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Topic one: Addressing the Threat of Nuclear Terrorism

Consequent to Indian independence, the subcontinent was separated into two countries, India and Pakistan. India has an extensive history of violence with Pakistan, which contributed to the development of their nuclear weapon program. In 1974, India first tested their nuclear weapons and has since become an emerging power. However, like most countries, nuclear terrorism is a huge threat. If India’s nuclear weapon programs are not controlled well enough, they can fall into the hands of terrorists groups, such as Maoist Naxalite. Attacks on India’s nuclear facilities are thus also a matter to be discussed. In order to ensure nuclear safety, India has installed internalized security practices in these facilities. As well, to prevent individuals or groups from acquiring radioactive material, India has implemented a national inter-ministerial mechanism called a Counter Nuclear Smuggling Team. This team has members of the government concerning nuclear weapons or energy meet frequently in order to discuss the current situation. As well, this team conducts exercises with the goal of training departments how to quickly respond to nuclear terrorist attempts.

In order to address the threat of nuclear terrorism, the UN has implemented the International Convention for the Suppression of Acts of Nuclear terrorists. This convention promotes the criminalization of any individuals carrying out or planning nuclear terrorism. It thus encourages countries to adopt legislative measures to prosecute and prevent the terrorism by protecting nuclear material and devices. The downfall of this convention, which was ratified by India, is that it does not address the threat of nuclear terrorism done by the state or governmental organizations. The IAEA has implemented the Treaty on the Non-Proliferation of Nuclear weapons (NPT), the goal being to prevent the spread of nuclear weapons and to promote the peaceful use for nuclear energy. In order to achieve this goal, the NPT established a safeguard system to prevent the transfer of nuclear weapons. As well, the NPT prevents new countries from testing or developing nuclear weapons. Although this treaty is a valid attempt at disarmament, many countries feel that it impedes their rights. India has not signed this treaty because it feels it should have the power to develop their nuclear weapon program. The IAEA therefore does not hold the right to inspect India’s nuclear facilities.

India believes in their right to have a nuclear weapon program. However, they will do so with the utmost safety. The government has established a National Security Advisory Board in which it aims to minimize the use of nuclear weapons by outlining their no-first-use policy. India believes that their nuclear program can be used in defense from a chemical or biological warfare attack or to defend itself from Pakistan. India also agrees to have safeguards on their nuclear facilities by the IAEA in order to ensure safety. However, their military facilities are off-limits. India believes that the best way of preventing nuclear terrorism is to conduct simulations of nuclear smuggling to train members to react effectively. India has also stopped the use of highly enriched uranium, which can be used to make a dirty bomb. In addition, a database for all radioactive sources in the country is vital for preventing the spread of nuclear weaponry. By tracking radioactive sources during transportation and setting up emergency response centers, the country will be equipped to deal with a potential attack. It is also important to equip seaports and airports with radiation detection machines, assuring that nuclear weaponry is only in the hands of the government.

Topic two: nuclear energy as an alternate source of energy

Nuclear energy makes up 2% of India’s total installed capacity of electricity, however this number will continue to increase by 2020. India’s energy supply comes mainly from indigenous resources. India has become a leader in the field because of its fast reactors and thorium (generates more energy more efficiently) fuel cycle. Through the Indian Atomic Energy Act, India is committed to ensuring safety in nuclear facilities and exports. This act provides legal framework for the security of the development of nuclear technologies as well as the export control of said technologies. India is also committed to the non-proliferation of nuclear power, hence their participation with the Nuclear Suppliers Group.

The IAEA along with the WHO has guidelines regarding the safety of the nuclear facilities. This UN body proposes standards that countries that ratified this agreement are subject to. These standards are remote handling of equipment, physical shielding, monitoring of individual’s radiation, etc. Some of the IAEA recommendations involve measures to be taken to have automatic reactor cooling and shut down if there is a threat to core as well as ensure a minimal amount of radiation escapes. Although India did not ratify the Non-Proliferation of Nuclear Weapons, it supports these IAEA guidelines, particularly the IAEA Code of Conduct on the Safety and Security of Radioactive Sources and IAEA’s Incident & Trafficking Database. The Indian nuclear facilities utilize heavy water reactors, thus increasing the amount of spent fuel. However, the IAEA has conducted regular reviews on these systems to ensure it is not in the hands of malicious groups.

India has been using Low Enriched Uranium instead of High Enriched Uranium, which is one of the objectives in the global nuclear security community. As well, this country observes the “reprocess to reuse” principle, indicating that India reprocesses the spent fuel in a fast manner in order to use in reactors. This allows India to use the plutonium waste and thus prevent its use in dirty bombs. India also recovers Cs-137 isotopes from the waste which always the country to use this radioactive element for other applications. To prevent cyber attacks on nuclear facilities, India has developed and deployed a secure network access system. As well, India has 23 Emergency Response Centers to detect and respond to a nuclear emergency.

Topic three: measures to implement and enforce the nuclear program in Iran

India has a history of trade imports with Iran. In fact, India is second largest importer of crude oil from Iran. Although India initially supported Iran’s right to a nuclear program, with increasing ties with the USA (nuclear trade), India voted against their nuclear warfare program. Along with this, India reduced their trade with Iran. However, with the Joint Comprehensive Plan of Action (JCPOA), and India’s support of this plan, the country will be able to resume energy trade with Iran. India would therefore not want to implement sanctions on Iran. The JCPOA has created diplomatic and peaceful ties with Iran, which India fully promotes.

In order to assure that Iran holds up their end of the deal, meaning only having peaceful nuclear facilities, no heavy water reactors and minimal uranium enrichment, the IAEA will conduct regular inspections. In addition, Iran will have to meet the international standards on nuclear energy put in place by the IAEA. With the JCPOA, all the nuclear-related sanctions put in place by the US and the EU on Iran will be lifted. In order to further prevent Iran from developing nuclear weapons, the UN Security Council restricts the development of ballistic missiles activities (means to deliver weapons). Because of the JCPOA, Iran will now be part of the international market on nuclear energy.

In order to ensure that Iran follows through on the deal, the IAEA can potentially implement India’s radiation detection system, which will show if there is radiation in any areas that there should not be in. This would determine if Iran is developing any nuclear weapons and where they are doing so. If Iran does not abide by the deal, India believes that some of the EU and USA’s sanctions should be re-implemented.

Bibliography

Berman, I. (n.d.). Iran's Indian Opening. Retrieved November 07, 2016, from http://www.ilanberman.com/18900/iran-indian-opening

George, V. K. (2016, April 3). 'India has moved to prevent nuclear terrorism’. Retrieved from http://www.thehindu.com/news/national/nuclear-security-summit-india-has-moved-to-prevent-nuclear-terrorism-says-progress-report/article8427311.ece

India. (n.d.). Retrieved November 07, 2016, fromhttp://www.nti.org/learn/countries/india/nuclear/

International Convention on the Suppression of Acts of Nuclear Terrorism. (n.d.). Retrieved November 07, 2016, from http://www.nti.org/learn/treaties-and-regimes/international-convention-suppression-acts-nuclear-terrorism/

Issue Briefs. (n.d.). Retrieved November 07, 2016, from https://www.armscontrol.org/Issue-Briefs/2015-07-27/Addressing-Irans-Ballistic-Missiles-in-the-JCPOA-and-UNSC-Resolution

Katulis, B. (2015). How India Could Benefit From the Iran Nuclear Deal. Retrieved November 07, 2016, from http://blogs.wsj.com/washwire/2015/07/24/how-india-could-benefit-from-the-iran-nuclear-deal/

National Progress Report: India. (n.d.). Retrieved November 07, 2016, from http://www.nss2016.org/document-center-docs/2016/3/31/national-progress-report-india

The World Factbook: INDIA. (n.d.). Retrieved November 07, 2016, from https://www.cia.gov/library/publications/the-world-factbook/geos/in.html

Treaty on the Non-Proliferation of Nuclear Weapons (NPT). (n.d.). Retrieved November 07, 2016, from https://www.iaea.org/publications/documents/treaties/npt