



International Atomic Energy Agency

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by

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There is great expectation in the international community that, with revived leaderships, States parties to the 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.

On a number of occasions, the IAEA Director General pointed to the vulnerabilities of the NPT system which includes: the mastery by more and more countries of sensitive nuclear know-how and capabilities; the uneven degree of physical protection of nuclear materials from country to country; the limitations in the IAEA's verification authority – particularly in countries without additional protocols in force; the continuing reliance on nuclear deterrence; the ongoing perception of imbalance between the nuclear haves and have-nots; as well as the sense of insecurity that persists unaddressed in a number of regions, most worryingly in the Middle East, South Asia and the Korean Peninsula.

This third session of the PrepCom is charged with completing the procedural arrangements for the review in 2010 of the implementation of the Treaty and with addressing these vulnerabilities while keeping in mind principally the package of decisions and resolution adopted in 1995, the final document agreed to in 2000, as well as other relevant documents and agreements.

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 and security and verification of compliance with nuclear non-proliferation commitments.

The Agency's statement today focuses on the activities of the IAEA relevant to the NPT.

Verification of Compliance with Nuclear Non-Proliferation Undertakings

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 the 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. I therefore call upon States that have not yet done so to maintain this trend by concluding and bringing into force additional protocols without delay.

In view of the vital importance of conferring upon the IAEA the legal authority that is indispensable to carry out its verification mission, I also call upon the 27 NPT States Party that have not yet done so to conclude and bring into force the safeguards agreements required from them by the Treaty. In order to facilitate conclusion of these agreements and protocols, the IAEA is organizing a seminar on 12 May (in Conference Room VIII) on the Agency's safeguards system. I invite the relevant States present here today to take part in this event and follow it up by concluding the required agreements and protocols.

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. I would therefore call on all NPT parties with SQPs to respond positively to the letters they have received from the IAEA proposing to amend or rescind SQPs in accordance with the Board's decision.

A Robust IAEA Verification 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. I will limit my statement in this respect to some of the technical measures by which the Secretariat seeks to strengthen the IAEA's safeguards system.

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, 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 in an effort to contribute to effective and efficient safeguards.

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, instead of the current approach, in future, new and innovative financial solutions appear to be needed.

Safeguards Implementation

The safeguards implementation report (SIR) for 2008 has been submitted to the Agency's Board of Governors for its consideration next month. It presents the Secretariat's findings and conclusions for the period from January to the end of December 2008, for the 163 States with safeguards agreements in force, based upon an evaluation of all the information available to the IAEA in exercising its rights and fulfilling its obligations. 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.

As regards Iran, as of May 2009, the IAEA has continued to apply safeguards under Iran's comprehensive safeguards agreement and the verification of the correctness and completeness of Iran's declarations remained ongoing. While all declared nuclear material in Iran remained in peaceful nuclear activities, there also remained a number of outstanding issues that need to be clarified regarding Iran's past nuclear activities.

With regard to the Syrian Arab Republic, the Agency was informed in April 2008 that an installation destroyed by Israel at Dair Alzour in Syria was a nuclear reactor under construction, an allegation that was denied by Syria. While all declared nuclear material in Syria remained in peaceful nuclear activities, the Agency is continuing its verification work in Syria including its investigation regarding the allegations with respect to the nature of the destroyed facility.

With the active cooperation of Egypt, the Agency has clarified nearly all issues related to past undeclared nuclear activities and material in the country. While all declared nuclear material in Egypt remained in peaceful nuclear activities, the Agency will continue to seek to clarify a remaining outstanding issue with respect to the presence of nuclear material particles found at a specified site.

As for the Democratic People's Republic of Korea (DPRK), safeguards have not been implemented in the DPRK and, hence, no conclusions could be drawn. At the request of the DPRK, the IAEA's ongoing monitoring and verification of the shut down of the Yongbyon facility was terminated on 14 April 2009 and IAEA inspectors left that country on 16 April.

Nuclear-Weapon-Free Zones (NWFZs)

It is universally recognized that nuclear-weapon-free zones (NWFZ) constitute important lead steps to achieve a nuclear-weapon-free world. The entry into force of the Central Asian NWFZ was marked earlier this year. I should note that this treaty is the first to make the additional protocol to safeguards agreements a requirement.

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 some one dozen proposals made regarding various aspects of assurances of nuclear fuel supply ranging 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, as well as 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.

In this context, the Russian Federation has outlined a proposal for a low enriched uranium reserve for the use of IAEA Member States, which provides assured export licences and covers all long term costs. The Secretariat is now working with the Russian Federation to further specify the proposal. You will recall that the Nuclear Threat Initiative offered \$50 million to the IAEA for a low enriched uranium reserve, contingent on contributions of an additional \$100 million by others by the end of September 2009 and on the Board choosing to establish such a fuel reserve of last resort under its auspices. To date, with the contributions and pledges made by Norway (\$5 million), the USA (\$50 million), the United Arab Emirates (\$10 million), the European Union (up to €25 million) and Kuwait (\$10 million), the funding target of matching contributions has been met. The Director General intends to submit a proposal for an LEU fuel bank under IAEA control to the IAEA Board of Governors.

In addition to these two projects, the Multilateral Uranium Enrichment Sanctuary Project (MESP) proposed by Germany and the Nuclear Fuel

Assurances project initiated by the United Kingdom are also being further developed and given more concrete shape.

The IAEA's Role in 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%. Activities, for example, included the strengthening of nuclear medicine and diagnostic techniques for the management of cancer, with a focus on the establishment of cyclotron and positron emission tomography (PET) centres in the Asia and Pacific region and improvements to the nutritional status of women and children in Latin America and the Caribbean. While there are currently more than 1000 PET centres in North America and Western Europe, there are only around 50 such centres in Latin America and less than 10 in Africa, underlining the need for greater assistance in these regions. In order to maximize the public health benefit, the IAEA's cancer-related activities are planned and coordinated with the World Health Organization (WHO) within the context of national cancer control strategies.

The second largest segment was food and agriculture, accounting for 14.0%. The tsetse fly eradication continued to be a major area of focus in Africa, with projects in Ethiopia, Kenya and Senegal. Farmers in several regions witnessed quantifiable impacts following the introduction of nuclear technologies. In southern Peru, the Tacna and Moquegua regions were declared free of the Mediterranean and *Anastrepha* fruit flies in 2008. A wheat breeding programme in Kenya released a mutant variety, which, under drought conditions, yields 11% more than the best varieties currently available. Isotope and nuclear techniques have demonstrated their utility in understanding water dynamics, past climates and in assessing available resources. Isotopes help to rapidly and cost-effectively provide scientific information on, and understanding of water resources – that may otherwise not be possible or may require observations over

decades. With the need for global and regional isotope data increasing dramatically, the IAEA has over 80 technical cooperation projects focused on local and national water supply and quality problems.

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. In 2008, for example, advice and training on energy planning for sustainable development was provided to 18 Latin American countries; in Africa, 29 Member States were assisted to build local capacities for sustainable energy development; and 7 countries in the Middle East were helped to carry out a comparative assessment of electricity generation options.

Interest in nuclear power programmes has continued to grow. This was reflected in a larger number of requests for IAEA assistance in analysing energy options and in preparing for the introduction of nuclear power. The number of approved technical cooperation projects on considering the introduction of nuclear power more than tripled for the technical cooperation cycle beginning in 2009 compared to the earlier cycle. Specifically, more than 50 Member States expressed interest in considering the introduction of nuclear power. Support for expanding nuclear power programmes in 'mature' countries and to introduction of nuclear power in 'newcomer' countries is a growing priority for the IAEA as the future of nuclear energy does not only depend on individual countries' policies but on all those who want to use its benefits to get it right every time. In short, the underlying principle is that the world needs to do nuclear together.

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. For example, several African countries have benefitted from the legislative assistance programme which seeks to promote adherence to the international instruments and to assist countries in implementing their obligations there under. The safe, reliable and effective operation of nuclear power plants was a priority area for technical cooperation in Asia and the Pacific. In Europe, emphasis was given to nuclear installation safety and to the control of radiation sources. Particular attention was given to radioactive waste management and decommissioning using the modalities of training and exchange of experience. In Latin America, safety and security activities focussed on upgrading nuclear safety infrastructure and preparing for and responding to emergencies.

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 focussing 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.

States Parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management will convene in Vienna soon for their Third Review Meeting (11–20 May 2009). Under this "incentive" convention, the States Parties strive to achieve and maintain a high level of safety by international cooperation on difficult issues, peer reviews of each other's performance, assistance when needed, and the use of internationally accepted standards of safety. Since the convention covers many types of waste, such as waste arising from the use of radioisotopes in medicine and industry, from mining and processing uranium, from the operation of nuclear power plants, as well as spent nuclear fuel from power plants, virtually every country could benefit from being Party to the convention. Nevertheless, so far there are only 48 Contracting Parties and more countries should join.

As noted in this meeting too, the danger of nuclear and radiological terrorism remains real and the International Symposium on Nuclear Security that took place at the IAEA between 20 March and 3 April this year has confirmed this. It noted that the threat of nuclear terrorism requires dedicated action by the

international community and, while nuclear security is a national responsibility, the consequences of a failure of security in one State would have trans-national consequences.

In order to respond to the threat, the international community has strengthened existing, or has implemented new international legal instruments related to nuclear security. The Agency'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. Of these, 343 incidents involved the illegal possession or attempts to illegally possess nuclear material or radioactive sources, of which 120 cases involved attempts to sell the material. Of particular concern were the 15 incidents involving the illegal possession, movement and attempts to sell HEU and plutonium. Thefts and losses of material accounted for 462 of the incidents reported to the ITDB. In the majority of these cases, the stolen or lost materials have not been reported as recovered. 758 incidents involved the recovery or discovery of uncontrolled or orphan materials, unauthorised disposals and other unauthorised activities. In the remaining 81 cases, there is insufficient information to categorise the incidents.

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 States and the international community at large, it must have predictable and assured funding for nuclear security work.

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. And it is becoming more evident that the International Atomic Energy Agency (IAEA) has an increased and more important role to play in both fields. All the IAEA staff and the Director General are strongly committed to continue to do their utmost to make the IAEA more effective and efficient in continuing to carry out their mission in a technically competent and impartial manner.