NUCLEAR TERRORISM – ARE WE PREPARED FOR IT?

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Abstract

Nuclear terrorism is being touted as the latest on the list of emerging threats. Theoretically speaking, acts of nuclear terrorism can take place outside heavily guarded civil and military facilities, particularly during the transportation of radioactive materials. A number of government agencies in Pakistan are working towards ensuring that such a scenario does not take place. This paper aims at examining the international perceptions about nuclear terrorism and proposing a joint strategy to counter nuclear terrorism by taking all official and non-official stakeholders on board.

Introduction

Going through the nuclear literature, one comes across a number of combinations and permutations with prefixes like: nuclear arms, nuclear arms race, nuclear alert, nuclear alert levels, nuclear bomb, nuclear bomber, nuclear battlefield, nuclear core, nuclear delivery systems, nuclear device, nuclear energy, nuclear fallout, nuclear fission, nuclear forces, nuclear fuel, nuclear ground zero, nuclear incident, nuclear inspections and safeguards, nuclear missile, nuclear power, nuclear proliferation, nuclear non-proliferation, nuclear reactor, nuclear radiation, nuclear reprocessing plant, nuclear submarine, nuclear suppliers group (NSG), nuclear target, nuclear technology, nuclear trade, nuclear scientist, nuclear signals, nuclear warhead, nuclear warning, nuclear weapon state (NWS), non-nuclear weapon states (NNWS), nuclear watchdog body, nuclear winter etc. The latest edition to this list is ‘nuclear terrorism.’ Currently, it is being touted as the most serious threat to humanity. Nuclear terrorism, as per 2005 United Nations International Convention for the Suppression of Acts of Nuclear Terrorism, denotes the use, or threat of the use, of nuclear weapons or radiological weapons in acts of terrorism, including attacks against facilities where radioactive materials are present. In legal terms, it is an offense committed, if a person unlawfully and
intentionally “uses in any way radioactive material ... with the intent to cause death or serious bodily injury; or with the intent to cause substantial damage to property or to the environment; or with the intent to compel a natural or legal person, an international organization or a State to do or refrain from doing an act.”¹ The purpose of this paper is to examine the international perceptions about nuclear terrorism and Pakistan’s ability to deal with the challenge.

Ever since the nuclear genie was let loose on the world, powerful nations have used all means at their disposal to contain the spread of nuclear weapons among other nation states. After September 11, 2001, the nuclear non-proliferation dragnet has been extended to include non-state actors as well. Pakistan, a late entrant into the nuclear field has for most part found itself up against the non-proliferation tide. In 1968, under the terms of the Nuclear Non-Proliferation Treaty (NPT), the nuclear shutters were slammed shut, denying Pakistan the legitimate right to nuclear recognition. Laying down the nuclear boundary has been in the works, since 1946, when USA, as the sole NWS made a bold pitch to stop the inevitable spread of nuclear weapons by offering to share basic scientific information for peaceful purposes. The Baruch Plan proposed that atomic weapons and all other major weapons adaptable to mass destruction should be eliminated from national armaments; and stressed the need for establishing effective safeguards, by way of inspection and other means to protect complying states against the hazards of violations and evasions.² The Soviet Union, only two years shy off testing its first nuclear weapon, quite naturally refused to accept the Plan. The first attempt at nuclear control withered on the vine. The next initiative to engage the world in the peaceful uses of nuclear energy was President Eisenhower’s Atom for Peace Program in 1956.³ This allowed countries to have research reactors for peaceful uses of nuclear technology. In case of India, the spent nuclear fuel from the Canada Deuterium Uranium (CANDU) research reactor was illicitly diverted to fabricate nuclear weapons.⁴ During the Cold War, the superpowers offered their close allies various kinds of security guarantees including the nuclear umbrella to keep them from developing nuclear weapons. The safety net of
military and economic alliances did not prevent France, China and Britain from going nuclear.

After having created a nuclear deterrence of sizeable proportions, the two superpowers engaged in bilateral arms control talks to set a bar on the total number of warheads and delivery means held by them. On the sidelines of this nuclear engagement, they constructed an international non-proliferation regime to limit nuclear arms globally through a raft of international treaties. Since 1968, the NPT has expanded to include 189 signatories. Three states namely India, Pakistan and Israel never joined the NPT. In 1974, India conducted its first nuclear test under the garb of a Peaceful Nuclear Explosion (PNE). While time and again India was allowed to get away with its nuclear indiscretions, the only non-NPT country to have had the dubious honour of being penalised for nuclear misdemeanour is Pakistan. The infamous Pressler Amendment was invoked in 1990, when the US president refused to certify that Pakistan did not possess a nuclear device, as a precondition for resuming economic and military aid. 

In 1998, India conducted a series of nuclear tests to prove its weapon capability. This was predictably followed by Pakistani nuclear tests. The tests, among other consequences, resulted in a host of sanctions. Israel hasn’t conducted an overt test so far. Many observers speculate that a suspected nuclear explosion in the south Indian Ocean in 1979 was a joint South African-Israeli test. This is quite possible, since recent press reports indicate that South Africa, internationally shunned at that time for its racist policy, had a close nuclear cooperation with Israel. Major changes have occurred on the nuclear landscape since then. South Africa gave up its nuclear program and dismantled its nuclear weapons, after renouncing the policy of apartheid and signing the NPT in 1991. North Korea, one time signatory to the NPT, withdrew from the Treaty in 2003, citing threats from the US. It has since conducted nuclear tests twice, and may well be preparing for a third test. After the Soviet Union broke up and left its nuclear facilities, scientists, technologies and armament scattered in the newly independent state, the US launched a vigorous campaign to contain the spread of orphan nuclear material under the Nunn-Lugar Cooperative Threat Reduction (CTR) Program. Under this scheme Belarus, Kazakhstan and Ukraine voluntarily gave up
their nuclear arsenals in return for technical and financial assistance.13 Another means adopted to steer countries clear of nuclear weapons was to encourage them to join regional nuclear weapon “free” zones (NWFZ). Five such zones exist today, with four of them spanning the entire Southern Hemisphere. The regions currently covered under NWFZ agreements are Latin America (the 1967 Treaty of Tlatelolco), the South Pacific (the 1985 Treaty of Rarotonga), Southeast Asia (the 1995 Treaty of Bangkok), Africa (the 1996 Treaty of Pelindaba) and Central Asia (the 2006 Treaty of Semipalatinsk). The voluntary concept of NWFZ hasn’t materialised in crisis zones like the Middle East and South Asia. In some cases, aggressive muscular means have been used to eliminate irritant nuclear programs. The Iraqi nuclear reactor at Dimona was destroyed in an Israeli air raid in June 1981. Similar contingencies were being planned against the Pakistani nuclear facilities in the 1980s.14 Fortunately, these remained on the drawing board and were never executed. Iraq wasn’t as fortunate. In 2002, USA and its coalition allies attacked Iraq on the baseless pretext that Sadam Hussein’s Ba’athist regime possessed WMD’s that could be launched against Israel within 45 minutes. In September 2007, Israel again attacked and destroyed an alleged Syrian nuclear reactor located at Al Kibar.15 Dire warnings have been issued to Iran to stop pursuing its nuclear program, including the use of military means but so far these threats have not been executed. Four sets of UN sanctions have been passed to deter and delay the Iranian program.16 The US and EU have added their own sanctions against a nuclear Iran.

Despite a significant toning down of aggressive official rhetoric, as compared to the Bush days, the salience attached to the threat of nuclear terrorism by the American officialdom hasn’t decreased. The US Department of Homeland Security lists ‘Strengthen Our Bio and Nuclear Security’ as the second Guiding Principle after ‘Defeat Terrorism Worldwide.’ It recommends the strengthening of nuclear security by enhancing the national nuclear detection architecture and ensuring that its own nuclear materials are secure. It suggests “establishing well-planned, well-rehearsed, plans for coordinated response, we will also ensure a capability that can dramatically diminish the consequences of chemical, biological,
The issue of nuclear proliferation figured prominently in the last US presidential election agenda. On his campaign trail, candidate Obama had charged the Bush administration for failing to confront the threat of nuclear terrorism and had “vowed that if elected president, he would lead the effort to corral errant nuclear materials and stay one step ahead of biological and cyber threats.” He had called nuclear terrorism “the gravest danger” that the US faced and blamed Bush for “spending nearly 1 trillion dollars on the war in Iraq, which had no active nuclear programme, while 50 tons of highly enriched uranium at civilian nuclear facilities around the world often is ‘poorly secured’.”

In his famous Prague speech, after taking over as President, Obama exhorted a receptive and adulatory European audience to “build on our efforts to break up black markets, detect and intercept materials in transit, and use financial tools to disrupt this dangerous trade. Because this threat will be lasting, we should come together to turn efforts such as the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism into durable international institutions. And we should start by having a Global Summit on Nuclear Security that the United States will host within the next year.”

In the Plenary Meeting of the Global Initiative to Combat Nuclear Terrorism, held at The Hague, Netherlands, in June 2009, Obama’s message read out to the assembled national representatives reiterated that there was “no graver danger to global security than the threat of nuclear terrorism, and no more immediate task for the international community than to address that threat.” He called upon the 75 member nations of the Initiative to “stand together as partners to prevent the theft, diversion, and misuse of nuclear materials and technologies; to detect the illicit trafficking of nuclear materials; and to respond to, investigate, and prosecute would-be nuclear terrorists.”

Addressing the Corps of Cadets in West Point in 2009, Obama was more candid and direct. He said the, “stakes are even higher within a nuclear-armed Pakistan, because we know that al Qaeda and other extremists seek nuclear weapons, and we have every reason to believe that they would use them.” He ominously added: “We will have to take away the tools of mass destruction. And that’s why I’ve made it a central pillar of my foreign policy to secure loose nuclear materials from terrorists, to stop the spread of nuclear weapons, and to pursue the
goal of a world without them.” The message was repeated before an international audience invited to the US capital in April 2010. A day before the inauguration of the International Summit on Nuclear Security, the US president declared that “The single biggest threat to US security, both short term, medium term and long term, would be the possibility of a terrorist organization obtaining a nuclear weapon.” At the Summit, he warned the world leaders that it would be a catastrophe if they failed to act decisively to keep nuclear weapons from terrorists. He highlighted the danger of nuclear materials falling in the hands of terrorist groups and warned that “Just the smallest amount of plutonium, about the size of an apple, could kill and injure hundreds of thousands of innocent people.” In May, addressing the class of 2010 at the West Point, Obama reminded the cadets that the top two national challenges at the moment were “countering violent extremism and insurgency” and “stopping the spread of nuclear weapons and securing nuclear materials.”

A number of official statements and media reports have alerted the Pakistani government to all kind of threats to its nuclear assets. In the aftermath of the 9/11 attacks, former President Musharraf had had cited protection of Pakistan’s nuclear arms and missiles as one of the reasons for his dramatic policy shift, as a justification for his decision to assist the United States against the Taliban. Security of Pakistani nuclear weapons was openly discussed in the US senate during Condoleeza Rice’s confirmation hearing as the Secretary of State in January 2005. Responding to a question from Senator John Kerry about what would happen to Pakistan’s nuclear weapons if there was a radical Islamic coup in Islamabad, Rice replied: “We have noted this problem, and we are prepared to try to deal with it.” On April 26, 2009, Secretary of State Hillary Clinton told Fox News that there were concerns over what could happen to the Pakistani nuclear arsenal if the advancing Taliban supported by the al Qaeda toppled the government. Clinton said that such a scenario was unthinkable and that is why the US government was “pushing” the Pakistanis “hard” to adopt a “strategy to take their country back.” On April 30, 2009, at a news conference to mark the 100 days of his presidency, Barack Obama expressed his confidence that “Pakistan Army will not allow its
nuclear arsenal to fall into the hands of Islamic militant groups like the Taliban or Al-Qaeda.”

Mercifully, Pakistan’s strong counter-insurgency policy has yielded positive results, and Obama statement during the Washington nuclear security summit that “I feel confident about Pakistan’s security around its nuclear weapons programs,” has been widely seen as a reassuring signal in Pakistan.

Over the years, Pakistan has systematically undertaken a number of widely publicised measures to ensure the world at large about the seriousness it attaches to the safety and security of its nuclear assets. As a member of the IAEA, Pakistan abides by the agency’s Code of Conduct on the Safety and Security of Radioactive Sources, Code of Conduct on Transport of Radioactive Materials, and the Code of Conduct on the Safety of Research Reactors. Pakistan is party to the Convention on Physical Protection of Nuclear Material (CPPNM), Chemical Weapons Convention (CWC), Biological and Toxins Weapons Convention (BWC), international conventions against terrorism and the Global Nuclear Security Initiative. Pakistan has taken effective legal measures to strengthen control over its nuclear infrastructure, in the light of the UN Security Council Resolution 1540, passed in April 2004. The ‘Export Control on Goods, Technologies, Material and Equipment Related to Nuclear and Biological Weapons and their Delivery Systems Act, 2004,’ controls any material, equipment and services that could contribute to the design, development, production, stockpiling, maintenance or use of nuclear and biological weapons and their delivery systems. It also covers re-export, trans-shipment and transit of all sensitive goods and technologies. The Strategic Export Control Division (SECDIV) at the foreign office processes all nuclear trade transactions. The Pakistan Nuclear Regulatory Authority (PNRA) monitors the functioning of all its nuclear facilities.

Pakistan joined the US-sponsored Container Security Initiative (CSI) in March 2006, signing the CSI declaration of principles, and was selected as a model state by the US Customs and Border Protection agency for the Pilot Programme of the CSI. Pakistan supports the spirit of the Proliferation Security Initiative (PSI) and although it remains wary of the notion of interdicting the cargo of other states, it has attended three PSI exercises as an observer, since 2005.
A robust command and control system is in place to protect Pakistan’s nuclear assets from diversion, theft and accidental misuse. Responsibility for nuclear weapons now clearly rests in the hands of the National Command Authority (NCA) and its constituent bodies. The Strategic Plans Division acts as its secretariat. This body is respected nationally and internationally for its professionalism and competence. The Security Division of SPD has requisite oversights over the materiel and men associated with the nuclear establishment. It provides physical security, organises counter intelligence and runs a Personnel Reliability Program (PRP). Pakistan’s premier intelligence agency, the ISI, forms the ‘outer ring’ of security in conjunction with the Security Division. An elaborate three-man rule is in place for employment authorisation. The nuclear weapons are not on hair trigger alerts. These are kept in disassembled state, during peacetime and can be assembled “very quickly” in times of war. The stockpiles are secured in underground facilities, where these can neither be seized nor destroyed. It has an indigenously developed Permissive Action Links (PALs) to block arming systems without proper codes and Environmental Sensing Devices (ESDs) to block arming systems unless a prescribed environmental profile is achieved. Pakistan’s nuclear sites were equipped with security cameras; biometric access control; bullet-proof vehicles, high security walls; and quick reaction forces. Under new SPD arrangements, specialist vehicles and tamper-proof containers are provided to all laboratories for the transits of materials, while military personnel escort each of the containers. In February 2008, Ashley Tellis, senior associate with the Carnegie Endowment for International Peace, told the House Foreign Affairs Subcommittee on South Asia that he was convinced about the safety and security of Pakistan’s strategic assets, including “its nuclear devices, its delivery systems, and its stockpile of fissile materials.” Tellis gave ‘singular credit’ to the Director General of SPD, retired Lieutenant General Khalid Kidwai for putting in place safeguards to insulate “the strategic reserves against both external and international dangers.”

At the nuclear security summit held in Washington D.C. in April, this year, the Pakistani prime minister felt confident enough to offer two key nuclear resources to other countries: its atomic fuel
services under IAEA safeguards and its experience and expertise in nuclear safety. PM Yusuf Raza Gilani declared Pakistan’s strong commitment to nuclear security, and added that his country “would continue to refine and modernize its technical and human resources and mechanisms on safety and security of nuclear weapons, nuclear materials, facilities and assets.” He stressed that “Pakistan has maintained the highest standards for non-proliferation,” and added “When problems surfaced we addressed them definitively and kept the international community informed.” He pointed out that a robust command and control system was in place, to protect “our strategic assets against theft, diversion, and accidental or unauthorized use.”

The Pakistani proposals contained two more significant points i.e. the nations need to cooperate with each other in acquiring reliable nuclear security and that India needed to work with Pakistan for protecting South Asia against a nuclear disaster.

For such kind of confidence to continue, Pakistan needs to build up on its credible nuclear credentials and be prepared to face new challenges, like nuclear terrorism. An incident taking place within the country could provide more ammunition to those, who propagate the theme of the vulnerability of Pakistani nuclear weapons. How can such a scenario materialise, despite foolproof measures? Dr Charles D. Ferguson and William C. Potter posit four approaches that a terrorist can use to exploit nuclear assets under legitimate government control to serve towards destructive ends around the globe:

- The theft and detonation of an intact nuclear weapon.
- The theft and purchase of fissile material; leading to the fabrication and detonation of fissile material, leading to the fabrication and detonation of a crude nuclear weapon – an improvised nuclear device (IND).
- Attack against and sabotage of nuclear facilities in particular nuclear power plants (NPPs), causing the release of large amounts of radioactivity.
- The unauthorized acquisition of radioactive material contributing to the fabrication and detonation of a Radiological Dispersion Device (RDD) – a “dirty bomb” – or radiation emission device (RED).
Incidents have happened in many advanced countries, indicating that wilful or inadvertent nuclear and radiological accidents can take place. Radiation leaks from the Chernobyl nuclear power plant in Ukraine, then part of the USSR, and the Three Mile Island nuclear power plant in the US, are well known incidents, involving flawed designs and poor safety standards. In March 1995, terrorists belonging to the Aum Shinrikyo sect carried out five coordinated attacks using sarin gas to kill five people and injuring a thousand more in the Tokyo subway. Far more ingenious methods have been used to spread materials harmful to human lives, including letter bombs. Theodore Kaczinski, also known as the Unabomber sent package and letter bombs through the US mail for seventeen years. His packages killed three people and injured twenty nine others. The letter bomb scare heightened after presence of anthrax was reported in suspicious letters after the September 2001 attacks. At least seven letters infected with deadly anthrax spores produced in biological laboratory were posted from Trenton, New Jersey. This deadly anthrax strain infected twenty two people, five of whom died. The anthrax attacks remain a mystery and no one has ever been apprehended. Many pranksters added to the general insecurity prevailing at that time by sending letters containing baby powder or powdered sweetener. The anthrax alarm spread as far as Pakistan. A package suspected of containing anthrax was found in Islamabad in late October 2001. This was followed by reports from other parts of the country. Over a five month period from November 2001 to March 2002, a total of 230 samples from 194 sources were received by the National Institute of Health (NIH) in Islamabad for analysis, from foreign missions, foreign media, corporate sector organisations, banks, multinationals, institutions, universities, hospitals, government officials and private individuals. The tests led to the conclusion that all “incidents of suspected anthrax parcel/letter bombs in Pakistan were hoaxes.”

A number of well documented incidents have taken place in India involving exposure from hazardous material. The leak at the Union Carbide factory in Bhopal caused hundreds of deaths and people living in the vicinity of the ill-fated factory continue to suffer
The Madras Atomic Power Station located in Kalpakkam near the seashore in the state of Tamil Nadu was hit by the Asian tsunami in December 2004. The operating unit of the Power Station was shut down after tidal waves flooded its pump house. Officials insisted that the reactor was safe. In another incident, 55 workers at the Kaiga nuclear power plant in Uttar Kanada district in the Indian state of Karnataka suffered radiation exposure after drinking contaminated water in November 2009. After preliminary investigation the corporation’s chairman and managing director S.K. Jain contended that “It was an act of mischief.” Speaking to reporters in Mumbai, Anil Kakodkar, the chief of India’s Atomic Energy Commission added that: “Somebody deliberately put tritiated water into drinking water cooler.” A nuclear scientist had died under mysterious circumstances at Kaiga in June 2009. Reports of security breaches at Indian nuclear facilities have been reported as late as November 2000, when Indian Police had seized 57 pounds of uranium and arrested two persons for illicit trafficking of radioactive material. Media reports datelined April 11 spoke of the discovery of at least nine powerful Cobalt-60 sources of nuclear radiation, which had fataly infected five people in a West Delhi industrial area, sending shock waves among the local population as well as nuclear establishment in India. More shocks were in store on April 26, 2010, when 35 year old Rajendra Yadav, a worker in a salvage yard in New Delhi died of multiple organ failure. The deceased had been carrying radioactive material in a leather wallet, while scouting for a prospective buyer. The IAEA, called it “the most serious global instance of radiation exposure since 2006.” A month earlier, India’s Atomic Energy Regulatory Board (AERB) had certified the dump and the surrounding area as safe. The Greenpeace international environmental agency came up with different conclusions. Its experts found radiation 5000 times in excess of the normal background levels at this privately owned salvage facility in New Delhi’s congested Mayapuri district and its surrounding areas. Their tests showed six ‘hotspots’ between 20 and 50 metres from the scrap-yard into the streets. The radioactive scrap was traced back to Delhi University’s laboratories, whose operations were suspended for two weeks, pending investigations.
Clearly, the carriage, storage and disposal of nuclear and radiological materials is a delicate operation open to unprovoked and manmade disasters causing immense harm to human life and the environment. Organisations championing the ecological and environmental causes have often protested against the movement of potentially hazardous material through public highways, railways and waterways e.g. in May 2002 Greenpeace reported the movement of The Pacific Pintail, an armed British-flagged nuclear transport ship through the Panama Canal to retrieve faulty plutonium MOX from Japan. In a recent op-ed article published in the daily *Dawn*, a domestic commentator debated the issue of transporting nuclear waste to the dumping sites. She argued that the transportation of Spent Nuclear Fuel (SNF) in special container casks from nuclear reactors and power plants was susceptible to accidents, like the collapse of a bridge or a train derailment resulting in the spillage of highly radioactive material causing the death of dozens of people in the vicinity of the accident site. She raised issues like observance of international safety regulations requiring the container casks to be made of 5 inches thick steel and lead alloy and the nuclear fuel being embedded in clay like material penetrable only by fire during movement. She also wanted to know if the people for their own safety were aware of the nuclear waste sites and the routes leading upto them. Some of these answers are available in an elaborate article on preventing nuclear terrorism in Pakistan authored by Abdul Mannan, an official of the PNRA. Mannan posits that given the multilayered security around NPP’s and other nuclear facilities, there is little likelihood of nuclear facilities being targeted by terrorists. Instead such attacks could take place only, where security is less stringent like industrial radiography sources in transit. To study Pakistan’s vulnerability to nuclear terrorism Mannan constructed two hypothetical case studies of hybrid terrorist attacks, involving rocket attacks and petrol fires on a consignment of Spent Nuclear Fuel (SNF) and high activity radiological material, while in transit. Although he discusses both cases in detail giving out computer generated radiological fallouts and immediate and long term human losses, he rules out the possibility of the first case materialising, since SNF in Pakistan is stored at the site is not moved out. The main source of concern is the risks attendant in moving high activity radioactive source within Pakistan.
prevent a radioactive source from being waylaid, the PNRA applies stringent measures for administrative and engineering controls over all radioactive sources from cradle to grave. To obviate theft or loss of radioactive sources, periodic physical verifications and regulatory inspections are carried out.\(^{55}\) PNRA has an elaborate database of all sources and Pakistan has so far maintained an impeccable record in safekeeping of all nuclear and radiological material. To test the responses of all concerned “regular tabletop exercises are held with Pakistan Customs, law enforcement agencies, and Rescue 112. Officers from various organisations are being regularly sent abroad to learn nuclear and radiological safety. They are in turn preparing a crop of safety experts at institutions like Pakistan Institute of Engineering and Applied Sciences (PIEAS).\(^{56}\) PNRA has also published detailed “Regulations on Management of a Nuclear and Radiological Emergency.” The objective of these regulations is to:

Establish the requirements for an adequate level of preparedness and response for a nuclear or radiological emergency. Their implementation is intended to minimise the consequences for people, property and the environment of any nuclear or radiological emergency.\(^{57}\)

These regulations are applicable to facilities like:

Land based nuclear reactors; facilities for the mining and fuel processing of radioactive ore; facilities for fuel reprocessing and other fuel cycle facilities; facilities for the management of radioactive waste; the transport of radioactive material; sources of radiation used in industrial, agricultural, medical, research and teaching applications; facilities using radiation and radioactive material; and satellites and radio thermal generators using radiation sources or reactors.\(^{58}\)

These regulations also cover “emergencies arising from radiation sources of an untraceable origin and any other source or practice” as specified by PNRA.
The National Disaster Management Authority (NDMA), located in the Prime Minister’s Secretariat in Islamabad, is responsible for handling all kinds of natural and man-made emergencies. Their technical wing has prepared detailed instructions on managing and combating industrial disasters, disasters at port terminals and disasters emanating from chem bio attacks. The NDMA is currently in the process of developing a Nuclear Radiological Emergency Plan (NREP) in consultation with concerned technical departments. In their nuclear disaster management calculus, they include two NBCW platoons of the Pakistan Army and the technical expertise of the Defence Science & Technology Organisation (DESTO) to decontaminate zones rendered toxic, due to nuclear or radiological exposure.

Indubitably, nuclear terrorism is a major threat to the country’s security and no stone should be left unturned to prepare for it, utilising all available national resources. A comprehensive policy covering all possible threats should be prepared as part of the National Security Strategy at the level of the Defence Committee of the Cabinet (DCC). In order to conserve limited resources, judicious allotment of assets should be made to ward off a possible attack of nuclear terrorism. A number of organisations civil and military and intelligence agencies are vested with the responsibility of combating terrorism in its various forms and manifestations. Similarly, a number of organisations have been given the mandate to conduct the rescue, relief and reconstruction operations. In a national emergency, the services of the armed forces and international disaster management agencies are also requisitioned. A high powered central agency should be identified to coordinate the multifarious national and international efforts transcending departmental jurisdictions of the ministries of defence, interior, foreign affairs, information and broadcasting, communication, health, agriculture, water and power, oil & gas, ports & shipping etc. The Civil Defence Department, the National Volunteer Movement, the National Public Safety Commission (NPSC), all law enforcement agencies (LEA’s) like the federal and provincial police forces, the Federal Investigation Agency (FIA), the Anti-Narcotics Force (ANF), the Frontier Constabulary (FC), and the National Highway and Motorway Police (NHMP), the Railway Police, the
Citizen Police Liaison Committees (CPLC’s), the Civil Armed Forces (CAF), the Airport Security Force (ASF), civilian administration, and emergency and health services should be made part of the effort. Command post exercises and physical drills should be carried out involving all agencies earmarked for such contingencies. Nuclear and radiological emergencies should be made part of the curriculum of all military and civil institutions teaching public safety and security. A national nuclear emergency exercise should be conducted once every five years to identify weak areas.

An imaginative public awareness campaign through the print and electronic media would go a long way in mitigating a nuclear or radiological disaster. The public preparedness for such eventualities should be enhanced through civil defence exercises. Last but not least, funds should be allocated for constructing NBC shelters, and for purchasing equipment like Geiger counters, NBC suits for first responders, and medicines required to handle the casualties suffering from nuclear and radiological exposure.

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Notes


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51 Ibid. p.1.
52 Ibid.p.4.
53 Ibid, p.11.
54 Interview with Mr Abdul Mannan dated May 21, 2010.
58 Interview with Brig Waqar Ahmad Durrani (retired) and Lt Col Mussarat Naeem (retired) of the NDMA, May 20, 2010.