle of criminal law is the maxim *nullem crimen, nulla poena sine lege* (no crime, no punishment without law) - the crime must be defined by law and the penalties established before the act is attempted or committed; otherwise prosecution of offenders will not be possible even when the treaty can be invoked at the national level. This is the principle of legality, enshrined in Article 11(2) the Universal Declaration of Human Rights.<sup>4</sup> The importance of adopting and enforcing such measures has been underscored by the United Nations Security Council in recent years. In the period post the 11 September 2001 terrorist attack on the United States, the perception of the nuclear proliferation threat expanded beyond state actors to include non-state actors as well; and the role of the Security Council in non-proliferation increased.

In 2004, in its groundbreaking Resolution 1540 adopted under Chapter VII, the Security Council required *all states* to take measures at the national level to prevent the proliferation of nuclear, chemical and biological weapons among non-state actors. It specified that such measures shall include, *inter alia*, the adoption and enforcement of effective laws, security and material accountancy in production, use, storage or transport, physical protection measures, effective border controls and law enforcement, export, transit, transshipment, re-export and financial controls and establishment and enforcement of appropriate criminal and civil penalties for violations of export controls. Thus regardless of the treaties to which states are party, and regardless of whether those treaties require national implementation and enforcement measures to prevent the proliferation of nuclear weapons, all states must establish them. The Security Council is continuing to renew the resolution and invest resources in achieving its aims.<sup>5</sup>

Consequently, from a good governance point of view, it makes sense for states to establish the legal and institutional framework at the national level in which proliferation activities can be identified, searches and seizures conducted, offenders prosecuted and punished. It also enables a state to engage in international co-operation for the prevention or prosecution of proliferation activities, including the exchange of information to prevent such crimes. While contributing to achieving the object and purpose of the NWFZs and addressing the threats in a meaningful way, national implementing legislation removes the national territory as a safe haven for perpetrators.

Case in point is the South African experience in 2004 concerning the investigation and arrests of three businessmen for their participation in the nuclear smuggling ring of Pakistani scientist A.Q. Khan. The three were suspected of supplying nuclear-related equipment and technology from 1986-1995 to the Libyan and Pakistani nuclear weapons programmes. Although South Africa had adopted strict legislation in the form of the 1993 Non-Proliferation of Weapons of Mass Destruction Act, the regulations to implement that Act were only adopted in 1994. As a result, the accused could only be

prosecuted for acts committed in 1994-1995, while all previous activities 1986-1993 went uncharged and unpunished. The crimes prosecuted included importing and re-exporting equipment, manufacturing and exporting sensitive components, and forging documents in order to acquire sensitive equipment and technology.<sup>6</sup>

The establishment of the zone is a process, and the declaration of the zone is only the first step. Giving meaning to the NWFZ concept at the national level in terms of implementation and enforcement poses the greatest task and it must be continuous in order to maintain its viability.

The world is shifting. The climate change discussions and volatility of the energy market has captured the attention of all governments, large and small. There is a nuclear energy renaissance.<sup>7</sup> The consequence will be a significantly larger number of nuclear-capable states and eventually a monumental amount of nuclear material on earth to be controlled. One website reflects that new uranium prospecting and exploration activities have commenced in dozens of countries.<sup>8</sup> Many, or even most, of the countries listed are lacking resources and are already challenged by the economics in human and financial terms of establishing the necessary structure and legislation to cope with treaties in all subject areas. This is especially true when conflicts or health issues are competing for the attention of the government. Contemplating the scale at which illicit drug trafficking has been organised, to the extent that one West African country was arguably meeting the definition of a criminal organisation, the potential prospect of an increase in the illicit trafficking of nuclear materials is to be prevented as a matter of priority. U.S. President Obama's recent announcement of a new international effort to secure all vulnerable nuclear materials around the world within four years is ambitious and underscores the immediacy the threat must actually have. Nevertheless, physical security is just one element in the equation and legislation is its twin that must accompany it in tandem. The removal of safe havens is imperative. And because the consequences of radioactivity cannot be remediated in human lifetimes, the importance of such legislation to health and the environment is critical.

<sup>1</sup> Key physicist in the Manhattan Project in which the first nuclear weapons were developed in the U.S. and subsequently Nobel Laureate in physics.

<sup>2</sup> Luis W. Alvarez, *Adventures of a Physicist*, New York, Basic Books (1987) 125, cited in the lecture given by Professor Francesco Calogero, University of Rome, in the 2008 session of the International School of Disarmament Research (ISODARCO), Andalo, Italy, January 2008.

<sup>3</sup> Speech of United States President Barack Obama in Prague, 5 April 2009: "...the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up.... Black markets trade in nuclear secrets and materials. The technology to build a bomb has spread. Terrorists are determined to buy, build or steal one." Available at [http://www.nytimes.com/aponline/2009/04/05/washington/AP-Obama-Text.html?\\_r=1&scp=10&sq=nuclear+weapons&st=nyt](http://www.nytimes.com/aponline/2009/04/05/washington/AP-Obama-Text.html?_r=1&scp=10&sq=nuclear+weapons&st=nyt)

<sup>4</sup> UNGA Resolution 217 (III) (1948). Article 11 ... (2) No one shall be held guilty of any penal offence on account of any act or omission which did not constitute a penal offence, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offence was committed.

<sup>5</sup> Report of the Committee established pursuant to resolution 1540, UN document S/2008/493, dated 20 July 2008.

<sup>6</sup> A. Williams, *South Africa, Germany Announce Significant Developments in Prosecution of Suspected Khan Network Participants*, WMD Insights (Dec 2007 - Jan 2008), available at: [http://www.wmdinsights.com/121/121\\_Af1\\_SouthAfricaGermany.htm](http://www.wmdinsights.com/121/121_Af1_SouthAfricaGermany.htm)

<sup>7</sup> Possibly one-third of all states globally are currently contemplating nuclear energy to meet their future energy needs. The IAEA has called for 1 400 new nuclear power reactors by 2050. See further, Ivo Daalder, and Jan Lodal, "The Logic of Zero: Toward a World Without Nuclear Weapons," *Foreign Affairs* (November/December 2008) 80-95 at 88.

<sup>8</sup> Wise Uranium Project, *New Uranium Mining Projects*, [www.wise-uranium.org](http://www.wise-uranium.org).