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Plenary

Record of the Second Meeting

Held at Headquarters, Vienna, on Monday, 17 September 2012, at 3.05 p.m.

President: Mr BARROS OREIRO (Uruguay)

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[1] GC(56)/19.

Contents (continued)

The composition of delegations attending the session is given in document GC(56)/INF/9.

Abbreviations used in this record:

ASEAN	Association of Southeast Asian Nations
CPF	Country Programme Framework
CPPNM	Convention on the Physical Protection of Nuclear Material
CT	computed tomography
CTBT	Comprehensive Nuclear-Test-Ban Treaty
DPRK	Democratic People's Republic of Korea
FAO	Food and Agriculture Organization of the United Nations
HEU	high-enriched uranium
INES	International Nuclear and Radiological Event Scale
INSSP	Integrated Nuclear Security Support Plan
IPPAS	International Physical Protection Advisory Service
IRRS	Integrated Regulatory Review Service
IRS	International Reporting System for Operating Experience
ISO	International Organization for Standardization
Joint Protocol	Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention
LEU	low-enriched uranium
NPCs	national participation costs
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
PACT	Programme of Action for Cancer Therapy
Paris Convention	Convention on Third Party Liability in the Field of Nuclear Energy
PET	positron emission tomography
R&D	research and development

Abbreviations used in this record (continued)**:**

RCA	Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (for Asia and the Pacific)
SIT	sterile insect technique
SPECT	single photon emission computed tomography
SSDL	Secondary Standard Dosimetry Laboratory
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
Vienna Convention	Vienna Convention on Civil Liability for Nuclear Damage (May 1963)
WANO	World Association of Nuclear Operators
WENRA	Western European Nuclear Regulators' Association
WHO	World Health Organization

5. Arrangements for the Conference

(a) Adoption of the agenda and allocation of items for initial discussion

1. The PRESIDENT said that the General Committee had recommended that the agenda for the current session consist of all the items on the provisional agenda set forth in documents GC(56)/1 and Add.1 and Add.2. With regard to the allocation of items for initial discussion, it had recommended that all the items be taken up for discussion as indicated in those documents. It had also recommended that the order of items be as set out in those documents.

2. The General Committee's recommendations were accepted.

(b) Closing date of the session and opening date of the next session

3. The PRESIDENT said that the General Committee had recommended that the Conference set Friday, 21 September 2012, as the closing date of the fifty-sixth regular session, and Monday, 16 September 2013, as the opening date of the fifty-seventh regular session.

4. The General Committee's recommendation was accepted.

7. General debate and Annual Report for 2011 (resumed) (GC(56)/2 and Supplement)

5. Mr MONTEJO (Philippines) said that, over the preceding year, the Agency had further affirmed its important role as the central multilateral forum for the promotion of the peaceful uses of nuclear energy. The Fukushima accident had led to discussion of ways to improve the Agency's work in nuclear safety. His country noted the significant progress made in the implementation of the IAEA Action Plan on Nuclear Safety, and the concrete actions of the Secretariat and Member States, in particular with regard to stress tests, capacity-building activities and enhancement of emergency preparedness and response measures. The Philippines was exploring with the Secretariat the possibility of utilizing the mothballed Bataan nuclear power plant as a regional and international training facility.

6. The Philippines welcomed the activities of the Inter-Agency Committee on Radiological and Nuclear Emergencies and remained willing to continue working with the Agency to facilitate improvements in nuclear and radiological incident and emergency preparedness and response systems. It had undertaken environmental radioactivity monitoring in nine provinces for up to nine months after the Fukushima accident and the data collected had been shared with UNSCEAR. Monitoring activities were ongoing under an RCA technical cooperation project on assessment of the environmental impacts of the Fukushima accident in the Asia and Pacific region.

7. At the regional level, his country welcomed the progress in the discussions on the establishment of the ASEAN network of regulatory bodies on atomic energy as a forum for exchange of information on best practices, enhancing cooperation and developing national capacities in nuclear safety, security and safeguards.

8. Countries were continuing to turn to the Agency for technical assistance in the development or expansion of their national nuclear power programmes. In August, the Philippines, with Agency assistance, had organized a national workshop on the evaluation of alternative energy strategies and the establishment of a national position on nuclear power. Subsequent activities would help to determine his Government's position on nuclear power. The Agency should continue to provide assistance to countries like his own that were still considering including nuclear power in their energy mix, in particular with regard to the development of a regulatory framework, capacity building and radioactive waste management.

9. The Agency's technical cooperation programme continued to play an important role in helping countries achieve the Millennium Development Goals, and the Philippines congratulated the Agency on its substantial accomplishments in projects to address the needs of Member States, in particular in the areas of food security and safety, health and nutrition, water resources assessment and management, and energy security. It welcomed the Director General's focus on nuclear applications related to food in the current year. In June, the Philippines had hosted the Agency regional meeting on support for climate proofing of rice production systems based on nuclear applications. It welcomed the project on that subject and had initiated a related national project utilizing nuclear technology to enhance rice and corn production.

10. The Philippines commended the work of the Insect Pest Control Laboratory of the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture on development of the SIT for use on disease-transmitting mosquitoes and welcomed the progress made in the development of a gamma-irradiated malaria vaccine which was now at an advanced stage of clinical trials. Dengue and malaria continued to pose health problems for the Philippines, and it looked forward to cooperating further with the Seibersdorf laboratory in the near future.

11. In the area of nuclear medicine, with Agency assistance the Philippines had successfully established a technetium-99m generator facility which made the cost of procedures employing that isotope more affordable to the public. It was also looking at the establishment of a medical cyclotron facility to supply affordable PET radiopharmaceuticals to hospitals.

12. With regard to water resources assessment and management, the Philippines was one of the pilot countries for the Agency's water availability enhancement project, through which the country was seeking to develop sustainable and socially responsible water resource management plans. The outputs included a report analysing national capacity to conduct comprehensive water resource assessments and a road map to address gaps in hydrological data and information. The isotope hydrology approaches that were being developed and tested at the two pilot sites identified would be used in other regions. The Agency should continue to assist Member States in strengthening national capacities for conducting comprehensive water resource assessments.

13. His country's commitment to preventing illicit trafficking in nuclear and radioactive material was embodied in its national nuclear safety plan, and it looked forward to working with the Agency to update that plan. The Philippines was an active participant in various regional and global initiatives in that field, in addition to those organized by the Agency. It had successfully hosted the third radiological security partnerships review meeting in January 2012. In February 2013, in cooperation with the Agency, it would be hosting an international forum on effective border controls whose aim was to develop recommendations to prevent illicit trafficking in nuclear and radioactive material.

14. The increasing risk of nuclear proliferation remained a major challenge and it was essential to strengthen the Agency's nuclear verification capabilities and establish confidence in the peaceful nature of nuclear activities. The conclusion of comprehensive safeguards agreements and additional protocols, and the provision of the Agency with tools and resources to implement a credible

verification system effectively, would go a long way towards reducing the risk of nuclear proliferation and maintaining international peace and security.

15. With regard to the DPRK's nuclear programme, his country had consistently advocated a peaceful and just solution to the denuclearization of the Korean Peninsula and was committed to helping create an environment of trust and confidence conducive to the DPRK's engagement with the international community. The Agency should continue to maintain the operational readiness and capacity to resume safeguards inspections when Agency inspectors were able to return to the DPRK.

16. The Philippines shared the vision of a world free of nuclear weapons and strongly supported the establishment of nuclear-weapon-free zones as a way to contribute to international peace and security. It looked forward to the 2012 conference on the establishment of a Middle East zone free of nuclear weapons and all other weapons of mass destruction, as called for in final document of the 2010 NPT Review Conference, and urged all Member States to support that endeavour.

17. The Agency had been successful in conducting its work amidst challenging global realities. The achievement of the Agency's strategic objectives in the coming months would not be easy given political realities and financial constraints. His country remained committed to working with other Member States in a spirit of mutual respect and constructive dialogue, and to participating actively in all efforts to enhance the Agency's work and advance common objectives.

18. Mr YAMANE (Japan) recalled that one and a half years had elapsed since the Great East Japan Earthquake, the resulting tsunamis and the accident at the Fukushima Daiichi nuclear power plant. His Government was continuing its efforts — including decontamination — to restore the stricken areas, in close cooperation with the local authorities and residents. The Fukushima nuclear power plant had achieved cold shutdown and steps were being taken in the longer term to decommission its reactors. Japan expressed its gratitude once again for the considerable support and assistance provided to date by the international community.

19. The Agency had consistently supported Japan's efforts to disseminate information about the accident and apply the lessons derived from it to improve global nuclear safety and security.

20. At the same time, exercising its pivotal role in the nuclear non-proliferation system, the Agency had been working decisively to resolve regional nuclear issues. For example, in November 2011, it had hosted the forum on experience of possible relevance to the creation of a nuclear-weapon-free zone in the Middle East, as a contribution to the confidence-building efforts of States in the region.

21. Moreover, Japan recognized that all the aforementioned Agency activities had been financed from the budget, whose growth had been curtailed in the effort to set clear priorities for projects and increase efficiency by means of in-house organizational restructuring. That recognition was shared by many other Member States.

22. A year had passed since the establishment of the IAEA Action Plan on Nuclear Safety. In order to discuss the progress made in efforts by the international community to implement the action plan, and share further lessons and knowledge learned from the Fukushima accident, Japan was organizing the Fukushima Ministerial Conference on Nuclear Safety in December 2012, which would be co-sponsored by the Agency. It hoped for high-level participation from as many Member States and associated organizations as possible.

23. His country had taken major steps to contribute to progress under the action plan, including sharing all information and knowledge about the Fukushima accident with the international community. It trusted the plan would form an important basis for strengthening international nuclear safety.

24. As its contribution to the international expert group meetings and other initiatives, Japan had shared with the international community information on the safety of nuclear reactors and spent fuel pools, as well as on the impact of earthquakes and tsunamis, on the basis of the most advanced technical capabilities. It had also shared information on the results of the Agency's international mission on remediation in October 2011, the Agency's review mission on the stress test in January 2012, and the Agency's mission in July 2012 to examine performance after the earthquake and tsunamis.

25. Japan had decided to strengthen its national nuclear regulatory authority. The Nuclear Regulation Authority was due to be established on 19 September 2012. It would be a new, independent body, completely separate from the nuclear promotional authorities, and would integrate the existing regulatory authorities for safety, security and safeguards into one.

26. In addition, his country had made efforts to strengthen the existing legal frameworks for nuclear safety, making proposals for strengthening the Convention on Nuclear Safety and the Response and Assistance Network.

27. Japan had made extrabudgetary contributions totalling around €13 million to assist the Agency in its efforts to implement the action plan and conduct projects relating to recovery from the Fukushima accident, inter alia. Implementation of the action plan had made steady progress, thanks to the efforts of Member States, the Secretariat and others.

28. His country would continue to cooperate with the Secretariat to address ongoing challenges, such as strengthening of the Agency's safety standards and related capacity building in States. In that connection, it welcomed the Director General's express intention to produce a comprehensive report in 2014 on lessons learned from the Fukushima accident. Japan would actively cooperate in that enterprise.

29. With regard to strengthening of nuclear security, his Government had amended the relevant national regulations to incorporate into domestic practice the most recent recommendations on physical protection contained in INFCIRC/225/Revision 5, together with lessons learned from the Fukushima accident in the area of nuclear security. In addition, the ongoing regulatory work on nuclear security and the general coordination function would be integrated into the newly established nuclear regulatory authority, thereby fundamentally strengthening Japan's administrative system for nuclear security.

30. As part of its contribution to strengthening global nuclear security, Japan would continue to provide assistance to developing countries through the activities of its Integrated Support Center for Nuclear Non-proliferation and Nuclear Security, in cooperation with the Secretariat and other countries. His country appreciated the Agency's efforts to promote the entry into force of the amendment to the CPPNM, which should bring about important changes in global nuclear security, and it would make the necessary efforts in that regard.

31. The Agency was the sole international organization with expertise relevant to all issues associated with nuclear energy, not only nuclear safety and security, and the international community should continue to support those other roles. Japan attached particular importance to implementation of the action plan agreed upon at the 2010 NPT Review Conference, in concert with the Agency and other actors.

32. His country welcomed the ongoing efforts made by the United States of America and the Russian Federation to control and dispose of weapons-grade plutonium and subject it to Agency verification, and it hoped that the other nuclear-weapon States would follow suit.

33. Agency safeguards played a key role in the nuclear non-proliferation regime, but years of tireless efforts by the international community would be needed to improve effectiveness and efficiency in that area. Thanks to efforts in the past, the number of States with additional protocols in force had increased from 110 to 117 over the preceding year. Japan welcomed that steady progress as proof that a comprehensive safeguards agreement together with an additional protocol was becoming an international safeguards standard.

34. Japan would contribute further to efforts to universalize the additional protocol, together with other Member States and the Secretariat, and would continue to be active in that regard, using opportunities such as the Asian senior-level talks on non-proliferation to reach out to the States concerned in conjunction with the Agency and other multilateral frameworks.

35. There were still regional nuclear issues which needed to be settled and which posed a pressing challenge to the international community. The Agency, carrying out its mission to prevent the diversion of nuclear energy to military uses, had been playing an increasingly important role in those matters in connection with the nuclear non-proliferation regime.

36. The DPRK nuclear issue was a threat to peace and security in East Asia and the entire international community. That country's uranium enrichment programme constituted a clear violation of United Nations Security Council resolutions and ran counter to the September 2005 Joint Statement emanating from the six-party talks. Japan hoped the Agency would continue to play a critical role in resolving the issue. As the international community had clearly stated in the relevant Security Council resolutions, the DPRK could never have the status of a nuclear-weapon State. Japan once again urged the DPRK immediately to take steps towards denuclearization, as only by implementing the Joint Statement and abandoning all nuclear weapons and existing nuclear programmes could the DPRK gain international confidence.

37. With regard to the Iranian nuclear issue, Iran must allay all the international community's suspicions and win its confidence. Japan would continue to work with the rest of the international community for a peaceful, diplomatic settlement of the issue.

38. Turning to the Syrian nuclear issue, he said that his country hoped very much that the Syrian Arab Republic would cooperate fully with the Agency and that the relevant facts would be clarified.

39. The Agency's efforts to promote the peaceful uses of nuclear energy while upholding the three pillars of nuclear safety, security and safeguards was bound to benefit all its Member States. Japan supported Agency technical cooperation as a priority. It would be contributing US $3.5 million to the Agency in the current fiscal year, in addition to its 2011 contribution, to help the Agency address the major challenges facing developing countries through the Peaceful Uses Initiative.

40. His country would continue to contribute to the promotion of technical cooperation in radiological science and research in nuclear science and technology through frameworks such as the Forum for Nuclear Cooperation in Asia, and the RCA.

41. In that context, efforts to develop human resources were indispensable. In conjunction with the Secretariat, Japan would try to help budding young talent to play a more active role in the Secretariat. In June 2012, the IAEA School of Nuclear Energy Management, sponsored by Japan through its extrabudgetary contribution to the Agency, had been held in Tokaimura with the aim of training young experts from around the world. His country would continue to cooperate in the training of nuclear experts, inter alia by holding such educational events.

42. Since the Fukushima accident, his country had been reviewing in depth its national energy policy, building on nationwide discussions. On 14 September 2012, the Government's Energy and Environment Council had framed an innovative strategy for energy and environment in which the

central policy was to reduce dependence on nuclear energy and fossil fuels through the maximization of green energy. While use of nuclear power reactors whose safety had been confirmed would continue, the strategy aimed to make use of all available resources, including maximizing green energy development, the objective being to make zero operation of nuclear power reactors possible by the 2030s.

43. The achievement of a society that was not dependent on nuclear power was not straightforward and would take a long time. In view of the extreme difficulty of accurately foreseeing the international energy situation, it was important to be prepared to respond flexibly to any changes. His Government would therefore be constantly reviewing the expansion of green energy, in the light of the potential impact on people's lives and economic activity, drawing on the wisdom and cooperation of the international community.

44. For Japan, ensuring nuclear safety was an absolute priority. Development of human resources and technology in the field of nuclear energy was also essential. The Government would therefore be finalizing the strategy for strengthening human resources and technology by the end of 2012.

45. Mr DUKAMO (Ethiopia) expressed appreciation to the Secretariat for its continued support for his country's projects, which had been instrumental in developing modest capabilities in the control of tsetse flies, cancer treatment, diagnostic nuclear medicine services, isotope hydrology and non-destructive quality testing. Ethiopia had improved its capabilities by training staff, acquiring equipment, and receiving expert missions and other forms of technical assistance from the Agency, but it was still far from being able to use transferred technologies to best effect and sustain the services initiated through technical cooperation projects in recent years. Efforts were being made to make technical cooperation more efficient and sustainable.

46. The largest and most important technical cooperation project in which his country was involved concerned the eradication of tsetse flies from the fertile agricultural land of the southern Rift Valley. For several years, the use of integrated conventional techniques with the active involvement of local communities had been successful in reducing tsetse fly populations. Farmers were being relieved of the problem of trypanosomosis and were seeing a significant increase in milk and meat production and in the extent of their fertile farming land. His Government was grateful to the African Development Bank and other partners for their support in making field operations fruitful. Further progress was currently limited by the failure to establish the required fly colony size at the desired pace, although recent achievements were encouraging. The first pilot release of sterile male tsetse flies had begun some months previously and was yielding positive results. An industrial irradiator was being purchased so that activities could be intensified.

47. Application of the SIT would continue to be the top priority in his country's technical cooperation with the Agency. In that regard, the cooperation and assistance of other development partners was also crucial. Building on the achievements of its previous national plan, his Government had continued to place emphasis on the agricultural sector. In order to ensure that agricultural growth was sustainable and consistent, capacity to adopt and utilize new and proven technologies would be continuously strengthened. The agricultural sector would therefore be prominent in the Government's growth and transformation plan for the period from 2010 to 2015.

48. His country welcomed the focus on food as the theme for the 2012 Scientific Forum, as nuclear techniques had an important role to play in the area of food security. He called on the Agency to ensure that the role of nuclear technology in increasing crop production was maintained and strengthened.

49. Ethiopia was planning to make use of the INSSP with which it had received assistance from the Agency as a strong framework for continued cooperation in nuclear security matters and as a clear

guide to enhance the country's nuclear security infrastructure. The United States Department of Energy had also undertaken exemplary work in Ethiopia, providing various equipment and technical assistance to the national radiation protection authority. Its input would enable the country to frame a policy and identify issues pertinent to reviewing current legislation. He expressed appreciation to the United States for its support.

50. The peaceful and safe use of nuclear technologies and the non-proliferation of nuclear weapons were essential, and Ethiopia was party to various multilateral agreements, conventions and treaties relating to those issues. His Government was also committed to strengthening the national radiation and nuclear safety infrastructure so as to ensure the safe operation of equipment using radiation sources.

51. Through its technical cooperation programme, the Agency was a genuine development partner in the areas of agriculture, health, industry, water and the environment. The programme had contributed greatly to his country's double-digit economic development over the preceding eight years.

52. While it strongly advocated access to nuclear technology, his country was also committed to ensuring that an effective regulatory framework was in place to protect communities and the environment from the harmful effects of such technology. Basic radiation protection infrastructure had been established, with the active support and assistance of the Agency, via both national and regional projects. The Government had also allocated adequate resources to regulatory activities. However, use of radiation sources had increased in many sectors and that trend was expected to continue, given the country's continuous economic growth. It was therefore essential to develop the required human resources and infrastructure for nuclear security, commensurate with the threat posed, in order to protect individuals and the public.

53. His Government was fully committed to PACT, and he expressed appreciation to the Agency for providing technical assistance and undertaking impact assessments in that connection. His country was experiencing an increase in the number of cancer patients, particularly those with cervical cancer. The annual incidence of cancer was estimated at 150 000 cases, of which 80% would require radiotherapy. There was a single radiotherapy centre and nuclear medicine unit located in the capital city, Addis Ababa. Currently, the country had no locally available training programme for cancer and nuclear medicine specialists. The Agency had supported the development of a bankable project to consolidate existing radiotherapy services at the Black Lion Hospital in the capital, and to expand them to five regional centres by constructing new facilities. The plan was expected to provide the framework for Agency cooperation with Ethiopia in the coming years.

54. His country needed to develop further its national capacities in the water sector so that it could assess, develop and manage water resources. The isotope hydrology laboratory at Addis Ababa University served both for postgraduate students and for national isotopic research. Cooperation with the Agency on the application of isotope techniques in managing surface water and groundwater resources had helped build basic capacity to generate useful isotopic data. Considerable numbers of professionals and laboratory technicians had received training in isotope hydrology as part of technical cooperation with the Agency, and his country would continue to count on Agency support in order to realize its objectives fully.

55. Ethiopia was participating in national and regional projects on radioisotope applications for troubleshooting and optimization of industrial processes in the cement and sugar industries, inter alia. His Government would be providing premises for a non-destructive testing centre, and the resources required to staff and run it, while the Agency was expected to provide equipment, training, expert services and scientific visits.

56. In conclusion, he said that his country was pledging its full share of the TCF and the Regular Budget.

57. Mr AL-SAMERRAI (Iraq) said that the General Conference was taking place at a time of political and economic crisis in the world in general and in the Middle East in particular. His country hoped for a rapid easing of that crisis and progress towards meeting peoples' aspirations for freedom and democracy.

58. The Iraqi Government was taking serious steps to remove sources of tension, and using its excellent relations with the international community to prevent any adverse impact on the peoples of the region. For instance, it had hosted meetings of the five permanent members of the United Nations Security Council plus Germany, and the 23rd summit of the League of Arab States in Baghdad. The League had stressed the need to step up efforts to establish a zone free of nuclear weapons and other weapons of mass destruction in the Middle East, and to use the resources of countries in the region to promote the welfare of its peoples.

59. Iraq believed that the role played by the Agency and other United Nations organizations in the development and transfer of technology helped support the economies of developing countries and helped them resolve their diverse problems, as well as promoting peace and stability in the world as a whole.

60. The Iraqi Government had sought to implement its obligations under Article 9 of the 2005 Constitution and had taken many steps to regularize its internal and external relations. The Council of Representatives had ratified many pieces of legislation in recent months. On 28 June 2012, for instance, it had ratified the additional protocol to the country's safeguards agreement. In fact, Iraq had been implementing the protocol on a voluntary basis since 2010. It had enacted a law on the national non-proliferation regulatory authority on 16 February 2012 which would guarantee the non-diversion of resources from peaceful activities to activities prohibited under international treaties concerning nuclear, chemical and biological weapons and their delivery systems, and would ensure that related material and equipment was under full control. The Council of Representatives had also ratified the International Convention for the Suppression of Acts of Nuclear Terrorism on 15 December 2011. It was hoped that the Council would vote shortly on the CTBT, which Iraq had signed in 2010, and on the CPPNM. In addition, the competent bodies had finalized two pieces of legislation concerning the creation of a national nuclear and radiation regulatory authority and the Iraqi atomic energy commission, which would be submitted to parliament for adoption before the end of the year. All Government institutions had been involved in finalizing a nuclear and radiation emergency plan, which it was hoped would be adopted shortly. Iraq was extremely grateful for the valuable assistance it had received from the legal offices of relevant organizations which had reviewed the package of legislation.

61. With regard to the plan for decontamination of destroyed nuclear installations, considerable progress had been made in the decontamination work at the Tuwaitha nuclear site, in cooperation with experts from the Agency, the United States and the European Union. His country hoped that cooperation with the Agency and Member States would continue until all the facilities had been fully cleaned up.

62. The Iraqi Government appreciated the assistance the Agency provided to Member States with capacity building under the technical cooperation programme in such areas as health (especially early detection and treatment of cancer under PACT), water management, combating agricultural pests and environmental protection. Iraq required greater support with cleaning up its environment which had deteriorated as a result of warfare, and with detecting landmines which were still preventing the

exploitation of agricultural land. In that connection, he noted that the country's CPF with the Agency would be signed the following day.

63. The establishment of nuclear-weapon-free zones was an important step towards nuclear disarmament and the achievement and maintenance of international peace and security. Iraq had therefore consistently supported all efforts in that regard, especially in the Middle East region. It would actively participate in ensuring the success of the conference to be held in 2012, bearing in mind the relevant international legal decisions. Any attempt to establish a nuclear-weapon-free zone in the Middle East called for certain basic preparatory steps. The most important were: firstly, that Israel should commence nuclear disarmament, accede to the NPT and place its nuclear facilities under the Agency's safeguards regime; secondly, that all nuclear facilities in every State in the region should be placed under Agency control, in keeping with the provisions of United Nations resolutions concerning the establishment of a nuclear-weapon-free zone in the Middle East, Security Council resolution 478 (1980) and paragraph 14 of Security Council resolution 687 (1991); and thirdly, that the five nuclear-weapon States should comply with their obligations stemming from the decisions of the 1995 and 2000 NPT Review Conferences.

64. The growing number of activities under the Agency's programme involving Iraqi institutions called for the participation of Iraqi experts in various Agency activities. As participants were unable to obtain Austrian entry visas in Baghdad but had to apply to the Austrian Consulate in Amman, Jordan, they had repeatedly been compelled to travel to Amman although there were direct flights between Baghdad and Vienna. As that procedure imposed a heavy burden on Iraqi resources and resulted in many missed opportunities for Iraqi experts, his country hoped that the Austrian Ministry of Foreign Affairs would relax the procedures in keeping with the protocol signed between the host country and the Agency.

65. Archbishop MAMBERTI (Holy See) conveyed the best wishes and cordial greetings of Pope Benedict XVI who, on the occasion of the 50th anniversary of the Agency, had said: "The commitment to encourage non-proliferation of nuclear arms, to promote a progressive and agreed upon nuclear disarmament and to support the use of peaceful and safe nuclear technology for authentic development, respecting the environment and ever mindful of the most disadvantaged populations, is always more present and urgent". Furthermore, in his Encyclical Letter *Caritas in veritate*, the Pope had noted that, in a world that was becoming progressively globalized, "the risk is that the de facto interdependence of people and nations is not matched by ethical interaction of consciences and minds that would give rise to truly human development". That risk became all the more pronounced when one considered also the so-called global 'nuclear renaissance' and its numerous related challenges in connection with nuclear disarmament and non-proliferation, the growth in demand for energy, the threats posed by nuclear terrorism and the nuclear black market, and the call for nuclear safety and security, inter alia. Those challenges could only be addressed by cultivating a culture of peace founded on the primacy of law and respect for human life. In that context, the Agency could and must contribute to promoting an "ethical interaction of consciences and minds", which was essential to respond to those challenges and promote truly integral human development.

66. Nuclear disarmament and non-proliferation were interdependent and mutually reinforcing, and their transparent and responsible implementation constituted one of the principal instruments in the fight against nuclear terrorism and in the concrete realization of a culture of life and peace capable of promoting effectively the integral development of peoples. That being so, the international community should effectively and visibly make clear its intent to build and strengthen a global legal basis for the systematic elimination of all nuclear weapons. It could no longer be considered morally sufficient to reduce stocks of superfluous nuclear weapons while modernizing nuclear arsenals and investing vast sums to ensure future production and maintenance of such weapons. The NPT was the cornerstone of the global nuclear non-proliferation regime and the Holy See would continue to make its own

contribution to facilitating a consistent and encouraging outcome from the 2015 NPT Review Conference in order to strengthen the Treaty itself and make it a more effective instrument in responding to emerging challenges.

67. Global security must not rely on nuclear weapons. The CTBT was an important tool to achieve that aim and had potential civil and scientific application through its International Monitoring System. The Holy See had supported the joint statement adopted at the fifth CTBT Ministerial Meeting. The signature, ratification and entry into force of the Treaty would represent a great leap forward for the future of humanity, and for the protection of the earth and environment entrusted to human care by the Creator.

68. The ratification by all States, in particular nuclear-weapon States, of the respective protocols to nuclear-weapon-free zone treaties was of paramount importance. The Holy See strongly supported efforts to establish such a zone in the Middle East and remained hopeful with respect to the 2012 conference on that topic to be hosted by Finland. Nuclear-weapon-free zones were the best example of trust, confidence and affirmation that peace and security were possible without possessing nuclear weapons.

69. Humanity deserved the full cooperation of all States in that important matter. Every step in the non-proliferation and disarmament agenda must be founded on the principles of the pre-eminent and inherent value of human dignity and the centrality of the human person, which constituted the basis of international humanitarian law. In May 2012, on the occasion of the Preparatory Committee for the 2015 NPT Review Conference, the Holy See had co-sponsored the joint statement on the humanitarian dimensions of nuclear disarmament, one of the principal novelties that had emerged from that meeting. Nuclear weapons had the destructive capacity to pose a threat to the survival of humanity as long as they continued to exist. They were useless in addressing current challenges such as poverty, health, climate change, terrorism or transnational crime. The only way to guarantee that those weapons would not be used again was through their total, irreversible and verifiable elimination, under international control. The Agency had a central role to play in that connection. Since its foundation, the Agency had been an irreplaceable point of reference for international cooperation in the use of nuclear technology for peaceful purposes and for integral human development.

70. An important issue affecting not only the IAEA family, but the human family at large, was nuclear safety. The Holy See was following closely the commendable progress made in the implementation of the IAEA Action Plan on Nuclear Safety. What had transpired at the Fukushima Daiichi nuclear power plant had quickly revealed that a local nuclear crisis was indeed a global problem. It had also revealed that the world was exposed to real and systemic risks, and not just hypothetical ones, as well as the need to develop unprecedented international political coordination.

71. Energy security and nuclear security required the adoption of appropriate technical and legal measures, as well as action and responses at the cultural and ethical levels. In the short term, technical and legal measures were necessary for the protection of nuclear material and sites and the prevention of acts of nuclear terrorism. In the long term, prevention measures were needed that penetrated to the deepest cultural and social roots through, for example, educational programmes for the dissemination of a culture of safety and security both in the nuclear sector and among the public. A special role must be reserved for codes of conduct for staff who, in the nuclear sector, must always be conscious of the possible effects of their activity. Security depended on the State, but above all on the sense of responsibility of each person.

72. The Agency's technical cooperation programme was one of the principal instruments for transferring nuclear science and technology to Member States in order to promote social, economic and integral development. Its initiatives, when tailored to the needs of recipient States and their

partners, in the context of national priorities, helped combat poverty and could thus contribute to a more peaceful solution of the serious problems facing humanity. The Holy See was participating in the 2012 Scientific Forum on food. The theme highlighted the pressing need to fight hunger and malnutrition which afflicted many members of the human family. Although the Holy See had no technical solutions to offer, it was of the opinion that biotechnology and nuclear technologies could not be evaluated solely on the basis of immediate economic interests. They must be submitted to rigorous scientific and ethical examination in order to prevent them from becoming harmful for human health and the future of the planet.

73. Radionuclides played a special role in the diagnosis and treatment of malignant diseases. Radiation therapy was one of the fundamental treatments for cancer, and more than 50% of cancer patients stood to benefit from that kind of therapy. Yet, in the developing world, more than half of all patients suffering from cancer did not have access to radiotherapy owing to the lack of appropriate equipment and sufficiently trained staff with expertise in clinical and medical physics. The Holy See appreciated the work and efforts of the Agency and its partners in planning and furthering cancer control programmes. Those eminently important activities of the Agency should be further pursued and strengthened. PACT, which aimed at increasing the Agency's capacity to assist Member States in the tremendous task of combating cancer and creating regional centres of excellence for radiotherapy, deserved special mention.

74. Mr HÄKÄMIES (Finland) said safety was his country's highest priority in nuclear operations. It also attached great importance to the responsible use of nuclear energy, including waste management, and to a strong commitment to the non-proliferation of nuclear weapons globally. He expressed appreciation to the Director General for finding time to visit his country in August 2012, providing an opportunity for an excellent exchange of views on his country's expanding nuclear power programme. It had also been pleasing to hear that Finland's experiences in that area might serve as an example of a successful nuclear power programme. The country would continue to share its experiences with the Agency and the Member States, particularly in the area of spent fuel and radioactive waste management where it was at an advanced level.

75. In Finland nuclear power was a major component in the energy mix, with a 26% share in electricity production. The country's fifth nuclear power unit was under construction and, once it was completed, that share would increase to 40%. In addition, political decisions to permit preparations for two new nuclear power plant units had been taken by the Government and endorsed by parliament. Through those decisions, Finland would not only ensure self-sufficiency in electricity production for the first time in decades, it would also take an important step towards carbon emission-free energy. A diversified and sustainable energy mix was the continuous goal of its climate and energy policy. Renewables now accounted for more than 30% of Finland's primary energy consumption. Strong promotion of renewable energy, intensified energy efficiency and increased self-sufficiency were important elements of the country's energy strategy.

76. The Finnish nuclear fuel cycle was based on the once-through option. Spent nuclear fuel was viewed as radioactive waste which, by law, had to be disposed of on Finnish territory. Construction of an underground rock research facility called Onkalo, which was to operate as part of the final repository for spent fuel in solid bedrock, had started in July 2004. The excavation work had progressed to the final depth of the repository, more than 400 metres below the surface, and spent fuel disposal was scheduled to start around 2020. The manner in which nuclear waste management had been developed, which involved public hearings and a local government veto right, had contributed to the public acceptance of nuclear power in Finland. Public acceptance was a key issue, and there was political and public support for the expanded use of nuclear power in Finland, even after the Fukushima accident.

77. The safety of nuclear power plants was given high priority in his country. Following the Fukushima accident, Finland had conducted — first on its own and later in combination with the European Union stress tests — a thorough assessment of risks arising from extreme natural events. It had also substantially implemented the other sections of the IAEA Action Plan on Nuclear Safety. The results showed that there were no immediate safety concerns at Finnish nuclear facilities, but some areas had been identified where safety improvements would be implemented. It was essential in countries using nuclear energy that the legislation and responsibilities be clear, and that the regulatory bodies be given authority, independence and adequate resources to fulfil their tasks.

78. Finland appreciated the support the Agency gave to Member States embarking on nuclear power programmes in their efforts to develop sound safety infrastructures, but it needed to be underlined that the prime responsibility for safe and secure use of nuclear power lay with operators. Finland was satisfied with the outcome of the second extraordinary meeting of the Contracting Parties to the Convention on Nuclear Safety in August 2012, which had approved a package of measures aimed at strengthening nuclear safety worldwide. Finland would contribute actively to that work.

79. The NPT remained the cornerstone of the non-proliferation regime. Non-proliferation continued to be a serious concern, and the international community must take measures in cases of non-compliance in order to preserve the integrity and authority of the system. His country commended the consensus reached at the 2010 NPT Review Conference, as well as the agreement to convene a conference in 2012 on the establishment of a zone free of nuclear weapons and all other weapons of mass destruction in the Middle East. That region was undergoing important changes but lacked modalities for working together to solve issues of common concern. The upcoming conference, as well as the work of its facilitator, Under-Secretary of State Jaakko Laajava, offered an opportunity to strengthen cooperation within the region. To realize that, there had to be a move from confrontation to dialogue, allowing States in the region to move closer towards their shared goal of establishing such a zone, and to join forces in shaping their security environment for the better.

80. Finland was strongly committed to strengthening nuclear security worldwide. It had ratified the amendment to the CPPNM and encouraged all States to do so. It had participated in the preparation and conduct of the Nuclear Security Summit in Seoul in March 2012, at which there had been significant progress. It was essential to continue to strengthen nuclear security and prevent nuclear terrorism. The role of the Agency was crucial in that process. Finland was making special efforts to improve security at nuclear power plants, in particular information security and nuclear security culture. It would be hosting an Agency international workshop on nuclear security culture later in the year, and a number of Agency events on information security in subsequent years.

81. His country recognized the importance of the technical cooperation programme and nuclear technology applications for the Agency and its Member States. Nuclear technology and its applications were of significant help in the areas of water resources, agriculture and health care. Recent events had shown the paramount importance of adequate food production as well as food safety and security, and he therefore welcomed the Agency's decision to dedicate the Scientific Forum in 2012 to food production and safety.

82. Finally, further development of nuclear safety globally was crucial for the continued and expanding use of nuclear power worldwide. Every effort should be made to develop and implement the review process of the Convention on Nuclear Safety in an effective and transparent way.

83. Mr NGUYEN (Vietnam) commended the Agency's efforts and achievements in all areas of its mandate. Those achievements were the result of effective cooperation among Member States and the Secretariat under the excellent leadership of the Director General and with the guidance of the Board.

84. His country had implemented consistent policies on the safe, secure and peaceful development and use of nuclear energy, concentrating efforts on improving the legal framework, strengthening the capacities of national regulatory bodies and technical support organizations, and building an emergency response plan. It supported and was implementing the IAEA Action Plan on Nuclear Safety, and welcomed the fact that countries using nuclear power had conducted safety assessments of nuclear power plants and had taken necessary actions to strengthen nuclear safety. It welcomed the improvement of the guidelines under the Convention on Nuclear Safety and the formulation of the action-oriented objectives for strengthening nuclear safety annexed to the summary report of the second extraordinary meeting of the Contracting Parties to that Convention. Equally, it supported the initiative to establish the ASEAN network of regulatory bodies or relevant authorities, recognizing as it did the importance of regional cooperation in the areas of nuclear safety, security and safeguards for ASEAN. It hoped the network could be established by the end of 2012.

85. Vietnam had actively participated in and contributed to the success of the 2012 Nuclear Security Summit held in Seoul, Republic of Korea. It continued to cooperate with the Agency, the United States and the Russian Federation on fuel conversion for the Dalat nuclear research reactor. In November 2011, full core conversion of the reactor had been accomplished and it had been operating using LEU fuel since February 2012. All spent HEU fuel assemblies would be returned to the Russian Federation in 2013.

86. On 13 September 2012, the President of Vietnam had ratified the country's additional protocol. The country had also completed the preparatory procedures for accession to the CPPNM and ratification of the amendment thereto, which had been submitted to the President for a decision. Thus, it had reaffirmed its commitment to cooperate with the international community in strengthening nuclear security and non-proliferation.

87. In cooperation with the Russian Federation and Japan, Vietnam had been conducting feasibility studies of the Ninh Thuan 1 and 2 nuclear power projects. The Government had worked to create the necessary conditions to ensure the highest level of nuclear safety and security and would decide to start construction of the plants only once national infrastructure and human resources had been adequately developed in accordance with Agency guidance and international experience.

88. In implementing its strategy for peaceful utilization of atomic energy, Vietnam attached great importance to cooperation with the Agency, its Member States and other international organizations in all areas related to nuclear energy. The Agency had provided valuable assistance to his country under its CPF for 2011–2015. During the 2012–2013 cycle, his country had implemented five Agency technical cooperation projects and had participated in 43 regional and interregional projects. As a result, it had been able to extend radiation applications, develop national nuclear power infrastructure, and strengthen the technical capacities of national nuclear regulatory bodies. It greatly appreciated the fact that the 2012 Scientific Forum was dedicated to the theme of food. The Agency's practical and efficient assistance through technical cooperation projects had contributed significantly to the development of Vietnam's agricultural sector.

89. His country continued to cooperate on a bilateral basis with the United States, Australia, Japan and the Republic of Korea on matters related to safety, security, safeguards and nuclear liability. It was also cooperating with the Russian Federation with a view to establishing a new centre for nuclear science and technology, with the Republic of Korea on the building of a cyclotron centre for nuclear medicine research, and with some other countries in connection with research into and application of nuclear techniques.

90. Vietnam had fulfilled its obligations and commitments to the Agency, including by providing the necessary resources for technical cooperation projects, paying its NPCs and Regular Budget

contribution, and contributing to the TCF. In collaboration with the Agency, it had successfully hosted several RCA workshops and training courses and had received trainees and fellows from developing countries.

91. Mr BIGOT (France) said that the Iranian nuclear programme continued to pose an unacceptable threat to the non-proliferation regime and to regional stability. The Director General's latest report showed that Iran was continually extending its activities in violation of its international obligations, in particular in the area of enrichment. The doubling of uranium enrichment capacity at the Fordow plant was a cause for serious concern. It was also regrettable that Iran had not responded to the Agency's requests concerning possible military dimensions to its nuclear programme, as it had been called upon to do in the resolutions adopted by the Board of Governors both in November 2011 and in the preceding week. The continuation of activities at Parchin which, as the Director General had stressed, significantly hampered the Agency's ability to conduct effective verification was unacceptable. France again called on Iran to behave responsibly and to give the Agency access to information, sites and persons to enable it to carry out its mission. His country was convinced that a negotiated solution was possible, but Iran must comply with its international obligations without delay.

92. The DPRK had conducted two nuclear tests, which had been condemned by the international community. In conducting a rocket launch on 13 April, it had again flagrantly violated its international obligations, in particular those arising from the United Nations Security Council resolutions calling on the DPRK to cease all nuclear programmes and missile-related activities in a complete, verifiable and irreversible manner. It was essential that the DPRK comply strictly with its obligations under the NPT and its safeguards agreement. It should permit the return of Agency inspectors without delay and give them access to all its nuclear facilities, halt all proliferation-related activities and put an end to its uranium enrichment activities.

93. The Agency's latest report on the Syrian Arab Republic, more than one year after the resolution adopted by the Board of Governors in June 2011, showed that no progress had been made on the issue, which was deeply regrettable. France urged Syria to comply with its obligations and cooperate with the Agency without delay in order to shed light on Syria's past and current nuclear activities.

94. His country supported activities aimed at strengthening the Agency's safeguards system, in particular those which furthered the development of safeguards application based on a State-level approach which, through the objective use of all available sources of safeguards information, would allow the best possible conclusions to be drawn for each State. The Agency's safeguards system also helped strengthen nuclear security in the world and protect against the threat of nuclear terrorism.

95. France called for a universalization of the safeguards system. To attain the objectives set in Article III.(1) of the NPT, the required verification standard was a comprehensive safeguards agreement plus an additional protocol. France called on all States that had not yet done so to bring those instruments into force as soon as possible.

96. France would continue to help strengthen Agency capacities by making available its competence and expertise, in particular within the framework of its national safeguards support programme which had now been in existence for 30 years.

97. The accident at the Fukushima Daiichi nuclear power plant was a major event in the history of the peaceful use of nuclear energy. In learning the lessons to be drawn from that accident, it was important to ensure that the highest safety requirements were applied at nuclear facilities, and to promote a true international safety culture at the decision-making and operational level.

98. France had subjected all its nuclear facilities to additional safety assessment which had been peer reviewed by WENRA and the European Nuclear Safety Regulators Group. The French Nuclear

Safety Authority had presented its initial conclusions on 3 January 2012. The safety level at all French nuclear facilities had been found to be satisfactory. However, their continued operation would require that their ability to withstand extreme situations be strengthened.

99. The adoption in 2011 of the IAEA Action Plan on Nuclear Safety had been an essential step towards the strengthening of nuclear safety worldwide. Each of the 12 areas identified for strengthening nuclear safety at international level had led to substantial action. France would be presenting a summary of actions taken at national level at the Ministerial Conference on Nuclear Safety to be held in the Fukushima Prefecture in December 2012. It called on all Member States to follow suit.

100. The Fukushima accident had dramatically demonstrated the need to enhance international cooperation on preparedness and response for a nuclear accident. Very early on, France had made concrete proposals for the establishment of an international emergency response mechanism and an international network of national and regional training centres for nuclear crisis management under Agency auspices. It had initiated promising cooperation with the United Kingdom in that regard.

101. With respect to international assistance, it was essential that Member States play their full part in strengthening international mechanisms, and his country called on all Member States to join the Response and Assistance Network.

102. Strengthening of the existing nuclear safety regime would mean promoting the highest levels of safety in nuclear facilities. Member States must also work together to strengthen and universalize existing legal instruments.

103. France had played an active part in the extraordinary meeting of Contracting Parties to the Convention on Nuclear Safety held two weeks previously which had drawn a number of technical conclusions that were essential for analysing feedback on the Fukushima accident.

104. His country also supported the development and generalized application of regular peer reviews in every country with a nuclear power programme, the results of which should be made public. For its part, France had already informed the Agency that it was ready to receive a second IRRS mission to review its regulatory framework for safety in 2014, and a follow-up mission in 2016. In addition, four new OSART missions had been requested between now and 2014, 23 having already been carried out.

105. He stressed the importance of universalization of a nuclear civil liability regime. In close cooperation with its partners, France continued to work towards the universalization of the principles laid down by the Vienna and Paris Conventions and the related Joint Protocol. It called on States that had not yet done so to accede to those instruments.

106. Promotion of nuclear security was essential to facilitate the development of nuclear energy while minimizing the risks of nuclear and radiological terrorism. In conformity with the commitment entered into at the Washington summit in April 2010, France had hosted an IPPAS mission in November 2011 which had assessed its national system for physical protection of nuclear facilities and implementation thereof at one of France's nuclear power plants. In 2013, together with the Agency, France would host the first international seminar on lessons learned from that type of mission.

107. His country intended to continue its financial and technical support for the Nuclear Security Plan 2010–2013, in particular with the aim of improving the safe and secure management of radioactive sources.

108. More than a year after the Fukushima accident, the medium-term global prospects for nuclear energy development worldwide had not been undermined. France's policy on the development of nuclear energy was clear: it was prepared to cooperate with all countries which scrupulously complied

with their non-proliferation commitments and pursued nuclear activities in good faith for peaceful purposes.

109. The issue of training and development of human resources in the nuclear field was of major importance. France had established the International Institute of Nuclear Energy which would be the sole point of entry for training requests from other countries.

110. France had always been convinced that peaceful applications of the atom had an important part to play in meeting essential human needs and attaining the Millennium Development Goals. It welcomed the Agency's role in that area. Through its activities in the field of nuclear science and applications and its technical cooperation programme, the Agency contributed actively to socio-economic development in the areas of agriculture, food, health and management of natural resources. France intended to continue its support for PACT.

111. As part of its responsible energy policy, France had opted for nuclear energy to generate electricity. Its 58 reactors in operation currently produced more than 75% of its electricity. The Flamanville EPR reactor, like the three other such reactors under construction at in the world, were expected to be the world's first third-generation reactors to begin operating. Thus, France had unique know-how in the design and operation of nuclear power plants, which helped it meet its objectives of reducing its carbon footprint and achieving energy independence and energy competitiveness.

112. France had mastered the entire nuclear fuel cycle and associated services, and its nuclear industry was supported by dynamic and innovative research aimed at finding long-term solutions for spent fuel and radioactive waste management.

113. His country was also working on the development of a prototype sodium-cooled fast reactor by 2020. In cooperation with the Agency, it would be hosting an international conference on fast reactors and their fuel cycles from 4 to 7 March 2013 in Paris.

114. With a view to facilitating sustainable development in the country, a national environmental conference, opened by the President of the Republic, had been held on 14 and 15 September to set governmental priorities which would allow the transition from fossil fuels to renewables together with nuclear energy.

115. In conclusion, he reaffirmed the importance France attached to the Agency's work and pledged his country's firm and determined support for it.

116. Mr PARVEZ (Pakistan) said that, since the Pakistan Atomic Energy Commission had been established over five decades previously, his country had been engaged in a wide-ranging programme to harness the applications of nuclear technology for the benefit of its people. In the health sector, nuclear energy was being used in the diagnosis and treatment of cancer. There were currently 18 nuclear medical centres in the country where patients received free or highly subsidized treatment. Efforts were being made to optimize use of the limited resources available in order to meet the challenge of striking a balance between providing the necessary care and keeping technology up to date. The Agency, which had provided his country with assistance in starting its nuclear medicine programme, continued to offer guidance when required, for instance in connection with the establishment of a PET sychrotron system at one centre. It had also recently initiated a technical cooperation project on an urgent basis when his country had faced a near epidemic of dengue fever. Two workshops had already been held under that programme and a third was already planned.

117. Food security was of critical importance to a country with such a large population. In addition, cotton and rice — two major crops — were a source of foreign exchange. Thus, as early as 1962, the Pakistan Atomic Energy Commission had introduced radiation applications in the agricultural sector and had promoted a shift from the conventional system of agriculture to a technology-led system in

order to sustain, enhance and protect crops. The four agricultural centres in the country remained engaged in a variety of R&D activities, and had contributed to the development of higher yield and better quality agricultural products. The Commission had recently initiated the use of radiation for food preservation under a public-private partnership programme.

118. R&D work in the physical sciences and engineering was being conducted at several institutions in the country. The Pakistan Institute of Nuclear Science and Technology had become a centre of excellence in isotope hydrology for water resources management, and its SSDL was a member of the IAEA/WHO SSDL network and meticulously followed the Agency's dose quality audit programme. The Institute also produced most of the radioisotopes required by the nuclear centres operated by the Commission and by medical centres in the private sector. Production of molybdenum-99 was sufficient for domestic needs and also offered potential for export.

119. For many years, a severe electrical power shortage had been hampering Pakistan's economic growth. The country's accessible conventional energy sources were very limited, and the Pakistan Atomic Energy Commission had an obligation to build nuclear power plants to alleviate the energy shortage. Three nuclear power plants were already on line, one of which had been commissioned in 1972. Noting the target set by the Government to install 8800 MW(e) of nuclear power by 2030, he said that two 340 MW(e) plants were under construction at Chashma with Chinese assistance and were expected to be commissioned by 2016.

120. All his country's nuclear power plants were under Agency safeguards. Pakistan was signatory to a number of international conventions and treaties pertaining to nuclear safety and security and was fully committed to participating in related Agency activities and programmes, including the Nuclear Security Plan and the IAEA Action Plan on Nuclear Safety. It was also contributing actively to Agency information resources such as the illicit trafficking database, INES, and the IRS. It was in the final stages of establishing a system to control the illegal movement and export of radioactive and nuclear material via the deployment of radiation portal monitors at points of entry and exit.

121. Pakistan had always attached great importance to ensuring that all its work in the nuclear power domain was conducted in secure institutional structures that were fully open to national and international scrutiny. An important step in that direction had been the establishment in 2001 of an independent regulatory and licensing body, the Pakistan Nuclear Regulatory Authority, with the infrastructure to carry out its oversight functions efficiently and thoroughly. At international level, transparency of Pakistan's nuclear power programme was ensured through the country's long-standing engagement in Agency forums and through WANO peer review missions. The Pakistan Atomic Energy Commission had also welcomed experts visiting under the aegis of the Agency in that connection.

122. Agency safety and security programmes and initiatives had been pivotal in strengthening national regulatory infrastructure. The regulatory authority had benefited from various technical cooperation projects, and was participating in two national technical cooperation projects and nine regional ones. It was also actively participating in the implementation of the IAEA Action Plan on Nuclear Safety.

123. As part of its national strategy, his country had taken significant measures to enhance further nuclear security at all levels: a national training academy was running multi-tier training modules, and a nuclear emergency management system was being established. The coordinated inter-agency effort was being managed by the nuclear and radiological emergency support centre and involved the expertise of the Pakistan Atomic Energy Commission, the nuclear regulatory authority, the national disaster management authority and other first responders.

124. Under a special programme, the Agency was assisting the Pakistan Nuclear Regulatory Authority with strengthening the nuclear security regime through capacity building and the establishment of a nuclear security training centre and advanced physical protection laboratories. It was also assisting Pakistan with upgrading the security of hospitals and nuclear medicine centres. The regulatory authority continued to seek further assistance in the area of training in order to improve regulatory effectiveness.

125. A comprehensive set of safety retrofits to be carried out at installations had been identified and prioritized as part of Pakistan's Fukushima response action plan and they were at various stages of implementation. Their completion would provide more lines of defence against extreme events than originally foreseen in the design and should help to improve emergency preparedness infrastructure. The national regulator was fully involved in that work in an oversight capacity. Information about the status of ongoing safety enhancement work had been shared with all participants at the recent second extraordinary meeting of the Contracting Parties to the Convention on Nuclear Safety.

126. His country appreciated the cooperation and technical support provided by the Agency in connection with the safe design and operation of nuclear power plants and applications of radiation and radioisotopes. It looked forward to strengthening that relationship further and, under the aegis of the Agency, would be willing to support developing Member States that required assistance with the peaceful applications of nuclear technology.

127. The restrictive and discriminatory export policy that was being applied by some countries even to safety-related equipment was disappointing and was not conducive to the global enhancement of safety standards. Although such inequitable and unjustified restrictions and embargoes had hampered the growth of Pakistan's much needed energy programme, they had also instilled a 'can do' spirit and had promoted the capability to develop indigenous solutions to problems. In its pursuit of self-reliance, Pakistan had set up a number of design and engineering facilities. However, it trusted that vendor countries would recognize that the current policy of restricting Pakistan's access to nuclear power technology on an entirely discriminatory basis was not only unjust, but counterproductive and against the spirit of cooperation and openness that was a hallmark of the global nuclear power enterprise. His country looked forward to the beginning of a new mutually beneficial era of non-discrimination, equity and openness in the nuclear power domain. Greater international cooperation and assistance were essential for promoting nuclear science and technology and nuclear safety and security, in particular information sharing and access to tools, expertise and equipment.

128. The success that Pakistan had achieved in its programmes was due largely to the commitment and hard work of the staff of the Pakistan Atomic Energy Commission, who had been trained in a number of educational institutions within the country. The doors of those institutions would also remain open to eligible candidates from foreign countries, since a well regulated international exchange of personnel and technology at all levels was invaluable, not only for raising technical standards but also for fostering goodwill and mutual confidence among nations.

129. Mr CAMERON (Argentina) said that, since the relaunch of its National Nuclear Plan in 2006, Argentina had made sustained efforts to strengthen policies on the peaceful use of nuclear energy. As part of designing and implementing a diversified energy policy, Argentina had confirmed its decision to maintain an adequate proportion of nuclear energy in its energy mix, alongside traditional sources and the gradual incorporation of renewables. Given the country's economic growth, sustained efforts were needed in that area and Argentina had been investing human, technological, scientific and financial resources in that sector for over sixty consecutive years.

130. Construction of Argentina's third nuclear power plant, Atucha II, was nearing completion and, once the last details regarding commissioning were dealt with, the plant would be connected to the

grid. In late 2011, the turbine and the cooling water intake of the new plant had been commissioned. Great progress had been made, the firm ENSI having honoured its contract for the supply of 600 tonnes of heavy water. That exercise had also facilitated expansion of heavy water production to meet additional demands in Argentina and beyond.

131. The development and installation of small and medium-sized nuclear power plants was increasingly attractive for both existing and emerging nuclear power users. That type of reactor could help address problems of geographic isolation and, at the same time, offer more accessible and less expensive options for generating nuclear power than traditional nuclear power plants.

132. Argentina had given new impetus to the CAREM reactor project, which would be the first nuclear power plant to be fully designed in Argentina. Progress was being made with regard to construction, infrastructure-related activities at the Atucha site had been completed, and engineering work on the CAREM 25 prototype was ongoing. The process of obtaining authorization from the Argentine Nuclear Regulatory Authority for use of the site and construction was nearing completion, and work on the awarding of contracts for the construction and installation of the pressure vessel, detailed engineering of process systems outside the containment, construction of the steam generators and the first reactor core was in progress. Preliminary site studies had been commissioned for the future installation of a 150 MW commercial module in the Formosa province in northern Argentina, thus bringing the benefits of nuclear energy applications to different parts of the country.

133. Eight contracts had been concluded in connection with the extension of the operating lifetime of Argentina's second nuclear power plant, Embalse. Plans included an increase in capacity and the reactor would go offline once the work at Atucha II had been completed. The most ambitious ongoing projects were technological advances aimed at domestic manufacture of pressure tubes and other main components, to replace those currently installed in the core. Those structural components would be replaced with parts produced in Argentina which should meet international quality standards.

134. In relation to uranium exploration, prospecting and production, the Government continued to promote mining activities, as reflected in an almost 300% increase in exploration sites, in nine provinces, since the National Nuclear Plan had been relaunched in 2006. The objective was to ensure adequate uranium supply for existing and future Argentine nuclear power plants, and to enhance knowledge about the country's uranium potential. Furthermore, the World Bank had provided a loan of $30 million for remediation work in the Mendoza province and technical assistance with the engineering design for uranium mining sites.

135. Argentina had always attached the utmost importance to developing the necessary knowledge and technology to ensure energy autonomy based on mastery of the fuel cycle. Uranium enrichment-related activities at the Pilcaniyeu Technological Complex, employing the gaseous diffusion method, were being maintained, and studies were also ongoing on centrifuge and laser technologies.

136. Public health remained a key area of application of nuclear technology. The Argentine Government had maintained a strong momentum in improving living conditions. It had provided increasing support for the establishment of new nuclear medicine centres, equipping them with highly complex technology, promoting research in that field, and training highly qualified staff at national and regional level.

137. In 2012, the Nuclear Medicine School Foundation had been provided with a new $1.5 million state-of-the-art PET-CT unit. The Clinical Hospital in Buenos Aires been equipped with a SPECT-CT unit and a similar machine was expected to be installed soon at the Roffo Institute, also located in Buenos Aires. Both institutions were public hospitals open to all citizens.

138. Argentina was producing sufficient quantities of molybdenum-99 and fission-produced iodine-131 to meet domestic demand. Approximately 50% of national production was exported to other Latin American countries. Currently more than 2 million patients in over 300 hospitals and nuclear medicine centres in Argentina were being treated with radioisotopes produced by the National Atomic Energy Commission. Argentina had been the first country in the world to produce fission-produced molybdenum-99 using LEU, thus contributing to nuclear non-proliferation and promoting international cooperation in that field. It was exporting those technologies to various countries. The fission-produced molybdenum-99 production plant Argentina had exported to Egypt was scheduled to start operation in October 2012.

139. In 2011 the first international standard on food irradiation, ISO 14470, had been brought into force, based on a 2004 Argentine standard.

140. Argentina had vast experience in the construction of nuclear reactors for research and radioisotope production. Following the relaunch of the National Nuclear Plan, in 2009 work had begun on a project for the design, construction, commissioning and operation of a new Argentine multi-purpose nuclear reactor, the RA-10. The project was being developed with a strong emphasis on regional integration, as a tool for developing Argentine technology, with the capacity to supply around 30% of the world radioisotope market, opening up new opportunities for cooperation in nuclear science and technology. Its main function would be radioisotope production, although it would also offer the opportunity for new science and technology applications, in particular for training of professionals from other countries in the region.

141. His country believed that any nuclear programme should be implemented at national level with strong State support to guarantee sustainability. That very day, the National Atomic Energy Commission had signed practical arrangements with the Agency for the development of the regional network for training in nuclear energy and technology. That was proof of Argentina's interest in working with the Agency on strengthening education and capacity building in nuclear science and technology, in particular in Latin America and the Caribbean. Furthermore, the Balseiro Institute had been designated a collaborating centre by the Agency, putting Argentina into an optimal position for sharing experience through the various activities it had been developing to date.

142. At its three educational institutes, Argentina had built up over half a century of experience in nuclear education and training. It had received more than 200 professionals and technicians from 20 countries, both within and outside the region, who had attended courses, including highly specialized postgraduate courses, inter alia in the fields of physics, nuclear medicine, medical physics, radiochemistry, nuclear reactors, radioisotope production and nuclear energy applications.

143. Argentina continued to be a reliable, stable supplier to the global market, complying strictly with international non-proliferation standards. The recent replacement of the instrumentation and control systems at the Tajoura reactor in Libya carried out by the Argentine firm INVAP, along with other ongoing projects, were strong evidence of his country's ability to offer solutions to countries interested in nuclear technology.

144. His country's commitment to meeting the highest nuclear safety standards continued to be a pillar of its nuclear policy. Its independent Nuclear Regulatory Authority was legally required to ensure that, in the country's nuclear activities, due account was taken of radiation protection and nuclear safety and security, monitoring of the peaceful use of nuclear material and compliance with non-proliferation commitments. The country continued to work on the control of such processes as licensing of Atucha-II, construction of the prototype CAREM reactor, and extension of the operating life of the Embalse nuclear power plant.

145. Challenges also came from outside, occasionally owing to situations absolutely beyond Argentina's control. In the field of nuclear safety, the year had been marked by the process triggered by the Fukushima accident. Argentina had participated and would continue to participate in all international efforts responding to the disaster. It attached special importance to the work under the IAEA Action Plan on Nuclear Safety adopted a year ago. In implementing that plan, the Secretariat should strive to maintain the balance struck in the plan between the differing views of Member States. His country trusted that the Secretariat would continue to make efficient use of the resources earmarked for implementation of the plan.

146. The recent report of the independent investigation commission on the Fukushima accident was an invaluable contribution to gaining an understanding of what had occurred and his Government appreciated the frank and comprehensive information it contained. The international community could derive from it the necessary food for thought to determine whether the fault lay with the international instruments and the Agency's recommendations on nuclear safety, or with the way they were being implemented.

147. He reiterated his country's position that the Agency's activities and recommendations in the areas of nuclear safety and security should be fully integrated as quickly as possible. Argentina thus welcomed the setting up of the Nuclear Security Guidance Committee and hoped that it would allow the Member States to participate fully in the drafting of recommendations on nuclear security, thus contributing to synergy and integration of both areas.

148. He congratulated the Ibero-American Forum of Radiological and Nuclear Regulatory Agencies, whose membership comprised Argentina, Brazil, Chile, Cuba, Mexico, Peru, Spain and Uruguay, on its 15th anniversary. The Forum's aim was to maintain high levels of nuclear and radiation safety and security in its member countries and throughout the Ibero-American region. He highlighted its contribution to human and environmental health and safety, to patient protection through its work on the safety of radiotherapy facilities and recommendations on radiation protection in medical exposure, and to nuclear safety through its contributions and findings in the field of extension of the operating life and analysis of the resilience of nuclear power plants in the Ibero-American region. The scientific work carried out by the Forum in the latter area, through reviews conducted with full transparency in conjunction with member countries, had yielded the conclusion that the facilities fell within acceptable safety margins with respect to the extreme events considered.

149. Argentina hoped that cooperation with the Agency would help to disseminate the Forum's contributions to other regions of the world.

150. One clear trend in recent years had been the growing importance attached to nuclear security. Argentina was party to all the relevant international instruments, including the CPPNM and the amendment to that Convention approved in 2005. It would be hosting a regional workshop in Buenos Aires in support of the Agency's activities to foster exchange of information in order to promote adoption of the amendment to the CPPNM.

151. The summits held in Washington in 2010 and Seoul in 2012 had demonstrated that security of nuclear material needed improving in the face of the growing threat posed by terrorism and the emergence of non-State groups that were trying to obtain nuclear material and thus threatened international peace and security. Priority should be given to protecting existing nuclear arsenals. Argentina had followed the efforts of the international community and was committed to offering practical support at regional level by passing on its experience and knowledge.

152. While security of nuclear material was primarily the responsibility of States, in international efforts to boost worldwide cooperation in that area the Agency had a central role. His country

therefore welcomed the Agency's announcement that it would be holding a high-level international conference on nuclear security in Vienna in July 2013.

153. International safeguards were another pillar of the Agency's work and there too it had faced significant challenges in recent years. His country remained convinced that safeguards should be implemented in a spirit of cooperation and dialogue between the Agency and its Member States, guided by the principles of quality, technical excellence and objectivity, each country complying strictly with the obligations it had assumed. It was vital that the Secretariat continue providing Member States with the most comprehensive information possible on developments in that field, in particular on the apparent change in approach to safeguards implementation and evaluation in recent years. In that connection, Argentina hoped for a wide-ranging and transparent discussion of the State-level safeguards concept to which the Secretariat had repeatedly referred.

154. Mr HEYDAROV (Azerbaijan) said that, through its cooperation with the Agency and the international community, his country was taking the necessary steps to ensure that nuclear energy was used for exclusively peaceful purposes, to prevent illicit trafficking in nuclear and radioactive material and to combat nuclear terrorism. As a logical continuation of its efforts in the latter area, it had recently joined the Global Initiative to Combat Nuclear Terrorism, demonstrating to the international community its position on that issue.

155. Azerbaijan greatly valued the Secretariat's efforts to implement the technical cooperation strategy and ensure that the technical cooperation programme reflected national priorities. For the 2014–2015 cycle, his country had formulated projects relating to strengthening of regulatory infrastructure, emergency preparedness, nuclear medicine, radiation metrology, strengthening of customs control of nuclear and radioactive material at borders, and radiation safety of imported consumer goods. Projects had been proposed for the establishment of a notification and response system for nuclear and radiological emergencies, the introduction of stereotactic radiotherapy in oncology, the establishment of spectrometry and radiochemistry laboratories at the metrology centre and the establishment of a system of radiological monitoring at customs control points.

156. The State Agency for the Regulation of Nuclear and Radiation Activities under the Ministry of Emergency Situations was continuing its work to improve national legislative instruments in order to ensure full compliance with international standards and other relevant requirements for nuclear and radiation safety.

157. To improve preparedness for radiological emergencies, the first technical cooperation project between the State Agency for the Regulation of Nuclear and Radiation Activities and the Agency — on support for the preparation of the national radiological emergency plan — had been launched at the beginning of the year. The aim of the project was to develop a plan which clearly identified the role and obligations of all State bodies and organizations involved at all stages in preparation for and response to radiological emergencies in Azerbaijan.

158. Regional Agency technical cooperation projects played an important role in the development of normative and legal infrastructure in the field of nuclear and radiation safety, and in training of staff. His country was taking part in 27 regional projects addressing important staff training issues. Over the preceding year, 13 specialists from the State Agency for the Regulation of Nuclear and Radiation Activities had attended training courses, seminars and conferences on various aspects of regulation.

159. Azerbaijan attached particular importance to projects on environmental remediation. As part of the national programme to improve the ecological situation in the country, and in line with its CPF, a project was being implemented on rehabilitation of contaminated land in the Absheron Peninsula. Through the Agency's technical cooperation programme, international experts were providing assistance with the evaluation of the results of the studies conducted, formulation of recommendations

on technology for clean-up operations, transport and storage of waste, development of criteria for clean-up operations, and development of guidelines for ensuring radiation safety during the remediation process. Azerbaijan welcomed the Agency's positive reaction to its request to include those activities in the 2012–2013 technical cooperation programme.

160. Rehabilitation of the sites of former iodine plants was the first step towards improving the environment in land contaminated with natural radionuclides as a result of oil and gas extraction. A map of background radiation, including all areas with anomalous radiation levels, was needed for the planning and successful continuation of such work. Azerbaijan therefore requested the Agency to include an additional project on mapping of background radiation in the country in the list of national projects for the 2014–2015 technical cooperation cycle.

161. His country was working in close cooperation with the Agency to improve radioactive waste management, which was an important element in efforts to ensure radiation safety of the population and the environment. A technical cooperation project had been planned for 2012–2013 on the creation of technology for managing spent radiation sources, the aim of which was to put in place technological infrastructure at the national radioactive waste management enterprise 'Izotop', train specialists, and develop guidance documents and instructions on long-term storage and physical protection of radiation sources and on radiation safety.

162. One of the highest-priority areas for application of nuclear technologies in Azerbaijan was health. Projects to improve and develop cancer diagnosis and treatment had always been an important part of Azerbaijan's cooperation with the Agency. In the current technical cooperation cycle, a project was being implemented jointly by the Agency and the National Cancer Centre on the introduction of PET-CT in clinical practice and of a cyclotron.

163. The technical cooperation project on establishing an SSDL at the national metrology centre in Azerbaijan would facilitate checking of dosimetric and radiometric equipment in the country. A gamma dosimetry facility with a caesium source and reference measuring devices had been purchased and supplied by the Agency. Construction of the bunker for the laboratory was almost complete and work was progressing on the gamma dosimetry chamber. Equipment for X-ray dosimetry was expected to be supplied by the end of the year. Laboratory specialists had taken courses to improve their qualifications in the area of radiation metrology and dosimetry.

164. Work was continuing on the establishment of a gamma irradiation complex for radiation processing of materials and foodstuffs, and a tripartite contract had been signed with the Agency for the supply of an industrial gamma irradiation facility. The bunker, laboratory building and other elements of the infrastructure of the complex had been designed. During the year, the Institute of Radiation Problems of the Azerbaijan National Academy of Sciences had embarked on a technical cooperation project with the Agency to establish the dosimetry and microbiology laboratory that would be part of the radiation processing complex.

165. His Government greatly appreciated the assistance it had received under the technical cooperation programme and was committed to meeting its financial, technical and institutional commitments to the Agency.

166. Natural and man-made disasters had caused transboundary nuclear and radiation accidents and could do so again. The provision of accurate and timely information was important in that context, and his country had thus made moves with a view to making use of the services of the Agency's Incident and Emergency Centre. It welcomed the Agency's positive response to its proposal.

167. Mr YAMANI (Saudi Arabia) said that the diverse peaceful applications of nuclear energy were of great benefit to society and contributed to economic development. The Agency's Member States

had assembled at the General Conference to find ways of promoting such applications, while at the same time developing and implementing effective safety measures, making a commitment to transparency, applying Agency safeguards to all nuclear facilities and material, opposing all attempts to circumvent international treaties in order to manufacture nuclear weapons, and taking vigorous action against such breaches.

168. Saudi Arabia had taken significant steps to meet the goals of its national nuclear energy programme in accordance with the agreed schedule, in particular through the establishment of infrastructure, development of human resources and the requisite legal and economic framework, and the creation of new institutions, focusing on transparency and regional and international cooperation, and taking into account sustainability requirements by developing basic technological R&D capacities. He was pleased to announce that Saudi Arabia had completed its list of possible sites for the construction of nuclear power plants, drawing on the findings of a geographical and geological study.

169. As the King Abdullah City for Atomic and Renewable Energy was committed to applying the highest international standards in developing the infrastructure for the nuclear energy programme, it had undertaken a self-assessment study, using for comparison the standards applied by the Agency. The study had shed light on the country's capacity to produce nuclear energy by highlighting positive aspects and shortcomings in the existing infrastructure. A study of the recommendations of the nuclear regulatory and monitoring authority had also been completed. It would be followed by detailed studies aimed at bolstering the authority's work via human resources, material facilities, the establishment of an independent legal mandate and the introduction of operating mechanisms.

170. A preliminary study aimed at developing the capacity of the national industrial sector had also been completed with a view to enabling it to manufacture a large proportion of the components required for nuclear power plants and infrastructure.

171. Work had also been completed on a practical overview of the programme for training human resources in nuclear technology either locally or through international cooperation programmes that enabled local staff to complete top-level training courses within the shortest possible period of time. In addition, a preliminary study of the establishment of a national nuclear research centre with a nuclear research reactor had been completed.

172. As Saudi Arabia attached great importance to communication with the general public and national partners, it had organized numerous workshops and seminars that had played a major role in design of the strategy for the national nuclear energy programme.

173. Although the IAEA Action Plan on Nuclear Safety adopted in September 2011 had fallen short of the aspirations of many Member States, his country supported the Agency's efforts in that regard and trusted that they would be further strengthened in the future. It looked forward to the convening of the Ministerial Conference on Nuclear Safety in Fukushima, Japan, to draw conclusions from the lessons learned. While his country agreed that the responsibility for safety lay with individual States, it supported endeavours to promote a global safety culture and an effective and sustainable regulatory system, to adopt binding legal instruments and guidelines for the safe use of nuclear energy, ionizing radiation and radioactive material, and to promote international cooperation and sharing of experience in that regard.

174. Saudi Arabia had paid its contribution to the 2012 Regular Budget in full as well as its share of the TCF, notwithstanding its well known position regarding the manner in which the TCF was financed.

175. His country was following the steps that were being taken by the Agency to establish an LEU bank and continued to believe that an in-depth study of the matter should be undertaken by all

Member States of the Agency in order to reach a consensus on how to deal with the technical, legal, economic and political aspects of that project. Under no circumstances should restrictions be imposed on countries' right to develop all aspects of nuclear science and technology for peaceful purposes, especially the right to develop national nuclear fuel cycle capacities. A working group open to all Member States would be the best forum for discussions concerning the issue of an assurance of fuel supply.

176. Turning to safeguards and verification, he said that the Agency was the sole international entity mandated to oversee States' compliance with their safeguards obligations and verify non-proliferation of all aspects of the nuclear fuel cycle. His country supported the Agency's efforts to strengthen and improve the safeguards regime in order to guarantee the peaceful nature of nuclear activities in the States concerned.

177. Saudi Arabia subscribed to the principles of nuclear disarmament. The NPT was still the sole international instrument that legally bound all States to eliminate nuclear weapons and take measures to prevent their proliferation. It was therefore vital to ensure that all State parties complied strictly with their obligations under that Treaty. He stressed the importance of serious and ongoing action to achieve universality of the NPT in order to strengthen international security and stability, especially in the Middle East region. His country counted on the Agency's effective involvement in the preparations for the 2012 conference on the establishment of a zone free of nuclear weapons and other weapons of mass destruction in the Middle East.

The meeting rose at 6.05 p.m.