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Abbreviations used in this record:

AAEA	Arab Atomic Energy Agency
AFRA	African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology
AP	additional protocol
ARCAL	Co-operation Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean
ARTEMIS	Advanced Research and Technology for Embedded Intelligence and Systems
ASEAN	Association of Southeast Asian Nations
ASEANTOM	ASEAN Network of Nuclear Regulatory Bodies on Atomic Energy
ASSET	Analysis of Safety Significant Events Team
CBRN	chemical, biological, radiological and nuclear
CELAC	Community of Latin American and Caribbean States
CNS	Convention on Nuclear Safety
COG	CANDU Owners Group
CPF	Country Programme Framework
CPPNM	Convention on the Physical Protection of Nuclear Material
CRP	coordinated research project
CSA	comprehensive safeguards agreement
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CTBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
DPRK	Democratic People's Republic of Korea
E3/EU+3	France, Germany, the United Kingdom and the European Union plus China, the Russian Federation and the United States of America
ECAS	Enhancing Capabilities of the Safeguards Analytical Services

Abbreviations used in this record (continued):

EPREV	Emergency Preparedness Review
EU	European Union
Euratom	European Atomic Energy Community
FAO	Food and Agriculture Organization of the United Nations
GCNEP	Global Centre for Nuclear Energy Partnership
HEU	high enriched uranium
ICSANT	International Convention for the Suppression of Acts of Nuclear Terrorism
imPACT	integrated missions of PACT
INIR	Integrated Nuclear Infrastructure Review
INPRO	International Project on Innovative Nuclear Reactors and Fuel Cycles
INSC	International Nuclear Societies Council
INSSP	Integrated Nuclear Security Support Plan
IRRS	Integrated Regulatory Review Service
ITER	International Thermonuclear Experimental Reactor
JCPOA	Joint Comprehensive Plan of Action
JET	Joint European Torus
Joint Convention	Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
KANUPP	Karachi nuclear power plant
KNPP	Kudankulam Nuclear Power Plant
LEU	low enriched uranium
LWR	light-water reactor
MACE	Major Atmospheric Cherenkov Experiment
MCi	Mega Curies
MDGs	Millennium Development Goals
MOU	Memorandum of Understanding
NDT	non-destructive testing

Abbreviations used in this record (continued):

NPP	nuclear power plant
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSF	Nuclear Security Fund
NSG	Nuclear Suppliers Group
OIOS	Office of Internal Oversight Services
OSART	Operational Safety Review Team
P5+1	the five permanent members of the United Nations Security Council plus Germany
PACT	Programme of Action for Cancer Therapy
PET-CT	Positron emission tomography-computed tomography
PFBR	Prototype Fast Breeder Reactor
PHWR	pressurized heavy water reactor
PWR	pressurized water reactor
R&D	research and development
RCA	Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (for Asia and the Pacific)
ReNuAL	Renovation of the Nuclear Applications Laboratories
S&T	science and technology
SDGs	Sustainable Development Goals
SLC	State-level concept
TC	technical cooperation
TCF	Technical Cooperation Fund
TCP	Technical Cooperation Fund
UNSC	United Nations Security Council
WANO	World Association of Nuclear Operators
WMDs	weapons of mass destruction

7. General debate and Annual Report for 2014 (continued) (GC(59)/7 and Additional Information)

1. Mr BENHOCINE (Algeria), stressing that Algeria had opted strategically and irreversibly to use the atom for the peaceful pursuit of socioeconomic development, said that it attached the utmost importance to the TC programme, which was crucial to building nuclear-related capacities consistent with its CPF for 2012–2017. The 2014–2015 TC programme, covering human health, agriculture, food, water, nuclear power and nuclear technology, had been drawn up in concert with the substantive national sectors and had reflected its CPF priorities.

2. He highlighted the success of the second phase of the impACT mission, noting that its findings and recommendations would be crucial to the implementation of its national anti-cancer plan. He lauded the Secretariat's project implementation efforts, which had led to an attainment rate of 81.5% in 2014.

3. Algeria had accepted the fifth extension of AFRA, under which regional cooperation had been strengthened considerably, and hoped that the Agency's technical support for Africa would increase under the Regional Strategic Cooperative Framework (2014–2018), which gave pride of place to human resource development and strategic partnerships.

4. Convinced that human resource development was key to nuclear S&T promotion, Algeria had sought and won IAEA recognition of several national institutions as designated national centres and would accordingly make its experts and infrastructure available for capacity building in Africa.

5. He welcomed the theme of the Scientific Forum, which covered a major area of nuclear applications, and highlighted the substantial contribution of radiation technology to industrial development.

6. He stressed that the inalienable right of NPT States Parties to use nuclear energy peacefully under Article IV of the NPT and Article II of the Statute must neither be eroded nor restricted by action taken to enhance international nuclear safety and security and raise the efficiency and effectiveness of the safeguards system.

7. Algeria welcomed the Agency's sustained efforts to promote safety culture and nuclear security and to provide technical assistance to developing countries in building skills and infrastructure for the physical protection of nuclear installations.

8. Algeria considered that the Fukushima Daiichi accident report contributed substantially to efforts to boost nuclear safety worldwide, maximize the lessons learnt from the disaster and prevent future accidents. It had striven to implement safety standards rigorously at Nur and Es-Salam research reactors in accordance with the criteria set in the Agency's benchmark documents and requirements.

9. Heartened by the progress achieved in implementing the Nuclear Security Plan 2014–2017, Algeria considered that the 2016 ministerial conference on nuclear security could further strengthen the Agency's contribution to multilateral efforts to boost nuclear security. Algeria had acceded to all international nuclear security instruments, including the amendment to the CPPNM and ICSANT; it had strengthened its national regulations and had taken action to establish an INSSP with the Agency's support.

10. Noting the progress achieved in raising the efficiency and effectiveness of the safeguards system, Algeria urged the Agency to abide strictly by the Statute in endeavours to that end. It had been gratified by the Secretariat's explanations on the State-level concept, but warned that, in law, Member States must be held accountable only for agreements effectively concluded with the Agency and implemented in concert and in cooperation with States. It had noted the Secretariat's assurances that SLC implementation did not entail any additional right or duty on States or on the Agency or any change to the interpretation of existing rights and duties under safeguards agreements. Algeria commended the relations of trust and cooperation with the Agency which had prevailed in the implementation of its CSA.

11. Algeria, which had always striven to resolve all international peace and security issues through dialogue and diplomacy, considered that the historic agreement concluded by the P5+1 and Iran on 14 July 2015 had raised new prospects for stability and development in the Middle East. Algeria hoped that the road map concluded between Iran and the Agency would by year end lead to the conclusion that Iran's nuclear programme was exclusively peaceful in nature; the matter would thus be closed.

12. Noting that, despite the developments on the Iranian nuclear issue, Israel had continued to decline to accede to the NPT and place its nuclear installations under Agency safeguards, in defiance of the international community, Algeria voiced serious concern at the status quo, for it ran counter to international disarmament and non-proliferation commitments and exacerbated the regional security imbalance because Israel was the only non-NPT State Party in the region.

13. Algeria deplored the failure of the ninth NPT Review Conference to agree on the road map for the establishment of a Middle East zone free of nuclear weapons and all WMDs and remained convinced that accession to the NPT by all States in the region and placement of all installations under Agency safeguards were indispensable preconditions for the restoration of trust and the establishment of such a zone, inclusive of all parties concerned, pursuant to the 1995 resolution.

14. Ms RASOAZANANERA (Madagascar) said that, despite the socioeconomic crisis, political stabilization continued apace in Madagascar. The situation was more conducive to investments and various types of cooperation, and economic recovery for national growth and development had definitely begun.

15. The Agency's technical cooperation with Madagascar had increased under the CPF signed in 2014 and had covered practically all areas of socioeconomic development such as health, agriculture, environmental protection, water resource development, energy planning, mines and radiological protection.

16. Owing to the Agency's assistance, the nuclear medicine department had become operational at the public hospital in the capital, the gamma camera was again in service, the hot laboratory was being installed, the specialized team of doctors had grown in number and the complement of specialized doctors had increased. A large-scale audit of cancer facilities had been conducted during an imPACT mission in August 2015, and apposite recommendations had been submitted to the Government. Furthermore, Agency-provided experts had contributed to the design of the bunker housing two linear accelerators in the radiotherapy department.

17. The Agency had assisted Madagascar in building national expert capacity to monitor and track industrial pollution and water resource mining, by procuring hardware for ion chromatography, stable isotope detection, tritium water dating and, in the near future, heavy and toxic metal X-ray fluorescence. Several national experts had been trained, thus enabling the National Environment Office, for example, to dispatch a team of national experts to assess groundwater pollution and vulnerability to industrial pollution from an international mining company's processing factory. New

Striga-resistant mutant rice and maize varieties had been developed, while organic and nitrogen fertilisers had been optimized by using isotopic techniques. Field trials had been conclusive.

18. Madagascar had participated in Agency-led action to combat international nuclear terrorism. It was a long-standing NPT signatory and its specialists monitored constantly the physical protection of ionising radiation sources and the accountancy of radioactive material. Ratification by Madagascar of five international nuclear security conventions, including the amendment to the CPPNM, had begun and would be completed when the relevant bills had been passed by Parliament.

19. She undertook to raise researchers' awareness so that they would participate in and contribute to the Agency's research programme on the peaceful applications of isotopic techniques more actively.

20. Madagascar was an active and founding Member of AFRA, through which nuclear techniques had been rolled out to various sectors and had been crucial to the country's socioeconomic development.

21. Madagascar ascribed the utmost importance to human resource development and to the preservation of nuclear knowledge, given the need to retain and transmit expert knowledge on the peaceful applications of nuclear energy. It would participate in the AFRA Network for Education in Science and Technology and would thus contribute to the inventory of nuclear expertise and knowledge available to Madagascar and future networking in Africa.

22. Madagascar had officially approved the extension of AFRA for 2015–2020, thus signalling its desire to sustain AFRA as a highly effective framework for regional technical cooperation on nuclear development, research and training.

23. Madagascar had chaired the AFRA Partnership Building and Resource Mobilization Committee, which had ensured effective and efficient ownership of the regional cooperation programme on peaceful applications of nuclear energy and had strengthened AFRA's programme contributions to Member States' socioeconomic development. Donor States and development partners had been invited to contribute to the AFRA Fund, into which all potential AFRA partners might pay in contributions to support AFRA programme implementation.

24. Mr BEQAJ (Albania) commended the progress achieved by the Agency in all fields of its mandatory activities and endorsed the IAEA Annual Report for 2014.

25. He had been heartened that nuclear S&T had been acknowledged, at the Agency's behest, among the SDGs inasmuch as 13 of the 17 SDGs had a direct bearing on nuclear technologies.

26. Albania considered that TCP alignment with States' national development goals had resulted in greater emphasis on priority areas and had maximized project impact. Albania had achieved the exceptional rate of attainment of around 95%, as at September 2015, in implementing its national TC programme. Technical assistance had been consistent with national development priorities, and support had been received in the major thematic areas of human health, the environment and agriculture.

27. Combating cancer ranked high on the agenda of the Government of Albania. The Agency had, under PACT, supported Albania's cancer control programme, into which radiation medicine had been integrated, thus expanding and improving Albania's cancer control capacity. Related activities and investments had focused on prevention, surveillance, early detection, diagnosis, treatment and palliative care in the public health system.

28. Albania wished to remain a PACT model demonstration site for a few more years, as it was fully committed to boosting cancer control activities in the country and was ready to share the experience thus gained with other Member States. The quality and safety of its diagnostic and therapeutic cancer services had improved significantly. The radiotherapy and nuclear medicine services of the Mother Teresa University Hospital Centre in Tirana, developed in close cooperation with the Agency, were fully operational. The hospital's radiation protection infrastructure met the Agency's safety standards. Albania was proud that one of its national TC projects had been selected as a TC success story entitled *Stronger together: The IAEA and UN partners work with Albania to fight cancer*.

29. Attention had shifted to comprehensive and sustainable cancer control, with emphasis on children and women, the expansion of nuclear-medicine education and patient care, and the strengthening of radiotherapy services following the installation of a new electron beam accelerator. Albania would highly appreciate the Agency's assistance in introducing and consolidating linear accelerator technology in oncology.

30. Commending the implementation of the IAEA's Action Plan on Nuclear Safety, Albania agreed that there must be no complacency about safety and would cooperate closely with the Agency to that end and to honour its convention obligations.

31. Committed to stronger international cooperation on nuclear security, Albania had already begun to implement the INSSP. Standard operating procedures had been drawn up for the customs service and a regulatory framework, consistent with international standards, was in place.

32. Albania commended the Agency's continuous support for its endeavours to strengthen its national nuclear security regime and improve its radioactive monitoring capacities.

33. Albania congratulated the Agency on its crucial contribution to international peace and security through its credible verification activities and fully supported the Agency's action to strengthen its ability to verify non-diversion of declared nuclear material and activities and to conclude that there were no undeclared nuclear material and activities in Member States. It was of the essence to maintain and strengthen the effectiveness of the safeguards system.

34. Albania echoed the Director General's call for all Member States to conclude a CSA and an AP. It was heartened by the growing number of APs in force and hoped that the AP would become universal at an early date.

35. Albania joined all Member States in calling on the DPRK and Syria to cooperate fully and promptly with the Agency in order to resolve all outstanding issues.

36. The Albanian Government had welcomed the historic agreement between Iran and E3/EU+3 and the related JCPOA, which had shown that the international community was committed to resolving disagreements by peaceful and diplomatic means in furtherance of peace and security. Albania urged Iran to take all necessary steps to address the international community's concerns about its nuclear programme on time and in full.

37. The road map signed by the IAEA Director General and Vice President of Iran was a very important step towards clarifying outstanding issues relating to possible military dimensions of Iran's nuclear programme. Albania looked forward to the Director General's report on 15 December 2015 and was confident in the Agency's ability to accomplish those weighty tasks.

38. Albania hoped that the international conference on the establishment of a Middle East zone free of nuclear weapon would be convened in due course, for it would be a major positive step towards the achievement of global nuclear disarmament.

39. Mr OSAISAI (Nigeria) commended the priority given by the Director General to enhancing access to safe and secure nuclear energy and to supporting newcomer countries' efforts to deploy nuclear power to meet their ever increasing energy requirements. He stressed the need to enhance cooperation on global nuclear security and to strengthen the global nuclear material protection and safeguarding architecture.

40. Nigeria had acceded to the 2005 amendment to the CPPNM and called on States whose ratification would facilitate its entry into force to act expeditiously to that end. It had validated and finalized regulations in order to fulfil the aims and purposes of the amended CPPNM and appealed to all Member States to collaborate constructively to detect and prevent the wrongful use of nuclear materials by non-State actors.

41. Nigeria had taken action to establish a national nuclear security support centre on which a two-day Agency-assisted workshop had been held. The centre would support and facilitate sustainable human resource development, provide technical support services for life cycle equipment management, guide competent authorities in capacity development for the sustained effectiveness of nuclear security systems and establish the technical framework for nuclear-security event detection, prevention and response.

42. Nigeria, which had participated actively in nuclear security summits since 2010, hoped that the process would be placed under the auspices of the Agency at the 2016 summit. Nigeria had proposed that the Agency establish an international nuclear security school in Africa, under a regional strategy to enhance capacity for the deployment of nuclear technology in furtherance of socioeconomic development, compliance with nuclear and radiation safety standards and nuclear security assurance. It had offered to host the school and considered that its newly established National Nuclear Security Centre could support such a regional initiative.

43. It had held a training course on safeguards implementation and had been assisted by the Agency in reviewing the draft regulations on the Nigerian nuclear material accounting and control system.

44. Nigeria was particularly interested in the theme of the Scientific Forum because it highlighted the contribution of industrially applied radiation technologies to aspects of daily life and their positive effects on the socioeconomic, health, safety and environmental components of national development, and which was consistent with Nigeria's policy on the effective use of radiation technology.

45. Nigeria stressed that, although individual States held responsibility to ensure nuclear, radiation, transport, environmental and waste safety, the Agency should continue to strengthen cooperation with Member States and build national capacity to emplace pertinent safety infrastructure and the requisite regulations, especially in emerging nuclear active States. Accordingly, Nigeria welcomed the Agency's endeavours to strengthen international cooperation in nuclear, radiation, transport and waste safety, and had developed a robust framework for cooperation and partnership between national stakeholders and the regulatory institutions to ensure compliance with and implementation of sector-specific safety requirements.

46. Nigeria had drawn up national environmental regulations and a nuclear and radiological emergency plan and had formulated a national nuclear insurance policy pursuant to the 1963 Vienna Convention on Civil Liability for Nuclear Damage and the Protocol thereto. It had taken action to ensure compliance with Agency safety standards and considered that effective implementation of nuclear safety culture by all would be a good basis for the enhancement and sustainable application of nuclear technology for societal development.

47. Nigeria urged the Agency and Member States to continue to build on the lessons learned from the Fukushima Daiichi accident, to strive to implement the Agency's Action Plan on Nuclear Safety in full and to strengthen the global nuclear safety framework, including EPR capabilities.

48. Nigeria prized its TC partnership and would take action to harness opportunities and benefits in its identified priority areas of engagement with the Agency. It stressed the need for the Agency to intensify its efforts to develop educational and training tools to enhance Member States' capacities to plan effectively, implement their own nuclear technology programmes and fine-tune the framework for partnership with Member States in training professional and technical personnel, thus ensuring continuous availability of qualified personnel and sustainability of programme implementation.

49. Under its CPF, Nigeria had collaborated with the Agency primarily on human health and, under PACT, the Agency had assisted Nigeria in upgrading its national institutions to build human capacity and the infrastructure for early cancer detection, control and management. Nigeria commended the Agency's coordination and effective management of the national TC projects under which nuclear medicine, radiotherapy and oncology professionals were being trained, partly funded by the Nigerian Government. Nigeria had recognized that cancer prevention, control and management needs could not be fully met through technical assistance alone and had taken steps to fast-track its own human capacity development efforts by launching a training programme for clinical medical physicists under an Agency-supported national residency programme and by implementing a project on the establishment of a national postgraduate college of nuclear medicine and other national tertiary health institutions and regulatory bodies.

50. The Agency's support for Nigeria's national effort to train and build a competent and experienced human resource base for the successful and sustainable implementation of its nuclear power programme had been invaluable. Nigeria was committed to accelerating the development of its nuclear power programme and was intensifying action to achieve targets, under Agency guidance. The successful INIR and EPREV missions had yielded lessons and recommendations that would enhance compliance with international best practices and optimally channel all relevant inputs required to build critical national nuclear power infrastructure.

51. Nigeria welcomed the signing of the JCPOA and the related road map, which had shown that the Agency was committed to partnership with Member States, through technology and effective diplomacy, for the gainful and peaceful use of nuclear energy and the establishment of structures to prevent non-peaceful applications.

52. Nigeria voiced deep concern at the slow pace of progress towards ridding the world of nuclear weapons and called for greater efforts to bolster the Agency's key role and its commitment in attaining that goal. Furthermore, as a committed Signatory to the NPT and to the African Nuclear Weapon-Free-Zone Treaty, Nigeria urged Member States to give positive consideration to the establishment of nuclear weapon-free zones in all regions of the world.

53. Mr SINHA (India), highlighting the progress achieved under India's nuclear programme since the 58th session of the General Conference, reported that Nuclear Power Corporation of India Ltd. had achieved the highest ever generation of electricity in financial year 2014–2015, with a capacity factor of about 82% and an availability factor of 88%. Commercial operation of KKNPP 1, built in collaboration with the Russian Federation, had raised India's installed nuclear power generation capacity to 5780 MW(e). KKNPP 2 was at an advanced commissioning stage.

54. India's NNPs had registered records of long continuous runs, while the nuclear power reactors had recorded continuous runs exceeding one year on twenty occasions.

55. Commissioning of the sodium-cooled 500 MW(e) PFBR was under way, and the reactor was gearing for loading. Four indigenous 700 MW PHWRs were under construction and sites had already been identified for another 16 reactors of similar capacity. Plans had been made to expand nuclear power generation capacity through imported LWRs, and technical and commercial negotiations were under way with identified vendors to include local manufacturing by Indian industries.

56. India's fuel cycle facilities had performed at ever higher levels yearly. Annual production of nuclear fuel for PHWRs had risen by 30%, while annual domestic production of uranium had recorded a new high.

57. In the current year, an indigenously developed process had been used to separate caesium-137 from high-level liquid waste, and the first batch of vitrified caesium-137 pencils had been produced for use in indigenous blood irradiators — the technology was being used commercially for the first time in the world.

58. India had given high priority to all aspects of thorium-related reactor and fuel cycle technologies. The newly constructed Power Reactor Thoria Reprocessing Facility had begun to reprocess PHWR-irradiated thorium oxide fuel bundles in January 2015. India would host the International Thorium Energy Conference in Mumbai in October 2015.

59. The Indian Nuclear Insurance Pool would launch an insurance product to cover the operator's liability of Nuclear Power Corporation of India Ltd. pursuant to the Civil Liability for Nuclear Damage Act, 2010. It would launch a separate product to cover the liability, under the Act, of both national and international suppliers.

60. Action and initiatives taken by the Atomic Energy Regulatory Board as a follow-up to Fukushima accident reviews had been assessed during an IRRS mission in March 2015 and good practices had been identified. The mission's recommendations and suggestions were being implemented. India considered the INPRO methodology to be an important tool for evaluating new advanced safety features in next-generation NPPs.

61. While agreeing with the Director General on the role of nuclear power in addressing greenhouse gas emissions and associated climate change, and while considering that nuclear power must be a major component of the global energy mix in order to meet growing world energy demand, India called on the Agency to facilitate the development of standard methodology to assess system effects, in particular those arising from grid-connected variable energy sources, as such effects could have an impact on the reliability and long-term economic viability of such energy systems.

62. India was establishing a MACE gamma-ray telescope at Hanle, as gamma-ray astronomy had emerged as an important tool for understanding high-energy processes in the universe. The Indus-2 synchrotron radiation source at Raja Ramanna Centre for Advanced Technology had been operating continuously. A soft X-ray reflectivity beamline had been commissioned, thus raising to 13 the total number of operational beamlines on Indus-2. The number of researchers and students using the Indus beamlines had consequently doubled in two years.

63. In fusion science, the Steady-State Superconducting Tokamak at the Institute of Plasma Research had become operational and was the world's only tokamak in which superconducting toroidal field magnets were operated in two-phase helium demonstrating reduced cold helium consumption.

64. Nuclear applications had continued to expand in health care, water, industry and environmental protection, delivering important benefits to Indian society. India considered the theme of the Scientific Forum to be most apposite because India had a major programme in that area and had been the lead country in the industry sector for the RCA Programme for several cycles. India's indigenous

technological capabilities and contributions to the development of industrial applications were being showcased at an exhibition during the session.

65. India strongly supported PACT. The Tata Memorial Centre had provided appropriate and cost-effective technologies for implementing cancer care programmes adapted to developing countries and consistent with their infrastructural resources. The Centre had developed a smart phone cancer staging application, known as the TNM (Tumour, Node, Metastasis) App, in order to harmonize communication within the multidisciplinary patient-staging team, thus improving cancer care.

66. India was contributing voluntarily to the NSF by providing the services of a cost-free information security expert to the Division of Nuclear Security and it had held several training events under the GCNEP initiative.

67. India had participated actively in and had made significant contributions to RCA programmes. It had hosted two RCA-related events and several Indian scientists and engineers had provided services to the Agency under expert assignments. Indian institutions were participating in 65 CRPs. India had hosted a six-day IAEA interregional training course on molybdenum-99 production and would host two in November 2015.

68. India appreciated the Agency's efforts to modernize the Nuclear Applications Laboratories at Seibersdorf and the progress achieved under the ReNuAL project.

69. India reported that extensive studies on the biological and health effects of low dose and low dose rate radiation in high-level natural radiation areas (HLNRA) on the Kerala coast had not revealed any effects on the residents. Biological studies on human peripheral blood mononuclear cells had not shown any dose response, while radio-adaptive response studies had interestingly revealed significant reduction of DNA strand breaks in HLNRA individuals, even with higher challenging doses. Repair kinetics had shown fast and efficient repair of DNA strand breaks in HLNRA individuals, as compared to individuals from normal level natural radiation areas, suggesting *in vivo* adaptation. Global gene expression analysis had revealed an abundance of differentially expressed DNA damage response and repair genes in HLNRA individuals, in response to chronic low dose radiation exposure. Further scientific studies on DNA damage and repair at low and high doses were under way, using double strand break specific markers. The role of adaptive response and gene regulation was being investigated to delineate the mechanistic effect of low dose radiation, which had important implications for radiation protection science and human health.

70. India proposed that the Agency and other international bodies take the lead in such studies to reach a consensus on the current state of understanding of the effect of low dose radiation on human health, and identify any residual gaps for further research.

71. Noting that four and a half years had passed since the Fukushima-Daiichi accident, India proposed that the Agency lead the way in moving beyond the shadows of Fukushima and in working to harness the true potential of nuclear energy as a credible and affordable energy resource to lead the world to a greener growth path.

72. Mr NAEEM (Pakistan), highlighting the Agency's unique role as the world's focal point for promoting the peaceful, safe and beneficial uses of nuclear energy and the consequential rise in the number of States wishing to embark on a nuclear power programme and requiring the Agency's guidance and support, acknowledged the importance of interaction with the Agency through the TC programme and the expert, OSART and ASSET missions.

73. He welcomed the selection of Pakistan as a pilot country for the Agency's internal oversight. During the previous year's OIOS mission, the auditors and the evaluator had visited R&D centres that had been implementing Agency-assisted national TC projects and had found that the funds were being used appropriately.

74. Pakistan's long-standing relations with the Agency had been very productive and mutually beneficial, and Pakistan remained committed to working in synergy with the Agency in order to harness the vast potential of nuclear technology.

75. Nuclear power was very attractive because it did not produce greenhouse gases and nuclear technology could contribute substantially to the study and mitigation of climate change. Accordingly, the TCP could be strengthened to promote the development and use of nuclear techniques for climate change analysis and mitigation.

76. Pakistan had used nuclear technology primarily for nuclear power. KANUPP had been in operation for more than four decades, although vendor support had been withdrawn very early on. KANUPP's safe and successful operation had built Pakistan's confidence to pursue and advance the nuclear power option in order to meet its severe electric power shortage. Two larger NPPs, K-2, K-3, of 1100 MW(e) each, were under construction and, on their completion, nuclear power would make a sizeable contribution to electricity generation in the country. Pakistan had envisaged a nuclear power generation capacity of 40 000 MW(e) under its Nuclear Energy Vision-2050.

77. Under a long-term cooperation agreement, China had, in 2000, provided two 325 MW(e) NPPs at Chashma, units C-1 and C-2. Units C-3 and C-4 were under construction at the same site, given the performance and economics of the first two units.

78. Pakistan was firmly committed to keeping all of its current and future NPPs under Agency safeguards and had laid emphasis on nuclear safety and security. The new KANUPPs were Generation III NPPs with enhanced safety features, for Pakistan had taken immediate and medium-term post-Fukushima action to re-assess and upgrade safety in its NPPs.

79. The Pakistan Centre of Excellence for Nuclear Security had been established to conduct specialized training courses on the physical protection of nuclear material and facilities, material control and accounting, personnel reliability, transport security and other security-related matters. A regional training course on the security of radioactive sources had been held in November 2014 in coordination with the Agency. Special courses on nuclear security and physical protection formed part of the nuclear engineering curriculum of the Pakistan Institute of Engineering and Applied Sciences. Those facilities could constitute a regional and international training hub.

80. Its Atomic Energy Commission had interacted with the Agency, WANO and COG to enhance safety in its NPPs. WANO expert missions had been dispatched regularly to Pakistan to assess and suggest NPP safety measures and had conducted the C-3 pre-start up peer review mission. The WANO corporate review and C-2 peer review had been held earlier in 2015. The Agency's full OSART mission for C-1 was imminent.

81. The Commission was fully independent from the operators and its regulations had been based on the Agency's safety standards. It was open to offers for independent peer reviews and had been granted such missions by the Agency, to which it was closely linked as a recipient and as a contributor. It had established a National Institute of Safety and Security, equipped with state-of-the-art laboratories, to facilitate national and regional training courses on nuclear radiation safety, nuclear security and physical protection.

82. Pakistan had consistently supported international endeavours to enhance nuclear security and had participated in all nuclear security summits since 2010 at the highest governmental level. It commended the Agency's central role in generating high-level commitments to national nuclear security culture and in coordinating and synergizing the work of the international community.

83. The Commission had made important socioeconomic contributions by making the peaceful application of nuclear technology available to the people and by providing vital services through its 18 medical oncology hospitals, which had treated about 80% of the country's cancer patients yearly; it would expand its services to the public by establishing more nuclear medical centres.

84. The recommendations made in December 2013 by the imPACT mission, which had covered public and private nuclear medical hospitals in various cities, were being implemented.

85. The four agriculture and biotechnology centres had made valuable contributions to the agriculture and livestock sectors. Pakistan had developed a very sound infrastructure for the use of isotope techniques to address water resource management problems. It was participating in the Agency's inter-calibration of radiation standards and was providing related expert and analytical services to IAEA Member States in the region. The educational and training institutions that encompassed all major nuclear S&T and nuclear power fields, such as the Karachi Institute of Power Engineering at KANUPP and Chasnupp Centre for Nuclear Training at Chashma, met national needs and welcomed participants from other IAEA Member States.

86. Pakistan commended the support provided by the Agency in the form of expert services, equipment, human resource development and assistance in the establishment and improvement of facilities in nuclear radiation, nuclear safety, nuclear security, application of nuclear technology in agriculture, medicine, industry and nuclear energy. It also commended the Agency's spirit of cooperation as betokened by the visits of IAEA dignitaries and officials.

87. Pakistan had the experience, trained human resources and facilities to be a provider, and not merely a recipient, of nuclear technology for peaceful purposes and it aimed to play an international role as a mainstream non-proliferation partner, as a full member of export control regimes, in particular the NSG. Such a proposition was mutually beneficial to the international community and to Pakistan.

88. Ms SHILUNGA (Namibia) considered the IAEA and nuclear technology to be important vehicles for States' social and economic development, while promoting global safety and security. Namibia highly valued action taken by the Agency to meet the people's basic needs, promote quality health care, enhance food security, create opportunities for people to participate in economic development and empower citizens intellectually to pursue a dignified and self-sustaining life.

89. Namibia stressed the importance of a results-driven approach to meeting Member States' real needs by safely investigating and deploying nuclear S&T methods under national programmes. Accordingly, it commended the ReNuAL project and urged all Member States to support the Agency in that endeavour.

90. In its policies on the nuclear fuel cycle and on nuclear S&T, Namibia had stated its intention to accelerate and enlarge the contribution of nuclear technology and it expected that its CPF would lead to greater collaboration and to the deployment of nuclear technology as determined in its national development priorities.

91. Namibia spoke highly of the PACT report, the Agency's proactive role in combating cancer worldwide and the progress achieved in inter-agency collaborative efforts and resource mobilization strategies. Beset by an upsurge in cancer morbidity and mortality, Namibia hoped to draw on the Agency's expertise in developing and implementing a strategic cancer response agenda.

92. Food security remained a great challenge and a priority for Namibia, which had been heartened by positive technological developments, in particular crop mutation leading to drought-resistant and high-yielding crops, and technology devised to raise the nutrient efficiency of crops. Namibia urged the Agency to accelerate and enlarge its contribution to such work.

93. Nuclear power was a viable option for Namibia, which sought to ensure energy security for sustainable development. It recognized that small and medium-sized reactors could enhance energy supply security in newcomer countries and would welcome discussions on the subject leading to mutually beneficial outcomes.

94. Namibia had stated clearly its intentions regarding uranium ore extraction and processing, and the value added to uranium ore products. It was the world's fifth largest uranium-producing country and it believed that beneficiation of raw uranium must be pursued in order to enhance industrial development, employment creation, skills development, foreign direct investment and other deliverables beneficial to its economy. It stood ready to hold discussions with the Agency and to seek synergistic collaboration with like-minded partners.

95. Namibia appreciated the Agency's legislative assistance programme. As it embarked on the enlargement and acceleration of nuclear technology for its development efforts, it remained committed to strengthening its legislation and regulations through INIR and IRRS missions.

96. Namibia had made its TCF contribution on time and in full. Noting that some States did not contribute voluntarily yet continued to draw on the TCP, it supported the application of a stronger due account mechanism and was particularly satisfied with the recommendation on the target for 2015 voluntary TCF contributions and on the 2016 indicative planning figure.

97. Namibia welcomed the Agency's proposed contributions to the SDGs and called for radical and ambitious action to ensure that they would be achieved. It fully supported the implementation of the African Union Agenda 2063 — Africa's blueprint for sustainable development in the 50 years ahead — and would support endeavours to achieve the First Ten Year Action Plan Agenda 2063, with specific emphasis on the consolidation of peace and security, infrastructure development and improvement of governance, education systems and food security.

98. Namibia welcomed the JCPOA, which had shown that much could be achieved through diplomatic negotiations. It had noted the budget changes requested for verification activities in the Islamic Republic of Iran, but cautioned that such budget adjustments should not impede other activities that must be implemented to the letter and spirit. It therefore urged all contracting partners to cooperate fully with the Agency.

99. Pointing to the decline in the number of senior staff members from African Member States, Namibia called on the Secretariat to work more closely with African States in order to identify and deploy a skilled, diversified and competent work force in the Secretariat.

100. Ms VÁSQUEZ SOTO (Costa Rica) hoped that the rise in the number of Member States from Latin America and the Caribbean, which had increased the region's influence in the Agency, would similarly raise the quality and quantity of attention paid to initiatives and activities involving GRULAC Member States in, among other fields, TC provision.

101. Costa Rica highly prized TCP activities under national and regional projects designed to use and apply nuclear energy in furtherance of peace and development by transferring knowledge and technology of particular importance to its citizens. It supported efforts in the region to boost the efficiency of such activities and commended their impact on living conditions and on technological and scientific progress, duly taking into account the country's particular needs, technical and financial capabilities, and the relative scale of national projects.

102. Costa Rica had reaped benefits during the 2014–2015 TC cycle from projects on environmental sciences, isotope hydrology, human health, agriculture, pest control and nuclear technology security, which had been consistent with its national development plan and its 2015–2021 science, technology and innovation plan and had contributed to the country’s continuous progress, efficient project implementation and achievement of tangible, sustainable results.

103. Costa Rica highlighted the progress achieved in improving the management and scope of the recently extended ARCAL, which had been of great importance to Member States in the region and had fostered fruitful cooperation.

104. It commended the professionalism and devotion of TCP staff, to whom the States in the region owed the sustained achievement of the highest TC project implementation rate and it praised impACT, through which Costa Rica’s cancer control capacities and requirements had been thoroughly assessed.

105. Costa Rica called for proportional and balanced resource allocation among the three pillars of the Agency’s activities in order to ensure fulfilment of all statutory obligations and firmly supported all action taken by the Agency to meet its safeguards and other nuclear verification obligations. Such action had been essential to the stability and sustainability of the international nuclear non-proliferation and disarmament regime, which were closely linked to the integrity, impartiality and technical objectivity of the Agency’s safeguards system.

106. Costa Rica lauded the significant diplomatic achievements of the E3/EU+3 and the Islamic Republic of Iran and welcomed the agreed JCPOA monitoring and verification measures, which it regarded as crucial to building the international community’s confidence in the exclusively and unequivocally peaceful nature of Iran’s nuclear programme, in furtherance of international stability, peace and security. It welcomed the Agency’s pivotal implementing and reporting roles and commended the road map designed to clarify past and present outstanding issues.

107. The JCPOA had revived hope in the international community’s capability and political will to take tangible steps towards achieving the broader goal of universal, complete, verifiable and sustainable nuclear disarmament, as set in the NPT and confirmed in the Special Declaration of Belén, highlighting the urgent need for a world free of nuclear weapons.

108. Costa Rica supported initiatives taken to negotiate a universal, legally binding instrument that would comprehensively prohibit the possession, development, production, acquisition, testing, storage, transfer and use, including the threat of use, of WMDs in order to ensure the survival of human beings and protect them from the catastrophic humanitarian consequences of any intentional or accidental use of nuclear weapons.

109. Costa Rica called on all States that had not yet signed a CSA and an AP to do so, as such agreements were crucial to the achievement of the Agency’s verification and safeguards goals and to ensuring that Member States’ nuclear facilities and material were used exclusively for peaceful purposes.

110. Costa Rica noted that the Agency’s nuclear verification and safeguards endeavours were fully significant only in the wider context of most of the international community’s stated desire to achieve worldwide, universal, complete, irreversible and verifiable nuclear disarmament. Believing, as noted by CELAC, that only complete elimination afforded genuine protection against the use, or threat of use, of nuclear weapons, Costa Rica hoped that the goal of a world free of nuclear weapons would be attained in the near future.

111. Mr TAGHI-ZADA (Azerbaijan) considered that Azerbaijan’s cooperation with the Agency was conducive to sustainable development, the successful introduction of peaceful nuclear technologies in the country, the prevention of trafficking in radioactive and nuclear materials, and action to combat

threats of nuclear terrorism. Azerbaijan called for the Agency's role in combating nuclear terrorism and enhancing the non-proliferation of nuclear weapons and the nuclear safety regime to be broadened and strengthened.

112. Azerbaijan was implementing its NPT and safeguards obligations scrupulously, being keenly aware of the need to contribute to nuclear disarmament and to strengthen the non-proliferation regime and the Agency's safeguards system. The National Nuclear Research Centre had been established by order of the President of the Republic and would house a research reactor. The Small Quantities Protocol, paragraph I.(1)(b), was thus no longer in force for Azerbaijan. Azerbaijan had begun to implement the 2015–2016 activity plan which provided for a seminar on safeguards obligations, electronic nuclear material accountancy, AP declarations, subsidiary arrangements pursuant to Article 3 of the safeguards agreement, the training of staff to draft CSA and AP declarations, improvement of the State's nuclear material register and the compilation of design information on the planned research reactor. Azerbaijan and the Agency would hold a regional training course in Baku, in November 2015, for participants from the Caucasus and Central Asia, on safeguards implementation in States with nuclear installations that conducted research and had locations outside facilities.

113. Azerbaijan was committed to combating nuclear terrorism and to ensuring non-proliferation of nuclear weapons and nuclear material security, which necessitated cooperation by all States, compliance with international standards and constant improvement of international legal instruments. Accordingly, it was giving consideration to the ratification of the 2005 amendment to the CPPNM.

114. Azerbaijan had given priority to environmental remediation and had terminated a major multi-year national environmental rehabilitation project for areas contaminated by natural radionuclides in the vicinity of disused natural iodine production plants. The environs of such plants in the Absheron peninsula and near the city of Neftchala had been cleared of contamination and restored to economic use. Azerbaijan commended the Agency's fruitful cooperation and invaluable assistance throughout project implementation, during which Azerbaijan had gained radionuclide-specific land remediation experience. Furthermore, an environmental remediation regional workshop had just been held in Baku, under the TCP, on the shutting down and long-term rehabilitation, observation and servicing of installations.

115. With the Agency's assistance, Azerbaijan's Oncological Centre had been upgraded to meet international standards and thus enhance cancer diagnosis and treatment and introduce PET–CT into clinical practice. The establishment of a State Commission and a team of experts, representing all stakeholders and the relevant State bodies, was under consideration for the research reactors. Project design had been based on an Agency nuclear energy document, and the Agency's comments on the document drafted by the National Scientific Research Centre would be duly be taken into account. Implementation of comprehensive nuclear technology measures, in close cooperation with the Agency, was of special significance to Azerbaijan's sustainable development.

116. The Government set great store by the Agency's assistance under the TCP to which it intended to contribute in full and on time.

117. Azerbaijan attached great importance to transparency in nuclear activities, in particular nuclear safety, which necessitated a timely and constant exchange of objective information conducive to confidence building and enhanced safety. It had accordingly drawn attention repeatedly to the operation of Metsamor NPP and, ever mindful of the threats and risks stemming from Armenia's plans to build a new NPP and the total lack of transparency regarding safety verification measures, including seismic and operational safety reviews, Azerbaijan craved understanding for its concerns and appealed to Armenia to conduct a more transparent nuclear policy.

118. Mr FOO (Singapore) voiced disappointment at the failure of NPT States Parties to adopt a final outcome document by consensus at the 2015 NPT Review Conference and to dispel doubts about the legitimacy and relevance of the NPT. He noted that the conference on the establishment of a Middle East zone free of nuclear weapons and WMDs remained in limbo and that the gulf of mistrust between the nuclear weapon States and non-nuclear weapon States had continued to widen. Believing that the NPT was the cornerstone of the international non-proliferation regime and that it was not in any State's interest for the NPT to fail, Singapore would continue to support all efforts to advance global disarmament, nuclear non-proliferation and the right of sovereign States to use nuclear S&T peacefully, safely, securely and under Agency safeguards. Accordingly, it called on all NPT States Parties to reaffirm their commitment to upholding the NPT and to fulfilling their respective commitments and obligations.

119. Singapore had hoped that the proposed CNS amendment would have been adopted at the February 2015 Diplomatic Conference, which would have sent a strong and positive signal to the public of States' collective commitment to taking tangible steps to raise nuclear safety standards. Singapore urged all CNS Contracting Parties to implement the safety objectives contained in the non-binding Vienna Declaration on Nuclear Safety expeditiously and in good faith and to strengthen the CNS peer review mechanism.

120. Singapore urged the DPRK to take the necessary steps to address the international community's concerns, comply fully with relevant UNSC resolutions, return to the NPT and resume all cooperation with the IAEA.

121. Welcoming the JCPOA as one of the year's key developments, Singapore commended the hard work and efforts of all parties involved, considered its implementation to be especially crucial, and urged all parties to fulfil their respective obligations and to implement the JCPOA provisions in good faith. The Agency should be fully supported in its endeavour to implement the relevant JCPOA provisions and UNSC resolution 2231 (2015).

122. Singapore urged Iran to cooperate fully with the Agency in implementing the road map, for the resolution of all past and present outstanding issues regarding Iran's nuclear programme was crucial to addressing the international community's legitimate concerns about the nature of Iran's nuclear programme. Singapore looked forward to the Director General's report on the issue.

123. Singapore strongly supported the Agency's role in nuclear verification and safeguards implementation and its sustained efforts to engage Member States on safeguards-related issues such as the State-level concept.

124. Singapore was one of the 115 States Parties that had to date endorsed the humanitarian pledge and it urged all States Parties to uphold the NPT, in particular Article VI, in order to eliminate the risks that nuclear weapons posed to humankind.

125. The CPPNM had entered into force on 22 October 2014 for Singapore, which had accepted the 2005 amendment thereto and strongly urged States Parties that had not yet ratified it to do so at the earliest possible date.

126. Singapore welcomed the comprehensive Fukushima Daiichi accident report and hoped that the observations and lessons would be integrated into the Secretariat's regular work programme. It called on the Secretariat to consider drawing up a post-2015 multi-year nuclear safety strategy, thus enabling the Agency to implement outstanding projects under the IAEA Action Plan on Nuclear Safety, apply Fukushima Daiichi lessons and complete Action Plan projects.

127. The Director General's visit in January 2015 had given rise to a fruitful exchange of views with senior officials on closer collaboration between the region and the Agency in the areas of nuclear

safety and peaceful applications of nuclear science, and to the renewal and enhancement of the MOU, under which technical assistance had been provided jointly to other developing Member States and the safe, secure and peaceful use of nuclear technology had been promoted since 2000, giving rise to scientific visits, fellowship attachments and regional training events. Future technical assistance under the MOU would encompass nuclear medicine, nuclear safety, public education and the environment. Singapore undertook to strengthen its bilateral and regional TC cooperation with the Agency.

128. South-East Asian States had, through ASEANTOM, strengthened cooperation on EPR and on the sharing of environmental radiation monitoring data. ASEANTOM would implement a TC project in 2016 to support the establishment of a regional environmental radioactivity database and an EPR framework, with the European Commission providing support for a feasibility study on the latter.

129. Singapore called for stronger cooperation between ASEAN and the Agency and commended the Agency's continued participation in ASEAN meetings. It reaffirmed its commitment to working closely with the nuclear-weapon States so that the Protocol on the Treaty on the Southeast Asia Nuclear-Weapon-Free Zone would be signed and ratified at the earliest possible date without reservations inasmuch as the establishment of nuclear weapon-free zones strengthened global peace and security. Noting that the establishment of such zones must be aligned with the object and purpose of the relevant treaties and their protocols, Singapore urged the nuclear-weapon States to sign and ratify the relevant treaties and protocols without reservations or unilateral interpretative declarations and to withdraw all such reservations and declarations.

130. Mr GUNAAJAV (Mongolia) commended the Agency's enhancement and strengthening of nuclear safety and security, its promotion of the peaceful use of nuclear S&T in furtherance of sustainable development, its contribution to the achievement of the MDGs and its crucial future role in the attainment of the SDGs.

131. Mongolia lauded the historic JCPOA which, if successfully implemented, would provide the international community with necessary confidence-building assurances of a long-term comprehensive and peaceful solution to the Iranian nuclear issue. Mongolia acknowledged the importance of UNSC resolution 2231, the Agency's role in verifying the application of safeguards in Iran and the road map established in order to resolve past and present outstanding issues by the end of 2015.

132. It regretted the lack of consensus on the draft final document of the 2015 NPT Review Conference and on the recommendations of the third Preparatory Committee for the Review Conference, and called on each State to persevere in its efforts to find common ground in promoting international peace and security.

133. Mongolia, which was an NPT and CTBT Party, had always supported and promoted nuclear disarmament and non-proliferation, strongly supported the establishment of nuclear-weapon-free zones worldwide, considered that the Korean Peninsula should be free of nuclear weapons and stressed that it had declared its territory to be a nuclear-weapon-free zone in 1992.

134. It had been eager to cooperate with the Agency and its Member States in strengthening national, regional and international nuclear safety and security standards and had ensured that its national infrastructure complied with international nuclear and radiation safety standards by amending its Nuclear Energy Law in February 2015. The amendment had consisted in vesting regulatory and promotional functions in two separate independent but interrelated entities, namely the General Agency of Specialized Inspection, which would thenceforth be the principal safety and security watchdog, and the restructured Nuclear Energy Commission, which would promote peaceful uses of nuclear energy and policy development.

135. Its Parliament had requested the Government to take robust action to accede to the 2005 amendment to the CPPNM, the CNS, the Joint Convention and the Small Quantities Protocol. Mongolia's Nuclear Energy Commission had approved the Agency-reviewed Mongolian Integrated Nuclear Security Support Plan.

136. Mongolia aimed to expand the multisectoral use of nuclear energy in furtherance of its socioeconomic development and had welcomed the Fukushima Daiichi accident report, from which lessons could be learnt in order to maximize safety and security. Those lessons and the outcomes of the IAEA Action Plan on Nuclear Safety must be integrated into the Agency's post-2015 regular programme.

137. Mongolia, a developing country with limited infrastructure and expertise and few human resources, called on the Agency to continue to provide TCP assistance in capacity building, human resource development and infrastructure for civilian nuclear technology.

138. Mongolia supported the ReNuAL project and would make a contribution to ensure full modernization of the Nuclear Applications Laboratories.

139. The Agency's contribution to the successful implementation of national health, food, agriculture, industry, science, geology, mining and radiation protection projects had been most commendable. Mongolia's CPF for 2009–2014 had been a great success in boosting socioeconomic development, while emphasis in the CPF for 2016–2021 would be placed on human health, agriculture, environmental protection, water management, radioactive minerals, radiation protection and nuclear safety.

140. Mongolia had participated actively in the RCA, under which great progress had been made in nuclear research development and nuclear technology transfer, while cooperation on human resource development among RCA Members had broadened. Mongolia urged Members to participate actively in the 38th RCA National Representatives Meeting in Ulaanbaatar in 2016.

141. Mr SHAMAA (Egypt) said that Egypt appreciated the Agency's pivotal contribution to the economic and scientific development of Member States generally by drawing on nuclear energy and its applications to serve humanity and improve the environment. Egypt considered that the peaceful applications of nuclear energy were important to its economic, social and human development and had therefore begun preparations to build four NPPs in order to resolve electricity and water supply issues in furtherance of its sustainable development. Each new NPP was expected to boost Egyptian industry.

142. The NPPs would be built to international nuclear safety and security standards. Executive measures had been taken for the first plant, requiring the use of Egyptian expertise and capabilities in collaboration with Egypt's international partners and the Agency. Legislative, institutional and regulatory nuclear-power support infrastructure had been established, the Supreme Council for Peaceful Uses of Nuclear Energy had been restructured, Nuclear Act No. 7 (2010) had been adopted and the independent Nuclear and Radiological Control Authority had been established. A project consultancy services contract had been signed to cover the updating and completion of site studies and the preparation of the requisite strategic technical studies.

143. The Nuclear Power Plant Authority had reviewed and updated the technical specifications for the NPPs, in coordination with Agency experts, to reflect the Fukushima Daiichi experience and lessons and maximize nuclear safety levels.

144. Egypt had affirmed its commitment to the early implementation of the first NPP project at El-Dabaa as a driver of development. Egyptian experts had conducted the necessary national studies and had identified the PWR as the most appropriate nuclear reactor technology for Egypt, and

high-level talks on the economic, technical and financial aspects of the offers submitted were nearing completion.

145. Egypt commended the Agency's TCP for promoting nuclear energy for peaceful uses, in particular electricity generation and seawater desalination, and for the high added value of its technical support in building human capacity to implement and manage Egypt's nuclear programme. It asserted its desire to benefit from Agency efforts to support newcomer States in constructing NPPs, preparing outreach programmes for the public, staff training in nuclear safety and protecting people and the environment from dangerous radiation.

146. Agency-supported TC projects in Egypt had been implemented to maximize the benefits accruing from the second multi-purpose research reactor, use nuclear technology for food contamination analysis at the reference laboratory, train Egyptian nationals in safety procedures for the low-level radioactive waste incineration unit, remove radioactivity from devices and equipment contaminated by naturally occurring radioactive material, use nuclear technology to study water resources and build human capacities for nuclear power reactor projects, while ensuring that Egyptian scientists and experts participated in CRPs proposed and sponsored by the Agency.

147. Egypt had engaged in R&D activities on the peaceful applications of nuclear energy in health, nutrition, agriculture, industry, water resources and mineral resources in order to promote sustainable development and serve society. Egypt's second multi-purpose 22 MW research reactor had been used in R&D programmes for radioisotope production and other relevant applications, isotopes had been produced for local medical and industrial use and for export under the radioisotope project at the Radioactive Production Facility. Egypt had strengthened its gamma irradiation capabilities to 1.2 MCi in 2015 to meet local and export market demands for medical and pharmaceutical equipment and materials, foodstuffs and agricultural products.

148. Egypt wished to make its expertise, trained staff and research facilities available to further the peaceful use of nuclear power in the Arab States and in Africa through the AAEA and AFRA, with full Agency support.

149. Noting that nuclear safety was a State responsibility, Egypt highlighted the Agency's crucial role and was keen to participate actively in its peaceful use activities. It hoped that the Agency-held ministerial conference in 2016 would be a step towards achieving the above-stated goals.

150. Egypt had adopted an INSSP in November 2014 in consultation with the Agency and a specific plan of action had been approved to meet Egypt's needs and priorities. Egypt called for nuclear weapons to be eliminated as the only means of establishing an effective international nuclear safety system and of ensuring that such weapons did not fall into the hands of non-State actors and were not used by States.

151. Egypt had sought full transparency and close collaboration with the Agency in all activities relating to nuclear energy for peaceful uses, while complying with its NPT and other international obligations. It stressed that no obligations apart from contractual State obligations must be imposed as part of safeguards implementation, that all States' concerns must be taken into consideration and that the politicization of standards was unacceptable.

152. Sustainable development in the Middle East entailed maximization of benefits accruing from the peaceful uses of nuclear energy, which included the right of peoples in the region to live in safety without being threatened by nuclear weapons. All States held responsibility for taking appropriate action to achieve an equal level of nuclear threat-free safety for States in the region, as the first step towards a safe, nuclear-weapon-free world in which nuclear power was harnessed only to serve

humanity and development, in keeping with the Statute, under which disarmament-related verification had been entrusted to the Agency.

153. Accordingly, Egypt was determined to strive tirelessly to have the Middle East established as a nuclear-weapon-free zone and would submit to the General Conference a draft resolution entitled ‘Application of IAEA safeguards in the Middle East’ in a bid to have all nuclear activities and facilities in the region placed under safeguards and to achieve universality of the NPT. It hoped that the draft resolution would be adopted by consensus.

154. Ms WENINGER (Sri Lanka) congratulated the Islamic Republic of Iran and the P5+1 on the comprehensive agreement reached on the Iranian nuclear issue and commended the Director General and Iran for the Joint Statement.

155. She welcomed the IAEA Annual Report 2014, noting that the Agency had shown further strength in promoting peaceful applications of nuclear S&T, enhancing nuclear safety and security, assisting in strengthening global nuclear verification and non-proliferation efforts, providing technical assistance in furtherance of the economic and social development of Member States and building, strengthening and maintaining capacities for the safe, peaceful and secure use of nuclear technology in order to achieve the MDGs. She hoped that it would contribute to the achievement of relevant SDGs under the new development agenda.

156. She commended the Agency’s use of stable isotope techniques to evaluate programmes designed to prevent and treat malnutrition in early life and hoped that Sri Lanka would receive technical assistance under the TCP to improve its capacity to screen and identify Sri Lankan adolescents at risk from cardiovascular diseases and to prevent future disease. The Agency could assist in combating fast-spreading chronic kidney disease, which had affected nearly 80 000 persons in northern Sri Lanka. Containment of the disease was an urgent health and water-management priority.

157. She welcomed the steady progress achieved in strengthening nuclear safety worldwide in 2014, noting that all Members had been heartened by the continued implementation of the IAEA Action Plan on Nuclear Safety. She acknowledged the Agency’s assistance in training Sri Lanka’s security and customs officers for deployment to other regions that required their services and noted that the lessons learned from the Fukushima Daiichi accident could lead to improvements in safety standards.

158. Sri Lanka would consider nuclear power as an option to meet its energy demand, which had been rising as its economy expanded and industry became diversified. The Government had given the highest priority to addressing Sri Lanka’s energy needs by adopting an appropriate energy mix and, with the Agency’s support, had built human resource capacity to use the Agency’s energy planning tools. The expert service provided to Sri Lanka’s Public Utilities Commission for its generation planning study had been highly appreciated.

159. She commended the IAEA principles enshrined in the instruments that underpinned the safety and security regime, noting that international cooperation was of the essence to ensure that nuclear materials and technological capabilities would not be diverted to non-peaceful uses, in furtherance of international security and the protection of humanity, society and the environment.

160. The new Government of Sri Lanka had adopted good governance, accountability and the rule of law as its primary policy planks and had taken action to boost economic growth and social development. It was aware of the need to strengthen technology and research institutes in order to reap nuclear S&T benefits in furtherance of national development. The Sri Lanka Atomic Energy Act No. 40 of 2014 had entered into force on 1 January 2015 and would promote the peaceful application of nuclear technology in accordance with international requirements. The Atomic Energy Regulatory Council and the Atomic Energy Board had been established under the Act.

161. The independent regulatory authority had demonstrated Sri Lanka's dedication and commitment to the peaceful use of nuclear applications and nuclear technology in Sri Lanka. The authority would meet the policy priorities of the Government of Sri Lanka, which was considering accession to the AP.

162. The United States Department of Energy had provided invaluable assistance under the Global Material Security Programme in strengthening the physical protection of Category-1 sources used in Sri Lanka, which had included the introduction of new regulations and training for the regulatory authority's and other stakeholders' staff. Sri Lanka had initiated preliminary consultations with a view to collaborating with the United States Nuclear Regulatory Commission under its Radioactive Sources Regulatory Partnership Programme.

163. Enhancement of food security and sustainable agricultural development through plant mutation breeding remained a key agricultural priority in Sri Lanka, which had been granted an award by the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture for its promotion of sustainable crop varieties. The exposure, knowledge and experience gained by Sri Lankan scientists under the TCP had been key to the award. Furthermore, Chito-power, a new environment-friendly product based on a natural polymer extracted from shrimp waste, had won an award in December 2014 from the Sri Lanka Inventors Commission. It was a natural plant growth promoter and elicitor and had displayed antimicrobial activity in agriculture applications.

164. The Government-owned Multi-purpose Gamma Irradiation Facility, whose technical staff had been trained with the Agency's technical assistance, had continued to provide irradiation services for industrial products, spices and other foods.

165. A PACT expert mission had been dispatched to Sri Lanka in December 2014 in order to assess the status of radiation medicine, review the progress achieved and determine the Agency's best means of assisting Sri Lanka in tackling its high incidence of cancer.

166. Sri Lanka's newly established Atomic Energy Board had carried out qualitative, dedicated work in advancing cooperation in technical areas, coordinating technical assistance and performing other mandated tasks. In 2014, it had hosted three IAEA international events, thus increasing Sri Lankan scientists' exposure to and interaction with international participants. Sri Lanka looked forward to other nuclear S&T skill-building opportunities.

167. Sri Lanka would co-host a regional training course with CTBTO in collaboration with the Geological Survey and Mines Bureau from 29 November to 5 December 2015.

168. The Agency was assisting Sri Lanka in establishing the National Centre for Nuclear Agriculture, the National Centre for Marine Applications, the Marine Environmental Prevention Authority and the National Aquatic Resource Authority. The gamma cell irradiator, provided under the TCP to Sri Lanka's Department of Agriculture, was highly prized because it could be used for various research purposes.

169. Sri Lanka had participated in the RCA since 1976 and had thus developed NDT, which was crucial to enhancing safety and productivity in industry and had been entrusted to the National Centre for Non-Destructive Testing. Sri Lanka looked forward to further assistance under a new national TC project designed to strengthen the Centre to provide the service on demand.

170. Sri Lanka looked forward to the provision of technical assistance in establishing the Regional Centre for Research and Training in Medical and Molecular Entomology for vector-borne disease control at the University of Kelaniya in 2016.

171. Sri Lanka voiced concern at the decline in the number of professional posts held in the Agency by Sri Lankan scientists, administrators and management professionals and called for due attention to be given to the matter.

172. Lastly, Sri Lanka regretted the failure of the 2015 NPT Review Conference to reach an outcome and called on States to reconsider the rigid positions that had led to such failure, given the need to heed humanity's crying call for enduring peace and security for all.

173. Mr THOMAS (Euratom) said that cooperation between the IAEA and Euratom was well-established, and he assured the Agency of Euratom's unwavering support.

174. By taking a common approach to increasingly complex energy issues, climate change and crises, the EU could cope more efficiently with energy challenges in Europe and worldwide. The European Commission had adopted in February 2015 a strategy for a European energy union, which rested on energy security, solidarity and trust, completion of the internal energy market, energy efficiency as contribution to the moderation of energy demand, decarbonization of the economy and research, innovation and competitiveness.

175. Under the energy union strategy, the European Commission would publish a Nuclear Illustrative Programme, outlining the necessary investments for existing NPPs and investment requirements throughout the fuel cycle in Europe.

176. The EU had a coherent and comprehensive legal framework for the safe, secure and sustainable use by its Members of nuclear energy. The EU's nuclear safety legal framework had been updated and strengthened after the Fukushima Daiichi accident and the revised Nuclear Safety Directive, adopted in July 2014, would be incorporated into EU Member States' national legislation by mid-2017. The European Commission was monitoring the steps taken by nuclear operators to make the requisite improvements after stress tests had been conducted on EU NPPs.

177. Pursuant to the Directive, the European Commission was analysing national programmes submitted in August 2015 on the responsible and safe management of spent fuel and radioactive waste and would report to the Council and the European Parliament on the implementation of the Directive in 2016. It was collaborating with the Agency on the conduct of Directive-required peer reviews through ARTEMIS.

178. EU radiation protection legislation, which had taken recent international recommendations and standards into account, had been modernized and consolidated under the revised Basic Safety Standards Directive adopted in December 2013. The IAEA had made an invaluable contribution to the coherent implementation of Euratom and international basic safety standards. Related achievements would be showcased during a Conference side event, with emphasis on the medical application of ionising radiation.

179. The European Commission's long-standing nuclear safety cooperation with the Agency had been enhanced by yearly meetings during the biennium, during which senior officials had coordinated cooperation to achieve common goals. Euratom had supported the Agency's drafting of the Fukushima Daiichi accident report by providing technical experts to analyse findings and review data. Euratom and the Agency must maintain the momentum to improve global nuclear safety in the light of the Fukushima report and the lessons learned. The European Commission had cooperated closely with the Agency on safety projects in third countries and had supported the implementation of the Agency's TCP and Action Plan on Nuclear Safety, under which joint projects had been developed.

180. The European Commission called on all CNS Contracting Parties to strive to implement the Declaration adopted at the February 2015 Diplomatic Conference in order to prevent nuclear accidents

and, should they occur, mitigate their consequences on the population and long-term off-site contamination.

181. Euratom operated a web-based system for the automatic exchange of environmental radiation data. As EPR was a high priority for the European Commission and the EU Luxembourg Presidency of the Council of Ministers, cross border cooperation on EPR would be strengthened under the Directive, workshops would be held and dialogue with civil society would be intensified.

182. The European Commission had welcomed the JCPOA, which had marked a turning point in relations between Iran and the rest of the world. The EU had played a leading and coordinating role in facilitating the agreement and was committed to its implementation. Euratom would work closely with the Agency to ensure effective implementation of the JCPOA. Support in nuclear areas of interest to Iran could be envisaged, covering a broad spectrum of activities such as the provision of nuclear safety assistance and safeguards support to the IAEA in the medium to long term.

183. Euratom had provided technical support to the Agency through the European Commission Cooperative Support Programme in the field of safeguards and, since 2010, had committed more than €10 million from the Instrument for Stability to the international ECAS project in order to enhance the Agency's Safeguards Analytical Services in Seibersdorf, while the Trans-Uranium Institute in Karlsruhe had provided analytical services to the Agency.

184. Euratom had supported and collaborated with the IAEA in nuclear security. The Practical Arrangement signed in 2013 was being implemented and closely followed. The EU CBRN Centres of Excellence had played a stronger role in the regions. Synergy with the IAEA Network of Nuclear Security and Support Centres was being explored by bringing together the national contact points of both initiatives to maximize benefits for the partner country and heighten efficiency in the use of invested resources.

185. The EU had contributed €25 million to the IAEA LEU bank and welcomed the signing of the agreement establishing the bank and its legal framework.

186. While there had been well-established technical and legal reasons for regarding safeguards, security and safety as separate areas of nuclear governance, owing to current overarching challenges, greater effort must be made to identify synergies and propose implementation measures.

187. Euratom believed in the importance of promoting nuclear safety not only in the EU, but also beyond its borders. It accordingly ascribed great importance to regional cooperation designed to promote nuclear safety and, for 2014–2020, had earmarked €225 million under the Instrument for Nuclear Safety Cooperation in support of nuclear safety and safeguards in non-EU countries worldwide.

188. Emphasis would be placed under the new INSC programme on EU neighbouring countries, in particular Ukraine, and action would be taken to provide support for mining activities in Africa and for regional EPR in Central Asia.

189. EU Member States had played a leading role in the ITER project, which promoted fusion as a sustainable energy source and had demonstrated consistent leadership in fusion research through JET. France currently hosted the ITER site on which the first tokamak reactor would be built. ITER had brought seven States together to accomplish the important mission of bringing clean and limitless energy into everyday use.

190. The EU Observatory on the security of supply of medical radioisotopes and its four working groups had striven, in partnership with the industry, to mitigate the risk of shortages, such as those experienced in 2009 and 2010, and had successfully coordinated reactor outages. R&D was of the

essence and €315 million had thus been committed for indirect action and €559 million for direct action, while significant amounts had been earmarked for education, training and knowledge management.

191. Considering that nuclear safety, security and safeguards were matters of concern to all States, he called for a common understanding of the relevant issues and close cooperation in order to achieve solutions which, in nuclear countries, would apply to newly built and to existing installations, especially those operating beyond their original lifetime. Full advantage must be taken of international organizations and common institutions in order to develop nuclear power safely and sustainably.

The meeting rose at 1.15 p.m.