

The Commonwealth of the Bahamas

**INTERNATIONAL ATOMIC ENERGY AGENCY**

Topic A: Addressing the Threat of Nuclear Terrorism Topic B: Nuclear Energy as an Alternate Source of Energy Topic C: Measures to Implement and Enforce the Nuclear Program in Iran





**TOPIC A: ADDRESSING THE THREAT OF NUCLEAR TERRORISM**

BACKGROUND

Since the conception of the atom bomb in 1945, the rise of nuclear technology and proliferation of weapons of mass destruction (WMDs) have dominated international security concerns. While treaties such as the Nuclear Nonproliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT) have been consummated in order to curve the proliferation by nations and states, the rise of non-State actors such as terrorist organizations capable of carrying out violent agendas on the world stage has brought special attention to the issue of nuclear terrorism. The threat of nuclear terrorism from non-State actors arises from terrorist organization’s growing interest in obtaining highly-enriched radioisotopes to build a “dirty bomb.” Al-Qaeda has sought to obtain radioactive materials since the 1990s. For example, from 1999 to 2001, chemical engineer Abdel Aziz al-Masri conducted unsuccessful nuclear experiments in the Egyptian desert and attempted to contact the nuclear smuggling chain known as the Khan network, but did not gain access to the network’s materials. While references to weapons of mass destruction have appeared in top-level Al-Qaeda communications for nearly two decades, international intelligence suggests that terrorist organizations lack the technology to enrich radioactive materials to be capable of inflicting the level of harm associated with a WMD.

While the connotation of “terrorism” may suggest acts strictly perpetrated by non-State actors such as Al-Qaeda and the Islamic State, the threat of nuclear terrorism can derive from both State and non-State actors. For example, the development of the Democratic People’s Republic of Korea (DPRK) nuclear program resulted in the nation withdrawing from the NPT and CTBT and testing its first underground ballistic missile test in October 2006. Despite heavy economic sanctions and a maritime embargo on the exchange of all military technology, the DPRK nuclear program has progressed with alarming speed. Since its test of the nation’s first hydrogen bomb in 2016, the DPRK’s actions suggest the rise of an undeclared nuclear state and a crisis in the Asian Pacific.

UN INVOLVEMENT

The International Atomic Energy Association (IAEA) has spearheaded the efforts in combating and identifying the risks of nuclear terrorism since the 9/11 terror attacks of 2001, the most prevalent being the International Conference on Nuclear Security in March 2005. The conference identified four major security risks associated with nuclear terrorism: theft of nuclear weapons, acquisition of nuclear materials, the malicious use of radioactive sources and the radiological hazards caused by attack or sabotage. The IAEA has strengthened its use of a database created in 1993, which has documented 650 confirmed incidents of nuclear trafficking over the past two decades in the 80 participating countries. The IAEA has thus proposed the Nuclear Security Plan of Activities. The security plan details various programs that can be implemented to prevent and detect sources of nuclear proliferation. For example, the IAEA worked with the Russian Federation and the United States to dismantle an unsecured transport ring of nearly 20,000 curies between Bolivia, Ivory Coast, Haiti, Iran, Malaysia, Panama, Sudan, and Thailand to return the shipments back to their original suppliers until safer transportation could be organized. Additionally, non-governmental organizations such as the International Chemical Safety Cards (ICSC) has proposed legal framework for the regulation of the production, transportation, and storage of radioactive materials, smuggling of such materials.

COUNTRY POLICY

The Commonwealth of the Bahamas has taken a firm stance against nuclear proliferation ever since November of 1976 when it ratified the Treaty of Tlatelolco, followed by the ratification of the NPT, CTBT, and various IAEA protocols. As a member of the Caribbean Community (CARICOM), the commonwealth is a part of the first nuclear-weapon-free-zone in a densely populated region. In 2005, the Bahamas was the first Caribbean country to use nuclear detection equipment in Nassau with collaboration with the United States. Additionally, the installation of such technology spurred the Department of Energy’s National Nuclear Security Administration (NNSA) to work with foreign partners such as the Netherlands, Greece, Sri Lanka, Belgium, and Spain to create the Megaports Initiative. This initiative focuses on the development of radiological detection technology to deter illicit nuclear trafficking. Specifically, the initiative aims to scan 50% of global maritime containerized cargo and 80% of US-bound cargo by 2016. The Megaports Initiative was able to expand operation to nearly 41 seaports in 31 nations. However, the Obama administration slashed the budget by 85% in 2013, disabling less-economically influential countries like the Bahamas from accessing the necessary technologies.

SOLUTIONS

While the UN Global Counterterrorism Terrorism offers a general approach to formulating antiterrorism policy worldwide, the Bahamas believes that the most effective mechanism of preventing nuclear terrorism must occur on the local level through law enforcement and regional cooperation. Therefore, the Bahamas endorses the adoption and expansion of the Megaports Initiative as a means of preventing the proliferation of radionuclides worldwide. Megaports shall have two goals building off preexisting structure of the NPT Safety Protocols and the International Chemical Safety Cards Protocol ISO/IEC/27001: secure nuclear materials and prevent illicit trafficking. First, in order to secure radionuclides, the Bahamas endorses the adoption of a system similar to the Kimberly Process which ensures the legitimacy and safe transport of all radioisotopes. The legitimacy program shall ensure that all radiologically toxic reactants and products of nuclear technology, particularly uranium hexafluoride, depleted uranium, thorium, and plutonium, are stored and transported in tamper-resistant steel containers replaced every five years to prevent contamination. IAEA’s International Radiation Monitoring Information System (IRMIS) can be used to track such shipments and storage as well as instantly alert nations of potential contamination. The IRMIS is accomplished through satellite technology which can detect radiation via Measurement and Signal Intelligence (MASINT). MASINT, developed by NASA, measures high-intensity ionizing radiation through electro-optical devices known and “bhangmeters” as well as radiofrequency techniques which detect electromagnetic pulses. MASINT then matches radiation levels with highly accurate GPS tracking technology, enabling operators to send accurate geographical coordinates of radiological emission.

Satellite tracking technology, coupled with the aid of INTERPOL’s partnership with IAEA in Project Geiger, can address the second pillar of the Megaports Initiative: preventing illicit trafficking. IAEA and NTI databases already gather data of regions with high reported cases of radiological trafficking: the United States, Middle East, and Balkan States. Therefore, the Bahamas proposes the introduction of INTERPOL capacity building which will work with national law enforcement in these regions to provide the proper investigative technology and creates national Counter Nuclear Smuggling teams specially trained to deal with the issue. Regions such as the Balkans and the Middle East do not have sufficient technology to deal with potential trafficking cases. Therefore, the Bahamas endorses the use of Radiation Detection Straddle Carriers, Spectroscopic Portals, Radioisotope Identification Devices, and High Purity Germanium Detectors in all major ports and airports as a means of inspecting cargo suspected of carrying nuclear technology. INTERPOL and the IAEA’s Project Geiger can be used to train Counter Nuclear Smuggling teams in how to operate such technology and properly carryout radiological investigations as well as enabling developing countries to access such resources.

Next, the Bahamas recognizes that nuclear terrorism involves both non-State and State actors. The rapid nuclearization of states such as the DPRK has propelled regional conflict in the Indian subcontinent and eastern Asia. The Bahamas recognizes the right for these States to develop nuclear programs, but their intent and determination in creating weapons of mass destruction leads to regional instability. Therefore, the Bahamas would like to work with States in these regions to prevent the proliferation of WMDs worldwide. In particular, the Bahamas believes a series of economic incentives can be used to broker a deal with DPRK to denuclearize similar to the Joint Comprehensive Plan of Action (JCPOA) signed with Iran in August of 2016. In exchange for nuclear transparency and compliance with the IAEA’s Nuclear Safety Infrastructure for a National Nuclear Program, the DPRK will receive a slow release of sanctions while the arms embargo remains. Specifically, economic incentives such as gaining access to Russian natural gas and oil through the proposed Kovykta pipeline can help alleviate the current energy crisis within the region. If the pipeline proves successful after its construction in 2017, the Bahamas endorses lifting trade sanctions in order to construct a railroad which will connect the nation to the Trans-Siberian, effectively opening trade with Europe. All trains entering and leaving the nation will be subject to inspections carried out under the Megaports Initiative and will be used strictly to deliver much-needed agricultural products and humanitarian aid to the nation. The installation of the Terminal High Altitude Area Defense (THAAD) defense missile system as well as annual military exercises between South Korea and the United States can be delayed as the DPRK views such acts as forms of nuclear aggression. For all these economic and military benefits, the DPRK and Pakistan needs to reduce its current ballistic missile stockpile by 50% and continue to decrease the stockpile over a ten year pile, decrease the percent grade of enriched radioisotopes from 90% to 60%, reducing the percent grade by 10% over another five years. All nuclear facilities must be open to 24/7 inspection by IAEA officials, and all donors and transactions within the Number 710 fund of the nuclear program must be disclosed for potential investigation.

**TOPIC B: NUCLEAR ENERGY AS AN ALTERNATE SOURCE OF ENERGY**

BACKGROUND

The first nuclear reactor, known as the Atom Mirny (AM-1) was developed by the Russian Institute of Physics and Power Engineering in May of 1946. In March of 1953, US Admiral Hyman Rickover pioneered the development of the Pressurized Water Reactor (PWR), technology which dominated national nuclear energy programs for most of the twentieth century. With the turn of the next century, a renewed investment in nuclear technology has resulted in the birth of nuclear energy programs in China, India, and South Korea in the coming decades. The success of nuclear energy lies in nuclear fission, a chemical reaction in which a neutron is fired into the nucleus of a radioactive isotope such as Uranium-235 or Plutonium-238. The neutron then splits the nucleus into two, releasing massive amounts of energy as the electrostatic forces between particles of the nucleus are broken. Neutrons within the nucleus are displaced and collide with the nuclei of surrounding atoms to create a chain reaction. The combined energy released from nuclear fission is channeled to heat water into water vapor. The vapor is then used to power turbines, and the kinetic energy from the turbines is then transformed into electrical power capable for human consumption.

However, nuclear programs do not go without risk. Some of the major barriers are the cost to maintain plants, the risk of meltdown, and waste management. First, the average 1,000 megawatt PWR costs $40 million to maintain per year. This figure neglects to associate costs of importing radioactive isotopes. Last year, 57 million pounds of uranium was imported into the United States alone, with the average cost of uranium bearing $43.86 per pound. Therefore, it is extremely difficult for developing countries to afford to maintain nuclear power plants. Next, the Fukushima Daiichi nuclear disaster of 2011 has highlighted the extreme risks associated with potential meltdown. The process can release chemically toxic, pyrophoric, and radiological substances which pose a great health hazard to surrounding communities if not contained within a strict environment. Finally, over $42.8 billion has been spent on waste management since 1983 making it extremely costly to maintain waste sites and prevent contamination. It is clear that if nuclear energy is to become a viable source of alternate energy to fossil fuels, these economic and environmental problems must be addressed to ensure the transparency of nuclear programs worldwide.

UN INVOLVEMENT

The United Nations has encouraged the peaceful development of nuclear energy programs since its conception, as the UN was born amid the birth of the atomic age. The first agency established was known as the UN Atomic Energy Commission (UNAEC) in January of 1946 by GA/RES/1 to “deal with the problems raised by the discovery of atomic energy.” However, UNAEC was soon disbanded and the IAEA was created instead in order to respond to a call for “Atoms for Peace” and the promotion of safe, secure, and peaceful nuclear technologies. A key feature of the IAEA is the International Project on Innovative Nuclear Reactor and Fuel Cycles (INPRO) and the Peaceful Uses Initiative (PUI). INPRO was established in 2000. It promotes negotiations between nations in order to share intellectual property and innovative technologies. Its most recent project involves assessing the transition to more environmentally-friendly Generation IV reactors with outdated electrical grid capacities. PUI has four major goals: nuclear application, energy, safety, and regional cooperation. Their main concern for PUI’s nuclear energy pillar involves examining the safety and efficacy of aging reactors, particularly because 333 out of the 439 reactors across the globe are at least 25 years of age, as well as providing education and vocational training to establish a greater understanding of reactor physics worldwide. Other non-governmental organizations which promote wider understanding of nuclear energy and coordinate research include the World Nuclear Association and the Nuclear Threat Initiative.

COUNTRY POLICY

The Commonwealth of the Bahamas only recently joined the IAEA as of January 7th, 2014. According to the Ministry of the Environment and Housing, the nation is 100% dependent on imported oil and 100% of its energy capacity originates from fossil fuels. The reason for this is because the Bahamas’ electricity system is distributed among 16 isolated grids, the nation experiences frequent flooding and tropical storms, and the cost of maintaining a nuclear facility among its 30 occupied islands is simply unrealistic. Another factor is the delicate coral reef and cay ecosystem surrounding the islands, and even the slightest increase in ocean temperature as a result of plant construction can have catastrophic effects on the environment. Despite nuclear energy not being feasible within the Bahamas, the nation expresses its desire to promote peaceful use of nuclear energy for economic and social development, as it has supported A/RES/32/50, Action Plan on Nuclear Safety, Regulations for the Safe Transport of Radioactive Material, and other plans proposed by the IAEA and General Assembly. It endorses partnership programs which would enable more interconnected grid networks so nations in which nuclear energy is neither economically nor environmentally feasible to gain access to clean and renewable energy.

SOLUTIONS

The Bahamas believes the key to making nuclear energy as a viable alternative to fossil fuel is making the technology safe and easily accessible to developing nations. Ignoring installation costs, the most difficult barrier many nations face in obtaining nuclear technology involves purchasing the intellectual rights for such materials and training citizens in thermonuclear physics to understand and properly maintain nuclear power plans. Therefore, the Bahamas endorses a joint research initiative into thorium as a radioisotope, seawater mining of uranium and thorium, and Generation IV molten salt reactors (MSRs). Currently, the price of enriching thorium to reactor use can cost upwards of $5,000 per pound and extracting thorium from the crust is extremely difficult as its natural abundance occurs largely under the earth’s oceans. This makes thorium coupled with MSRs, while still in the development phase, more economic as it provides a sustainable fuel cycle as opposed to solid fuel reactors as well as more environmental as thorium produces high-level waste with long-term heat decay much lower and much more stable than waste of traditional reactors. ECOFIN subsidizing of safe underwater mining techniques can grant nations who cannot afford to import uranium to mine offshores and gain access to radioisotopes which are less chemically toxic than conventional materials. Considering that 333 out of the 439 reactors worldwide are over 25 years of age, the Bahamas believes that Generation IV reactors can become safer and widely available alternatives to older models if proper research is conducted and economic barriers can overcome. The Bahamas believes that the use of the World Intellectual Property Organization and IAEA can help subsidize research by offering intellectual property rights to all nations involved in Generation IV development to drive down prices of nuclear technology.

Another obstacle in making nuclear energy an economic and environmental alternate source of energy involves the cost of importing uranium. The current price of one pound of U-235 can be upwards of $60,000 depending on its purity and source, particularly because less than 0.7% of naturally-occurring uranium is fissile. The US imported 18,820 metric tons of uranium in the last year alone to sustain its energy consumption. Therefore, the Bahamas endorses the commercialization of recyclable nuclear fuel. Two forms of recyclable nuclear fuel have emerged over the past decade: regenerated mixture (REMIX) fuel and mixed oxygen (MOX) fuel. REMIX, developed by the International Khlopin Institute, recycles 100% of the core load which can sustain a 50-gigawatt reactor for over four years. REMIX fuel is aimed to be commercialized by 2018, but it requires the installation of specific technology to ensure its success. Therefore, the Bahamas would like to work with the IAEA to develop a list of suitable reactors and willing nations where the fuel can be most easily adopted. Currently, REMIX is only sustained in VVER-1000 and Pressurized Water Reactors (PWRs) which can be found in Canada, China, France, India, Japan, Russia, and the United States. If countries choose to participate in the REMIX program, all reactors must install proper welding machines to create proper fuel rods capable of serving REMIX. There is no need to incentivize this program as the costs associated with importing, enriching, and maintaining waste of uranium can be decreased by upwards of 60% over ten years. Next, MOX fuel, which provides 5% of nuclear fuel today, is manufactured from plutonium and depleted uranium, a byproduct of nuclear fission, which can sustain a reactor for 60 years with three initial core loads. Again, following the structure of the REMIX program, the IAEA can develop a suitable list of possible reactors which can work closely with experts of the MOX programs already being implemented in France and the United States. Both MOX and REMIX programs shall be monitored for a five year period by IAEA Board of Directors to see if such technology proves successful, and if so, work on research to adapt recyclable nuclear fuel to boiling water reactors and gas-cooled reactors found in Sweden and the UK.

The prevention of nuclear contamination and substantial damage to the environment is a huge concern in the development of nuclear energy, particularly because it has been a major source of contention regarding nuclear energy since the Fukushima Daiichi nuclear disaster of 2011. Therefore, the Bahamas proposes a series of preventative techniques to store and reduce risk for nuclear contamination. The first involves the storage of low-level nuclear waste in the form of depleted uranium (DU). While no studies have concluded that such waste is radiologically harmful, DU is extremely chemically toxic and pyrophoric, making it difficult to store properly. Typically, DU is converted into uranium hexafluoride which is more chemically benign but still poses threats to proper storage as its acidic nature slowly corrodes its steel containers. Therefore, the Bahamas urges nations to adopt alternate methods of storage such as phytostabilization and radionuclide solidification. This technique involves producing monolithic blocks made of cement, silicates, ash, or pozzolans which have high structural integrity and limit chemical interaction between radioactive particles. The blocks are then stored underground in which deep-rooted shrubbery is planted to reduce the mobilization of heavy metals in the soil. Not only is this a cheap method of disposal, but it can serve both to prevent and respond to contamination and prevent further harm to the environment. The next method the Bahamas endorses is the DUCRETE program. This program is designed to find alternates to the use of nuclear byproducts in civilian and military use. DUCRETE is a mixture of depleted uranium and concrete which can be used to form polyethylene capsules and mesopourous sol-gel catalysts which aid in eliminating corrosive byproducts found in nuclear waste. Finally, the Bahamas endorses the use of potassium ferrocyanide to prevent water-based nuclear contamination. The Cekmece Research Institute in Turkey found that potassium ferrocyanide combines with radionuclides to form a solid precipitate which is easily removed from sources of water. One study by the Cekmece Institute revealed that 98% of radioactive cesium in the test source was removed, which is much more effective than traditional methods using oxalic acid or titanium tungstate ion exchange technology.

**TOPIC C: MEASURES TO IMPLEMENT THE NUCLEAR PROGRAM IN IRAN**

BACKGROUND

The Islamic Republic of Iran’s nuclear program dates back to the November of 1967 in which the U.S.-supplied Tehran Research Reactor (TRR) began operation. By 1987, however, Iran began to acquire schematics for the construction of a P-1 centrifuge. However, the conflict did not escalate until the September of 2003, in which the IAEA Board of Governors adopted a resolution calling for Iran to suspend all enrichment, declare all nuclear materials, and cooperate with inspectors. Iran failed to cooperate with IAEA demands, and as a result, China, France, Germany, Russia, UK, and US responded by forming the P5+1 to negotiate agreements and offer incentives for Iran to halt its enrichment program. After Iran refused yet again, sanctions were passed in December of 2006 to prohibit countries from transferring nuclear and military technology to Iran. In June of 2008, the P5+1 adopted a new approach through a “freeze-for-freeze” method in which Iran would halt uranium enrichment in exchange for the halt of all future sanctions. However, the nation launched its first satellite by 2009, leading many to believe their ballistic missile potential was growing, and sanctions were increased again.

The election of Hassan Rouhani triggered a change in Iranian nuclear policy as Rouhani promised to establish transparency and open the first discussions of the Joint Comprehension Plan of Action (JCPOA). The JCPOA, in its final draft signed in the August of 2016, outline strict procedures for the Iranian nuclear program to follow in exchange for the amelioration of sanctions. The core outlines of the JPA include reducing Iran’s 19,000 centrifuge capacity by 2/3, limiting the 7,500 kg uranium stockpile by 96%, limitation on research for the first 10 years, the decommission of its heavy water reactor, and the transparency for inspections and investigations into past activity. While immediate sanctions will be lifted after ninety days, the arms embargo on Iran will remain for another 5 years contingent upon Iranian cooperation. Despite Iran’s initial cooperation, past refusal to comply with UN demands has led to extreme mistrust in the region, and surrounding countries such as Saudi Arabia and Israel view a nuclear Iran as a national threat. Therefore, Iran’s program must be enforced and strictly monitored to prevent a nuclear crisis within the region.

UN INVOLVEMENT

The United Nations first took action in Iran’s nuclear program in 2002 after the IAEA Board of Governors adopted Resolution GOV/2006/14 which appealed to the UN Security Council to aid with the implementation of the NPT Safeguards. The articles outlined in GOV/2006/14 were then adopted in S/RES/1737. Resolution 1737 was the first of four rounds of sanctions to be placed on Iran. The other three – S/RES/1747, S/RES/1803, and S/RES/1929 – were designed to ban heavy weapons and nuclear technology from entering the country, implement an arms embargo, and freeze the assets of 13 persons and 7 entities. The European Union implemented its own sanctions after Iran announced its first satellite launch. EU sanctions prevented transactions with Iranian financial institutions and banned the import or transport of Iranian crude oil. American sanctions prohibit nearly all economic exchange with Iran. As a result, Iran’s oil export has dropped from 2.2 million barrels per day in 2011 to 700,000 bpd by 2013. The sanctions, according to the International Monetary Fund, cost Iran between $4 – 8 billion every month, with total loss estimating $26 billion.

Now that the JCPOA has been implemented, EU sanctions are slowly being lifted. American sanctions still remain largely in place, particularly in the banking sector, particularly due to accusations of sponsoring terrorism. By 2017, the IMF estimates $10 billion in oil exports could flood the market. This will drive down oil prices worldwide. Lifting sanctions in the banking sector would allow for $30 billion worth of frozen funds to flow into the economy. Iranian banks are currently offering low interest rates to win bring back international trade. The GDP is estimated to grow around 5%. The IAEA and UN Security Council alike pray that economic incentives will encourage the nation to continue to comply with JCPOA nuclear standards to prevent nuclear proliferation within the region.

COUNTRY POLICY

In late July of this year, Bahamian Ministry of Foreign Affairs announced its support of the JCPOA, recognizing Iran’s sovereign right to develop nuclear technology for peaceful purposes. The Ministry emphasized the transparency and transformation of the Iranian Fordo plant as well as the reconstruction of the Arak reactor to eliminate Iran’s capability to enrich weapons-grade plutonium. It endorses transparency as a model of nuclear disarmament worldwide, and Iranian transparency is the first step in reestablishing trust broken during past uncooperative behavior. While diplomatic dialogue is the most effective tool to resolving conflict, it recognizes that the JCPOA needs more preventative measures in case Iran fails to comply. As a nation which voted in favor of initial Iranian sanctions under Resolution 1737 and Resolution 1747, the Bahamas recognizes the necessity for international economic pressure as a means of propelling greater security within the region.

SOLUTIONS

The Bahamas believes that the enforcement of the JCPOA lies in its facility inspections and the expansion of preventive measures to ensure Iran does not continue its pursuit for weapons of mass destruction. Therefore, it would like to build upon the JCPOA and urges the IAEA to oversee the two nuclear facilities in question, the secret facility Fordo and the heavy water reactor (HWR) Arak. In regards to Fordo, the IAEA should select a panel of nuclear experts who, after an extensive background check to ensure impartiality and no connections with the Iranian nuclear program, shall be sent to oversee the conversion of Fordo for strict research purposes. These experts will remain within the facility for 90 days, and if Iran fails to comply or an extension is not arranged, Iran will be asked to shut down Fordo completely. Similar enforcement must be ensured in the Arak HWR. Per the terms of the JCPOA, the reactor must be filled with concrete and decommissioned for an unspecified amount of time. Again, the Bahamas asks that a panel of independent and impartial IAEA specialists be commissioned to oversee the Arak shut down not only for transparency purposes but to ensure proper radionuclide stabilization techniques are employed to prevent contamination and potential environmental concerns for the nearby town Qom. With the call for transparency within the facilities themselves, the Bahamas also encourages the increase in inspections within the first five years of the JCPOA to ensure cooperation. The Bahamas encourages bimonthly inspections for the first year, and contingent upon Iran’s cooperation with the other terms of the deal such as enrichment levels, shall be decreased to monthly inspections for the two following years, then quarterly inspections, followed by biannual, and finally annual inspections by the end of the fifth year. The Bahamas believes that the funding for the expansion of the terms of the JCPOA, while not accounted for in the IAEA’s budget for this year, can be found within the General Assembly’s Fifth Committee which handles the financing of all Security Council resolutions. As the terms of the JCPOA will soon be implemented into a Security Council resolution, the necessary funds can be delegated by the UN budget because it has a broader financial capacity than the IAEA alone.

Additionally, the Bahamas deems it necessary to limit Iranian production of fuel plates, fuel rods, and uranium hexafluoride as these materials were not regulated in the original JCPOA agreement. To implement such measures, the Bahamas suggests the use of a nuclear supply agreement similar to one signed between the Russian Federation and Iran in February of 2005, which delineated that Russia would supply nuclear fuel to the Bushehr reactor to prevent Iran from extracting plutonium. Bahamas’ nuclear supply agreement would involve the development of specific buyers which Iran can purchase fuel plates, rods, and radionuclides from in addition to its sellback program with its current uranium stockpile. Additionally, IAEA officials can issue a certification system for all uranium and other radionuclides entering or leaving the country to ensure the legitimacy of its source, document that the amount of nuclear fuel or technology being returned is equitable to the original purchased amount, and stop nuclear proliferation through channels such as the Khan Network. By limiting the nations by which Iran can obtain nuclear technology, the IAEA can better monitor and enforce the uranium stockpile agreement made under the JCPOA. If Iran wishes to gain more independence or reduce monitoring periods, the Bahamas believes the nation could halt its ballistic missiles tests, as it has conducted four since the JCPOA was signed in summer of this year. While the Bahamas recognizes Iran’s right to defend itself, it does not believe intercontinental ballistic missiles are a feasible solution and shall only escalate mistrust between neighboring powers such as Saudi Arabia and Israel.

Finally, the Bahamas would like to propose incentives for Iran agreeing to further the terms and enforcement measures of the JCPOA. The first incentive involves cybersecurity as the Iranian nuclear program has been under cyberattack from a virus known as Stuxnet. Stuxnet targets programmable logic controllers as a means of disrupting operations in large scale industrial facilities such as nuclear power plants. The Stuxnet damaged Natanz centrifuges by hijacking the digital operations system in 2010 and exists entirely in cyberspace, leaving no physical evidence which can be used to trace its origin. The Bahamas believes offering cybersecurity incentives as well as training operators how to prepare and prevent logic control failures through IAEA training, Iran can develop the necessary networking to secure its data. In exchange for training on secure socket layers, sandboxing networks, and airlock servers, Iran must concede to standards of the JCPOA and ensure the peaceful use of its nuclear program. Additionally, the Bahamas believes that negotiations with nations such as the United States can be arranged to slowly ease the sanctions off the Iranian financial and banking sector, once again opening up Iran to international trade and unfreezing the $32 billion investments found in the Iranian national banking system. However, if such funds belong to those placed on UN blacklist, they shall remain frozen until further investigation of Iran’s past operations can be thoroughly conducted. However, the Bahamas believes that the individual and corporate sanctions should not be released immediately as there needs to be some failsafe mechanism to ensure Iran’s full cooperation with the JCPOA and the development of a peaceful nuclear program.

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