

# General Conference

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## Fifty-second regular session

# Plenary

## Record of the Seventh Meeting

*Held at the Austria Center, Vienna, on Friday, 3 October 2008, at 10.15 a.m.*

**President:** Mr GHISI (Italy)

**Later:** Ms GERVAIS-VIDRICAIRE (Canada)

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**Abbreviations used in this record:**

AFRA	African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology
AIPS	Agency-wide Information System for Programme Support
ARASIA	Regional Cooperative Agreement for Arab States in Asia for Research, Development and Training Related to Nuclear Science and Technology
ASEAN	Association of Southeast Asian Nations
Bangkok Treaty	Treaty on the Southeast Asia Nuclear-Weapon-Free Zone
Basic Safety Standards	International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources
CDM	Clean Development Mechanism
CPPNM	Convention on the Physical Protection of Nuclear Material
CTBT	Comprehensive Nuclear-Test-Ban Treaty
DPRK	Democratic People's Republic of Korea
FAO	Food and Agriculture Organization of the United Nations
ICRP	International Commission on Radiological Protection
IMF	International Monetary Fund
INPRO	International Project on Innovative Nuclear Reactors and Fuel Cycles
IRRS	Integrated Regulatory Review Service
MESA	Middle East and South Asia
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NPT Review Conference	Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons
OSART	Operational Safety Review Team
Pelindaba Treaty	African Nuclear-Weapon-Free Zone Treaty
PET	positron emission tomography
SEAP	South East Asia and the Pacific
SIT	sterile insect technique
TCF	Technical Cooperation Fund
WHO	World Health Organization



## **7. General debate and Annual Report for 2007 (continued)** (GC(52)/9)

1. Mr MOHAMAD (Malaysia) said that his country shared the Director General's concern that the TCF continued to lag behind the pressing needs of developing countries. The Agency needed to ensure an equitable balance between the three pillars of its mandate, which was especially important in the light of the global nuclear energy renaissance and the need to ensure efficient use of nuclear power while also addressing nuclear safety, security and non-proliferation.

2. With regard to the establishment of appropriate mechanisms to ensure sufficient, assured and predictable resources for the TCF, his country could support the idea of changing the status of TCF contributions to make them more obligatory. It fully supported the call for hedging mechanisms to protect against erosion of the value of the TCF due to currency fluctuations, and for appropriate criteria for setting TCF targets.

3. In order to encourage more recipient States to provide extrabudgetary contributions to the Agency, in line with the concept of shared responsibility, such contributions should be exempt from programme support costs.

4. He thanked the Agency for the continuing support provided by the Department of Technical Cooperation for the implementation of projects and other activities in Malaysia, and for the trust placed in his country which continued to host the IAEA postgraduate course on radiation protection and the safety of radiation services. He also thanked Member States that had shown interest in the course, which had attracted candidates from within the region and beyond.

5. Since the early 1970s, the Agency's technical cooperation projects in Malaysia had focused on non-power applications. Future cooperation was also expected to include planning and preparation for the possible implementation of a nuclear power programme, in view of increasing global and regional fossil fuel prices and diminishing indigenous energy resources.

6. Malaysia was exploring the possible utilization of nuclear energy to meet future demand. The country planned to conduct a comprehensive review of national institutional, infrastructure-related and other relevant requirements for the implementation of a nuclear power programme, with a view to identifying gaps and implementing strategies to address them. In that connection, Malaysia would be seeking Agency support. His country appreciated the willingness of the Agency and certain Member States to assist with the planning and preparation of a possible nuclear power programme, including within the framework of INPRO.

7. Malaysia had also been taking concrete action to strengthen its nuclear and radiological safety and security framework, including the drafting of a comprehensive national law to control strategic goods, which also covered nuclear material, equipment and technologies. The law would take account of the provisions of United Nations Security Council resolution 1540 (2004) and the additional protocol to Malaysia's comprehensive safeguard agreement, which it had signed in 2005.

8. His country had made compliance with the non-legally-binding IAEA Code of Conduct on the Safety and Security of Radioactive Sources and the associated Guidance on the Import and Export of Radioactive Sources, as well as the non-legally-binding Code of Conduct on the Safety of Research Reactors, a licensing condition under national nuclear regulations. It had also been implementing

several other nuclear security measures on a bilateral basis, in line with growing global and regional concerns over the need to ensure supply chain security in international trade.

9. With regard to verification of non-proliferation of nuclear weapons, Malaysia welcomed the statement by the Director General that the Agency had continued to verify the shutdown status of the DPRK's nuclear facilities at Yongbyon, with the cooperation of that country.

10. It also welcomed the substantial progress made with regard to the Iranian nuclear issue, especially the fact that the Agency had been able to verify the non-diversion of nuclear material.

11. Likewise, it was pleased that the Agency had not found any indication of actual work related to nuclear weapons development in the Libyan Arab Jamahiriya.

12. With regard to implementation of safeguards in the Syrian Arab Republic, he welcomed the news that the Agency had been able to visit the installation at Al Kibar that had been destroyed by Israel in September 2007 and conclude that no indication of nuclear material had been found at the site, and he commended Syria for its cooperation with the Agency.

13. The lack of progress with respect to consultations on the establishment of a nuclear-weapon-free zone in the Middle East was regrettable.

14. He commended the Director General for his initiative in establishing the Commission of Eminent Persons to reflect on the future of the Agency and took note of his call for a structured discussion of the Commission's report that could, perhaps, involve the establishment of issue-specific focus groups. However more broad-based discussions might be appropriate, since the future direction of the Agency was a matter of extreme importance to all Member States. It was regrettable that the Commission's report did not specifically address the need for long-term and sustainable financing of the technical cooperation programme.

15. The future of the Agency should be based on the fundamental bargain underlying the NPT, in particular the inalienable right of all the States party to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I, II, and III of the Treaty. That should encompass the need to respect each country's choice and decision concerning the peaceful uses of nuclear energy, without jeopardizing their respective national policies or international cooperation agreements and arrangements for peaceful uses of nuclear energy and the nuclear fuel cycle.

16. Furthermore, developed Member States should recognize developing countries' legitimate right to the use of nuclear energy by allowing them to participate to the fullest extent possible in the transfer of nuclear equipment, material and scientific and technological information for peaceful purposes.

17. Any concern any party might have regarding nuclear disarmament and non-proliferation should be addressed through multilaterally negotiated, universal, comprehensive and non-discriminatory agreements. Nuclear non-proliferation arrangements had to be transparent and open to participation by all States and should not impose restrictions on the access to material, equipment and technology for peaceful purposes required by developing countries for their continued development. It was extremely important that the Secretariat be allowed to maintain and enhance its impartiality and professionalism, particularly in carrying out its safeguards verification activities. Malaysia strongly rejected any attempt to politicize the work of the Agency, including its technical cooperation programme, which would be tantamount to a violation of the IAEA Statute.

18. Nuclear-weapon States and all States not party to the NPT should exercise greater political will to achieve general, complete and irreversible nuclear disarmament, as called for under the NPT.

19. In order to maintain the relevance of the Agency to the needs of its developing Member States, renewed attention should be given to the promotional aspects of the Agency's mandate. Bearing in mind Member States safeguards obligations, Malaysia rejected any notion that would result in certain technologies being excluded from the Agency's technical cooperation programme.

20. Any notion of a global nuclear order should not worsen the dichotomy between developing and developed Member States by endorsing an emerging regime of nuclear technology suppliers and recipients on top of an existing regime of nuclear-weapon States and non-nuclear-weapon States, especially at a time when developing States needed to implement nuclear power programmes to ensure energy security and long-term sustainable development.

21. Initiatives to develop a multilateral approach to the nuclear fuel cycle and fuel supply assurances should not create a new regime of nuclear technology haves and have-nots. Any such approach or regime should be based on extensive, comprehensive and transparent consultation among all interested parties and Member States and all relevant decisions should be taken by consensus.

22. Mr WAHID-UZ-ZAMAN (Bangladesh) said that the current session of the General Conference was of historic significance as the world faced the threats of self-annihilation, soaring food and fuel prices, climate change, food and energy security problems, disease and a lack of drinking water. Solutions might be found to many of those problems with the Agency's help. The key was to develop new sustainable technologies and ensure that they rapidly reached the people who needed them most.

23. Like many developing countries in Asia and Africa, Bangladesh had a very vulnerable economy, characterized by extremely high population density, a low resource base and high incidence of natural disasters that had adverse implications for long-term savings, investment and economic growth. The vast majority of the population had not reaped the benefits of advances in science and technology. The nation also had to confront new challenges in the context of globalization and new problems that were arising in the current phase of domestic development. A reliable supply of energy and electricity was crucial to enhancing socio-economic development and improving the basic quality of life. Hence, his Government aimed at ensuring that all citizens would have electricity by 2020.

24. The ongoing global energy crisis was already having a telling effect on the development efforts of developed and developing nations alike, particularly in countries with few energy resources of their own and those that were rapidly depleting their resources. The developing countries had a very low per capita energy consumption but even modest growth would have an impact on the both the availability and price of fossil fuels.

25. Owing to a lack of indigenous energy resources, Bangladesh had become highly dependent on gas. Natural gas accounted for 70% of total commercial energy consumption and 90% of total electricity generation. The country had only limited reserves of gas and, if natural gas was used at the current rate, existing reserves could be depleted within 10–15 years. Coal reserves and hydroelectric potential were also very limited. Per capita consumption of energy and electricity was one of the lowest in the world. Bangladesh urgently needed to reduce demand for its indigenous fossil fuel, and nuclear power was an inevitable option if the country was to achieve energy security. Nuclear power also posed less of a threat to the environment. He called upon the Agency to play a more proactive role in helping developing countries introduce nuclear power into their energy mix.

26. Qualified human resources were essential for the safety, security, reliability and successful implementation of any nuclear power project. The Bangladesh Atomic Energy Commission had a core team of dedicated scientists, engineers and technical staff. Further systematic expansion of human resources was an important prerequisite for the revitalization of the nuclear power plant programme. The Agency had an important role to play in human resources development.

27. Another major challenge with regard to the building of nuclear power plants in developing countries was financing. In that connection, the Agency should seek innovative financial arrangements. Since nuclear energy was clean, the Agency should take steps to persuade international financial institutions such as the World Bank, the IMF and the Asian Development Bank to include it in their sustainable environment management projects. As nuclear power did not emit greenhouse gases it should be considered in the CDM, and the Special Climate Change Fund should be accessible for civilian nuclear power projects. He urged the Agency to make greater efforts within the United Nations to bring about the implementation of that proposal.

28. Cancer was a global problem and it was estimated that, by 2020, there would be 15 million new cases every year worldwide, 70% of which would be in developing countries. In Bangladesh, 200 000 new cases of cancer were detected every year, yet there was virtually no screening for breast or cervical cancer, even though both could be treated successfully if detected early. The Agency could make a significant contribution to combating cancer in developing countries. Bangladesh was grateful to the organization for the technical assistance it provided with the introduction of nuclear medicine and low-dose rate therapy systems for diagnosis and cancer treatment.

29. Bangladesh had impeccable non-proliferation credentials. The signing of the NPT, the CTBT, its safeguards agreement, and various protocols, conventions and bilateral agreements on peaceful uses of atomic energy bore testimony to its commitment to the non-proliferation verification regime. Recently, the Bangladesh Atomic Energy Commission, in collaboration with the United States Department of Energy, had upgraded the physical security system for all nuclear facilities/radiation sources in both the public and private sectors with state-of-the-art technology under the radiological threat reduction programme.

30. Bangladesh had also commissioned the establishment of a central radioactive waste processing and storage facility at its Atomic Energy Research Establishment complex in Savar.

31. The Government had adopted the principles of a nuclear safety-oriented culture to protect the public and the environment from radiation exposure. Bangladesh had intensified its activities in the area of nuclear safety and radiation control since the enactment of the Nuclear Safety and Radiation Control Act in 1993 and the Nuclear Safety and Radiation Control Rules in 1997. Recently, the Regulatory Authority had issued an operating license for the TRIGA Mark II research reactor after careful study of the safety analysis report prepared by Bangladeshi scientists and engineers. An act establishing the Bangladesh Atomic Energy Regulatory Authority was currently in preparation and would make provision for an independent and impartial regulatory body to protect the public and the environment from the detrimental effects of nuclear energy, radiation sources and radioactive material used in medicine, industry, agriculture, education and research, and to ensure nuclear safety and radiation control for nuclear power reactors.

32. The Bangladesh Atomic Energy Commission had recently formulated comprehensive nuclear legislation incorporating the essential elements prescribed by the Agency. Bangladesh was working to finalize the legislation, a copy of which had been submitted to the Agency for peer review. The country needed Agency assistance with the further revision and finalization of its nuclear legislation.

33. His Government appreciated the assistance provided by the Agency with its various R&D programmes on the peaceful use of nuclear energy, in particular in the area of human resources development.

34. In conclusion, a vision for the Agency for the next fifty years should be formulated on the basis of the successes and experience of its first fifty years, and one of its major objectives should be to reduce the gap between rich and poor, and between developed and developing nations.

35. Mr LUNDBORG (Sweden), recalling that 2008 marked the fortieth anniversary of the conclusion of the NPT, said that the Treaty had become one of the most valuable instruments of collective security. It had played a key role in safeguarding international peace and continued to do so. The NPT had virtually universal support, more than any comparable document apart from the United Nations Charter. The NPT had to remain the realistic response to the nuclear challenge and had to continue to be successful in the fight against proliferation.

36. The non-proliferation commitment was shared by many, but sadly not all. There was a growing danger that nuclear proliferation might extend into more troublesome and complex regions. Iran was not the only case, but was currently perhaps the most worrisome. Recent developments in the DPRK were also of concern. A single State actor might be coped with by the logic of deterrence, but what lay ahead was the risk of a new phase of proliferation extending to one country after another in volatile parts of the world.

37. Only effective multilateralism could deal with the threat of proliferation of nuclear weapons, to both States and non-State actors. The risks of nuclear terrorism or illegal diversion of and trafficking in nuclear and other radioactive material also had to be countered. The International Convention for the Suppression of Acts of Nuclear Terrorism and the CPPNM, alongside the Agency's activities in the areas of nuclear security, verification and national implementation of international instruments, were very important in that respect.

38. The Agency's verification system was a key component of the non-proliferation regime. Effectively countering proliferation required a solid and effective safeguards system. Sweden, like many other countries, had persistently stressed the critical importance of the additional protocol. Notwithstanding the voluntary nature of the additional protocol, concluding one served as confirmation that a country was acting according not only to the letter but also to the spirit of the NPT. Together with comprehensive safeguards agreements, additional protocols constituted the universal standard for nuclear verification.

39. A functioning multilateral mechanism would help achieve non-proliferation goals. The issue of multilateralization of the nuclear fuel cycle had been discussed for many years at the Agency and elsewhere. Sweden believed that the time had come to start moving towards the phase of selecting the options best suited for implementation. He drew attention to the fact that the European Union had indicated at the General Conference that it was considering the possibility of contributing to the Nuclear Threat Initiative in connection with the elaboration of a multilateral nuclear approaches mechanism within the framework of the Agency.

40. A number of proposals regarding multilateral nuclear approaches had been submitted to the Agency. Very recently, interesting documentation on the German proposal for a multilateral enrichment sanctuary project had been circulated to Agency Member States. Sweden very much appreciated Germany's ambitious efforts to achieve progress on the issue.

41. On 1 July 2008, the two nuclear regulatory bodies in Sweden, the Swedish Nuclear Power Inspectorate and the Radiation Protection Authority, had been merged and a new integrated regulatory body, the Swedish Radiation Safety Authority, had been established. The merger would provide for more efficient and effective supervision with combined resources. The new regulatory body would continue the important international cooperation and organizational memberships of its predecessors. It would be well equipped to meet the new challenges ahead of it with regard to safety, security and safeguards.

42. The Swedish nuclear power programme, established in the 1960s and 70s, was currently in a dynamic phase. Following the closure of the two Barsebäck power reactors a few years earlier, 10 reactors remained in operation. The extensive modernization and safety upgrading of the

10 operating Swedish reactors were continuing in order to make the reactors fit for operation for 40 years and beyond. The whole modernization programme was expected to be finalized within five years.

43. Pursuant to the Forsmark incident, when parts of the emergency power systems had failed, the former Swedish Nuclear Power Inspectorate had initiated extensive experience feedback efforts on those issues in international forums, including the Agency. The seminar held in Sweden in September 2007 had attracted many more participants than expected. The electrical systems issues involved had received worldwide attention. Sweden wished to thank the Agency for its support and for the successful OSART mission to the Forsmark site in February 2008. The mission had confirmed that the Forsmark nuclear power plant had taken the relevant corrective actions, and it had also generated a number of recommendations and suggestions. The report had been made public. Two more plants would be receiving OSART missions in order to complete the international assessment of the safety work at Swedish nuclear power plants.

44. Sweden strongly supported the Agency's Integrated Regulatory Review Service and would continue to provide experts to IRRS mission teams. In the near future, Sweden would also request an IRRS mission to review the new regulatory body.

45. Installations serving the back end of the nuclear fuel cycle in Sweden currently included a final repository for low- and intermediate-level waste and an interim storage plant for spent nuclear fuel. According to the industry concept for spent nuclear fuel disposal, the spent fuel would be encapsulated in copper canisters before being placed in a deep geological final repository.

46. Before the summer of 2009, Swedish Nuclear Fuel and Waste Management Co, which was jointly owned by the Swedish nuclear power industry, would announce in which municipality the company wished to build the final repository for spent nuclear fuel. The formal application for the final repository would, according to the industry's schedule, be presented in 2010. The application would be reviewed by the Swedish Radiation Safety Authority and the Environmental Court before the final decision by the Government.

47. Sweden continued to follow closely and participate in the ongoing review of the Basic Safety Standards and considered it to be of utmost importance that the review should take full account of the recently adopted recommendations of the ICRP and the new Safety Fundamentals. The new Basic Safety Standards could be expected to enhance and harmonize substantially the actions taken in the international community to protect human health and the environment from the harmful effects of radiation. The Agency's leadership in that work was highly appreciated.

48. Sweden was investing around €6 million a year in technical cooperation programmes designed to improve reactor safety, nuclear non-proliferation measures, radioactive and nuclear waste management and radiation protection. Currently, those programmes mainly focused on cooperation with the Russian Federation and Ukraine. Additional technical cooperation programmes in the field of nuclear non-proliferation had been initiated in Armenia and Georgia. The Agency's safety standards formed the basis for that cooperation.

49. The 2008 Scientific Forum on the future role of the IAEA had provided useful ideas on the further development of the 20/20 vision. He thanked the Commission of Eminent Persons for its elaborate and useful contribution to the process of shaping the future role of the Agency.

50. The Commission's idea of creating an 'additional protocol plus' to enhance verification and strengthen the safeguards system and, ultimately, the Agency's ability to provide the necessary confidence, was a very interesting idea. Such a mechanism would confirm the Agency's right and obligation to gain access to sites and information related to nuclear material production technologies

and to nuclear weaponization activities, as well as the Agency's right to private interviews with individuals who might know about such activities.

**Ms Gervais-Vidricaire (Canada), Vice-President, took the chair.**

51. Mr OTHMAN (Syrian Arab Republic) announced that the Syrian Government had ratified the amendment to Article XIV.A of the Agency's Statute and would be depositing its instrument of acceptance the following week.

52. Expressing regret at the appeals to Syria from some Member States to exhibit greater transparency and to cooperate more closely with the Agency, he reminded the States concerned that the Director General and the Deputy Director General for Safeguards had reported to the Board of Governors at its September meetings that Syria had been cooperative and had implemented the measures agreed with the Agency. His Government would continue to cooperate, but it would not under any circumstances make disclosures about its military sites that might threaten the country's security.

53. Syria urged Member States to support its candidacy for a Middle East and South Asia seat on the Board of Governors for the period 2008-2010, referring to the positive role it had played as a Board member and its productive cooperation with the Agency on technical and technological matters.

54. While Syria commended the report submitted by the Commission of Eminent Persons, it called on the Conference to view it as a non-binding document that simply offered guidance to the Agency. The Agency's strategy and its vision of its future role had to be determined by its Member States in accordance with the provisions of the Statute.

55. The Agency had established partnerships with a number of United Nations bodies with a view to enhancing the effectiveness of joint projects and rationalizing expenditure. The partnerships had so far proved successful. In particular, he urged the Agency and all Member States to support the work of the Joint FAO/IAEA Division.

56. The failure of the General Conference to discuss the agenda item concerning Israeli nuclear capabilities and threat at its preceding session and to adopt a resolution on the subject had sent a negative message to the peoples of the Middle East region regarding the double standards that were being applied by the international community. Notwithstanding the adoption of a series of resolutions in recent decades regarding the risk inherent in the continued existence of Israeli nuclear weapons outside the non-proliferation regime, Israel's military nuclear arsenal continued to grow, with technical and financial support from some major powers which were at the same time preventing the use of nuclear energy for peaceful purposes in other countries. The Arab States and other countries demanded action to address the threat to both regional and international peace and security posed by non-peaceful Israeli nuclear capabilities in the Middle East. At its current session, the General Conference must demonstrate to all peace-loving peoples its determination to address the causes of instability in the region and to bolster the non-proliferation regime by taking up the agenda item on nuclear capabilities and threat.

57. The goal of establishing a nuclear-weapon-free zone in the Middle East was high on the agenda of a wide range of international forums. While all Arab States were parties to the NPT, Israel retained its exceptional status as a country with nuclear weapons that refused to take any serious steps towards ending the security imbalance in the Middle East. There had been concerted international efforts to establish nuclear-weapon-free zones in Africa, Asia, Central Europe, and Latin America and the Caribbean, but the Middle East was unfortunately still far from that goal, a situation that was conducive to an arms race in the region. Two steps were necessary to remedy the situation. First, Israel should accede to the NPT and place all its nuclear facilities under comprehensive Agency safeguards.

Second, Israel should comply with Security Council resolution 487 (1981) which called on it “urgently to place its nuclear facilities under the safeguards of the International Atomic Energy Agency”. There was no point in holding a forum to draw on regional experience in establishing nuclear-weapon-free zones while Israel continued to block progress by failing to meet those requirements. Syria’s participation in such an event would also depend on the establishment of a clear-cut and objective agenda.

58. An Agency integrated safety assessment team had visited Syria’s research reactor the preceding year and had made useful recommendations for improving safety, which were being implemented. Syria had hosted regional training courses on physical protection of radioactive sources in 2007 in cooperation with the Agency and was currently incorporating safety regulations in its domestic legislation and regulations.

59. He commended the technical cooperation initiatives undertaken by the group of Asian Member States of the Agency in 2008. In particular, two regional meetings of liaison officers had adopted recommendations that had led to a constructive dialogue aimed at promoting cooperation among countries in the region. There were plans to establish a database of institutions that hosted trainees. The discussion of future technical cooperation projects at a meeting in Bangkok would also have a major impact on the implementation of regional projects, in particular through the preparation of an action plan.

60. Most of Syria’s national projects would be completed successfully by the end of 2008. The Agency, Damascus University and Atomic Energy Commission of Syria would continue to cooperate on the project relating to a master’s degree course in radiation protection and the safety of radioactive sources. Syria also continued to host students from the region attending courses on agriculture, hydrology, radioactive sources and monitoring activities.

61. With regard to the Agency’s espousal of national participation costs as part of a package to fund technical cooperation, he said that, although the rate had been reduced from 8 to 5%, the prepayment mechanism, and the inclusion of regional projects, had had adverse effects and had led to delays of up to four months in the implementation of projects. Syria proposed that a task force be established to review the mechanism and submit a report to the Board of Governors.

62. ARASIA had recorded an implementation rate of around 80% for eight projects in 2008. He thanked the Agency Secretariat for its valuable assistance in that regard. The ARASIA States had signed a memorandum of understanding aimed at facilitating exchanges of plant genetic resources for the radiological production of mutations to improve agricultural yields. As Chair of the ARASIA Board of Representatives, he announced that ARASIA had adopted a medium-term strategy for the period 2008–2013 at its annual meeting in Jordan in April 2008. During the current session of the Conference, the group had launched a website that would provide details of technical cooperation projects and other matters.

63. Mr PANUPONG (Thailand) said that the growing number of developing countries joining the Agency attested to its important role in helping such countries achieve the Millennium Development Goals through peaceful uses of nuclear energy. Thailand shared that common aspiration. The work of the Agency was essential to the promotion of atoms for peace as well as peace itself. The organization had a proven track record of integrity, impartiality and professionalism in carrying out its statutory mandate, particularly with regard to verification, nuclear safety, and technology transfer. He commended the Director General on his exceptional leadership.

64. The challenges of global warming and rising oil prices demanded a decisive shift in countries’ energy security paradigm. Dependence on fossil fuels alone was no longer sufficient. Diversification required greater use of new and alternative energy sources. For many countries, nuclear energy had

become the choice for tomorrow to meet the ever growing power demand. Over recent years, there had been a continuing trend towards a so-called global nuclear renaissance. Several reports of the Agency had pointed to the fact that the major growth area for nuclear power was currently Asia.

65. As one of the Asian countries considering launching a nuclear power programme, Thailand had recently reinvigorated its long-standing policy of promoting peaceful uses of nuclear energy. In its power development plan, his Government was preparing to fulfil its goal of building the country's first two nuclear power plants, which it was expected would deliver a combined capacity of 4000 MW, providing for 12.58% of Thailand's electricity needs.

66. For the nuclear renaissance to be successful in Asia, priority in addressing safety and security concerns was vital. Thailand was doing its utmost to prepare carefully for nuclear energy. In December 2007, the Thai Cabinet had endorsed the creation of the Nuclear Power Programme Development Office under the Ministry of Energy. The Office acted as the coordinating body for the implementation of the nuclear power infrastructure establishment plan. It would coordinate with other Thai agencies responsible for selecting appropriate technology, for safety and nuclear waste disposal issues, regulatory infrastructure, legal framework, and human resources.

67. In addition, Thailand had initiated a feasibility study for the nuclear power plant project, which was scheduled to be complete by May 2010. The aim was to ensure maximum safety and efficiency in the operation of a nuclear power plant, in compliance with Agency standards. His country was also considering various domestic legislation to allow it to accede to international instruments pertaining to nuclear safety, including the Convention on Nuclear Safety.

68. Thailand was cooperating with other ASEAN countries to promote a nuclear safety culture within the region and had hosted the ASEAN+3 Forum on Nuclear Energy Safety in Bangkok in June 2008. The participants, who had included the Deputy Director General for Nuclear Safety and Security, had deliberated on the need for regional cooperation on nuclear safety. The Forum had agreed, inter alia, that internationally standardized safety regulations should be put in place and that a clear roadmap for the development of nuclear power plants should be adopted among countries embarking on nuclear power programmes.

69. Thailand strongly believed that a robust cooperation scheme on nuclear energy within the ASEAN region needed to be forged, particularly among newcomer countries. In developing the regional nuclear safety network, ASEAN member countries should seek closer cooperation with the Agency and other international and regional bodies to establish a sound legal framework and necessary standards, while avoiding unnecessary duplication. The Asian Nuclear Safety Network under the aegis of the Agency should be the main authority to oversee and regulate regional nuclear safety issues.

70. The success of any nuclear power programme was linked to the degree of public acceptance. Therefore, the dissemination of accurate information about nuclear technology, including nuclear safety, was indispensable to mitigate the fear of nuclear power. In Thailand, the Office of Atoms for Peace, through its public relations section, regularly conducted various public awareness activities to build confidence in nuclear energy safety. Special emphasis was given to providing a good background on nuclear science and technology to children and youth. The new generation would play an important role in the future direction of national policy on peaceful uses of nuclear energy.

71. Human security should be at the core of a people-centred development agenda. His country supported the Agency's efforts to help developing countries attain the Millennium Development Goals through the use of nuclear technology. Nuclear applications in the fields of medicine and agriculture had long been the chief area of cooperation between Thailand and the Agency.

72. Several health-related programmes had resulted in improved quality of life throughout the country. Useful activities included the ongoing work on neonatal screening, radiation protection and medical exposure control. He commended the Agency's PACT programme, and its recently formalized partnership with the WHO. In November 2007, the Chulabhorn Research Institute of Thailand had collaborated with the Agency to host the International Conference on Clinical PET and Molecular Nuclear Medicine in Bangkok. The meeting had addressed the underlying challenges of establishing PET and cyclotron facilities in developing countries. Thailand wished to continue its cooperation with the Agency in that area.

73. As a leading agricultural producer, Thailand benefited immensely from the use of nuclear technology to augment productivity and the safety of its products. In that connection, Thailand commended the significant support provided by the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture through capacity building, training, and research. That fruitful partnership should be continued.

74. Technical cooperation in various fields of nuclear applications constituted an important pillar of the Agency's work. Thailand had maintained active cooperation with the Agency in various capacity-building activities, training activities and fellowships. His country welcomed the recently agreed TCF target for 2009–2011 of US \$85 million. The number of requests for support for projects related to nuclear energy infrastructure planning had increased in recent years. Thailand hoped that resources allocated to technical cooperation activities in the Asia-Pacific region would adequately reflect the fact that Asia was currently at the heart of the nuclear renaissance. It was pleased to note that the introduction of AIPS had received the required funding. It was important to provide the Agency with sufficient, assured, and predictable resources to enable it to respond adequately to current and future proliferation challenges.

75. Thanking the Director General for his initiative in establishing the Commission of Eminent Persons to consider the future of the Agency, he said that the report of the Commission would be an important contribution in strengthening the Agency's future work.

76. The Agency was the sole international authority for safeguards and verification. Thailand recognized the importance of strengthening the effectiveness and efficiency of the Agency's safeguards system. It supported the Agency's functions related to nuclear security and the physical protection of nuclear material and was prepared to ratify the relevant instruments as soon as domestic legal requirements were met.

77. His Government was fully committed to the implementation of the NPT and hoped that the outcome of the second session of the Preparatory Committee for the 2010 NPT Review Conference, held in Geneva in May 2008, would help pave the way for further progress on consensus building. When assessing the accomplishment of NPT obligations, there was a need to strike a balance between non-proliferation, disarmament, and peaceful uses of nuclear energy. Thailand stood ready to help support or facilitate any effort aimed at achieving that common goal.

78. Thailand recognized that illicit trafficking in nuclear-related materials and components raised serious concerns over nuclear terrorism. It strongly supported the implementation of United Nations Security Council resolution 1540 (2004) to prevent terrorists and other non-State actors from acquiring weapons of mass destruction and their means of delivery. In October 2008, Thailand would be collaborating with the United Nations Office for Disarmament Affairs in the organization of a regional workshop in Bangkok on the implementation of that resolution.

79. Thailand had been an active proponent of the Bangkok Treaty establishing the Southeast Asia Nuclear Weapon-Free Zone, which was the first and currently the only nuclear-weapon-free zone in Asia. The Bangkok Treaty had been signed by all ten ASEAN member countries. The nuclear-

weapon-free zone underpinned the non-proliferation and nuclear safety regime in South-East Asia. In light of its essential contribution to security, the draft resolution on the zone had attracted overwhelming support at the 62nd session of the United Nations General Assembly. It was Thailand's earnest hope that nuclear-weapon States would become parties to the Bangkok Treaty in the near future. As the depositary State, Thailand attached great importance to the creation of nuclear-weapon-free zones in all regions of the world. It had consistently endorsed resolutions in the First Committee of the General Assembly that supported regional nuclear-weapon-free zones and hoped that countries in regions without nuclear-weapon-free zones would be able to agree on the establishment of one shortly. In that connection, his country welcomed the latest report of the Director General on the application of IAEA safeguards in the Middle East which indicated a possible convergence of views among Member States in the Middle East on convening a forum on experience of possible relevance to the creation of a nuclear-weapon-free zone in the Middle East.

80. Turning to safeguards and verification issues, he expressed support for the international community's efforts to find a peaceful solution to the Iranian nuclear issue through diplomatic means. While his Government fully supported the inalienable right of every party to the NPT to peaceful uses of nuclear energy, it believed that all three pillars of the NPT needed to be equally upheld. Iran should cooperate fully with the Agency, especially in the light of the latest report of the Director General on the matter. At the same time, all parties concerned should engage in constructive dialogue and refrain from confrontation.

81. Thailand also shared the international community's interest in a peaceful, stable and denuclearized Korean Peninsula and noted with concern the regrettable recent decision of the DPRK to re-activate its nuclear facilities at Yongbyon. He called on the DPRK to allow Agency inspectors back into the country to continue their verification work at the earliest opportunity. Diplomatic efforts through the six-party talks process and other forums was urgently required to avert further deterioration of the situation.

82. The global nuclear renaissance offered both opportunities and challenges. For newcomer countries, enhanced regional cooperation — in close coordination with the Agency — on nuclear safety issues might prove to be a productive way forward. Thailand reiterated its commitment to further advancing that important agenda during its chairmanship of ASEAN. A clear message had to be sent that, when it came to nuclear safety, there was no room for compromise or complacency. States should inculcate a nuclear safety culture in the minds of present and future generations. Only confidence building and proper dialogue could foster the necessary public support for the development of nuclear power plants.

**Mr Ghisi (Italy), President, resumed the chair.**

83. Mr DIATTA (Senegal) said that the nuclear energy dilemma had been at the forefront of the international community's concerns for the past half-century. There was widespread agreement on the value of nuclear energy for all States in areas such as health, agriculture and power generation, inter alia. At the same time, the use of nuclear energy entailed certain safety and security risks.

84. The scientific discoveries that could be used to further the social well-being of humanity brought with them responsibility. Fortunately, States were ready to shoulder that responsibility by undertaking voluntary commitments to radiological protection, nuclear safety, nuclear waste management and rapid notification of nuclear accidents.

85. However, the sharing of knowledge and know-how was inadequate, given that many countries lagged behind in the field of science and technology. African countries, in particular, felt the effect of that inequality between States. Nevertheless, they, like all States, had a legitimate desire to use nuclear energy to promote their development, as illustrated by the establishment of AFRA. He encouraged the

international community to give greater support to AFRA, which had been strengthened further through the Pelindaba Treaty establishing Africa as a nuclear-weapon-free zone, which Treaty Senegal had already ratified.

86. Declining fossil fuel reserves and fluctuating prices heightened the need for alternative energy sources. Nuclear energy was an attractive option for electricity generation, seawater desalination, agricultural development, medicine and industry. Following the example of other countries, Senegal was not excluding the possibility of building research reactors and nuclear power plants on its territory. After 48 years of Agency membership, his country had started to prepare the ground for nuclear power generation. It aimed to achieve energy self-sufficiency through alternative energy sources, including nuclear power, for the well-being of society.

87. In that connection, Senegal was completing the ratification process for the Convention on Nuclear Safety, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Vienna Convention on Civil Liability for Nuclear Damage, the Convention on Supplementary Compensation for Nuclear Damage, and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

88. A draft law on radiological protection and nuclear safety had been submitted to Parliament. The implementing decree of the law included, inter alia, rules for the administration and operation of the competent authority for radiological protection. The decree had been reviewed by the Government, pending the promulgation of the law on radiological protection and nuclear safety.

89. Senegal had engaged in extensive scientific and technical cooperation with the Agency in such areas as application of the SIT (which had earned Senegal's research institutions reference centre status) nutritional research and development for women, and medicine. His Government was deeply grateful to the Agency for its contribution to social and health-related development in Senegal and stood ready to explore options for even broader cooperation.

## **23. Examination of delegates' credentials** (GC(52)/29)

90. The PRESIDENT said that the General Committee had met earlier in the day to examine the credentials of all delegates, as provided for in Rule 28 of the Rules of Procedure. Since that meeting the Secretariat had received credentials in due form for Armenia and Germany. After discussion, the Committee had recommended the adoption by the Conference of the draft resolution contained in paragraph 7 of its report contained in document GC(52)/29, with the reservations and positions expressed in the report.

91. Mr QUEISI (Jordan) said that Jordan's acceptance of the credentials submitted by the Israeli delegation should on no account be understood as covering any occupied Arab territories, but only the area within the borders as at 4 June 1967.

92. Mr ELDIN ELAMIN (Sudan) said that, although Sudan had submitted its credentials to the Secretariat, its name had been omitted from the list in document GC(52)/29.

93. Mr KHALIL (Egypt) said acceptance by Egypt of the report of the General Committee did not imply recognition of the occupation by Israel of any of the occupied Arab territories, including Jerusalem, the Golan Heights and the Shebaa Farms.

94. Mr BORHANIPOUR (Islamic Republic of Iran), endorsing the views expressed by Jordan and Egypt, said that Iran's acceptance of the General Committee's report in no way implied its recognition of the Israeli regime.

95. The PRESIDENT took it that the General Conference was prepared to adopt the draft resolution contained in paragraph 7 of document GC(52)/29.

96. It was so decided.

## – Oral report by the Chairman of the Committee of the Whole

97. Mr NIEWODNICZANSKI (Poland), Chairman of the Committee of the Whole, presented the outcome of the Committee's deliberations on agenda items 9, 10, 11, 12, 13, 17 and 22.

98. Under item 9, "The Agency's accounts for 2007", the Committee recommended that the Conference adopt the draft resolution on page i of document GC(52)/11.

99. Under item 10, "The Agency's budget for 2009", the Committee recommended that the Conference approve a Regular Budget appropriation for 2009 of €296 313 702 and, accordingly, adopt draft resolution A, Regular Budget Appropriations for 2009, as set out in document GC(52)/5/Rev.1; that it approve a target for voluntary contributions to the TCF for 2009 of \$85 000 000 and, accordingly, adopt draft resolution B, Technical Cooperation Fund Allocation for 2009, as set out in document GC(52)/5/Rev.1; and that it approve a level for the Working Capital Fund in 2009 of €15 210 000 and, accordingly, adopt draft resolution C, The Working Capital Fund in 2009, as set out in document GC(52)/5/Rev.1.

100. Under item 11, "Amendment of Article XIV.A of the Statute", the Committee recommended that the Conference adopt the decision set out in document GC(52)/25.

101. Under item 12, "Scale of Assessment of Members' contributions towards the Regular Budget", the Committee recommended that the Conference adopt the draft resolution contained in document GC(52)/15.

102. Under item 13, "Measures to strengthen international cooperation in nuclear, radiation and transport safety and waste management", the Committee recommended that the Conference adopt draft resolutions A, Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety, and B, Transport Safety, contained in document GC(52)/L.3.

103. Under item 17, "Cooperation agreements with intergovernmental organizations", the Committee recommended that the Conference approve the conclusion of the proposed cooperation agreement with the ITER International Fusion Energy Organization set out in the Annex to document GC(52)/4.

104. Under item 22, "Elections to the Agency's Staff Pension Committee", the Committee recommended that the Conference elect Ms Caroline Cliff of the United Kingdom as an alternate member on the Agency's Staff Pension Committee.

**The Agency's accounts for 2007** (agenda item 9)

105. As recommended by the Committee of the Whole, the draft resolution on page i of document GC(52)/11 was adopted.

**The Agency's budget for 2009** (agenda item 10)

106. As recommended by the Committee of the Whole, draft resolutions A, B and C on pages 13 to 17 of document GC(52)/5/Rev.1 were adopted.

**Amendment to Article XIV.A of the Statute** (agenda item 11)

107. As recommended by the Committee of the Whole, the decision set out in document GC(52)/25 was adopted.

**Scale of assessment of Members' contributions towards the Regular Budget** (agenda item 12)

108. As recommended by the Committee of the Whole, the draft resolution contained in document GC(52)/15 was adopted.

**Measures to strengthen international cooperation in nuclear, radiation and transport safety and waste management** (agenda item 13)

109. As recommended by the Committee of the Whole, draft resolutions A and B contained in document GC(52)/L.3 were adopted.

**Cooperation agreements with intergovernmental organizations** (agenda item 17)

110. As recommended by the Committee of the Whole, the cooperation agreement set out in the Annex to document GC(52)/4 was approved.

**Elections to the Agency's Staff Pension Committee** (agenda item 22)

111. As recommended by the Committee of the Whole, Ms Cliff of the United Kingdom was elected as an alternate member on the Agency's Staff Pension Committee.

## – **Report of the Scientific Forum**

112. The PRESIDENT recalled that the theme of the Scientific Forum for 2008 had been "The Future Role of the Agency". He invited the Rapporteur, Professor V.S. Ramamurthy, to present the report on behalf of the Chairman of the Scientific Forum, Dr Lubbers.

113. Mr RAMAMURTHY (Rapporteur of the Scientific Forum) presented the report, which is reproduced in the Annex.

114. The PRESIDENT thanked Mr Ramamurthy for his most interesting report on the work and outcome of the Scientific Forum, and the Secretariat for its excellent preparation of the Scientific Forum.

## **8. Election of members to the Board of Governors** (GC(52)/8 and 23)

115. The PRESIDENT recalled that in 1989 the General Conference had approved a procedure whereby, when there was agreement regarding the candidate or candidates from a particular area, no secret ballot would be held provided that there was no objection; balloting would take place only for those areas where no candidate had been agreed upon. That procedure considerably facilitated the rational use of the General Conference's time. If it was agreeable to the Conference, he would proceed with the election of members to the Board of Governors in the manner outlined.

116. It was so decided.

117. The PRESIDENT drew attention to document GC(52)/8 containing a list of the Agency Member States designated to serve on the Board from the end of the current session of the Conference until the end of the 53rd (2009) session. He recalled that, under Rule 83 of the Rules of Procedure, he had to inform the General Conference of the elective places on the Board that had to be filled. To that end, document GC(52)/23 had been prepared; it indicated that the Conference had to elect eleven members of the Board from the seven categories listed.

118. Agreement had been reached on the candidates for the vacancies to be filled in all area groups with the exception of the Middle East and South Asia, where more than one candidate was listed for the one vacancy to be filled. Accordingly, a secret ballot would have to be held in order to elect the candidate from that area group.

119. He took it that the General Conference wished to elect Argentina, Cuba and Uruguay to the three vacant seats for Latin America.

120. Argentina, Cuba and Uruguay were duly elected.

121. The PRESIDENT took it that the General Conference wished to elect Spain and Turkey to the two vacant seats for Western Europe.

122. Spain and Turkey were duly elected.

123. The PRESIDENT took it that the General Conference wished to elect Romania to the one vacant seat for Eastern Europe.

124. Romania was duly elected.

125. The PRESIDENT took it that the General Conference wished to elect Burkina Faso and Egypt to the two vacant seats for Africa.

126. Burkina Faso and Egypt were duly elected.

127. The PRESIDENT took it that the General Conference wished to elect Malaysia to the one vacant seat for South East Asia and the Pacific.

128. Malaysia was duly elected.

129. The PRESIDENT took it that the General Conference wished to elect New Zealand to the floating seat for Africa/MESA/SEAP, which it was the turn of a member from SEAP to fill.

130. New Zealand was duly elected.
131. Mr OTHMAN (Syrian Arab Republic) requested that the election of the member from the Middle East and South Asia group be deferred to enable members of that group to reach agreement on a candidate.
132. The PRESIDENT asked whether there were any objections to that suggestion.
133. Mr MONAWAR (Afghanistan) said that there was no reason to defer the election of the member from the Middle East and South Asia group as there had been sufficient time for consultations.
134. The PRESIDENT said that, unless a motion was proposed under Rule 59 of the Rules of Procedure of the General Conference, the Conference should proceed to elect the member from the Middle East and South Asia group.
135. Mr AL-HAMMADI (Qatar), supported by Mr SOLTANIEH (Islamic Republic of Iran), endorsed Syria's proposal to defer the election
136. Mr OTHMAN (Syrian Arab Republic), citing Rule 59 of the Rules of Procedure, pointed out that two delegations had already spoken in favour of his proposal to defer the election.
137. The PRESIDENT said that, Rule 59 of the Rules of Procedure having been invoked, two delegates might speak in favour of, and two against the motion.
138. Mr QUEISI (Jordan), supported by Mr SOLTANIEH (Islamic Republic of Iran), endorsed the proposal to defer the debate.
139. Mr DENIAU (France) requested clarification with respect to the duration of the proposed adjournment.
140. Mr OTHMAN (Syrian Arab Republic) requested an adjournment of the debate until 5 p.m.
141. Mr MONAWAR (Afghanistan) withdrew his objection to the proposed adjournment.
142. The PRESIDENT said that election of the member from the Middle East and South Asia group would resume at 5 p.m.
143. It was so agreed.

**The meeting rose at 12.55 p.m.**

**Report to the 52<sup>nd</sup> Regular Session of the IAEA General Conference  
from the 11<sup>th</sup> Scientific Forum**  
3 October 2008

delivered by Professor V.S. Ramamurthy on behalf of  
Forum Chair: Honourable Ruud Lubbers,  
Former Prime Minister of the Netherlands

Mr. President,

In this era of incessant change, “the future”, it is said, “has a way of arriving unannounced”. Organisations, therefore, face a constant challenge to try and discern the trends that are likely to affect their future and to map the way ahead.

It is a tribute to the foresight of the Agency’s leadership that it has not waited for the future to descend on it. Instead, as the Director General Dr. Mohammed ElBaradei stated, the Agency has pro-actively ventured to “think big and to think long term” across the full range of its mandate.

That Member States are the ultimate decision makers in matters relating to the Agency’s destiny is well understood. However, consideration by Member States of an issue of such importance can only be enriched by inputs from a variety of stake holders. The Agency has a complex mandate straddling issues relating to peace and security as well as development. In addressing the future of the IAEA, our deliberations at this year’s Scientific Forum greatly benefited from the Director General’s report “*20/20 Vision for the future*” and the thoughtful set of wide ranging recommendations made by the Commission of Eminent Persons headed by the former Mexican President, Prof. Ernesto Zedillo, in the Report “*Reinforcing the Global Nuclear Order for Peace and Prosperity*”.

Our discussions, structured in four sessions, were fruitful, not only through the excellent presentations made by 21 distinguished speakers, but also through the interactions and discussions with the Scientific Forum audience as a whole, which consisted of a total of 280 registered participants. Our deliberations were technical and academic. It is my honour and pleasure to present the outcome of these deliberations. Of necessity, my presentation is selective. I outline themes and issues that have recurrently featured and provide you a broad brush picture.

Mr President,

These are uncertain times. A “stalemate” plagues the current nuclear order and needs to be addressed by “supranational means”. As Senator Sam Nunn eloquently said in his address to the Forum, “we are in a race between cooperation and catastrophe”.

It is acknowledged that different expectations exist and will continue to exist on what the future holds in store. However, from our discussions it was evident that the Agency has over half a century of its existence assumed recognisable roles along well defined trajectories.

- In certain spheres of activity it is the acknowledged lead actor globally. For example, verification of the fulfilment of non-proliferation commitments.
- In certain other areas, for example in assessing *nuclear energy* as part of the global *energy* sector, the Agency plays an important role as *the* place in the world where long-term visions, strategies, innovation and nuclear planning can be discussed and — hopefully — be condensed into a shared view of all Member States on the nuclear future. The Agency also assists States in developing infrastructural requirements, energy assessments that support decision making. In

such tasks it works alongside other inter-governmental bodies, academic and professional institutions, industry groups and NGOs. While safety and security are national responsibilities, the development of international safety standards and nuclear security norms based on best practices is a key Agency role.

- In yet other areas, such as the entire spectrum of development assistance, the role the Agency plays is strategic but modest, making specific targeted contributions in activities where nuclear techniques have a comparative advantage.

Mr. President,

Let me outline the contours of what participants at the Scientific Forum viewed as the Agency's future along these trajectories. It is, of course, entirely possible that there may be drivers in the future that could lead to changes in these trajectories.

It was an unfortunate twist of fate that the first public demonstration of nuclear technology was its destructive power. That association of nuclear technology with destructive capabilities has remained the predominant concern in the public perception of all things nuclear. Irrespective of the forum in which they are pursued, efforts towards nuclear disarmament, arms control and non-proliferation will remain crucial to the future of all aspects related to the public acceptance of nuclear technology. The perils of the '*dark*' side of the nuclear equation are such that the Agency's verification role will always remain, in the public's perception, an overwhelming priority.

As the world economy grows, energy needs are poised to grow faster than supply. New nuclear facilities will be constructed, old ones modernized, the amounts of nuclear material, and sensitive knowledge will grow and spread, nuclear supply chains and trade will expand. Countries having no previous safeguards infrastructure or experience are planning to embark on nuclear power programmes. Bottlenecks in nuclear manufacturing and fuel services may appear which in turn could trigger construction of new nuclear fuel cycle facilities that could pose new proliferation risks. Threats posed by clandestine networks for the supply of nuclear goods and technologies are a concern. Access by non-state actors to weapons of mass destruction and their means of delivery remains a worry. Expanding the effectiveness and efficiency of nuclear safeguards in such circumstances is not only important from a technical angle but also from the point of view of its political, economical, industrial and social impact.

Much will depend on what will be the shared safeguards and verification standard applied in 2020. In case it would be, as it is widely expected, the combination of a comprehensive safeguards agreement and an additional protocol, this would imply continuing changes to the verification culture and practices including more information-driven verification activities, use of state-of-the-art technologies, high caliber staff, outsourcing, etc. Since the Agency's resources are unlikely to increase at the same pace as its increasing verification activities, efficiency requirements will also be greater. Transparency and cooperation with States and with nuclear vendors embedding safeguards features directly and deeply into their facility designs, systems and components, will play important roles.

Initiatives have been launched to develop policies, concepts, technologies, expertise and infrastructure necessary to sustain the international safeguards system as its mission evolves over the next 25 years. Meeting successfully new global challenges needs also other innovations related to fourth (IV) generation reactor systems and multilateral approaches to the nuclear fuel cycle.

Past initiatives for multilateral nuclear cooperation did not result in any tangible results. Proliferation concerns were perceived as not serious enough. Economic incentives were seldom strong enough. Concerns about assurances of supply were paramount.

National pride also played a role, alongside expectations about the technological and economic spin-offs to be derived from nuclear activities. Many of these considerations may still be pertinent. However, the result of balancing these considerations today, in the face of a possible multiplication of nuclear facilities over the next decades and the possible increase in proliferation risks associated with sensitive parts of the nuclear fuel cycle, may well produce an environment more conducive to multilateral nuclear approaches in the 21<sup>st</sup> century that may help the expansion of nuclear power.

Mr. President,

Myriad technical issues of an evolutionary nature will form the “bread and butter” tasks in the foreseeable future. On the other hand, it is imperative not to lose sight of the commitment of all of us to “de-demonize” nuclear technology. The genie cannot be put back into the bottle. We need, however, to be assured that it is up to no further harm. This can only be done if disarmament and arms control return as the focus of the international agenda. It is rightly pointed out that the Agency is not the lead agency or forum for nuclear disarmament. However, it must prepare for and be ready to respond to the technical needs of verification which will be required to be met as and when the political decisions are taken in the appropriate fora. As the Secretary General in his message to the fifty-second session of the General Conference indicated, future progress in nuclear disarmament may also bring opportunities for the Agency in the area of verification, transparency and irreversibility.

Mr. President,

It is estimated that the world’s energy needs could be 50 per cent higher in 2030 than they are today. There are rising expectations in the area of nuclear power that are gradually leading towards a renaissance of nuclear energy, through expanding programmes in ‘mature’ countries and through new programmes in ‘newcomer’ countries alike. As a result, the nuclear landscape in the next decades might look fundamentally different from that of today. A second important fact affecting the nuclear future is that the perceived or real concerns associated with the disposal of spent fuel and radioactive waste remain. To a large extent, public acceptance of the use of nuclear power depends on the solutions to this issue.

The expectations from the Agency are likely to be:

- A continuing demand for support stemming from operating nuclear installations.
- In the short and medium term, requests for more support for ‘newcomer’ countries, either through providing planning and decision-making guidance or through direct assistance.
- To ensure the sustainable development of nuclear energy, continued Agency support will be needed in finding appropriate solutions for the back-end issue, keeping in mind concerns linked to scarcity of resources, technical sustainability of the complete global nuclear system and public acceptance.
- The Agency will be asked to contribute to innovation that will be key for building the nuclear fleet of tomorrow, be it in nuclear power technology, fuel cycle technology or innovations in institutional arrangements.
- The Agency should continue to be an active player in the global debate on climate change, possibly also in connection with public acceptance campaigns, taking advantage of its role as a trusted international organization.

The envisaged renaissance depends very much on the success of international cooperation and approaches, and thus on the Agency, in particular regarding confidence-building, communicating with the public and with governments, and in consensus-building through a global discussion. A bright

future of nuclear energy does not only depend on individual countries' policies. It depends on all those who want to use its benefits to get it right every time, thus the world needs to do nuclear together.

A stringent approach to safety and security is necessary to enable this renaissance. Measures to advance nuclear safety and security are important and should be achieved in a way which harmonises them.

There is recognition that, while safety requirements are well established, not all safety problems have been resolved. In addition, security requirements continue to develop. Care must be taken to ensure that this process of continuous improvement results in harmony between safety and security. It is important to emphasize that the protection of people and the environment is the ultimate goal and that harmonization of safety and security is a means to achieve the end goal, it is not the end goal itself.

Continuous international cooperation will be required to facilitate improvements to safety and security. Numerous challenges remain in harmonizing safety and security, in particular because security often involves sensitive information. The Agency has a leading role in this harmonization process through the definition of instruments, standards and norms and the provision of services. It will require strengthened capabilities including adequate resources to take on this expanded role and to continuously improve its standards, guidance and services.

Mr. President,

The development scenario is one of pressing, unfulfilled needs. According to a World Bank study released a little over a month ago, nearly one out of every four of the world's population live on less than \$1.25 a day. By 2015 more than a billion people will still be living on less than \$1.25 per day. Many who have climbed above the \$1.25 per day line will remain poor by the standards of rich or middle income countries. On the other hand, the UN's MDG Task Force has recently identified that only 5 countries have reached or exceeded the UN's ODA target of 0.7% of their Gross National Income in 2007.

Amidst the vast expanse of unfulfilled needs, the validity, indeed the viability of an organisation adopting solely a normative role, while having the capacity to contribute its mite to developmental goals is a non sequitur. At the Forum, it was a widely shared belief that targeted assistance in human health, food and agriculture, environment and water resources are areas where nuclear technologies can make a difference.

By way of illustration, let me provide a few examples of where Forum participants strongly felt that the Agency can and should be doing more, much more, in the future:

- Cancer kills more people every year than AIDS, TB and malaria combined worldwide. More than 10 million people are expected to die of cancer in 2020, up from 7.9 million in 2007. More than 70% of cancer deaths now occur in low and middle income countries. While combating cancer is a multi-dimensional effort, nuclear techniques have a unique role in cancer diagnosis and therapy.
- Radiation therapy — a lifesaving component of treatment for over 50% of cancer patients in high income countries — remains out of reach for millions of cancer patients in the developing world. The current shortage of radiotherapy machines in developing countries exceeds 5000 machines. The Agency has unrivalled experience in the transfer of radiotherapy and diagnostic imaging technology and nuclear medicine procedures to developing countries as part of its support for the safe, effective and sustained implementation of radiotherapy and nuclear medicine services. However, the public health benefit of the Agency's cancer-related activities can only be maximized if planned and coordinated within the context of national cancer control strategies in partnership with the WHO. In this context, the objective of PACT — to create a

unified vision and operational framework for all IAEA cancer-related activities so as to achieve maximum public health impact in developing Member States — was recognized as an extremely important and timely initiative on the part of the IAEA.

- In his opening address to the General Assembly last week, the UN Secretary General Ban Ki-Moon reminded the world that in a single year, rice, the food staple that feeds half of the population, more than doubled in price setting off concerns regarding food security. If the target set by the UN of 50% more food annually by 2030 is to be met, food production must grow by 2% per year. Historically, every quantum leap in food production in the past was based on a change in agrarian practices along two dimensions, namely a change in cultivation practices combined with genetic selection of new crops, varieties and breeds. The Joint FAO-IAEA Division is well placed to participate in and contribute to both these endeavours. It can assist in transforming cultivation practices by transferring methodologies aimed at making ecosystem services visible and valued by policy makers, starting with plant nutrient transformations in soil ecosystems, crops and livestock. Although water is a basic human need, nearly one billion people in the developing countries do not have access to safe drinking water and more than two billion lack basic sanitation facilities. Irrigation, responsible for nearly 40% of world food production, uses about 70% of total water withdrawals and increasingly relies upon groundwater resources. There are a number of issues associated with the energy-water nexus that will challenge both water and energy experts and planners. Water is used in a variety of ways in the energy sector. Similarly, energy is a critical requirement in the water sector. Finally, climate change and variability are leading to a more intense water-cycle with drastic impacts on the geographical distribution and availability of water.
- 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. There is also a continuing need for the Agency to build sufficiently trained capacity and to help countries use isotopes for their national water resource assessment and management efforts. To maximize the effectiveness of its work, the Agency needs to enhance partnerships with other UN and international programmes and agencies such as the World Bank, the Global Environment Facility (GEF), UNDP, WMO and UNESCO.

Given the overwhelming nature of development needs, the scope for an enhancement of the Agency's future role in this area remains vast. However, for this to happen, the provision of operational support through enhanced technical cooperation in partnership with other organisations will need to be supplemented by giving thought to overcoming factors that have impeded the full potential of nuclear technologies being realised. Working towards enhancing acceptability, accessibility and affordability of nuclear technologies for development will be the key to success of the Agency as an organisation contributing to development.

Mr. President,

In their capacity as specialists, the Forum participants did not delve into the financial and administrative matters of the Future Role of the IAEA. It was self-evident to all of us, and this is a fact I would like to emphasize, that growing expectations vis-à-vis the Agency will have to be accompanied by a consideration of the need for additional resources. Such resources should not be subject to artificial constraints. As President Eisenhower once said, "there is no victory at bargain basement prices."

To sum up, let me reiterate those five items which were the most relevant messages that we heard in the course of this Scientific Forum and which are vital from the point of view of the Agency's dual mission for development and security:

1. The nuclear landscape is changing. In modern organizations there is no success without a strategic framework, where a shared vision is a critical focal point giving shape and direction to the organization's future. The world needs the Agency to plan to stay ahead of the curve and should provide it with the required mandate, strengthened capabilities and necessary resources.
2. The Agency needs to provide more technical assistance to individual Member States, working through the transfer of technology, decision making support, planning tools, capacity and knowledge building and R&D coordination.
3. The Agency needs to work towards enhancing acceptability, accessibility and affordability of nuclear technologies for development.
4. The Agency needs to make sure that all existing and planned nuclear installations respect safety, security and safeguards requirements.
5. The Agency needs to be *the* place in the world where technical visions are shared and — hopefully — harmonized to build one nuclear future that the world creates jointly.

Mr. President,

The path towards the future is a journey and not an end. When looking back at the history of the Agency in maybe 10, or 20, or 50 years, the process of discussions on the "Future Role of the IAEA", and all actions that we expect to be triggered by these considerations will form a milestone in the course adopted by the Agency. That the participants of the Scientific Forum were part of this process and hopefully will have contributed to the transition which comes about, is a matter of satisfaction to all of us who participated in this venture. We are honoured to have had the opportunity to be part of this process. Thank you.