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North America Nuclear Policy Conference Report



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About the Conference

On Saturday 6 and Sunday 7 April 2013, INENS hosted the second North America Nuclear Policy Conference in Washington, D.C. The conference brought together young professionals working in policy, industry and science and various senior officials from government and international organizations to discuss key nuclear issues relating to US, Canada and international nuclear policy.

The conference was held under Chatham House Rule to facilitate more open dialogue during the sessions.

Conference Focus and Participation

The main focus of the conference was to encourage dialogue among the region's young professionals working on domestic and international nuclear issues. The format of the conference involved plenary sesions with presentations by participants and smaller working groups which involved more in-depth discussion of specific issues. Over the course of the conference, discussions were held on a number of topics listed above.

Nearly 65 participants from Canada and the US, and a few others from China, France, India and the UK attended the conference. Officials from the International Atomic Energy Agency (IAEA), the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), the United Nations as well as the Chair of the 2013 Preparatory Committee of the 2015 NPT Review Conference also shared their expertise and reflections on some of the issues discussed during the conference. The majority of participants were emerging specialists with between one and ten years' experience in the nuclear field.

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Summary of Discussions / Recommendations

- The Oslo conference on the humanitarian impact of nuclear weapons is a new approach to addressing concerns about nuclear weapons and can be used as an opportunity for dialogue on a non-political basis if it is approached with an open mind. However, there is also a need to ensure that the discussions on humanitarian consequences do not get side-tracked by some stakeholders who may wish to use the platform to push their own agendas for nuclear disarmament;

- When addressing the humanitarian consequences of nuclear weapons, it is important to differentiate between the respective effects of nuclear energy and nuclear weapons. Educating the public is vital in both instances;

- On safeguards: the International Atomic Energy Agency (IAEA) needs to improve the way it reports to member states on the evolution of the safeguards concepts and approaches, including the State-Level Approach (SLA) and integrated safeguards;

- Stronger emphasis should be placed on communicating that the IAEA's main function is to build confidence in the Agency's safeguards system and its member states' intentions, and that the evolution of technical approaches within the system further enhances confidence;

- On civil nuclear energy: If the cost of nuclear waste disposal were attributed more accurately, it is possible that reprocessing might become more feasbile and favored. A possible next step could then lead to a debate on developing fast reactors, and how to render them commercially viable and proliferation-secure;

- On nuclear security: The role of informal processes such as the Nuclear Security Summit (NSS) adds to strengthening nuclear security measures. However, the future direction of the NSS beyond 2014 needs to be addressed and a possible continuation could perhaps be under the wing of a larger body such as the IAEA;

- There is a need for various industry segments to address this issue collectively as at present, it is divided, and to its detriment. Moreover, there is also an urgent need for more communication both in frequency and quality of substance during discussions between industry and government;

- Concerning the Democratic People's Republic of Korea (DPRK), one of the crucial immediate steps to stem tensions on the Korean peninsula would be to restore channels of communications to the pre-crisis levels, including the restoration of the telephone hotline between North and South;

- On the IAEA: Transforming the Office of Nuclear Security into a Division will allow the Agency to have the bureaucratic instruiments that may help address existing nuclear security challenges in a more effective way;

- The various stakeholders in the nuclear security architecture each have a decisive role in shaping and implementing nuclear security. Although there is a need for cooperation in nuclear security, the IAEA needs to be the leading organisation at the top of the nuclear security architecture;

- Discussions on a Fissile Material Cutoff Treaty (FMCT) should be aimed at creating consensus on a norm which most or all nuclear weapon states and non-nuclear weapon states could sign up to. A treaty like the FMCT would be meaningless without the participation of nuclear weapon states and possessor states;

- Progress on the implementation of the Action Plan of the 2010 NPT Review Conference has been slow. As the current cycle progresses towards the 2015 Review Conference, the process should actively start addressing issues such as non-compliance, reframing Article X (withdrawal) and on addressing convening of a Middle East WMD Free Zone conference.

United States Nuclear Policy

President Obama's re-election has provided continuity in the United States' non-proliferation policy as the administration seeks to further develop the 'Prague agenda' towards a world without nuclear weapons. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the 2013 Preparatory Committee of the 2015 NPT Review Conference (NPT PrepCom) in Geneva provides opportunities for the U.S. to show its commitment to the objectives of the treaty, and its three pillars: non-proliferation, disarmament and peaceful uses of nuclear technology. Following the significant success of the 2010 NPT Review Conference in producing a Final Document and Action Plan, the 2013 NPT PrepCom provides an opportunity to take stock and continue pursuing a variety of goals.

It is clear that despite the challenges faced by the NPT regime, such as ongoing issues relating to Iran's nuclear program, and the Democratic People's Republic of Korea (DPRK), the NPT remains a successful treaty regime. While the U.S. continues to pursue a dual track approach with Iran, consisting of both diplomatic resolutions and sanctions, hope for the former remains if Iran starts to cooperate with the International Atomic Energy Agency (IAEA). The DPRK's highly provocative acts and activities do not lay the groundwork for negotiations. However, at this point, the responsibility lies with the DPRK to start taking appropriate steps that would bring it back onto course for negotiations.

The goal of locking down the trafficking on nuclear materials is paramount in order to prevent non-state actors from acquiring nuclear materials or weapons. As a result of the Nuclear Security Summit (NSS) process, ten states have now removed, exchanged and banned all highly-enriched uranium (HEU) from their country. Despite the success of the NSS however, there is a need to focus on the future of the summit process itself, which has now held two summits since 2010 (U.S. in 2010, and the Republic of Korea in 2012).

While the risk of a nuclear war is not as great today as during the Cold War, the risk of the use of weapons of mass destruction (WMD) remains high. Education and discussion of it remains vital in order to raise awareness and to prevent this risk from materializing. A number of bilateral programs between states are in place in order to improve their capabilities to deter and respond to nuclear smuggling and trafficking. The role of the NSS process and possible follow-on options is very important, especially in the need to ensure that the high standards are maintaining through to the 2014 summit in The Hague, Netherlands.

On the Middle East WMD Free Zone, consultations with actors both within and beyond the region are important. The possibility of some states not participating and a lack of trust and communication among the states concerned highlight that the next steps forward may be difficult.

Arms Control and Disarmament

The level of dialogue and debate on the issue of the CTBT will increase amongst the U.S. legislature when there is movement towards ratification. This increase in interrest needs to be met with an equal level of education on the CTBT in the U.S. Current reluctance by the U.S. to proceed with the CTBT's ratification could be the cause of hesitation by other Annex II states to follow the process of ratification too.

The Fissile Material Cutoff Treaty (FMCT) is the next step towards disarmament but remains hamstrung by countries blocking progress in the Conference on Disarmament (CD). There are also critical issues to discuss, including methods of transparency, verification and confidence-building.

The conference on the humanitarian impact of nuclear weapons, held in Oslo, Norway in early March 2013 has been criticized for setting artificial deadlines for disarmament as these wrongfully communicate the availability of a quick solution to reaching disarmament goals, and is thus perhaps not the right approach. Nonetherless, Norway's attempt to address the impact of nuclear weapons on a strictly non-political basis is a new and open-minded approach that raises the question of whether multilateral approaches, aimed at ethics, morality and norms can work simultaneously.

While Norway would like to include the five nuclear weapon states in the process, there are also voices advocating the opposite. Generally, participants at the Oslo conference were divided by their stance on deterrence. However, some also contended that a belief in the deterrent value of nuclear weapons should not preclude parties from talking about the humanitarian aspects of nuclear weapons - an approach currently pursued by India. The efforts to exclude a political discussion impact and challenge the course of the discussion. Moreover, while none of the five nuclear weapon states are interested in participating in the Oslo conference as of now, it is worth discussing whether or not their participation would benefit the Oslo process, and if participation of one nuclear weapon state would break the unity of the nuclear weapon states as group.

When talking about the psychological effects of nuclear weapons, it is questionable also if drawing parallels to the 2011 Fukushima accident furthers cause. Therefore, it is important to differentiate between nuclear energy and nuclear weapons and their respective effects. Educating the population is also important in both instances. While the Oslo approach seems to take for granted that the public is supportive of the cause, it fails to take into consideration those constituencies that, in light of unstable situations in various regions and ongoing nuclear crises with Iran and the DPRK, favour nuclear weapons and do not want them abolished.

Nuclear Safeguards

There is huge value in implementing a State-Level Approach (SLA) and integrated safeguards. The key question facing the international community on safeguards is how to incentivize states to engage with the IAEA towards implementing a SLA and integrated safeguards. It should be noted however, that the State-level concept is not new, and should not require further approval by the IAEA Board of Governors as it is being implemented within the current legal framework for safeguards. But the IAEA could improve the way it reports to member states on the evolution of the safeguards concepts and approaches.

The importance of the distinction between state-level and integrated safeguards should not be overstated. While a state-level approach can be applied to all states and is independent from the type of safeguards agreement in place in a given state, the integrated safeguards approaches can only be put in place in states with an Additional Protocol (AP) and a broader conclusion. They are not, however, mutually exclusive. The system of integrated safeguards stands for enhanced information, enhanced and unpredictable access, and enhanced cooperation, thus equaling optimization and increasing confidence.

Canada, one of the most inspected IAEA member states has successfully implemented the state-level integrated safeguards as of January 2010. The system led to a reduction of over 60 per cent in IAEA person days of inspection, enhanced information processing through a real-time accounting system and enhanced trilateral cooperation. The implementation of integrated safeguards was also well-received by the industry.

The workload at the IAEA headquarters has also increased as the amount of safeguards-relevant information has increased. For the IAEA, the state-level integrated safeguards system is thus also important in terms of budgetary constraints.

An important factor in augmenting safeguards techniques is imagery analysis. Much of the fuel cycle can be observed and checked through imagery analysis. Geographic Information Systems (GIS) are used to determine where a site, for example, reactors or milling facilities may be located. Satellite imagery and synthetic aperture radar allow gathering information through cloud covers, at night, through amouflage and even through various layers of sand. Thermal infrared allows for conclusions based on patterns of heat and different kinds of materials.

Contamination with radioactive substances can be identified through hyperspectral imaging. While each layer of imagery provides more information, thus strengthening nuclear security, verification and safeguards, imagery analysis is meant to act as a complement to other safeguards techniques, and not to substitute them. There could be added value derived from imagery analysis of sites in the case of an accident.

While such technical developments support the IAEA safeguards system, they also bring an information overload to the Agency. Additional reports and technical analyses may contain important information, but they need to be evaluated and therefore require the appropriate and adequate human resource structures to do so.

A key achievement of the State-Level concept is that it allows taking on a holistic perspective, thereby furthering the prospect of increasing effectiveness for the IAEA. The main question is therefore how to leverage limited resources to more effectively prevent and deter proliferation.

Lastly, more emphasis needs to be placed on communicating that the IAEAs main function is to build confidence in the Agency and its member states' intentions, and that the IAEA is not using subjective but rather technical approaches to further enhance confidence.

The ongoing case of Iran's nuclear program is used by many observers of all persuasions to assess the levels of compliance to the IAEA's safeguards system, both positively and critically. Any form of "action plan" of what Iran could do to induce confidence in the peaceful nature of Iran's nuclear program would need to include a discussion on the role of the IAEA itself in trying to resolve the Iranian crisis, and waht more the IAEA can do alongside, or in concert with other efforts to negotiate with Iran.



Civil Nuclear Energy

While in the Organization for Economic Co-operation and Development (OECD) countries there are 15 nuclear reactors currently under construction (four of them being under construction in the U.S.), non-OECD countries are constructing 53 new nuclear reactors. After Fukushima, the nexus between nuclear safety and security has been extensively discussed.

Japan is enhancing its physical security and addressing insider threat issues. In the U.S., the "FLEX" approach seeks to enhance safety through a system of comprehensive, tailored measures aimed at responding to extreme events.

Implementing the lessons learnt from Fukushima, nuclear power sites in the U.S. have added additional back-up portable safety equipment, and regional response centers are being developed and equipped in Memphis, Tennessee and Phoenix, Arizona. One of the lessons learnt from Fukushima was the need to provide additional monitoring for spent fuel pool water levels during severe accidents and station blackout scenarios.

The nuclear renaissance allows the development and improvement of standards of living, especially in newcomer countries. However, there are no easy means or solutions to tackle the existing nonproliferation concerns. While there is a responsible incentive structure within the U.S. nuclear industry, other countries, including Russia may not provide the same.

Supply constraints as a means of preventing proliferation in the past have served merely to delay development. For example, constraints on India led to the country developing a Thorium fuel cycle as a direct consequence of their lack of access to uranium. There is also a need to question and debate whether some of the policies and nuclear cooperation agreements, including those of the U.S., are hurtful or helpful to nonproliferation interests, and think about how the spread of technology to other countries is influenced through such agreements.

With regards to nuclear exports, it should be noted that the U.S. was a dominant supplier of nuclear technology twenty years ago, meaning that it had the ability to set standards and dictate bars. Now that there is competition from France, Russia, the Republic of Korea and Japan, it means that if the U.S. asks for too high a standard in the absence of an international standard, buyers may turn to others that provide the same for lower standards.

Nuclear waste storage problems remain a concern of great public importance, especially regarding how to effectively set up geologic repositories. Finding a location that is willing to host nuclear waste sites is a challenge, but also a unique opportunity for some countries. Through the International Framework for Nuclear Energy Cooperation (IFNEC), the concept of comprehensive fuel services, including the potential for a country to offer geological disposal services to other countries, is being discussed.

The front and back ends of the fuel cycle are an important intersection of civilian nuclear power and nuclear security, which the international community needs to work on. It is possible that if the cost for disposal was attributed more accurately, reprocessing might become more feasible and favored. A possible next step on reprocessing could be a debate on developing fast reactors, and how to render them commercially viable and proliferation-secure.





Nuclear Security

The role of informal processes

The Nuclear Security Summit (NSS) process has been criticized for not including all countries on the issue of nuclear security. Although a valid criticism, it should be recognized that there are a number of regional, non-summit events aimed at the same target countries that were organized and promoted by the U.S., and supported by the IAEA and the World Institute for Nuclear Security (WINS). By getting the regional players invested and strengthening their ties with their neighbors, even non-invited parties to the NSS received a chance to engage on nuclear security issues in their respective regions.

Increasing the number of countries invited to participate in the NSS would make it harder to keep the focus specifically on nuclear security, and may compromise the core goals of the Summit. A similar approach is taken by the G8, which encourages all states beyond those invited to the G8 meetings to implement their obligations under United Nations Security Council Resolution 1540. Not all countries, however, are interested in promoting and increasing nuclear security, and some choose to engage for a number of different reasons.

One of the main criticisms levelled on the commitments made by countries through informal processes such as the NSS is that while the high-level approach that the process has adopted results in a push for motivation and contributes towards strengthening nuclear security, the lack of transparency regarding the execution and fulfilment of the voluntary commitments by the NSS participants is problematic. In this instance, informal initiatives such as the NSS may raise complications insofar as they undercut the legitimacy of international organizations and their work on nuclear security to some extent.

The NSS however, still provides a valuable contribution to the international debate and progress on nuclear security. It provides benefits but still has room for improvements. By the time of the 2014 NSS, additional improvements could be made in the way in which the summit reports on results, outcomes and achievements towards the goal of establishing greater transparency.

More global partnership programming would be an important step forward, as well as the ratification of the Amendment to the International Convention for the Suppression of Acts of Nuclear Terrorism. The 2014 NSS should also address the future direction of the process and whether it should be extended. Any continuation beyond 2014, perhaps through to 2016, should be held under the wing of a larger body, possibly the IAEA to strengthen and expand the Agency's efforts on nuclear security.

The likelihood and format of any continuation will greatly depend on the progress made at preparatory meetings, the events leading to the 2014 NSS, and the possibilities of invited parties generating new commitments or actions towards strengthening nuclear security.

Government and Industry Cooperation

There is a perception amongst government groups and government employees that industry does not want to be regulated and that it does not concern itself with proliferation issues as long as there is a profit to be made. On the other hand, it is also pointed out that government does not involve suppliers and utilities enough on issues such as nuclear security.

The potential role of industry representatives in these types of discussions would be beneficial to both sides as it is the government's role to regulate the industry. Different segments of the industry come to the table with different understandings of what nuclear security means. Each segment has different perceptions of what it entails and waht the responsibilities are. Varying perceptions of the responsibilities and roles complicate further the drivers that lead to decision-making on nuclear security issues within industry. For example, financial incentives and cultural bias, etc. could potentially be some of these decision drivers.

In the context of the U.S., all industry segments need to regroup and rethink how they address nuclear security concerns collectively. The US nuclear sector is divided, and to its detriment. The groups have to come back together to discuss these issues so that they can re-baseline knowledge and expectations on nuclear security.

There is an urgent need also for more communication and additional feedback loops on nuclear security topics between industry and government. Both the frequency and quality of substance during discussions need to be improved.

Cyber Security

The goals reached through cyber attacks are overwhelmingly not worth the required effort or potential consequences, and they do not represent a good tool for nonproliferation. In a post-Stuxnet world, there may be room for them to be useful. However, this would be an extremely limited role, insofar as to be

almost non-existent situation. It would also set a highly dangerous precedent.

In terms of existing vulnerabilities, the U.S. nuclear complex is not as vulnerable due to many systems being analogue rather than digital. Yet, threats continue to advance and are becoming more vivid.

Cyber attacks as a weapon of war would depend on the ramifications, and there would likely be implications for the state responsible, thus limiting their effectiveness.

The supply of cyber experts is also problematic as the criteria of expertise is even more specific. It also adds to concerns regarding the pay for the necessary talent recruited to this field.

Another challenge could be how to share the information about threats and assess vulnerabilities without betraying security. This problem should be addressed by governments or corporations and could be dealt with in similar ways to how exports controls have been tackled.

A possible cyber convention would face diverse challenges. Previous conventions assumed that advanced weapons of war were only the purview of states, which is not applicable to cyber weapons that can come from both state and non-state actors, including individuals.

In an attempt to create a culture of responsibility, children should be taught about cyber security at the earliest possible opportunity. A code of ethics for programmers would also prove useful.

In addition, people working in the cyber field need to be educated about the issues relating to cyber threats.



Regional Issues

The DPRK

The crisis surrounding the Democratic People's Republic of Korea (DPRK) is at its most serious since 1994. In the near-term, road-mobile missiles and solid fuel technology are of particular concern to Western observers whilst the DPRK's efforts at uranium enrichment and the announced restart of a plutonium producing reactor are concerns in the mid-term.

The DPRK's provocations are not new, and emanate from a variety of reasons including domestic policies, solidification of government transitions, and military culture which dominates the country's history. It is most likely that Kim Jong-Un wants to consolidate power in the military and prove his credentials as a tough leader.

China is seen by many as a crucial influence over DPRK relations. It is hoped that China will better implement sanctions and better use its influence over the DPRK to defuse imminent tensions and to avoid provocations from escalating out of control.

However, the long term solution to the underlying tensions is economic engagement with and liberalization of the DPRK. There is a need to strike a balance between near-term sanctions and long-term economic engagement and whilst China has recently taken unprecedent tough measures against the DPRK, there are also signs that China will not abandon its neighbor either. It is expected to be a gradual change of policy without dramatic or quick shifts.

Diplomats and policymakers also need to be aware of the unique environment on the Korean peninsula and the potential ramifications of their statements and actions on the region.

Family history, personality and culture matter to both the DPRK and the Republic of Korea. More attention should be paid to accurately detect and understand each other's signals during crises. This is particularly important as the US and DPRK have different cultural background and it is easy to misunderstand signals. Closed-door diplomacy and secret engagement would be helpful but there is a need for caution about what signals are sent and how messages may be interpreted by the other side.

Looking into the future, with the U.S.-Republic of Korea exercises ending soon, tensions may drop gradually. The most important step is to restore channels of communications to their pre-crisis levels, including the restoration of the telephone hotline between North and South.

South Asia

A number of Confidence-Building Measures (CBMs) are already in place between India and Pakistan such as early notification of ballistic missile launches and non-targeting of nuclear power plants. India and Pakistan are also discussing respective nuclear concerns with each other.

These CBMs can be bolstered by further measures such as more people-to-people interactions (which can lead to a change in perceptions at the grass-root level), an increase in cross-border trade and most importantly a dialogue on arresting the nuclearization of the Indian Ocean. The latter currently seems inevitable as both countries plan to develop sea-based nuclear deterrent capability, and would pose a significant threat to both states and the wider region were it to develop without discussion.

Other states in South Asia have not been very active in the nuclear politics in the region primarily because of their limited influence on India and Pakistan. However, there is a possibility of putting some pressure on the nuclear-capable states if a regional approach can be adopted. Nuclear issues must be raised at the level of regional institutions such as the South Asian Association for Regional Cooperation and an annual nuclear dialogue among all South Asian states should be initiated.

Major power involvement in South Asia has damaged nuclear stability in the region. China's technological assistance to Pakistan and the U.S.-India civil nuclear agreement are two examples of such debilitating extra-regional influences. There has been a limited but positive role that the U.S. has played at times of nuclear crises between India and Pakistan but the U.S.-India deal and other such bilateral agreements, as well as the ongoing transactions between China and Pakistan undermine the legitimacy of the NPT. Consistency with noms and rules is a must for the NPT regime's effectiveness.

On arms control mechanisms, bilateral dialogues should include an agreement on limiting nuclear arsenals and fissile materials as well as participation in FMCT talks at the Conference on Disarmament. Negotiations should also begin on stemming the development of new technologies such as ballistic missile defense, sea-based nuclear capabilities and tactical nuclear weapons which may aggravate the nuclear arms race in the region.

Strengthening the Role of the IAEA

Nuclear Security

An important aspect of the IAEA's role in promoting, strengthening and encouraging nuclear security in states with nuclear power, especially newcomer states, is its education training programs. By ensuring that basic nuclear security standards are met from the beginning, the IAEA can contribute greatly to nuclear newcomer syayes establishing a sound nuclear security culture.

Another important aspect is to further the dialogue between science and technology stakeholders and the policy community, as they often seem to follow opposing ideas. By giving the IAEA the power to accredit new designs that specifically increase nuclear security, the role of the IAEA in nuclear security would be strengthened and would make it easier to merge national and IAEA standards. Lastly, implementing smaller or regional agreements and organizations will lead to a better chance of success in nuclear security.

Currently, the IAEA has only a limited capacity to meet the nuclear security needs of its member states. The IAEA has a positive influence on nuclear security through its advisory role, especially in delivering best practices and common norms. However, as the IAEA budget for nuclear security is funded through voluntary contributions, there are conditions placed on the distribution of these funds, including some limitations based on the geographic location and / or purposes of the projects.

A shortage of human resources at the IAEA affects nuclear security as the number of inspectors doing field work is limited.

Furthermore, the legal definition of the powers of the IAEA is important: the IAEA only has the power to recommend on nuclear security. After Fukushima, many have discussed the role of the IAEA in nuclear security, and whether it should be an advisory role or a mandatory body on nuclear security issues. This discussion needs to be furthered.



International organizations can strengthen cooperation on nuclear security through treaties, conventions and agreements. Therefore, encouraging countries to sign and ratify such legal instruments should continue to be actively promoted. Smaller or regional agreements, bi- or trilateral treaties may also have a better success rate.

Nuclear security is a political issue. It has become an accepted priority on a high political level since the start of the NSS process. Nuclear security standards are lagging behing in many countries, including those that operate nuclear power plants. Meanwhile, the IAEA is trying to manage the high volume of demand from its members under tight budgetary constraints, with a key discrepancy in the amonts being given by some states and the distribution of these funds.

Transforming the Office of Nuclear Security at the IAEA into a Division will allow the IAEA to have the bureaucratic instruments that may help address existing challenges in a more effective way.

Nuclear security is also the responsibility of every state. In order to ensure that countries address nuclear security issues adequately, new ideas and mechanisms need to be provided. The NSS plays a key role in this effort but it is impossible to sustain this process through endless summits, the IAEA, NGOs, industry, informal processes and other actors play a decisive role in shaping and implementing nuclear security, and in demanding that these are complied with. However, too many actors putting out recommendations, advice and guidelines might ead to confusion. While there is a need for cooperation in the field of nuclear security to be further strengthened, the role of the IAEA as the organization leading activities relating to nuclear security issues need to be clearer. Within a nuclear security architecture, the IAEA's role should be at the forefront, and leading other stakeholders.

Nuclear Safety

The Chernobyl accident demonstrated that the impact of nuclear accidents is not only confined to the state concerned but rather that it has a global impact. It also revealed the limitatons and opportunities regarding cooperation on nuclear safety. While the IAEA sets standards, provides guidance and has some powers and competencies, it is also limited in that it does not have an enforcement capacity in nuclear safety. In the aftermath of the 2011 Fukushima accident, the jurisdiction of the IAEA in the area of nuclear safety could be strengthened in future.

Safeguards

The IAEA's State-Level Approach needs to be promoted and the Agency needs to develop greater transparency such as declaring states that fully comply or states that have accepted good nuclear safeguards mechanisms and those who do not. This would need to be carefully introduced in order not to alienate other states, or be perceived to be discriminatory. The State-Level Approach is a welcome evolution in the safeguards system to improve the existing system and make it more efficient.

On issues relating to non-compliance, there is a need to address how to strengthen the process of finding a State in non-compliance. Secondly, the issue of how to overcome political judgments in responding to non-compliance needs to be addressed.

Finally, the IAEA should perhaps make use of requesting special inspections more often in cases where ongoing non-compliance issues are not remedied or require further information.





The CTBT and FMCT

Both treaties feature less prominently in major nuclear nonproliferation and disarmament discussions of late. Whether this is owed to an increading sense of urgency on other nonproliferation and disarmament objectives, fatigue and frustration over a lack of progress on bringing the Comprehensive Nuclear-Treat-Ban Treaty (CTBT) and negotiating a Fissile Material Cutoff Treaty (FMCT), or to particular ineffective aspects of the treaties is unclear.

In the context of the CTBT, because the nuclear weapon capablestates are able to conduct non-explosive tests to ensure stockpile reliability, the impact of a test ban treaty on disarmament efforts may have to be discussed, as well as the continued viability of the CTBT and FMCT without tangible progress in the near to mid-term.

Although the detection capabilities of the CTBT have proven to be effective, and its verification technologies have also been demonstrated to contribute to disaster mitigation and management, prospects for entry into force of the Treaty remain uncertain. Key Annex II states remain committed to the Treaty, and support from the international community has not diminished to a discernible degree. However, if the required ratifications for entry into force continue over the horizon, the long-term sustainability of the CTBT, and the crucial financial, political, and technical support that underpin the Treaty and its verification regime, should not be assumed.

With regard to the FMCT, states have been requested to submit their views on a treaty this year. The biggest challenge for the forthcoming GGE, given the divergent views among member states is expected to be establishing areas of consensus.

Canada is playing an active role in encouraging UN member states to submit their views. The GGE will consist of key states with strong views or interests in an FMCT. There is excitement as to which states will participate, and what kinds of views on the FMCT they will share. The potential contributions of some countries, for example Pakistan however, may not be constructive.

A major challenge will be to determine the highest possible common denominator of agreement. The GGE will rise and fall with the personal approach of the chair, and it will require a strong chair to navigate the existing strong views. At the time of the INENS conference, the chair had not been named and it was not yet known how the chair would approach this.

The delegations will likely be at the diplomatic level and consist of experts, both nonproliferation and disarmament specialists and from the ministries of defense. One of the areas likely to be addressed is verification, including the question of whether the international system will turn to the IAEA to verify, or seek the establishment of a new organization. Another area that is expected to be encompassed is the scope of the treaty with regard to it covering only the future production or also existing stock of fissile material.

It should be the aim of the FMCT to create a norm which most or all nuclear weapon states and non-nuclear weapon states could sign up to. A treaty like the FMCT would be meaningless without the participation of the nuclear weapon states and possessor states.

An additional compliacating factor is the exemption for India by the Nuclear Suppliers Group (NSG) which provides Pakistan with an additional argument against FMCT negotiations. Whether or not this could be addressed by a more sophisticated calibration of initiatives remains unsolved.

The Nuclear Non-Proliferation Treaty (NPT)

Implementing the 2010 NPT Action Plan

The successful 2010 NPT Review Conference led to the adoption of an action plan. From an academic standpoint, this action plan is merely a political document, lacking requirements such as specific targets and deadlines, and is open to interpretation regarding achievements. However, it provides observers and state parties alike with specific indicators of progress from which trends can be drawn. Based on this assessment, the current trend is not positive, and progress is slow - even slower in the twelve months since the 2012 NPT PrepCom.

Furthermore, implementation of the action plan items continues to be uneven across the nuclear weapon states. While previous actions were upheld, member states would like to see more demonstrable commitment in response to the 2010 action plan. Especially critical is the ongoing modernisation of warheads, and the many programs on life extension aimed at maintaining current warheads. These signify the reliance on nuclear weapons for years to come and send a critical message to non-nuclear weapon states adding to the growing divide between nuclear weapon states and the non-nuclear weapon states.

On a positive note however, the NPT is still regarded by its state parties , and civil society, as the primary legal instrument for disarmament and nonproliferation. These represent a common awareness that the NPT is the best instrument currently available. As the international security system would not be imaginable without the NPT, the regime needs to be protected and to be strengthened.

Its challenges need to be addressed, starting with the prioritization of the importance of the implementation of the 2010 action plan. However imperfect the latter may be perceived to be, it still reflects the common denominator of the state parties.

Deterring Abuse of the NPT

On issues relating to non-compliance, the Review Conference process could be used to send a strong political signal by clearly highlighting the state parties that are in non-compliance with their NPT obligations.

Concerning withdrawal, there is also a need to address how the right to withdraw from the treaty, as provided for under Article X should be reframed or clarified without impinging on every state party's right to withdraw. However, the NPT Review Conference should do so by making sure to condemn abuses and violations that happen before withdrawal.

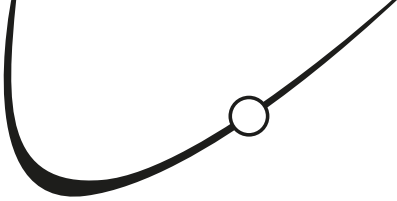
The 2013 NPT PrepCom

The 2013 NPT PrepCom will address issues that are connected to the three pillars of the treaty - disarmament, nonproliferation and peaceful uses, as well as the Middle East WMD Free Zone, and efforts to rephrase Article X in preparation for the 2015 NPT Review Conference.

In dealing with the steps forward in implementing the 2010 action plan, the Middle East WMD Free Zone conference is a central issue to the 2013 NPT PrepCom. While expectations were raised and the prospect of a conference being convened in 2012 was regarded as a step forward, it is in the interest of a stable NPT regime to invest energy in trying to make things happen rather than lamenting about steps not taken previously.

The Oslo conference on the humanitarian impact of nuclear weapons is considered to play an increasingly important role in th Review Conference cycle. The 2013 NPT PrepCom can be viewed as a good indicator to measure the importance of and weight that is given to a certain topic.

As far as the outcome of the 2013 NPT PrepCom in Geneva is concerned, expectations are that a summary of the discussions, reflecting accurately and faithfully the ongoing debates, would be a good common denominator fo all state parties to the treaty.;



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