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Nuclear Disarmament: Challenges, Opportunities and Next Steps

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After the devastating effects of dropping two atomic bombs on humans during World War II, and the frightening Cold War that followed, the world can no longer afford to house nuclear weapons. However, as much as national leaders and antinuclear weapons advocates may try, the issue of how to one day free the world of nuclear weapons is highly controversial. Still, though it seems that such an optimistic idea is nearly unattainable, the world's nations can start a path toward that goal today, and work on complete nuclear disarmament in the future. If nations that currently hold nuclear weapons can reduce their arsenals to levels that maintain their national security, and no new nuclear weapons states develop, then a path towards complete nuclear disarmament may be achieved for future generations. **Therefore, it is our position that the superpowers engage in serious negotiations to drastically reduce the number of nuclear weapons in their arsenals and prevent the proliferation of nuclear technology to nations with nuclear ambitions.**

Current Nuclear Powers and their Policies

The danger of mutually assured destruction (MAD) has many nuclear powers stubbornly maintaining their nuclear weapons programs into the twenty-first century. The “nuclear club,” consisting of the United States, Russia, the United Kingdom, France, and China,¹ has staggering nuclear weapons arsenals and is capable of destroying the world several times over. However, since its birth during World War II and its growth during the Cold War, the nuclear bomb has found less footing in modern national security. Though the numbers dwindle, the fact still remains that nuclear weapons still exist in both nations signed to the Nuclear Non-Proliferation Treaty and those that are not.

¹ <http://www.cdi.org/nuclear/database/nukestab.html>

For nations around the world, including both the United States and Russia, nuclear weapons are necessary to maintain national security. The Non-Proliferation Treaty, enforced in 1970, has helped 189 nations commit to an objective of reducing nuclear weapons as well as promoting international peace, but still remains unsigned by many undeclared nuclear powers. However, progress in completely eliminating nuclear armaments will always be difficult. U.S. President Barack Obama has called for the continued reduction of nuclear weapons within the next four years, but also maintains that nuclear technology will keep their status as a strong deterrent as long as other nations have nuclear weapons.² Though historically, relations between Russia and the United States have been somewhat unwieldy, especially between former U.S. President George W. Bush and Russian President Vladimir Putin, President Barack Obama and President Dmitri Medvedev offer hope. At the G-20 summit in London in April, the two leaders met to discuss a new agreement that would replace the 1991 Strategic Arms Reduction Treaty (START) set to expire this year. The two leaders also agreed to reduce their nuclear arsenals to levels lower than those specified by the 2002 Moscow Treaty.³

What is needed perhaps is this type of strong executive leadership that finds nuclear non-proliferation a priority subject. The United States seems to be the most prominent leader on the matter. After President Obama called for the ratification of the Comprehensive Test Ban Treaty at his speech on April 5th of this year in Prague, U.S. Vice President Joe Biden led the efforts, and is still doing so, in the U.S. Congress. A new extension of START, as President Obama and Medvedev agreed upon, will also add another important step to the world's path of nuclear weapons elimination. Balanced obligations seem the most practical route for nuclear arms

² <http://www.cnn.com/2009/WORLD/europe/04/05/czech.republic.obama/index.html>

³ http://www.washingtonpost.com/wp-dyn/content/article/2009/04/01/AR2009040100242_2.html?sid=ST2009040100861

reductions, for as President Obama has stated, the complete abandonment of nuclear weapons amidst other nations that develop them creates great uneasiness. Though many critics say that neither the United States nor Russia has given concrete numbers that specify reductions, a better plan for a future elimination of nuclear weapons seems closer than ever. International cooperativeness and leadership, especially by the United States and Russia, as well as balanced obligations between all of the nuclear weapon-holding nations, may truly help to reduce the number of nuclear weapons in the world.

Sadly, the threat of nuclear terrorism and the continued nuclear programs of other undeclared nuclear nations undermine the efforts of the nuclear powers to reduce nuclear weapons worldwide. Though the NPT specifies that trading nuclear materials between nations for the use for the use of nuclear weapons is unacceptable, nations not signed to the treaty continue to obtain fissile materials. Nuclear trade is the transfer of nuclear materials between countries, a practice that is considered a disreputable conspiracy towards nuclear proliferation. The primary danger of nuclear trading is its ability to undermine the non-proliferation cause as seen in NPT, which would discourage support for already tenuous efforts made to prevent the spread of nuclear weapons.

There is no solid reason for countries to engage in nuclear cooperation, but there are many hypotheses. The dual application of nuclear materials for civilian and military purposes creates a set of political, economic and diplomatic incentives for countries to supply nuclear materials. States have a prominent interest in maximizing their security, and exporting nuclear materials can minimize the negative security externalities of trade, balance the power of a rival, or change the behavior of the importing state. But on its face, nuclear trading has the inherent quality of undermining the nuclear non-proliferation cause because it spreads nuclear technology

to countries that may or may not be invested in the efforts to use nuclear technology purely for civilian use.

The political ramifications of nuclear trading include tension in diplomatic relations and threats to international security. A 2005 deal made between India and the United States regarding cooperation in the transfer of nuclear materials and technologies highlights the main quandaries in nuclear trading. India had originally not signed the NPT at its inception and was barred from the worldwide nuclear market in 1974 when it conducted a nuclear test. This changed in 2005 when President Bush and Prime Minister Singh agreed that the United States would allow the trade of nuclear materials with India in exchange for India's promise for a moratorium on nuclear testing. President Bush announced his intent to change U.S. law to "enable full civil nuclear energy cooperation and trade with India." Opponents to U.S.-India nuclear trading argued that this agreement reversed years of U.S. policy to discourage relations re nuclear trade with countries, such as India, that had not signed the NPT. Daryl G. Kimball, executive director of the Arms Control Association, claims that the deal, "does not bring India into the nonproliferation mainstream" because it "creates a country-specific exemption from core nonproliferation standards that the United States has spent decades to establish." India continues to produce more fissile material, questioning the future of peaceful nuclear relations between the U.S. and India, as well as contributing to the ever-growing resentment towards nuclear trading.

The emergence of nuclear black markets also has caused a threat to national security and manipulates the export laws of many countries. Nuclear export controls are often weak, accepting of end-use declaration on an application at face value, enabling companies to easily deceive the authorities about the true destination and purpose of their exports. As exports tighten in a particular country or region, states look to other areas for suppliers willing to transport a

sensitive item. These states often race with those tightening their export controls. The availability of nuclear materials in the illicit nuclear black market raises concerns over terrorist groups that gain access to nuclear materials more easily than previously conceived. This illicit proliferation of nuclear materials proves another facet determined to undermine the non-proliferation efforts and international security laws.

Nuclear trading demands responsibility and control to ensure the security of every nation of the world in order to curb the possibility of nations using nuclear materials to create weapons for harmful militaristic purposes. Without a reliable program to regulate the existence of nuclear trading, non-proliferation will continue to be widely practiced.

Works Cited

Gunnar, Arbman. "Russia's Tactifful Nuclear Weapons." Nov 2003 Web.18 May 2009.

<<http://www.cissm.umd.edu/papers/files/thorntonrussia.pdf>>.

Office of the Press Secretary, "Joint Statement by President Dmitry Medvedev of the

Russia and President Barack Obama of the United States of America." *Arms*

Control Association. 01 April 2009. Arms Control Association. 26 May 2009

<<http://www.armscontrol.org/node/3611>>.

Unknown author. "List of states with nuclear weapons." *Wikipedia*. 2008. Web.18 May

2009. <http://en.wikipedia.org/wiki/List_of_states_with_nuclear_weapons>

Countries that Have Abandoned their Nuclear Programs (South Africa)

The prospect of developing a nuclear weapons program and then abandoning it seems utterly impossible. Countries have held the idea of nuclear supremacy for so long that destroying acquired weapons seems highly unlikely. Our leaders, however, ought to remember a crucial fact: it has been done before. While South Africa never even approached the level of nuclear weapons in the United States or Russia, it still made for the world in the direction of nonproliferation.

This is not to say that countries have never attempted to develop a weapons program and then abandoned them. After all, South Korea, Taiwan, Argentina, and Brazil all made an effort to join the arms race, and then consequently abandoned their quest. However, none of these countries succeeded in establishing weapons capability. South Africa, on the other hand, had a successful approximately twenty-five year old nuclear program.⁴ Its nuclear efforts began in the midst of the Cold War arms race between the United States and the USSR. In the year 1957, South Africa signed an agreement with the United States, which promised the budding nuclear nation the American Safari-1 nuclear reactor, as well as a supply of enriched uranium. Through this exchange, both countries hoped to build a peaceful nuclear energy program. Ten years later, South Africa finished constructing its own reactor, the Safari-2. By 1970, however, the country abandoned this attempt, as it was quickly draining South Africa's supply of uranium.⁵

However, nation's nuclear efforts did not end there. The possibility of a Soviet threat in Africa spurred South African leaders to pursue a nuclear weapons program. Sources

⁴ http://web.mit.edu/ssp/seminars/wed_archives_01spring/albright.htm

⁵ http://www.nti.org/e_research/profiles/SAfrica/Nuclear/index.html

conflict over when the country's goal became weaponry. Former South African President F.W. de Klerk claims that the shift took place in 1974, while the Atomic Energy Corporation maintains that it was not until 1977. Regardless of this date, the country's uranium enrichment plant became operational in 1974, and in 1979, the United States surveillance system detected an extremely bright double flash of light near the South African region. Although the nation's government denied performing this test,⁶ it subsequently developed six non-strategic gun-type weapons, each containing a yield of 10-18 kilotons.⁷

Despite these gains, by the year 1988, South Africa's need for nuclear weapons was no longer crucial. The once-mighty Soviet Union was nearing its collapse, communist Cuba was no longer occupying Angola, and Namibia had recently gained independence. South Africa no longer wanted to exist in isolation, it wished to reenter the world community. In 1991 it joined the Nuclear Non-Proliferation Treaty as a non-nuclear nation. That same year, the IAEA verified that the country had indeed dismantled its weapons and decontaminated its production facilities.⁸

Through its disarmament efforts, South Africa has set an example for the rest of the nuclear community. It now helps lead the world in disarmament efforts, and has signed both the African-Nuclear-Weapon-Free-Zone Treaty and the Comprehensive Test Ban Treaty.⁹ Perhaps as international diplomatic relations improve, other nuclear countries can follow in its footsteps and accomplish worldwide disarmament.

⁶ http://www.nti.org/e_research/profiles/SAfrica/Nuclear/index.html

⁷ http://www.nti.org/db/disarmament/country_safrica.html

⁸ http://web.mit.edu/ssp/seminars/wed_archives_01spring/albright.htm

⁹ http://www.nti.org/db/disarmament/country_safrica.html

Works Cited

- Albright, David. "South Africa's Nuclear Weapons Program." *Institute for Science and International Security*. 2001. MIT. 19 May 2009
<http://web.mit.edu/ssp/seminars/wed_archives_01spring/albright.htm>.
- Du Preez, Jean. "South Africa." *NTI*. 2007. James Martin Center for Nonproliferation Studies. 19 May 2009
<http://www.nti.org/db/disarmament/country_safrica.html>.
- Du Preez, Jean. "South Africa Profile." *NTI*. 2007. James Martin Center for Nonproliferation Studies. 19 May 2009
<http://www.nti.org/e_research/profiles/SAfrica/Nuclear/index.html>.

How a Safer World Can be Achieved

The reduction of the nuclear arsenal of the world would greatly benefit all people in the world, providing more confidence that they will live to see the next day. Also, as Director General of the International Atomic Energy Agency (IAEA) Dr. Mohamed ElBaradei noted, if the funds spent on maintenance of nuclear bombs were redirected to other issues, problems like world hunger could potentially disappear.¹⁰ However, before these idealistic conditions of total disarmament can be reached, there must first be a comprehensive plan regarding how this can be done. In order to ensure that proliferation does not occur and arms reduction continues to its minimums, the world must take certain actions toward this.

The world currently relies on the IAEA to monitor nuclear disarmament and non-proliferation. The Agency does this by collecting data about the nuclear activity in the world, analyzing it, and providing peaceful nuclear technology to areas where it is needed. It also tries to prevent any nuclear technology from being used for military purposes.¹¹ Despite its own relative success, as well as that of the later-established Nuclear Non-proliferation Treaty, in preventing nuclear proliferation, several imperfections in the Agency's Statute, as well as poor overall cooperation among the nations of the world, have made it possible for states such as North Korea to evade the agreements met when the agency was made.

¹⁰ <http://www.iaea.org/NewsCenter/Statements/2005/ebsp2005n020.html> ElBaradei's Nobel Lecture 2005

¹¹ http://www.iaea.org/About/statute_text.html IAEA Statute

Addressing Problems within the IAEA

When looking for a better approach to non-proliferation, the world must change the parts of the IAEA Statute responsible for many of its failures. One approach toward stopping the spread of the nuclear weapons would be to eliminate the risk that peaceful technology could be transformed for military purposes and make sure that no new countries ever even get nuclear technology. However, this option is not a good one because ambitious countries such as Iran would continue to work on their nuclear program despite all obstacles as they have been doing until now, while peaceful countries would end up without the benefits of nuclear energy. Additionally, bystander countries could become aggravated and start nuclear weapons programs of their own. Stopping proliferation of peaceful technology, then, would be the wrong approach. Thus, the spread of peaceful nuclear technology is beneficial to world safety and the states that receive it, showing that the IAEA has good aspects.

Instead, the following aspects of the Statute of the International Atomic Energy Agency should be revised:

- According to the IAEA Statute, a member that fails to make its payments for two years or more will lose its privileges with the Agency (IAEA Statute, Article XIX, Paragraph A). The concept of having to pay for membership, no matter how small the sum is, is repulsive to the poorer countries recognized by the United Nations, because it suggests that richer countries are potentially running the Agency, while the poorer countries could be excluded – without power. This is perhaps why only 146 of 192 United Nations member

states are part of the Agency.¹² Consequently, with less members, the IAEA has less influence than it could possibly have.

- The IAEA Statute discusses the issue of dealing with countries that acquire nuclear technology peacefully, and begin developing nuclear weapons afterward (IAEA Statute, Article XII, C). However, it fails to address how to approach the scenario in which a country develops nuclear weaponry on its own – without outside help.

- The IAEA interestingly does not resolve disagreements between its own members. When members have a “dispute concerning the interpretation or application” of the IAEA Statute, instead having the member states take a vote on what should be done, the IAEA sends the members to the International Court of Justice, an outside body (IAEA Statute, ARTICLE XVII, Paragraph A). Although this may be intended to eliminate biases of member states, the Agency is autonomous from the United Nations, and constant law suits between members over tiny disagreements can greatly stifle the progress of the Agency.

- Finally, the IAEA Statute does not specifically provide for an international police force to monitor and enforce the agreements made. The Statute, for example, says, “In the event of failure of the recipient State or States [to comply with the rules of the Statute]... [the Agency may] direct curtailment or suspension of assistance being provided by the Agency or by a member, and call for the return of materials and equipment made available to the recipient member or group of members. The Agency may also, in accordance with article XIX, suspend any non-complying member from the exercise of the privileges and rights of membership.” (IAEA Statute, Article XII, Paragraph B). As it is evident from this quote, the most the IAEA, as an entity can do with dissidents is take away their privileges, an option

¹² <http://www.iaea.org/About/Policy/MemberStates/index.html> IAEA Member States

that former members Cambodia and North Korea did not mind too much, as both have withdrawn. The Agency unfortunately has to rely on individual member states to take action against members that break the rules.

The Need for an Improved World Attitude

Reliance on the individual member states of the IAEA would be a good option if the world had a better attitude toward the agency. However, as indicates the lack of membership, the international community does not take the Agency seriously enough. Another indicator that countries around the world do not take the Agency seriously enough: the IAEA is responsible for taking data about the number of nuclear weapons in each country. However, each country keeps their numbers a national secret, so the IAEA has to work with estimates.¹³ This lack of definite statistics slows down the Agency's effort toward lowering nuclear arsenals.

When nuclear weapons holders do not cooperate, the IAEA cannot make sure that other countries do not get nuclear weapons. For example, Russia is supplying atomic technology to Iran, claiming that it will use it for peaceful purposes. Meanwhile, the other major nuclear weapons force, the United States, considers that Iran will transform its nuclear technology program into nuclear weapons, referring to numerous threats of Iran's president to conquer the rest of the world and Iran's refusal to let the United States inspect its nuclear power plants. Before supplying a country with nuclear technology, the supplier should first consult the IAEA and the other major nuclear power states to avoid any new conflicts.

¹³ <http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html> Status of World Nuclear Forces (Federation of American Scientists)

A New Police Force

When the world begins to cooperate more, it will have to establish a new, and effective, police force. Of course, the lowering of nuclear arsenals will not depend anything on the police force. Instead, this new force's job would be to make sure that no new countries get any new weapons. The force should cooperate with the atomic bomb powers of the United States, the United Kingdom, France, Russia, China, Pakistan, India, Israel, and organizations such as NATO, which participates in nuclear arms sharing. The world should probably get rid of nuclear arms sharing as a first step, and make sure that the world does not get any new weapons.

One way to monitor the countries of the world from getting new nuclear weapons, is to create separate committees in each part of the world. The regions are as follows: Latin America, Western Europe, Eastern Europe, Africa, Middle East & South Asia, Southeast Asia & Pacific, and the Far East (the regions are already established by the IAEA.)¹⁴ The local meetings within these committees would meet two or three times each year. They would be more successful in solving the problem of nuclear non-proliferation than huge, worldwide meetings, because the neighbors know one another's problems better and know how to find common language with their neighbors better than do diplomats from far-away countries. Thus, with cooperation inside these geographically and culturally related regions, problems could be solved involving the need for protection from others or the need for energy on a local level. This would eliminate the risk that countries such as North Korea and Iran would seek more attention from the world. If the problems in the local region would not be solved, then world bodies such as the IAEA could look into that country. Hopefully, with a revised central managing body, the IAEA, more cooperation

¹⁴ <http://www.iaea.org/OurWork/ST/NE/Pess/rds-1/RDS1-23scr.pdf> Energy, Electricity and Nuclear Power Estimates for the Period up to 2030

from the world, and a more effective new police force, the world could avoid a potential nuclear holocaust, which could happen once nuclear weapons get in the wrong hands.

Issues to Consider: The Reactions and Attitudes of Resistant Nations

In the event of a proposal to eventually reduce the prevalence of global arms to only a few hands (namely Russia and the United States) over a long period of time, the main volatile countries that global nuclear nonproliferation is aimed at will resist: the nations of North Korea, Pakistan, and Iran. In order to reach the goals that organizations such as the IAEA and the Strategic Arms Limitation Treaty (SALT) have idealistically set up, the importance of the cooperation between the members of the “nuclear club” is paramount.

If called to reduce arms, North Korea would most likely react badly – at first. To receive North Korea’s acceptance of removing its alleged nuclear arms, several conditions must be met. If any of these conditions are not met, the likelihood of North Korea relinquishing its arms will be small, and this failure to do so may only serve to antagonize, brewing deeper tensions and hostilities. To nations such as North Korea (and that of Pakistan and Iran as well), nuclear weapons are believed to be a necessity - due to nearby “enemies” around them. To communist North Korea, nuclear arms are a force multiplier, increasing military strength to match that of democratic South Korea. However, defense may only be one factor. Given that North Korea has been very aggressive in the region, South Korea may even be at risk of attack or territorial conquest. The same situation applies to Pakistan, which must defend or attack its already nuclear-armed neighbor, India, and Iran, which has rightfully been highly suspicious of Western “meddling” in the Middle East due to the recent violent history of the region. Once the

diplomatic talks have resolved a way to ease the tension in each of the country's respective regions, nuclear arms will no longer be necessary in either deterrence or pre-emptive strike.

However, nuclear arms disarmament will be hindered by national pride. Recently, on the 25th of May, 2009, North Korea claimed to have successfully tested a bomb as powerful as the atomic bomb detonated in Hiroshima, coming only two months after the North had isolated itself from the global community by testing a long range ballistic missile.¹⁵ Clearly, the global community's efforts in deterring North Korea from building a nuclear deterrent device have been unsuccessful. In 2007, after the United States "failed" to change its stance on condemning the nuclear testing, North Korea walked away from the six-party talks, threatened to rebuild a nuclear reactor it previously agreed to dismantle, and expelled international inspectors. These harsh actions reflect Pyongyang's pride in its nuclear program. Like what NASA is to the United States, being able to construct, test, and own the ability to operate a nuclear bomb successfully is a source of pride, due to the difficulty in design, the acquisition of materials, and the bomb itself, the embodiment of military might.

At its present state, any proposal which will ultimately result in global nuclear nonproliferation except in one or two superpowers will be rejected, mostly due to the unsatisfactory position that countries such as Iran will be left in. Until the underlying issues of safety, national pride, and other factors are considered and dealt with properly, a future of near-nonproliferation will not be likely.

¹⁵ McCurry, Justin. "North Korea Tests Nuclear Weapons "as powerful as Hiroshima bomb"." *Latest News, Comments, and Reviews from the Guardian*. 25 May 2009. The Guardian. 2 Jun 2009 <<http://www.guardian.co.uk/world/2009/may/25/north-korea-hiroshima-nuclear-test>>.

Works Cited

McCurry, Justin. "North Korea Tests Nuclear Weapons "as powerful as Hiroshima bomb"."

Latest News, Comments, and Reviews from the Guardian. 25 May 2009. The Guardian. 2

Jun 2009 <<http://www.guardian.co.uk/world/2009/may/25/north-korea-hiroshima-nuclear-test>>.