Road to Disarmament

IAEA safeguards: a fundamental pillar of the NPT regime

This is an excerpt from Vilmos Cserveny's statement at the General Debate of the NPT Preparatory Committee held in New York, USA on 4 May 2009.

There is great expectation in the international community that, with revived leaderships, States parties to the Non Proliferation of Nuclear Weapons Treaty (NPT) come together with a renewed unity of purpose to prepare the groundwork for a successful outcome to the 2010 NPT Review Conference. The shared objectives to this end include a common vision to make the peaceful applications of nuclear energy available to all States parties, to prevent the acquisition of nuclear weapons by other States, and to achieve a world free of nuclear weapons, as envisaged in the Treaty.

The NPT consists of three equally important pillars — nuclear non-proliferation; peaceful nuclear cooperation; and nuclear disarmament — and the premise that progress in any one pillar strengthens the integrity of the whole.

The activities of the IAEA are also based on three pillars. Through its work on nuclear verification, nuclear safety and security, and nuclear technology, the IAEA continues to play a key role as a catalyst for sustainable development and as a cornerstone for nuclear safety, security and verification of compliance with nuclear non-proliferation commitments.

Verification of Compliance

In the 2000 Final Document, States Parties reiterated that IAEA safeguards are a fundamental pillar of the nuclear non-proliferation regime, play an indispensable role in the implementation of the Treaty and help to create an environment conducive to nuclear disarmament and to nuclear cooperation. It also reaffirmed that the IAEA is the sole competent authority responsible for verifying and assuring, in accordance with its Statute and the IAEA's safeguards system, compliance with States' obligations under Article III 1 of the Treaty.

The IAEA's verification experience, particularly after 2000, has underlined that non-proliferation obligations of direct relevance to national and international security not only must be strictly complied with, but also be seen to be complied with, if the required assurance is to be obtained. And, ideally, assurance of compliance, and early warning in case of non-compliance, should be extended to cover all the obligations embodied in or emanating from the NPT.

As we approach the 2010 NPT review, discussions will inevitably focus, inter alia, on questions of verification and States' compliance of their undertakings. The IAEA's verification work has shown that when international inspectors are provided adequate authority, are aided by all available credible information, backed by an effective compliance mechanism, and supported by international consensus, the current verification system is able to provide reliable, technically sound, impartial information that would not otherwise be possible. However, our experience has also demonstrated in recent years that, in the absence of one or more of these elements, the IAEA may not be able to provide the required assurance.

The IAEA's Safeguards System

The effectiveness and efficiency of the IAEA's safeguards system to provide credible assurance about the peaceful use of nuclear material and activities in a non-nuclear-weapon States (NNWS) party depends on several factors — the most important of which is whether the State has brought into force a comprehensive safeguards agreement (CSA) and an additional protocol (AP). I should underline in this connection the continuing validity of the Director General's call in 2005, and in many fora since, for the recognition by the NPT States Parties that the additional protocol is an integral part of IAEA safeguards in every country party to the NPT and is within its overall safeguards mandate under Article III 1 of the Treaty. It is regrettable that there continues to be a lack of consensus among the States Parties in this regard.

To clarify, the NPT provides that States will accept safeguards on all nuclear material in all peaceful nuclear activities. Accordingly, NPT CSAs provide for the IAEA's right and obligation to ensure that safeguards are applied as noted above. Thus, by concluding a CSA, NPT NNWS accept the legal obligation to declare all nuclear material in all peaceful

nuclear activities and recognize the Agency's right and obligation to ensure that safeguards are applied to all nuclear material that has been declared and should have been declared. In this regard, the AP gives the IAEA the required tools to verify the absence of undeclared nuclear material and activities. Thus, as the Director General has stated repeatedly, without a CSA and an AP in force, the IAEA cannot provide the required assurances of the non-diversion of declared nuclear material from peaceful nuclear activities and the absence of undeclared nuclear material or activities.

Since the 2005 NPT Review Conference, 25 NPT States have signed APs and 24 have brought APs into force. This brings the number of NPT States that have signed APs to 120 and those with APs in force to 91. Progress has therefore been steady; nearly three quarters of States with CSAs have signed APs and more than half of States with CSAs now have APs in force. Moreover, nearly three quarters of the countries with nuclear material under safeguards have additional protocols in force.

In connection with safeguards agreements, I would also point to the importance of a new safeguards strengthening measure adopted by the IAEA since the 2005 NPT Review Conference. The IAEA has closed a historical lacuna in its safeguards system by modifying the standard text of the so-called small quantities protocol (SQP) to comprehensive safeguards agreements under which many important safeguards measures were held in abeyance for those NNWS with little or no nuclear material and no nuclear material in a facility. In September 2005, the IAEA Board of Governors decided that, in future, SQPs would no longer be available to States with an existing or planned facility; States that continue to qualify for an SQP would be required to provide initial reports on nuclear material and notify the IAEA as soon as a decision has been taken to construct or authorize the construction of a nuclear facility; and allow for IAEA inspections. So far, 31 States with SQPs have accepted the revised standardized SQP text.

Strengthening the System

The preparations for the 2010 review of the NPT provide a good opportunity to examine and discuss ways in which IAEA verification under the NPT can be further strengthened. Some of the technical measures by which the Secretariat seeks to strengthen the IAEA's safeguards system are mentioned here.

In the area of provision of additional information on nuclear technologies, the review of Annexes I and II of the Model Additional Protocol could assist the IAEA in obtaining a fuller picture of States' nuclear activities. Similarly, the provision of relevant information on exports of specified equipment and non-nuclear material, procurement enquiries, export denials, and relevant information from commercial suppliers would improve the IAEA's ability to detect possible undeclared activities by enhancing the IAEA's State evaluation process and could also improve the IAEA's ability to respond to the challenges of clandestine nuclear trade.

With regard to the expansion of the IAEA 's technical capabilities, it is to be noted that the technical capabilities of the IAEA's Safeguards Analytical Laboratory in Seibersdorf and the sample analysis capacity of the IAEA's Network of Analytical Laboratories clearly are insufficient to process the increasing number of environmental samples collected for safeguards verification purposes in a timely and fully independent manner. As a consequence, the Secretariat urgently requires new resources to maintain and expand the number of its qualified network laboratories and to enhance the IAEA's own analytical laboratory in Austria.

Also regarding the expansion of the IAEA's technical capabilities, the IAEA requires better access to commercial satellite imagery, as well as new types of satellite imagery, such as high-resolution optical imagery, and the associated human resources for effective analysis of satellite images.

Providing adequate financing for the safeguards system remains a critical challenge. The IAEA safeguards over 900 facilities in some 70 countries, with a safeguards budget of about €130 million. Clearly, this is insufficient for the IAEA to meet the challenges that the safeguards system is facing. In particular the IAEA needs resources for special verification equipment and instrumentation. Investments of €11.4 million are required to effectively respond to the increasing complexity of the IAEA's verification mission. In addition, new facilities expected to come under safeguards also will require significant additional resources. In view of these steadily increasing and high costs of safeguards applications, new and innovative financial solutions appear to be needed.

Safeguards Implementation

As reported in the safeguards implementation report (SIR) for 2008, for 51 of the 84 States with both CSAs and APs in force, the Agency concluded that all nuclear material remained in peaceful activities; for the remaining 33 States, the Agency had not yet completed the necessary evaluations and could

therefore only conclude that the declared nuclear material remained in peaceful activities.

The same conclusion on the non-diversion of declared nuclear material was drawn for the 70 States with CSAs in force but no APs. Safeguards conclusions were also drawn for five nuclear-weapon-States with voluntary offer safeguards agreements and for three non-NPT States that have item-specific safeguards agreements with the Agency.

New Framework for the Nuclear Fuel Cycle

It is generally recognized that States relying, or considering relying, on nuclear power need to have confidence in the ability to obtain nuclear fuel in a predictable, stable and cost effective manner over the long term. Furthermore, while continuing to rely on a well functioning international nuclear fuel market, States may also need to have back-up options with the objective of protecting against political disruptions of the supply of required nuclear fuel for their nuclear facilities. Such supply disruptions could create vulnerabilities in the security of supply of nuclear fuel through market arrangements and they might also dissuade States from initiating or expanding their nuclear power programmes.

Currently, there are around 12 proposals made regarding various aspects of assurances of nuclear fuel supply. They range from continuing reliance on the existing commercial market, supply assurances by the nuclear industry and the respective Governments, low enriched uranium (LEU) reserves for supply of last resort, to international nuclear fuel centres. These proposals are at different stages of development. If implemented, they would enable States to resort to them according to their interest and needs thereby increasing their overall level of assurance of supply of uranium services, LEU, nuclear fuel or fuel fabrication services.

Facilitating Access to Nuclear Technologies

The technical cooperation programme has, for nearly five decades, been the principal mechanism through which the IAEA supports the use of appropriate nuclear science and technology to address development priorities of its Member States. The role the IAEA plays in the vast area of development is strategic but modest, making specific targeted contributions in activities where nuclear techniques have a comparative advantage.

The programme is a shared responsibility, developed in close collaboration with the Member States, from initial formulation to implementation and evaluation. The programme goals and objectives are aligned with the development goals and objectives of the Member States. In this way, the Agency supports the achievement of the United Nations Millennium Development Goals.

In 2008, a total of $96.4 million was disbursed to 122 countries and territories under the programme. 3240 expert and lecturer assignments were carried out, 3676 participants attended meetings, 2744 people took part in 177 training courses and 1621 benefited from fellowships and scientific visits.

The largest segment of the technical cooperation programme in 2008 was human health, accounting for 26.8%. The second largest segment was food and agriculture, accounting for 14.0%. Isotope and nuclear techniques have demonstrated their utility in understanding water dynamics, past climates and in assessing available resources. Energy is central to sustainable development and poverty reduction efforts. Through an integrated system approach, the IAEA's technical cooperation programme helps Member States develop the skills and understanding needed to assess national energy requirements, prepare energy plans and alternative scenarios, enable policy frameworks, develop national capacities and capabilities and provide knowledge-based advisory services for expanding access to energy services for the poor.

While every country has the right to use nuclear power as an energy source, it also has the responsibility to ensure that this energy source is employed in a safe and secure manner. Therefore, safety and security issues cut across all technical cooperation activities of the IAEA and are tailored to fit a country's specific situation.

In short, the IAEA technical cooperation programme works towards enhancing acceptability, accessibility and affordability of nuclear technologies for development while assisting its Member States through the transfer of technology, decision making support, planning tools, capacity and knowledge building and R&D coordination.

Nuclear Safety and Security

The IAEA's role in facilitating access to nuclear technologies for its Member States is also linked to its statutory obligation to provide for the application of its standards of safety to its operations. As the uses and the introduction of nuclear technologies

expand, so must the vigilance of the global nuclear community. Levels of safety and security — which are primarily under national responsibility — must keep pace with emerging technologies, expanding nuclear programmes and new entrants to the nuclear community. While in recent years the safety performance of the nuclear industry has been good, it is important to avoid any complacency. Therefore, the IAEA continues to support and promote the global nuclear safety and security regime as a framework for worldwide achievement of high levels of safety and security in nuclear activities.

Among the global trends, issues and challenges in nuclear safety in 2008, one could observe the continuous improvements focusing on knowledge networking, operating experience feedback, self-assessment and peer review. At the same time, activities related to the expansion of nuclear programmes centred on national safety infrastructures, human resources and capacity building, regulatory independence, nuclear incident and emergency preparedness and response, spent fuel and radioactive waste management as well as multinational aspects of nuclear activities. Furthermore, there was increasing awareness that safety activities should not compromise security and vice versa.

The IAEA's nuclear security programme is designed to assist national efforts to meet the requirements of those instruments and to address the risk from non-State actors and the malicious use of radiological material.

In 2008, the Agency continued to provide assistance through the nuclear security programme to national efforts. For example, physical protection upgrades were underway in nuclear facilities in 12 States, more than 1,500 radioactive sources were moved to secure storage and over 1,600 people from 90 States received training in various aspects of nuclear security related work. Currently 106 States participate in the IAEA Illicit Trafficking Database (ITDB) and, as of April 2008, States had reported or otherwise confirmed to the ITDB 1644 incidents of illicit trafficking and other unauthorized activities involving nuclear and radioactive materials.

Over 95% of the funding for these activities came from voluntary contributions. However, over the past few years, it has become apparent that this funding mechanism is unsustainable. If the Agency is to fulfil the demands placed upon it by its Member Sates and the international community at large, it must have predictable and assured funding for nuclear security work.

The NPT

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is a landmark international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament. The Treaty represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States. Opened for signature in 1968, the Treaty entered into force in 1970. On 11 May 1995, the Treaty was extended indefinitely. A total of 190 parties have joined the Treaty, including the five nuclear-weapon States. More countries have ratified the NPT than any other arms limitation and disarmament agreement, a testament to the Treaty's significance.

The provisions of the Treaty, particularly article VIII, paragraph 3, envisage a review of the operation of the Treaty every five years, a provision which was reaffirmed by the States parties at the 1995 NPT Review and Extension Conference.

To further the goal of non-proliferation and as a confidence-building measure between States parties, the Treaty establishes a safeguards system under the responsibility of the IAEA. Safeguards are used to verify compliance with the Treaty through inspections conducted by the IAEA. The Treaty promotes cooperation in the field of peaceful nuclear technology and equal access to this technology for all States parties, while safeguards prevent the diversion of fissile material for weapons use.

The 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons met at the United Nations in New York from 2 to 27 May 2005. A total of 153 States parties to the Treaty participated in the event. The Conference was unable to produce a consensus substantive outcome on the review of the implementation of the provisions of the Treaty.

The 2010 NPT Review Conference is scheduled to be held in New York, USA, from 26 April to 21 May 2010.

Future of the IAEA

Wherever we turn in today's world, it is evident that the intertwined issues of security and development continue to be the most daunting challenges facing humanity. It is becoming more evident that the IAEA has an increased and more important role to play in both fields.

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