

# ***Pakistan: Reducing the Risks of a Nuclear Disaster***

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## **Introduction**

Since Pakistan conducted a nuclear test in 1998, there has been mounting international concern over Islamabad's nuclear program. Leading experts claim that Pakistan now possesses more than 100 nuclear warheads.<sup>1</sup> During his first term in office, President Obama reportedly told his staff that the possible disintegration of Pakistan and the subsequent danger of a scramble for nuclear weapons was his greatest national security concern.<sup>2</sup> The following essay points to three major concerns relating to the security of Pakistan's nuclear installations and outlines various courses of action in the political and arms control spheres that are critical for addressing the nuclear security challenge in Pakistan.

## **Three Major Areas of Concern**

### ***The Nuclear Network***

The dissemination of nuclear know-how to rogue states and terrorist groups remains a significant concern for the international community. During the 1980s and 1990s, Dr. Abdul Qadeer (A. Q.) Khan, one of the most senior figures in Islamabad's nuclear program, developed a multinational network for the packaging and sale of nuclear technology and know-how to companies and rogue states such as North Korea and Iran. Khan sold Iran uranium enrichment equipment and designs that were a key element in its efforts to develop a military nuclear capability, and also sold centrifuges to North Korea and Libya. Khan has claimed that his proliferation activities were carried out with the knowledge of Pakistan's military authorities.<sup>3</sup> Although Khan was eventually put under house arrest, elements of the proliferation

network may still be active. In 1997, Pakistani nuclear scientists traveled secretly to North Korea in order to provide it with technical assistance for its nuclear program.<sup>4</sup>

There are also concerns regarding possible nuclear cooperation between Pakistan and Saudi Arabia. The two countries enjoy a longstanding close relationship, with strong strategic and military cooperation. Not long after Pakistan conducted its nuclear test in 1998, Saudi Arabia Defense Minister Prince Sultan bin Abdelaziz al-Saud visited Pakistan's nuclear and missile installations; A. Q. Khan was reportedly present during the visit. In late 2003, several experts reported on a secret agreement between Pakistan and Saudi Arabia in which Islamabad would provide Riyadh with nuclear technology and a bomb in the event that Iran were to acquire a nuclear capability. There is strong evidence to suggest that the two countries have at least discussed such an understanding.<sup>5</sup>

There is a widespread belief among Islamabad's scientific and military elites that Pakistan, as the home of the first Islamic bomb, has the duty to share its knowledge with other Muslim countries. For example, Hamid Gul, the former head of Inter-Services Intelligence (ISI), has stated that it is Pakistan's duty to develop an Islamic nuclear infrastructure to protect Muslims. There are officials who have sought to transfer know-how to jihadist groups, including al-Qaeda. Indeed, following revelations of a meeting with Osama Bin Laden at his secret headquarters, suspicions emerged that Sultan Bashiruddin Mahmood and Abdul Majeed, two high ranking former officials from Pakistan's nuclear program, shared their expertise on nuclear, biological, and chemical weapons with al-Qaeda.<sup>6</sup> Although the two former officials were later arrested by the Pakistani authorities, the concern is that there may be other experts who have shared or are seeking to share sensitive information with Islamist extremists.

### ***Fragile Internal Situation***

A related concern is that elements within Pakistan's military and intelligence authorities harbor sympathies towards Islamist extremists. US intelligence officials have warned of the danger of the infiltration of Pakistan's laboratories by extremists, and similar concerns have been voiced regarding efforts by terrorist organizations to recruit jihadists to work in Pakistan's nuclear facilities.<sup>7</sup> This is particularly pertinent at a time when Pakistan appears to be preparing a submarine-based nuclear system to supplement its land and

air options. Pakistan's military officials have made it clear that their nuclear weapons are a deterrent against Indian ambitions. The development of a seaborne nuclear option may be linked to Pakistan's need for strategic depth in its confrontation with India.<sup>8</sup> As a result, there is now a new danger: the navy, which would be in charge of seaborne nuclear weapons, is thought to be a branch of the military with a strong level of sympathy for jihadists.<sup>9</sup>

Compounding this concern is that Pakistan's nuclear weapons are also vulnerable because of the country's highly fragile economic and political situation. Pakistan's economic growth is low, foreign reserves are dwindling, and poverty is rampant. The difficult economic and political situation is an invitation for greater instability within the country. The retirement of Pakistan's Chief of Staff Ashfaq Kayani in November 2013 will also present a challenge in regard to the question of foreign and security policy in Pakistan.<sup>10</sup> The collapse of the Pakistani government is regarded by some analysts as the most likely scenario in which terrorists could acquire nuclear weapons.<sup>11</sup> Terrorists tried on several occasions to assassinate the former president of Pakistan, Pervez Musharraf.

There is a danger that Pakistan's nuclear weapons could be stolen or smuggled out of the country during periods of great instability, and Washington has spent up to \$100 million to assist Pakistan in securing its nuclear weapons. However, Pakistan has shown reluctance in allowing the United States to conduct an audit to explore how this money is being spent.<sup>12</sup> It is unclear that the Pakistani authorities would notify the United States, or for that matter any other country, in the event of a lost nuclear weapon. It is clear that terrorist groups are determined to breach Pakistan's nuclear defenses, and they have launched numerous attacks on sensitive facilities.

Nevertheless, terrorists planning a nuclear attack would face considerable difficulties in acquiring a nuclear weapon or stealing fissile material for the production of a weapon. Even if non-state actors were to acquire an intact weapon, Islamabad has a number of security and safety procedures in place to protect nuclear weapons against unauthorized use. Terrorists would also have to overcome great obstacles in order to acquire the required quantity of highly enriched uranium or plutonium for an improvised nuclear device. However, in view of the possibility of lax security at some commercial and research reactors, there is a heightened risk that terrorists may be more successful in sabotaging nuclear facilities or obtaining the materials for the detonation of a radiological dispersal device (RDD), also known as a

“dirty bomb,” which utilizes conventional explosives to spread radiological material over a large area.<sup>13</sup>

### ***Regional Situation***

The decades-old bitter rivalry between India and Pakistan is the third important factor that must be taken into account when considering the question of nuclear security. There has been a longstanding debate on the impact of nuclear weapons proliferation in South Asia. Sumit Ganguly argues that rational deterrence theory applies in the case of India and Pakistan, and that the possession of nuclear weapons by both countries has forced them to exercise caution and has prevented serious conflict between the two sides. Even during the war in Kargil in 1999, nuclear weapons played “a critical role” in preventing an escalation of the conflict. Ganguly concludes that nuclear deterrence should remain strong in the India-Pakistan relationship, and help prevent a full scale war.<sup>14</sup>

In contrast, Paul Kapur argues that nuclear weapons can provide powerful incentives for the pursuit of policies that are risky and confrontational.<sup>15</sup> The nuclear posture that Pakistan has adopted vis-à-vis India could create grave dangers in the event of a sudden escalation in tensions. Following its nuclear test of 1998, Pakistan fully integrated its nuclear assets into its military forces. As part of its nuclear posture, described by one scholar as an “asymmetric escalation posture,” Pakistan threatens a first use of nuclear weapons against Indian conventional forces in the event that its territorial integrity is violated.<sup>16</sup> Kapur maintains that nuclear weapons have encouraged Pakistan to behave in a provocative manner towards India, triggering Indo-Pakistani crises such as the Kargil war of 1999.<sup>17</sup>

In adopting an offensive posture, Pakistan is heightening the risks of nuclear instability. There is an element of uncertainty about how use of the weapons is delegated. Although it appears that warheads and delivery systems are stored separately, the US Department of Defense asserted in 2001 that Pakistan could probably assemble its weapons fairly quickly if it chose to do so.<sup>18</sup> Indeed, the ability to quickly assemble and deploy nuclear weapons would help bolster the credibility of Pakistan’s nuclear posture. In certain situations, lower level commanders in the field could be assigned responsibility to assemble weapons. In the event of conflict with India, the breakdown in command and control presents grave dangers of unauthorized or accidental use of nuclear assets. In view of the military’s stewardship of

nuclear weapons, there is an increased risk that it will use them in the event of a serious crisis: a scenario described by one analyst as a “use them or lose them scenario.” There is a danger that Pakistan will pre-delegate and pre-deploy nuclear assets in order to maintain the deterrent credibility of its nuclear posture in the face of an Indian offensive.<sup>19</sup> There has been no serious or sustained engagement with India to reduce these nuclear risks.<sup>20</sup>

Furthermore, as a result of Pakistan’s anxieties over Indian ambitions, it maintains an inflexible position on its nuclear weapons program. Thus, Pakistan has blocked the start of negotiations over the Fissile Material Cutoff Treaty (FMCT), which is designed to obstruct the global production of highly enriched uranium and plutonium for nuclear weapons. Islamabad is concerned that the treaty will benefit India to the detriment of Pakistan.<sup>21</sup>

### **Pakistan’s Actions to Address the Nuclear Security Challenge**

Along with the aforementioned causes for concern, there have also been a number of recent positive developments that help to allay the alarm over Pakistan’s nuclear program. One development of interest has been the general election of May 2013, in which Nawaz Sharif was elected the prime minister of Pakistan. For the first time in the history of Pakistan, an elected government succeeded an elected government that completed a full term in office. While it is too soon to say whether this democratic transition will usher in a new period of greater domestic stability, it is a welcome development.

A second positive development is the effort made by Pakistan’s military authorities to strengthen control over its nuclear facilities. Over recent years, Pakistan has invested efforts in developing its command and control systems, and has strengthened the security of its civilian and military nuclear facilities. Musharraf in particular instituted various measures to strengthen oversight and control over Pakistan’s nuclear assets. In 2007, Musharraf formalized the authorities and structure of the National Command Authority (NCA), which oversees all of Pakistan’s organizations involved in nuclear weapons research, development, and employment, under the National Command Authority Ordinance, 2007. This was designed to support the command and control structure in the face of political transitions and outline penalties for the proliferation of nuclear know-how.<sup>22</sup>

General Khalid Kidwai, responsible for securing Pakistan’s nuclear weapons, is well regarded by Western nuclear security experts. Under his supervision, the Strategic Plans Division (SPD) formulates nuclear policy,

strategy, and doctrine. It carefully scrutinizes scientists employed in nuclear facilities, and is considered to be a highly professional organization.<sup>23</sup> Pakistan implements a system requiring at least two people to authenticate launch codes for nuclear weapons. Former Pakistani officials have claimed that such codes, known as Permissive Action Links (PALs), were developed without American assistance. However, former US Deputy Secretary of State Richard Armitage has confirmed that US officials had spent a considerable amount of time working with Pakistani military representatives on the security of their weapons, and that sophisticated systems were in place to safeguard them. Numerous leading US intelligence and defense officials believe that the strict control of the military over Pakistan's nuclear assets is effective, since it is an institution that has withstood all the turbulence afflicting the country. These officials have widely expressed their confidence in the measures taken by Pakistan over recent years.<sup>24</sup>

A further encouraging development is that Pakistan has strengthened export controls and taken measures over recent years to dismantle proliferation networks. In December 2003, the Nuclear Command Authority was established under Musharraf's leadership in order to establish greater control over the research laboratories and the Pakistani Atomic Energy Commission. One expert on Pakistan's nuclear program has claimed that the establishment of the NCA has resulted in "an unprecedented degree of transparency and accountability" for Pakistan's nuclear infrastructure.<sup>25</sup> In 2007, US intelligence officials claimed that the proliferation networks had been largely dismantled. A March 2012 State Department report described the A. Q. Khan network as "defunct." However, one cannot rule out the possibility of renewed black market activities since a number of A. Q. Khan's associates have escaped justice, and may be seeking to resume proliferation operations.<sup>26</sup>

Despite the measures taken to secure Islamabad's nuclear weapons, the dangers of terrorists acquiring a nuclear device remain. While there is some monitoring of staff employed in sensitive facilities, this is no guarantee against infiltration by extremists. For example, in a scenario where weapons are moved clandestinely, an insider with knowledge of the procedures governing the transportation of nuclear assets could link up with terrorists to carry out an attack.<sup>27</sup> Furthermore, the attack of December 15, 2012 by Islamist militants on the Peshawar Air Force Base and other similar incidents demonstrate that terrorists remain determined in their efforts to attack sensitive military installations. Although the Peshawar attack was

ultimately unsuccessful, it did raise questions over the security of Pakistan's military facilities, including its nuclear infrastructure.<sup>28</sup>

The concerns outlined above are serious enough to warrant American contingency planning for a worst case scenario. It is an issue of the highest priority for the US intelligence community and the White House.<sup>29</sup> Although there is no definitive solution to the dangers presented, there are various courses of action that the international community should pursue to minimize the dangers discussed above. Actions should be taken in the political realm and also in the sphere of arms control in order to strengthen nuclear security in South Asia.

### **The Way Forward**

A major difficulty complicating US efforts to persuade Pakistan to secure its nuclear arsenal is the tense relationship between the two countries in the wake of the May 2011 US raid on Abbottabad that killed Osama bin Laden. Even before the US operation, relations were deteriorating, against the backdrop of Islamabad's suspicions over America's close ties with India and Washington's irritation over the collaboration between ISI elements and Islamist extremists. There is also widespread anger in Pakistan over US drone strikes in the tribal areas. The fallout from the Abbottabad raid has resulted in a strong sense of Pakistani anger, suspicion, and wounded pride, which has damaged the prospects for cooperation between Washington and Islamabad on the issue of nuclear security. It is therefore essential that the United States utilize the election victory of Nawaz Sharif as an opportunity to rebuild trust with Pakistan. Although Sharif's ambivalent attitude towards extremists is problematic, his senior advisors have spoken of his readiness to work closely with the United States on security issues,<sup>30</sup> and the new Prime Minister of Pakistan has already held productive meetings in Washington with President Obama, Vice President Biden, and other senior administration officials.<sup>31</sup> There is therefore an opportunity to rebuild the trust between the United States and Pakistan, and to strengthen cooperation on the issue of nuclear security.

Some have argued that the United States should put the nuclear security issue aside temporarily, and place an emphasis instead on those areas where the interests of the two countries converge. According to this position, work should be carried out to build Pakistan's economy, upgrade its energy system, and strengthen regional trade. Any accomplishments in these areas would

help Pakistan and also provide greater stability in the region.<sup>32</sup> This in turn would establish more favourable regional conditions for the enhancement of nuclear security.

As this article has pointed out, a renewed outbreak of hostilities between India and Pakistan could have a seriously detrimental impact on nuclear security in the region. In 2004, five years after the Kargil conflict, India and Pakistan held talks on nuclear confidence building measures, and issued a joint statement that included a call for the upgrading of the nuclear hotline between the two countries. However, the measures taken were modest in nature.<sup>33</sup> The experience of the United States and the Soviet Union following the Cuban missile crisis can provide a strong example for India and Pakistan. It was only after both superpowers had stared into the abyss that they agreed to strengthen communication and negotiate arms control agreements.<sup>34</sup> The United States should use its influence with both India and Pakistan to encourage them to strengthen lines of communication and adopt fresh confidence building measures, in order to reduce the risks of a conflagration.

There are already a number of established forums for international cooperation in the sphere of nuclear security. In April 2010 the Obama administration convened an international summit in Washington attended by over forty heads of state with a view to securing all nuclear materials around the world within four years. While there was widespread agreement at the summit on the need to improve the security of locations where nuclear materials were stored, little was achieved beyond symbolic gestures.<sup>35</sup> A follow-up summit was held in Seoul in March 2012. Here too achievements were modest, since countries were reluctant to make binding commitments to bolster nuclear security.<sup>36</sup>

Kissinger, Nunn, Perry, and Shultz argue that it is imperative that a global system is established to track, manage, and secure all weapons-usable nuclear materials. The Nuclear Security Summit scheduled for March 2014 constitutes an opportunity to establish a comprehensive security system that can help ensure that all weapons-usable nuclear materials are safe from illegal access and theft,<sup>37</sup> although concerns remain that countries will avoid binding commitments to improve nuclear security.<sup>38</sup> Allison maintains that a global campaign is required to prevent the emergence of new proliferation networks. The lesson from the A. Q. Khan imbroglio is that there is a need for a framework of restrictions on both a local and global level in order to shut down black market operations. All countries must improve their

police work, consolidate export controls, and criminalize acts of nuclear proliferation. Allison also argues that the United States should encourage China to play a supporting role in persuading Pakistan to consolidate the security of its nuclear assets. China has been a close ally of Pakistan, and has supplied arms to the country. Indeed, the United States and China have already been sharing technologies for securing nuclear materials, and this cooperation can be extended to include the challenge from Pakistan.<sup>39</sup>

On June 27, 2002, the G8 established the Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Although the initiative has focused mainly on nuclear security in Russia, there are various projects that could also be implemented in Pakistan if the political will is there. For example, progress has been made in the Global Partnership in funding projects to employ former weapons scientists in the development of sustainable civilian research.<sup>40</sup> On June 14, 2013, the United States and Russia signed an agreement on a bilateral framework to expand cooperation in the sphere of nuclear nonproliferation and security.<sup>41</sup> In time, this cooperation could, in theory, be extended to Pakistan, as the two powers can utilize their expertise to assist Islamabad in taking significant measures to enhance nuclear safety.

## **Conclusion**

In 2010 President Obama declared: “The single biggest threat to U.S. security, both short term, medium term, and long term, would be the possibility of a terrorist organization obtaining a nuclear weapon.”<sup>42</sup> For a number of reasons, Pakistan is a potential hot spot for terrorists attempting to acquire a nuclear weapon. In the past, high ranking scientists within Pakistan’s nuclear program played a key role in exporting nuclear materials to rogue regimes and even shared expertise with terrorist organizations such as al-Qaeda. Elements within Pakistan’s military and intelligence institutions are sympathetic toward jihadist organizations. The precarious domestic and economic situation in Pakistan could be exploited by radical groups to foment unrest and subversion. Political assassinations are a frequent occurrence in Pakistan, and senior politicians are easily intimidated by Islamist extremists. Indeed, Prime Minister Nawaz Sharif has been accused of kowtowing to extremists. In such an atmosphere, it is understandable that there are acute concerns regarding the danger of nuclear weapons falling into the hands of terrorists. Furthermore, the absence of a meaningful engagement between India and Pakistan could play into the hands of extremists or rogue elements

seeking to gain control of nuclear assets during periods of high tension between the two countries.

However, it is possible that Pakistan may now be stepping back from the brink. Islamabad has taken measures over recent years to strengthen oversight over its nuclear assets and dismantle proliferation networks. It is too early to say whether the recent democratic transition in Pakistan will bring with it a new period of domestic stability. Sharif has expressed his interest in bringing about an improvement in ties between India and Pakistan, and had previously worked for closer relations with New Delhi in 1999,<sup>43</sup> before he was ousted in a coup. Certainly, a reduction in tensions between the two countries will be an important component in efforts to strengthen nuclear security in South Asia. The United States should seize the opportunity of the change in leadership in Pakistan, in order to rebuild ties with Islamabad. Washington will find it easier to win the trust of Pakistan on the issue of nuclear security if a bilateral dialogue can take place in an atmosphere free of recrimination, bitterness, and anger. The resumption of the US-Pakistan strategic dialogue during US Secretary of State Kerry's visit to Islamabad in August 2013 and Nawaz Sharif's visit to Washington in October 2013 provide reasons for encouragement. The dialogue is addressing issues such as border management, counterterrorism, and increasing private US investment in Pakistan.<sup>44</sup>

The challenges of securing weapons-usable nuclear materials in Pakistan also demands closer cooperation between the United States and other leading powers, including Russia and China. The 2014 Nuclear Security Summit may provide some important clues as to whether the international community is up to this challenge.

## Notes

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