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President: Mr. CHUNG (Republic of Korea)
later: Mr. MAHMASSANI (Lebanon)

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[*] GC(XXXIII)/897.

The composition of delegations attending the session is given in document GC(XXXIII)/INF/274/Rev.2.

GENERAL DEBATE AND ANNUAL REPORT FOR 1988 (GC(XXXIII)/873) (resumed)

1. Ms. TALLAWY (Egypt) noted that most of the speakers at the present session of the Conference had emphasized the need for the Agency to expand the role it played, given the contribution that nuclear energy and its various peaceful applications could make to world prosperity and to solving problems of development. Her delegation welcomed the near-unanimity of views on that point, particularly since at the Conference's previous session it had stressed the need for nuclear energy to be placed fully at the service of mankind - a task which was the real challenge laid down for the Agency by its Statute. It was clear from statistics and documents recently published by the Agency, including the Annual Report for 1988, that the international community was showing increasing interest in the peaceful uses of nuclear energy, a development which placed a greater responsibility upon the Agency.

2. Consideration should therefore be given to drawing up (with, of course, the Agency's participation) a detailed action plan and comprehensive programme to encourage the use of advanced nuclear techniques to help solve the very serious economic crises facing developing countries and to speed up their development. Through such a programme the Agency could assist in the fight against the problems of famine, drought, desertification, water shortages and pollution which affected many geographical areas. It was unacceptable that the considerable progress being made in science and technology should be accompanied by increasing poverty and malnutrition in many countries.

3. While fully appreciating the Agency's efforts, she wished to underline the need for a clearly defined strategy and action plan which would not only help resolve the most pressing development problems in the near future, but also ensure sustainable development.

4. Member States should therefore undertake a radical review of the financial resources made available to the Agency for both the Regular Budget and technical co-operation. In other words, they should reconsider their obligations to the Agency with a view to enabling it to fulfil the role expected of it.

5. Egypt was interested in the contribution that nuclear energy could make to socio-economic development because that was the very premise on which its

own nuclear policy was based. Egypt's atomic energy authorities were following world developments in the peaceful uses of nuclear energy and were actively involved in three main areas.

6. With regard to nuclear technology, the Egyptian Atomic Energy Commission was striving to develop national expertise in the improvement, modernization and re-startup of the country's first nuclear reactor; it had also begun to operate an experimental plant for fuel element fabrication using local raw materials, and to modernize and expand radioisotope production plants.

7. In the field of nuclear applications, there had been a significant increase in the use of radiation sources and radioisotopes in support of governmental development programmes aimed at improving medical and health services and expanding nuclear medicine services.

8. Finally, nuclear safety and radiological protection principles had been established and criteria for their application had been defined, and nuclear safety activities had been extended to reactors, nuclear fuel cycle installations, other nuclear installations and the transport of radioactive material by land and water. Also, Egypt had participated in international activities relating to the early notification of nuclear accidents and to radioactive waste disposal.

9. A change had taken place in the world nuclear power market: large nuclear plants were being replaced by low- or medium-power plants; greater emphasis was being placed on inherent safety features, and new advanced technological designs better adapted to the needs of developing countries were now available.

10. As a developing country, Egypt was anxious to benefit from those innovations and to help other developing countries. Together with the Agency, it was currently studying the economic and technical advantages of the new types of advanced reactor.

11. Her country was also carrying out an in-depth analysis of its industrial capabilities in order to determine to what extent it could increase its participation in the manufacture of nuclear power plant components and in the implementation of its nuclear power programme, thereby reducing the amount of financing to be raised abroad.

12. Furthermore, vigorous efforts were being made in uranium prospecting in desert areas and in preparing sites for the mining and extraction of uranium from local phosphates, the aim being to use local raw materials as far as possible in implementing the nuclear power programme. Egypt was now completing an airborne prospecting campaign which had not only identified new uranium deposits, but also determined radiation levels and their fluctuations, which would be useful in ensuring environmental safety.

13. Her delegation attached particular importance to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The current session of the General Conference was taking place at the same time as the second session of the preparatory committee for the Fourth NPT Review Conference. Her delegation recalled that the Agency played a vital role in the implementation of certain important provisions of NPT and reaffirmed its full support for the objectives of the Treaty, whose role as the corner-stone of the international non-proliferation regime should be strengthened. Regional non-proliferation efforts should also be stepped up: in particular, nuclear-weapon-free zones should be established in the Middle East and Africa to help ensure peace and stability in those two regions.

14. The Agency was to be commended for having contributed a number of studies to the work of the second session of the preparatory committee for the Fourth NPT Review Conference. It was to be hoped that, of the new possibilities offered by the peaceful uses of nuclear energy, the Agency would draw attention to those which offered potential for increased co-operation between advanced and developing countries, in pursuance of Article IV of the Treaty. Where safeguards were concerned, the Agency should concentrate on the technical innovations which were important for inspections, surveillance operations and the development of the safeguards implementation methods. That was essential if the effectiveness of the safeguards system was to be maintained.

15. The safeguards system was the essential basis of the non-proliferation regime and had been instrumental in preventing the spread of nuclear weapons over the past 20 years. It was essential to support and strengthen that system and to ensure that States complied with it. She urged States exporting nuclear materials and equipment to ensure that full-scope safeguards were applied in importing States which had not adhered to NPT.

16. She welcomed the study prepared on the modalities of application of Agency safeguards in the Middle East and urged the Secretariat to continue its efforts in that area. The Director General should embark on consultations with States in the Middle East region with a view to applying the modalities indicated in the study in accordance with the relevant General Conference resolution.

17. Another matter of concern was Israel's disregard of the appeals addressed to it by the international community in various United Nations resolutions. It was unfortunate that Israel had failed to associate itself with those States which, by working to promote non-proliferation in the Middle East, had demonstrated their desire to establish peace and stability in the region. Israel should accept full-scope safeguards and place all its nuclear installations under safeguards. In that connection, the entire international community and particularly the major powers should put pressure on Israel to sign NPT and to accept the General Conference resolutions requesting it to submit its nuclear installations to safeguards.

18. It was unfortunate that the attitude of the South African Government was so similar to that of the Israeli Government, that South Africa was refusing to submit its facilities to safeguards and that it was constantly trying to evade fulfilment of its obligations. That attitude was a threat to peace and stability in southern Africa and undermined the efforts currently being made to establish peace in that part of the world.

19. The Agency's nuclear safety activities were an integral part of its efforts to expand the peaceful uses of nuclear energy. Egypt greatly appreciated the Agency's work in that area, particularly with regard to the disposal of nuclear wastes and the establishment of rules relating to transactions involving such wastes. It had participated in meetings of the technical working group of experts convened to draw up a code of practice for such transactions, and expressed the hope that the group would complete its work in 1990. Also, her delegation wished to pay tribute to the International Nuclear Safety Advisory Group (INSAG) for its efforts.

20. Liability for nuclear damage was a topic of special interest to her country. It was convinced of the need to establish an international regime on that subject and had therefore signed the Vienna Convention on Civil Liability

for Nuclear Damage and ratified the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention. It had also taken part in the working group set up to examine all aspects of liability for nuclear damage. In that connection, she praised the outstanding work done by the Ambassador of the Netherlands, Mr. van Gorkom, in identifying gaps in the current civil liability regime, and expressed the hope that the review of State liability for nuclear damage, particularly that arising from non-peaceful uses of nuclear energy would continue.

21. Her delegation greatly appreciated the Agency's efforts, in spite of insufficient resources, to assist developing countries in various areas of the peaceful uses of nuclear energy. Out of the Agency's technical co-operation projects in Egypt, one recently completed project on radiotherapy of cancer of the cervix deserved special mention since the results achieved had been very impressive. That project was exemplary in that it had not only benefited Egypt but had also provided training for technical personnel from several African countries. A seminar for Africa on organization and training in radiotherapy was to take place in Cairo in December 1989.

22. Her delegation welcomed the attention the Agency was giving to the suppression of the New World screwworm and urged it to redouble its efforts to protect the African continent from that insect. It was to be hoped that the Agency and FAO would further increase their co-operation in that field.

23. It was important to strengthen mechanisms for regional co-operation in nuclear techniques. She hoped that every effort would be made to establish a mechanism of that type in Africa, as that was a prerequisite for improving the exploitation of the continent's diverse resources.

24. Finally, her country welcomed the creation by the League of Arab States of the Arab Atomic Energy Agency whose objective was to strengthen regional co-operation between Arab States in nuclear techniques, and looked forward to fruitful co-operation between that organization and the IAEA.

25. Mr. SODNOM (Mongolia) said that the thirty-third session of the Agency's General Conference was taking place at a time of remarkable improvement in intergovernmental relations, when confrontation was giving way to dialogue. The INF Treaty concluded by the USSR and the United States was a

first step towards nuclear disarmament, a process which would undoubtedly encourage the peaceful uses of nuclear energy.

26. Much remained to be done, of course, but there were already grounds for hoping that mankind would be able to build a nuclear-free world. As the international organization with responsibility for nuclear matters, the Agency had an important role to play in promoting international co-operation in that sphere. For its part, Mongolia was ready to contribute to those efforts.

27. As a socialist developing country, Mongolia attached great importance to the Agency's many technical co-operation activities. In 1988 alone, the Agency had implemented over 1000 projects and organized 88 regional and interregional courses.

28. The Agency's assistance was enabling Mongolia to implement a number of extremely useful projects in agriculture, medicine, geology and environmental protection. Mongolia had benefited from the provision of equipment, the services of highly qualified experts and training courses. In 1988, the Agency had granted fellowships to about ten Mongolian scientists. He thanked the Agency for the assistance already received and expressed the hope that the Agency would give favourable consideration to his country's requests for technical assistance for the period 1991-92.

29. The subject of radiological safety received a great deal of attention in Mongolia. It had been happy to be visited by a Radiation Protection Advisory Team (RAPAT) in 1989 and hoped that the results of that mission would lead, with Agency assistance, to the setting up of a national radiation protection system.

30. His delegation approved the Agency's budget for 1990, since it provided the necessary financing for the priority activities of the Agency and especially for those technical programmes that were of interest to all Member States.

31. His country attached particular importance to nuclear power, nuclear safety, environmental protection, safeguards, the International Nuclear Information System (INIS) and technical co-operation. His delegation had

taken note of the fact that the slight increase of 0.2% in the Regular Budget was largely due to an increase in expenditures in the latter field.

Mr. MAHMASSANI (Lebanon), Vice-President, took the Chair.

32. Mr. EL MADANI (Libyan Arab Jamahiriya) said that his country greatly appreciated the assistance provided by the Agency and hoped that the volume of assistance offered would increase in proportion to the steady economic and scientific advances taking place in his and other developing countries. Consequently, the principle of zero growth must not be applied to the Agency's budget and the decline in the rate of implementation of promotional programmes should be reversed. His delegation thanked the Agency for its help in combating the New World screwworm, through a joint programme with FAO.

33. As energy played an important role in improving national health, social and economic conditions and in making countries more self-sufficient, his country had, from the very beginning of its glorious revolution, committed itself to eradicating the causes of underdevelopment, to taking advantage of the scientific and technological opportunities offered by nuclear energy and to equipping itself with the scientific skills and facilities required for that purpose by forging co-operation links with a large number of friendly countries which had been willing to engage in honourable and mutually profitable co-operation.

34. His country was continuing to base the implementation of its nuclear energy programmes on the recommendations made by Agency experts. As a result of a visit to the Tajoura Nuclear Research Centre at the beginning of 1988, an Agency mission composed of planning experts had recommended that, as all the necessary equipment was on hand, the centre should concentrate on the production of radioisotopes. The Director General and the Department of Technical Co-operation deserved praise for their efforts to increase the volume of assistance provided by the Agency and to establish regional co-operative arrangements for Africa similar to those existing in other regions. African Member States should contribute to and support those efforts so that the whole continent could benefit from them. His country was ready to make its facilities available for such co-operation. The Tajoura Nuclear Research Centre could serve as a regional centre that would benefit the whole of Africa.

35. A number of countries were facing a shortage of drinking water. In view of the seriousness of that problem, his delegation had proposed including the issue in the agenda of the current session. A close watch should be kept on the progress being made with heat-producing nuclear reactors, which could be used to desalinate sea water and thus indirectly help to save oil resources. The Agency's efforts to develop that technology into an economically viable means of satisfying the world's need for drinking water should be encouraged. His delegation expressed its gratitude to all regional groups and delegates who had supported the humanitarian project proposed by his country.

36. He shared the view of the Director General and some other speakers that the gases produced from the combustion of fossil fuels were responsible for over half of the damage suffered by the environment and had contributed to the thinning of the ozone layer. His delegation had no doubt that nuclear power was the least harmful option for the environment, provided that it was used only in accordance with very clear criteria and that industrialized countries and their firms were forbidden to dump nuclear wastes in Third World countries, and especially in those African countries whose economic problems could be exploited.

37. The General Conference had for some time been considering important issues such as the inadequate representation of African States on the Board of Governors, the number of nationals of developing countries within the Agency's Secretariat and the financing of technical assistance. It was to be hoped that solutions would be found to those questions that would correct the present imbalance within the Board of Governors and the Secretariat and assure the financing of promotional programmes, which were one of the reasons for the Agency's existence and one of its main objectives.

38. Since nuclear power was a matter that concerned all States and the whole of humanity, it was legitimate to request advanced countries and specialized institutions to focus their research work on designing and building reactors that offered maximum operational safety, as well as an optimal cost-benefit ratio. His delegation proposed that specialized committees be set up to study safety criteria, pollution risks and ways of making nuclear power acceptable to the public. As far as international

co-operation was concerned, the ARCAL and RCA regional co-operation arrangements - to which would soon be added a similar arrangement for Africa - had clearly shown that countries needed each other's support in such an important and sensitive area as the peaceful uses of nuclear energy. He was confident that the Agency would succeed in establishing the co-operative arrangement being considered for Africa.

39. Recalling the remarkable nuclear power programme established by the Republic of Korea, its potential contribution to other developing States, the Republic of Korea's willingness to share the technical experience and skills it had acquired over the past 30 years and the assistance and training it had provided, he pointed out that that country could act as a link between advanced and developing nations in the transfer of nuclear technology. His country would be happy to receive such assistance, appreciated the Korean attitude, and hoped to see that positive attitude to co-operation spreading to other States.

40. The Brazilian delegation had raised a number of very important points concerning the delays that some States were causing in the placement of students, fellows and visiting scientists. He wished to join the Brazilian delegation in urging the countries concerned to respond to requests in a timely manner and not to refuse to accept persons sent by the Agency. Also, it was essential that developing Member States participate in and be more closely associated with the Agency's programmes. His delegation welcomed the expansion of the Agency's activities and would like to see the peaceful uses of nuclear energy being extended even further. He shared the view of the Chinese delegation that Agency projects in developing countries should be designed in such a way that they contributed effectively to the socio-economic development of those countries. It should also be noted that countries with serious financial difficulties were not receiving the support that they were entitled to expect.

41. If a sustained effort were made in respect of renewable energy sources, very good results might be achieved. Solar energy was one possibility, although the conclusions reached thus far in that field did not justify the creation of development programmes. There was no doubt that a great deal of work remained to be done in the renewable energy field. The delegation of the

Federal Republic of Germany had expressed its confidence in renewable energy sources such as wind and solar power as a way of meeting the needs of developing and advanced countries alike. His country was ready to co-operate with the Federal Republic of Germany in that field, for example, through participation in research work and by allowing experts to carry out field studies in the Libyan Arab Jamahiriya.

42. The world was fully aware of the military nuclear capabilities acquired by the Zionist entity with the assistance of its ally, the racist régime of South Africa, and the encouragement and support of certain other States. The latest acquisition of the entity in question was long-range nuclear missiles, one of which had been damaged in the Mediterranean only a few days previously during a test. The Zionist entity and its ally, South Africa, continued to ignore the General Conference's requests that they comply with international practice and the Agency's Statute, and persisted in their refusal to submit all their nuclear installations to Agency safeguards. All Member States should therefore stand firm in the face of that challenge and completely isolate the two States under suspicion until they bowed to the wishes, and particularly the security concerns, of the international community. Furthermore, it was important that nations be able - and see that they were able - to attain, without being subjected to racism or discrimination, a level of scientific and technological development that would allow them to contribute to peace and security in the world. Accordingly, he hoped that, in line with the decision taken by the United Nations General Assembly on the subject, Palestine would be given the right to better representation.

43. Monsignor CEIRANO (Holy See), referring to the activities of the Agency, said that in recent years the focus of public concern had shifted from world peace to the damage being done to the human environment. Since the end of the Second World War, the international community had concentrated its efforts on preventing another war which would have unleashed the terrible destructive forces of modern nuclear weapons. During those 40 years, the United Nations Organization had been mainly occupied with settling the armed conflicts which had arisen. Although problems remained in some regions, those efforts had improved the overall world situation. The improvement in

East-West relations had undoubtedly eased certain tensions and had also led to some progress being made in the disarmament process, which, of course, the Holy See wholeheartedly supported.

44. During that period of relative calm, mankind had become aware of another pressing problem. Scientists had raised the alarm: the planet was in danger of being slowly poisoned by the greenhouse effect, atmospheric pollution, acidification and the depletion of the ozone layer. The Earth, which God had created, was threatened by ecological imbalances and serious environmental problems. The World Commission on Environment and Development (WCED) had recommended that environmental concerns be included in the United Nations Organizations' development activities and that preventive measures be given more emphasis. The World Commission had coined the phrase "sustainable development" to describe a form of development which would meet the needs of the present without creating a situation that would endanger the well-being of future generations.

45. Thus defined, sustainable development had a highly ethical dimension. Pope John Paul II had recently stressed the moral responsibility of the present generation to future generations. Speaking on the destruction of nature and of the squandering of human resources, he had recalled man's vocation as the steward of creation.

46. The issue of sustainable development was of particular importance for the Agency. The World Commission was of the view that no form of energy was devoid of environmental consequences and risks at present. Where nuclear energy was concerned, the World Commission saw a number of unresolved major problems: proliferation, the costs and financing of nuclear energy, the risk of a nuclear accident and the radioactive waste disposal. In response to a request made by the General Assembly, the Agency's General Conference had asked the Director General the previous year to submit to it a report on the Agency's contribution to environmentally sound and sustainable development. That report did not seem to share the fears of the World Commission, and appeared to infer that the measures advocated by the World Commission had already been taken by the Agency.

47. He did not deny that laudable efforts were being made by the Agency to find adequate solutions to the problem of energy and the environment.

Nevertheless, much remained to be done to create the conditions necessary for sustainable development. That was not a minor problem, but an emergency situation which called for an immediate, concerted and worldwide effort. That task could not be left to specialists alone; governments must also act, whether separately or jointly through the United Nations Organization and related bodies such as the Agency. All scientific and technical means available must be mobilized to counteract the deterioration of nature. In the name of all mankind, the Holy See appealed to all decision-makers, politicians, scientists and technicians working on both the national and international level to concentrate their efforts, with the help of God, on preserving the planet for the sake of present and future generations.

48. Viscount VILAIN XIIII (Belgium) said that the statement made by the French delegation on behalf of the European Community (EC) and its Member States basically reflected Belgium's views. However, he wished to make a number of specific comments on various aspects of the Agency's activities.

49. Of all the methods used to generate electricity in Belgium, nuclear power plants stood out because of their excellent availability factors. The average availability of the country's seven power reactors in 1988 had been 84.8%. Those reactors had continued to supply more than 2 kWh out of 3, while electricity consumption itself had increased by 3.2%. The financial savings achieved through nuclear power had thus continued, as had the substantial reduction in wastes harmful to the environment. Belgium had no plans for an expansion of its nuclear generating capacity in the immediate future.

50. The outstanding performance of Belgium's reactors had not been attained at the expense of safety, which remained the major concern of operators and the relevant authorities. The safety review of Belgian nuclear power plants, which, in accordance with a decision taken in 1974, was carried out by operators together with the regulatory body every ten years, was based not only on standards and practices currently in force, but also on concepts developed by Belgium on the basis of experience acquired and problems encountered both in Belgium and abroad. For the Doel-1 and -2 and Tihange-1 units, reports outlining the measures to be taken had been submitted

in 1985 and modifications costing an estimated US \$200 million were currently being carried out. Preparations were already underway for ten-year reviews of the Doel-3 and Tihange-2 units, and the resultant reports would be submitted in 1992 and 1993 respectively. The reviews would include probabilistic and other studies relating to the prevention of beyond-design-basis accidents and the mitigation of their consequences.

51. Belgium continued to share its experience through the EC, OECD/NEA and the Agency. Belgian operators were also members of the World Association of Nuclear Operators (WANO). His delegation was in favour of the Agency's co-operating with WANO with the aim of enhancing the safety and performance of nuclear power plants, and noted that such co-operation had been strongly advocated by the Director General at the inaugural conference of WANO in Moscow on 15 May 1989.

52. The main objective of radioactive waste management was to protect man and the environment against radiological risks in all circumstances that could reasonably be foreseen in the very long term. Since 1974 Belgian institutions, and in particular the Nuclear Energy Research Centre (CEN), had been conducting a major research and development programme aimed at evaluating the possibility of using deep geological formations - and specifically the Boom clay located directly beneath the Mol nuclear site - for the burial of long-lived or very high-level radioactive wastes. The EC had been making a significant contribution to those efforts since 1976 through its radioactive waste management and storage programme.

53. An interim report entitled SAFIR (Safety Assessment and Feasibility Interim Report) published in June 1989 by the National Organization for Radioactive Wastes and Fissile Materials (ONDRAF) outlined the principal results achieved by that research programme between 1974 and 1989, which were based largely on observations made under real conditions in an underground laboratory situated at a depth of 225 m in the clay. From the results of that programme, which was open to international co-operation, the main features of the design of a deep repository for conditioned wastes of that type had been established. Those proposals were the subject of an ONDRAF report entitled "Disposal Concept and Overall Costs (June 1989)", which

presented a scenario for waste management and an evaluation of the overall costs of waste disposal. The report was currently being considered by the relevant authorities.

54. Those actions were evidence of Belgium's interest in the Agency's waste management programme. The publication of the Radioactive Waste Safety Standards and the establishment of the International Radioactive Waste Management Advisory Committee, which the Director General had referred to in his statement, would help to demonstrate that coherent systems for the safe and economic management of wastes existed and would contribute significantly to their harmonization. He wished to point out that the BR3 pressurized-water reactor at the CEN site in Mol was one of the four installations chosen by the EC for its demonstration programme on the decommissioning of nuclear power plants.

55. Belgium had always attached great importance to the policy of non-proliferation and hence Agency safeguards. It welcomed the safeguards statement for 1988 and the background information to that statement, which highlighted the key element of the safeguards system, namely its voluntary nature.

56. The adoption of new guidelines for the implementation of safeguards was an important matter which should be dealt with promptly. International competition in that area was fierce, and the future of certain sensitive plants in non-nuclear-weapon States could depend on those guidelines and on how they were applied. The solution adopted for the uniform implementation of safeguards at centrifuge enrichment plants in both nuclear-weapon and non-nuclear-weapon States should serve as a model for the plutonium-bearing-fuel fabrication plants.

57. Another crucial question was the long-term financing of safeguards. Belgium would make its contribution to that issue by resubmitting the proposals it had presented together with other Member States in which safeguards were applied.

58. The Agency's Safeguards Implementation Report acknowledged the considerable contributions made by Member States' support programmes. The Agency had proposed certain guiding principles with a view to drawing up an

overall programme and defining the activities to be carried out. Within that new framework, Belgium would continue to respond to Agency requests for assistance in conducting its safeguards research programme.

59. While his delegation welcomed the progress made in respect of the revision of Article VI of the Statute as a whole, it remained concerned by the absence of a satisfactory solution to that question. Efforts should be made to find a solution along the lines of the Italian proposal which provided for a moderate and balanced increase in the number of seats on the Board.

60. As for the future, his country endorsed the general concepts outlined by the Director General in the statements he had delivered in Amsterdam and Moscow on 3 and 15 May 1989.

61. It was very important to have the clearest possible picture of the economic and environmental advantages and disadvantages of all forms of energy. Through its programme for the comparative evaluation of nuclear power and alternative energy sources, the Agency should be able to provide a useful reference data on that subject.

62. Mr. YUN (Democratic People's Republic of Korea), after endorsing the Director General's opening statement and the Agency's Annual Report for 1988, said that, as a reliable and economic source of energy, nuclear power was attracting ever more attention, especially in developing countries. Nuclear energy's share of world electricity generation, which had already reached 17%, would continue to increase. There was also increasing awareness of the value of nuclear techniques in many sectors, and of their uniqueness in certain applications.

63. The Agency's activities in nuclear safety, radiation protection, waste management, nuclear applications and technical co-operation had made a significant contribution to the development of the peaceful uses of atomic energy in developing Member States.

64. In order to meet increasing demand for electricity, several hydroelectric and thermal power plants were under construction in his country and preparations for the construction of a nuclear power plant were under way. Various problems concerning the siting of four WWER-440 units had been resolved, and the construction of WWER-1000 pressurized-water reactors was under consideration.

65. In order to promote the peaceful uses of nuclear energy, the capacity of the existing IRT-type research reactor had been increased from 2 MW to 8 MW. That reactor was now being used for studies in physics and on materials as well as for analysis and isotope production. Technical assistance provided by the Agency had played a major part in his country's achievements in the peaceful uses of atomic energy.

66. Today, the nuclear problem was not restricted to science and technology, but also concerned world peace and life itself. All peoples wanted lasting world peace. His delegation commended the Agency on its safeguards activities, which contributed to that goal. His Government had put forward a proposal to turn the Korean peninsula into a nuclear-free zone so as to help ensure peace and security in the Asian region and the rest of the world, and it was making every effort to implement that proposal. All those who worked for peace would be aware of the tense situation in the Korean peninsula and would support the efforts being made by his country to eliminate the threat of nuclear war and to ease tensions. His country would continue to co-operate with the Agency and to fulfil its responsibilities as a Member State of that organization.

67. Mr. PAREJA CUCALON (Ecuador) expressed his Government's gratitude to the Agency for its untiring work in promoting the peaceful uses of nuclear energy in the interests of peace, health and development in the world. Ecuador was becoming increasingly aware of the fact that the attainment of a world of peace and solidarity depended on the peaceful use of the atom. His country welcomed all initiatives aimed at disarmament and the elimination of the threat of nuclear war, and would like to see the vast resources currently used for military purposes being made available to support efforts to improve social conditions, a task which was vitally important for the developing world. Nuclear safety, which could be considered part of those efforts, needed strong support from all governments as well as the valuable contribution which the Agency could make. Radiation protection, which contributed to the goals of nuclear safety, also deserved the attention of Member States.

68. The universal acceptance of safeguards was essential to ensuring the peaceful use of all nuclear facilities. It was vital to train the staff of

nuclear facilities in that area. That matter had been given particular attention by the Secretariat which had, among other things, recruited more safeguards inspectors from Latin American countries. It was to be hoped that those efforts would continue and be intensified.

69. A matter which was of great concern to his Government was the protection of the environment, not only against deforestation and soil deterioration, but also against the more serious threat of the dumping of nuclear wastes, which affected the ecosystem for long periods of time and endangered the health of generations to come. His country would like to see a joint effort aimed at finding strategies for the prevention of transboundary radiological risks associated with such practices. Procrastination in the environmental area could be very harmful to economic growth and social progress. At the regional level, Ecuador was contributing actively to the objectives of the Permanent South Pacific Commission, which were vital for its own survival. Ecuador also maintained strong interest in the ARCAL programme, which was an important instrument for co-operation among Latin American countries.

70. As a Member of the Agency for more than 30 years, Ecuador had received a major infusion of technology, which had formed the essential basis for the promotion of the peaceful uses of nuclear energy in those areas of most benefit to the majority of its inhabitants. Aware of the importance of the work of the Ecuadorian Atomic Energy Commission (CEEAA), the Government had tripled the Commission's operating budget and provided it with the necessary infrastructure and personnel, thus enabling it to improve its co-operation with the Agency. Together with the Agency, projects were being implemented in such areas as agriculture, improvement of livestock productivity, genetics, animal health, hydrology, production of radiopharmaceuticals, applied nuclear physics, radiation technology, industrial applications, monitoring of radioactivity in the environment, fruit fly control and nuclear medicine services, which were all of great importance for improving the productive sector and demographic distribution of the country. However, much remained to be done in those and other spheres to bring about a substantial change in social conditions in Ecuador and to improve domestic demand and the manufacture of export products.

71. Another aspect of the CEEA's activities was the establishment of a vital nuclear research centre which would provide effective training for the country's technicians, ensure proper implementation of projects and, no less importantly, facilitate the assimilation of the technology transferred. Ecuador wished to thank those friendly countries from different regions which had contributed to many of the projects mentioned, thereby demonstrating their support for international solidarity and co-operation.

72. In conclusion, his delegation wished to reaffirm its conviction that the peaceful uses of nuclear energy and the strict application of international instruments which promoted and regulated such uses would bring mankind a calm and peaceful future. It was in that context that his delegation expressed its strong support for the work which the Agency was carrying out as the body responsible for co-ordinating efforts aimed at attaining those objectives, and the hope that the implementation of the Agency's programmes would facilitate the worldwide application of the international legal regime.

73. Mr. SMALL (Ireland) said that, as a party to NPT, his country attached the highest importance to the international non-proliferation regime, of which the Agency's safeguards system was the corner-stone. His Government set great store by the Agency's safeguards activities and therefore commended the Director General on his efforts to enhance their effectiveness and efficiency to the extent possible at a time of acute budgetary restraints and increasing demands. Ireland appealed to all Member States to work with the Agency to ensure the effective application of the safeguards system.

74. The convening of the Fourth NPT Review Conference in 1990 was an event of major importance. The NPT had been the most effective arms control agreement to date and had helped significantly to strengthen international peace and security. He welcomed the fact that additional countries had signed the Treaty since the 1985 Review Conference. As 90% of the Member States of the United Nations Organization were now parties to the Treaty, it was to be hoped that it would one day become truly universal in scope.

75. The Director General and several delegates had referred to the greenhouse effect and the warming of the atmosphere. There could be no doubt that there was a close link between energy consumption and long-term

environmental damage and that carbon dioxide emissions to the atmosphere posed a serious problem. It was generally agreed that there was no single or simple solution to the problem. Research must be continued with the aim of more clearly defining the consequences of increased emissions and, it was to be hoped, of finding technical solutions. However, emphasis should also be placed on energy conservation, more efficient use of resources and the economical exploitation of renewable or less polluting energy sources such as natural gas.

76. Several countries firmly believed that nuclear energy had an increasing role to play in alleviating that situation, but it would be wrong to say that nuclear energy was itself totally non-polluting and environmentally benign. It was therefore essential for the best technical, regulatory and safety practices to be adopted for the nuclear power industry, and for there to be greater openness in that area. In the light of the expanding role envisaged for nuclear energy, the need to strengthen safety was even greater. Without continued improvement in safety standards, nuclear energy would never be universally accepted by the public nor contribute to its alleviation of certain aspects of environmental pollution.

77. Improving safety in order to make the nuclear industry universally acceptable required efforts in three areas. Firstly, more rigorous standards and the best available technology should be adopted and implemented for the design, construction and operation of nuclear facilities, with all installations which no longer met those standards being phased out and closed down. That would ultimately lead to safer reactors being designed and constructed and to a final solution being found to the problem of waste management.

78. Secondly, effective national regulatory systems should be developed to ensure that the highest standards are applied in a transparent manner, and the sharing of national regulatory experience should be encouraged. In that connection, Ireland wholeheartedly supported the Agency's organization of a questionnaire on regulatory practices and safety standards, an initiative which had been discussed at a symposium in Munich in November 1988 and which he hoped would be developed further. Ireland had proposed two years

previously that those regulatory authorities which so desired could compare their practices and procedures using as a model the OSART missions widely acclaimed by the operators of nuclear facilities.

79. Thirdly, even with the best technical and regulatory standards, the possibility of an accident could never be entirely excluded. Satisfactory solutions that went beyond the limitations of current conventions must be found to the problems of liability and compensation. His country welcomed the setting up of the Working Group on Liability for Nuclear Damage under the very able chairmanship of the Ambassador of the Netherlands. The time had come to consider a broader approach to the problem of nuclear liability: it should go beyond the level of liability that could be afforded by operators and insurers, and apply the principle of State liability and full acceptance of the consequences of damage caused to other countries. Other instruments relating to the international environment such as the conventions on space and satellites could serve as a model in that respect.

80. In summary, although the greater use of nuclear power could help to reduce certain types of atmospheric pollution, such an expanded role could not be permitted if it meant accepting other well-known risks which could have even more disastrous consequences for the physical, economic and human environment. An increased effort was now needed to reduce those risks to a minimum, and it was for the Agency to play the leading role in that essential area of international co-operation. In the final analysis, the principle of good neighbourliness must prevail if problems of concern to the whole world were to be resolved.

81. His Government was particularly interested in the Agency's co-ordinated research programme on radon. That natural source of radiation was causing serious problems in a number of countries, including Ireland, and solutions were urgently required.

82. His delegation also welcomed the Agency's efforts to develop basic safety principles for the management, transport and storage of radioactive wastes. Until political and technical solutions to that serious problem had been found and implemented, it would be unwise to contemplate expanding the role of nuclear energy.

83. Finally, the technical assistance programme constituted an essential part of the Agency's activities. Ireland would continue to take part in activities involving the dissemination of up-to-date technology and the best practices to all nations; in the past two years, it had hosted training courses on various aspects of nuclear safety which had been attended by participants from all the regions of the world, and it hoped to continue its involvement in that work.

84. Mr. KOCH (Denmark) said that he shared the Director General's view that the scale of environmental problems posed global threats to sustainable economic development. The problem of achieving environmentally sound and sustainable development was indeed one of the crucial issues of the present era.

85. With the World Commission on Environment and Development, he felt that the ecological risks inherent in current consumption patterns were so serious that energy consumption would have to be severely limited and supply systems changed if long-term sustainable development was to be achieved.

86. His country also endorsed the following statement made in the World Commission's report:

"The generation of nuclear power is only justifiable if there are solid solutions to the presently unsolved problems to which it gives rise. The highest priority must be accorded to research and development on environmentally sound and economically viable alternatives, as well as on means of increasing the safety of nuclear energy."

87. The atmospheric concentration of CO₂ and other gases was causing a greenhouse effect which might, in the longer term, lead to a heating up of the planet and climatic changes. However, energy consumption also caused more common and better known forms of pollution, as well as safety and waste storage problems. It was therefore not possible to compare the ecological advantages of various energy sources only on the basis of their atmospheric consequences. All the environmental consequences of the complete fuel cycle had to be evaluated for each of the energy sources available.

88. The problems of safety and waste storage had been the main factors underlying the decision of the Danish parliament not to use nuclear energy. Denmark's energy policy had for some years followed the same lines as those

recommended in the report of the World Commission. Since the 1970s it had been characterized by increased energy efficiency, strict standards for SO_x and NO_x emissions, increased use of energy sources which produced lower levels of CO₂ and other gases which might contribute to the greenhouse effect, and research, development and demonstration work aimed at developing new and more satisfactory techniques.

89. Denmark attached great importance to the Agency's nuclear safety activities. During the previous three years the foundation had been laid for greater co-operation in key areas of nuclear safety. He noted with pleasure the increasing number of Member States which had acceded to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. He also welcomed the continued co-operation between the Agency and the World Meteorological Organization with regard to the rapid transmission of meteorological and radiological data. Nor could the importance of bilateral agreements as a complement to multilateral agreements be ignored, particularly where the swift notification of nuclear accidents was concerned. Bilateral notification systems had operated effectively in a number of specific cases during the past year.

90. The development of universally accepted standards and principles was essential in the field of nuclear energy. Denmark therefore welcomed the work which had been done on the five NUSS codes, and the updating of several safety guides. It would soon be necessary to update the NUSS codes further to take into account progress in nuclear technology and science. He expressed his strong support for the efforts of the International Nuclear Safety Advisory Group (INSAG) to develop basic safety principles for nuclear power plants reflecting the most advanced practices and policies. Naturally, the development of more effective safety principles and standards was bound to lead to a revision or modernization of safety systems in older plants. States which used nuclear power should be ready to meet the cost of such modernization. His delegation also endorsed the Agency's efforts to establish technical criteria and safety principles for the underground disposal of high-level waste.

91. Safeguards, which were one of Agency's main activities, had made a great contribution to the non-proliferation of nuclear weapons. The safeguards system ought to be expanded continuously and all nuclear facilities without exception should be placed under it.

92. While his delegation welcomed the increase in the number of States which had become party to NPT, it was concerned that 52 of the non-nuclear-weapon States party to that Treaty had not yet concluded safeguards agreements as they were required to do under Article III, and strongly urged those States to conclude agreements as soon as possible.

93. It was encouraging to note that nuclear material under Agency safeguards in 1988 had remained in peaceful nuclear activities, or had been otherwise adequately accounted for. Equally welcome was the news that safeguards agreements covering some civil nuclear installations had now been concluded with all five nuclear-weapon States. It was to be hoped that the coverage of those agreements might be expanded. An increasing number of nuclear facilities would be subjected to Agency inspections during the coming years. The introduction of new and more efficient and effective safeguards approaches was therefore a very positive development. Nevertheless, it would be necessary in the longer term to increase the level of resources allocated to safeguards. Denmark had accepted the extension of the current financing arrangement for safeguards but it would have preferred a viable long-term solution to have been adopted. The General Conference should request the Board of Governors to step up its efforts in that regard.

94. Denmark welcomed the adoption, in September 1988, of the Joint Protocol establishing a link between the Paris and Vienna Conventions on civil liability for nuclear damage. His Government had already ratified that Protocol. His country strongly supported the activities of the open-ended working group entrusted with the task of studying all aspects of liability for nuclear damage, and hoped that its work would swiftly reach a positive conclusion.

95. Denmark attached great importance to the Agency's technical assistance activities, which continued to expand. The target of US \$45.5 million for 1990 for the Technical Assistance and Co-operation Fund was acceptable, and his country would pledge its full share of that target.

96. Mr. NAVARRO (Philippines) said that the arguments the Director General had put forward in his opening statement in support of the nuclear option, arguments based on concern for protection of the environment, provided much food for thought for national decision makers, including those in the Philippines, who were still wary of nuclear energy. Nuclear safety remained the key question. Nuclear accidents such as the ones at Chernobyl and Three Mile Island were still vivid memories, particularly since the damage caused to human beings might go beyond the present generation. Of course, it had been stated many times that the risk of a nuclear accident was simply that - a risk; however, even if that were true, efforts must continue to be made to reduce that risk to a minimum. Only then would the sceptics perhaps be fully convinced that nuclear power was the best option after all.

97. The Agency was to be commended on the contribution it had made to the attainment of a high level of nuclear safety. The Philippines supported the expansion of the Agency's nuclear safety programme and its emphasis on technological change and operational safety. It continued to support the programme of Operational Safety Review Teams (OSARTs) and Radiation Protection Advisory Teams (RAPATs), and hoped that more emphasis would be placed on prevention than on corrective measures.

98. The Philippines had implemented its own nuclear safety measures which were consonant with the Agency's work. His country's legislation and regulations on nuclear safety and radiation protection conformed with the standards and guidelines laid down in the NUSS codes.

99. His Government attached great importance to technical co-operation. It supported the thrust of the Agency's technical co-operation programme and, generally, those activities that promoted the peaceful applications of nuclear energy. When drawing up technical assistance projects, extensive and continuous consultation must take place between the Agency and the Member State in question in order to ensure that the projects selected made a real contribution to the realization of national development objectives and that they were in line with those objectives. For States which had no nuclear power programme the Agency's technical assistance programme covering other peaceful uses of nuclear energy was of equal importance. His delegation would

like technical co-operation activities to be financed from more secure and regular sources and hoped that the Agency would continue consultations on that subject.

100. With regard to administrative support for technical co-operation, he wished to express his concern at the splitting of the Division of Technical Assistance and Co-operation into two Divisions, one in charge of programming and the other in charge of implementation. The old structure had been efficient and he was not yet fully convinced that the split had been necessary. At all events, it was to be hoped that the new set-up would be responsive to the special needs of developing countries.

101. His country was highly satisfied with the Regional Co-operative Agreement (RCA) for Asia and the Pacific, which was an effective instrument for improving regional self-sufficiency in the application of nuclear techniques in medicine, agriculture and industry. The fact that the Agency's share of the funding of RCA activities was steadily decreasing was a reflection of the broadening base of RCA resources and the maximum use being made of the region's financial and human resources.

102. It was the Philippines objective to join the ranks of the newly-industrialized countries by the year 2000. The Philippines recognized the value of nuclear technology in the industrialization process. The activities currently being carried out under the RCA were entirely consistent with that objective, since their aim was to improve the quality of health care and to meet the food needs of the population. In that context, particular mention should be made of the project concerning the application of tracer technology in industry and the training programme on non-destructive testing. His country continued to support the objectives of the RCA by participating actively in its programmes and might be able, in the very near future, to host an RCA working group meeting.

103. With regard to liability for nuclear damage he noted that the working group entrusted with the task of determining gaps in the current civil liability regime and issues relating to State liability had made some progress. Certain issues in the existing civil liability system clearly fell within the purview of State liability. The question of the non-peaceful uses of nuclear energy was of special importance, and it was to be hoped that the

working group would examine that matter in depth at its next meeting and would make a recommendation concerning the embodiment in a multilateral instrument of all principles relating to State liability.

104. With respect to the staffing of the Agency's Secretariat, there had been some improvement in the representation of developing countries. However, the Secretariat should redouble its efforts to increase the representation of those countries, particularly at the decision-making level. Representation of women at that level had not come up to expectations. The Agency should be guided in that matter by the numerous resolutions adopted by the United Nations General Assembly concerning the improvement of the representation of women in United Nations bodies.

105. The question of the representation of Member States not members of the Board at meetings of the Board as observers had provoked intense discussion at the preceding session of the General Conference, which had invited the Board to examine the matter again and to report to it during the current session. His delegation had requested that the issue be included in the agenda of the current session so that the General Conference might discuss the action taken by the Board in response to the Conference's request.

106. In view of the comments made by other delegations, the Philippines was submitting a revised draft resolution in document GC(XXXIII)/881/Add.1, which it hoped would meet with the Conference's approval. The aim of the text was to give Member States which were not members of the Board official observer status at that body and to allow them to participate fully in the deliberations of the Board without having the right to vote. The adoption of those measures would, moreover, reinforce the principle of sovereign equality of States and the universality of the Agency. It would also bring the Agency into line with other United Nations bodies which granted that privilege as a matter of right.

107. While some changes had been introduced by the Secretariat during the current year in the physical arrangements for non-Board members during Board meetings, he would like to see a more liberal interpretation of Article 50 of the Rules of Procedure to allow non-Board members to participate fully and spontaneously in Board meetings. In view of the noble aims of the draft resolution, his delegation hoped that it would be favourably received.

108. Mr. MALU wa KALENGA (Zaire) said that, with regard to nuclear activities in Zaire, he wished only to mention the safety problem posed by the corrosion of the tank of the TRIGA Mark II reactor at the Kinshasa Regional Nuclear Research Centre, which had been detected in August 1987 with the assistance of the Agency. The reactor had been shut down in March 1988 for repairs, had been disassembled, repaired and reassembled, and had attained criticality in March of the current year using only national human and material resources.

109. As his contribution to the general debate he wished to concentrate on the problems currently facing the nuclear industry. The technicians in the nuclear industry saw those problems as being more socio-political than technical in nature. As far as the public at large was concerned, and therefore from a political point of view, the reverse was true. That disparity in the perception of the real problems in the nuclear industry had given rise to a large number of misunderstandings, which undeniably cast a cloud over the industry's future. The question was currently the subject of much debate, the general public having become aware of the environmental risks associated with a possible greenhouse effect caused by the discharge of various gases into the atmosphere.

110. The report of the World Commission on Environment and Development had also provoked extensive comment. That report, which advocated sustainable development in the sense of development which allowed current needs to be met without compromising the ability of subsequent generations to meet theirs, laid particular stress on a minimum energy scenario. Such a scenario did not meet with agreement from certain, or even many, specialists in the nuclear power generation field, as shown by the somewhat critical document entitled "The International Atomic Energy Agency's Contribution to Sustainable Development" which the Agency was intending to present to the current session of the United Nations General Assembly. The chapter headings of that document were classic, as were the theses it maintained. Everything was presented in an irreproachable technical form, if the following reasoning were accepted.

111. That reasoning was very simple: With regard to the application of nuclear techniques in agriculture, medicine and related sciences, the Agency was at least 80% committed to sustainable development. As far as energy

generation was concerned, the nuclear option produced the least pollution, as long as there were no further major accidents like Chernobyl; every effort was being made to ensure that, as the extremely small number of major accidents (two at the most) which had occurred in the course of 5000 reactor-years of operation showed. Moreover, only one of those, the Chernobyl accident, had had a significant effect on the environment. There remained, of course, the problems of nuclear proliferation and waste management. However, there too, technical and organizational solutions were not lacking. According to the Agency, the safeguards system was functioning well, since no significant diversion had yet been detected in countries which had adhered to NPT.

112. The good report which the Agency had given of itself was justified, except for a few fine points which needed to be raised. The reason for those reservations was that protection of the environment had become a highly politicized common topic that no one could afford to ignore in current times, especially when considering the nuclear option.

113. Given the new political dimension of the environmental topic, the stakes were high for all those involved and particularly for the Agency. For the latter, the major hurdle to be overcome could be summed up by the following statement made by the Secretariat[*] in the Nuclear Safety Review for 1988:

"In more than 30 years and more than 5000 reactor-years of nuclear power experience there has been only one accident with major consequence for public health ... Despite this record, there remained widespread public concern that nuclear power is too risky".

Several incidents, more or less recent, had fed that feeling, and it had been further aggravated by the "hollow rhetoric" which had long characterized everything to do with the nuclear industry. The Secretariat document cited certain of those incidents concerning the management of radioactive waste and actual or potential accidents affecting both civil and military nuclear facilities.

114. In the light of such examples and several more besides, it quickly became apparent that it would be an ill-advised move to reduce the problem

[*] Document GOV/2399, paragraph 01, 02.

confronting the nuclear power industry to a simple question of poor quality information regarding the risk involved and the progress made in the safety of nuclear installations. Indeed, more and more people who exercised an influence on public opinion were in a position to make a credible cost-benefit analysis of the nuclear industry. Certain among them were coming to the conclusion that the risk of a Chernobyl every 30 years and every 5000 reactor-years was quite simply unacceptable. It was thus evident that a very considerable qualitative jump would have to be made in the nuclear safety area if those people who were both well informed and sceptical about the nuclear issue, but who were nevertheless prepared to evaluate all the power generation options available without prejudice, were to be convinced and reassured.

115. The scale of the qualitative jump which had to be made in the safety area called for a switch in reactor design philosophy to inherently safe reactors. He had urged the Agency on previous occasions to adopt that approach in its nuclear power programme. Without concerted action to promote inherently safe reactors, the reviews of the position of nuclear power in the electricity-generating sector which were currently being undertaken by several countries would result more and more frequently in the reduction, postponement and gradual phasing out of nuclear programmes, despite the incontestable advantages of nuclear power, with respect to, for example, the reduction of emissions of gases which contributed to the greenhouse effect. In sum, it was easier for the informed politician to get the public to accept the concept of passive safety than that of active safety.

116. The concept of passive safety had the advantage that it was particularly well-suited to smaller-scale reactors, which was a good thing for developing countries. The use of the nuclear power option in those countries was restricted by the low capacity of the existing electricity grids and the high cost of the installed kilowatt, which made initial investments prohibitively high. But that did not apply if the reactor size was reduced. Inherently safe small- and medium-power reactors could finally bring about the nuclear power breakthrough in developing countries which they had been awaiting for the 30 years following the introduction of nuclear power. The absence of economies of scale with that type of reactor could be offset by the use of standardization, which would allow shop fabrication, and modular designs.

117. In its programme for 1990, two key ideas should guide the Agency in the current international situation. The first was the idea of passive safety which he had just discussed. The second was that of sustainable development as used in the World Commission's report. Those two ideas were, of course, closely connected with protection of the environment, which seemed to be the dominant factor in the changes proposed by the Secretariat to the 1990 programme. That was a change of course which his delegation approved of; however, it was regrettable that, in order to take part in a scientific symposium on electricity and the environment, numerous radiation protection and safety-related projects had, according to the Secretariat, to be sacrificed.

118. The Secretariat had made considerable progress with the management of the technical assistance and co-operation programme. Multi-year programming did not necessarily bring with it only advantages, however. The longer the programming period became, the more random the programming process became. The risks of changes, the economic difficulties of Member States, the downward revision of the growth rate for indicative planning figures, the lack of experience with multi-year programming and finally the ageing of research reactors all contributed to the his delegation's scepticism about the justification for strict multi-year programming. In addition, the room for manoeuvre recently introduced in multi-year programming through the establishment of a reserve fund did not seem sufficient.

119. He noted with regret the low level of resources allocated to Africa under the technical co-operation programme by comparison with other regions. Within Africa itself, the French-speaking countries received less assistance than other linguistic zones in the continent. The Secretariat should take urgent measures to remedy that situation.

120. In conclusion, he was confident that Mr. Blix would do everything in his power to ensure that in the future nuclear energy would be promoted in a more equitable manner, particularly where Africa was concerned.

121. Mr. KABBAJ (Morocco) said that his country was proud to belong to the Agency, which, after 33 years' existence, could boast of remarkable achievements in the peaceful uses of nuclear energy. In 1988, the installed nuclear capacity in the world had increased by about 4.3%, reaching 311 GW(e), and nuclear power plants had accounted for more than 17% of the world's electricity output. By the end of 1988, there had been 429 nuclear power plants in operation. Table 1 of the annual report for 1988 showed that all nuclear power plants in operation were in Europe, America, Asia and South Africa. Although developing countries had not made any significant progress in that area, the Agency had continued its efforts to help those States to establish nuclear infrastructures. Specifically, it had provided assistance in the planning and implementation of nuclear power projects, organized training courses, carried out expert missions and issued reports and information documents. Nevertheless, in order to be able to keep up with new developments, developing countries desperately needed more help, especially since many of them lacked traditional energy sources such as coal and oil.

122. His delegation had carefully examined the activities carried out by the Agency in 1988 in nuclear safety, including the work done by INSAG, which had focused on developing basic safety principles for nuclear power plants, and the formulation by the Agency of recommendations relating to basic criteria for radiation protection, occupational and environmental protection, the transport of radioactive materials, emergency planning and preparedness, the control of radiation sources, radiation safety of nuclear fuel-related activities, and exposure assessment and handling.

123. His delegation noted with satisfaction that no accident with radiological consequences for health or the environment had occurred at a nuclear power plant in 1988. That achievement was proof of the perseverance and seriousness with which the Agency pursued its work, and of the success of its nuclear safety programme. None the less, developing countries were still in urgent need of assistance to strengthen their nuclear capabilities and to train their staff in nuclear safety and radiation protection.

124. The Agency was to be commended on its activities in waste management, a subject which required full attention if nuclear safety were to be assured.

Particularly welcome were the establishment of the International Radioactive Waste Management Advisory Committee (INWAC) and the activities of the Waste Management Advisory Programme (WAMAP), under which 12 missions had been carried out in developing countries and assistance had been provided with the implementation of national radioactive waste management programmes. Support had also been given to technical co-operation projects in 19 Member States. In the light of the economic difficulties facing developing countries and the fact that certain irresponsible groups were trying to take advantage of those difficulties, he trusted that the Agency would continue its efforts in that area and give priority to requests from developing countries for assistance in the waste management field.

125. The Department of Technical Co-operation deserved praise for the assistance it had given developing countries and for encouraging them to pursue their nuclear power programmes. Planning methods and tools had been made available by the Agency to those countries, and training had been provided in their use. Morocco was particularly pleased with the work done by advisory groups, which had contributed, among other things, to the preparation of a reference book which contained information on conventional and innovative methods of financing nuclear power projects in developing countries and which also discussed the experience acquired in that area.

126. His delegation greatly appreciated the fruitful co-operation between his country and the Department of Technical Co-operation, and thanked the Agency's staff for the assistance given to Morocco in such areas as nuclear power, the drafting of nuclear legislation, the application of nuclear techniques in studies relating to animal production and disease diagnosis, and training in nuclear medicine and other disciplines. With regard to regional co-operation between developing countries, Africa was still in need of a constructive regional mechanism in the field of nuclear energy. Morocco, which had much experience in the subject as well as the necessary human and material resources, was prepared to co-operate with the States of the region in regional projects that would allow those countries to exchange the information and skills they had acquired in such areas as the use of nuclear techniques in medicine, agriculture, physics and chemistry. It was as part of

regional co-operative efforts that Morocco had attended a conference of African plenipotentiaries in Addis Ababa in May 1989, the aim of which had been to establish a technical advisory committee for nuclear sciences and techniques.

127. Morocco's nuclear power programme was moving forward. A decision had been taken to establish a National Nuclear Energy Council whose task would be to promote and develop nuclear technology in the country and to liaise between the various national bodies in the nuclear sector. The preparatory studies for the El Mamoura Nuclear Research Centre (CEN), which would be ready at the end of 1992, had been completed. Furthermore, nuclear legislation was about to be ratified. Studies relating to the nuclear power plant that was to become operational at the beginning of the next century were being continued. The fact that Morocco had succeeded to some extent in laying the foundations of its future nuclear programmes and in increasing and upgrading its human and material resources, was broadly due to its co-operation with the Agency and friendly Member States.

128. Morocco would soon take the measures necessary to ratify various conventions established under the Agency's auspices.

129. His delegation could not refer to the expansion of the safeguards system and the non-proliferation regime without condemning Israel's stubborn attitude and irresponsible behaviour with regard to the recommendations made by the General Conference and the resolutions of the United Nations Security Council and the General Assembly. The Israeli Government was persisting in its refusal to respect the United Nations Charter and the decisions of all international bodies. It was regrettable that the report submitted by the Director General contained nothing which might move Israel to change its mind and to accept the Agency's decisions. His delegation very much hoped that the General Conference would do everything in its power to ensure that Israel complied with resolutions GC(XXXII)/RES/487 and GC(XXXI)/RES/470. With respect to the comparison made between the Middle East and other regions in the Director General's note on the modalities of the application of safeguards in the Middle East, his delegation considered that the circumstances in the Middle East were completely different from those to be found elsewhere, as it was a zone of conflict where territories were occupied and the Arab people were the victims of a policy of aggression and oppression.

130. His country condemned the co-operation between the Israeli entity and the South African Government, since that represented a grave threat to peace and security in Africa and the Middle East. It also condemned the attitude of the racist Government of Pretoria, which refused to comply with various General Conference resolutions calling on it to place its nuclear facilities under Agency safeguards. His delegation hoped that the South African Government would be made to abandon its diversionary tactics and stubborn attitude, and urged Member States to take the necessary decisions on that matter and to settle, once and for all, the question of the implementation of the Board's recommendation contained in document GC(XXXI)/807, which called for South Africa to be suspended from exercising its rights and privileges of membership under Article XIX.B of the Agency's Statute. The Conference should take a definitive decision on that recommendation at its current session.

131. As the United Nations General Assembly had decided by resolution 43/177 of 20 December 1988 that the designation "Palestine" should be used in the United Nations system instead of the designation "Palestine Liberation Organization", the Agency should make the same change and should make it possible for Palestine to participate effectively in its work, whether in the Board of Governors, the Technical Assistance and Co-operation Committee or scientific and technical meetings. His delegation therefore appealed to all Member States to support the resolution on that matter.

132. His delegation wished to inform the General Conference that the Moroccan Government had decided to make a voluntary contribution of US \$18 200 to the Technical Assistance and Co-operation Fund for 1990.

133. In conclusion, his country reaffirmed its wholehearted support for the work of the Agency.

134. Mr. NGUYEN DONG HAI (Viet Nam) recalled that it was the Agency's statutory objective "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world". Faithful to that lofty ideal, the Agency, an organization of high prestige, had played an important role in promoting international co-operation in the peaceful uses of nuclear energy and was thereby contributing to the realization of a dream of mankind: a nuclear-weapon-free world.

135. The transfer of experience and technology and the assistance given in research and development, training, energy planning and other areas had helped developing countries to use nuclear science and technology to develop their economies and improve the welfare of their people. He hoped that developed countries and the Agency would always be able to understand the aspirations of developing countries in that respect and would meet their just demands.

136. His country had been a Member of the Agency since 1979 and had benefited from its technical assistance programme, to which it attached great importance. That programme had helped Viet Nam to improve the physical and technical conditions that were essential for the development of nuclear science and technology and to improve the skills of the country's scientific and technical personnel.

137. Nuclear power was still at a preparatory stage of development in his country, and activities were focused on the non-power applications of nuclear energy. As in other developing countries, medicine and agriculture were the main areas in which nuclear science and technology were applied. Furthermore, as a tropical country where post-harvest losses were high, Viet Nam was very interested in the technique of preserving food by irradiation and was planning to put a multipurpose 220 kCi cobalt-60 irradiation facility into operation by the third quarter of 1990.

138. Where the industrial applications of nuclear techniques were concerned, Viet Nam was preparing to introduce non-destructive testing and radiotracer techniques and nucleonic control systems. It had officially participated in a UNDP-supported regional co-operative project on the industrial applications of nuclear techniques.

139. With the help of the Agency and the Soviet Union, the Dalat reactor had been restarted in 1984 with an increased power of 500 kW. It had been operating satisfactorily for the past five years and was being used for research, training, radioisotope production and activation analysis of geological, biological and environmental samples. In order to increase the efficiency of the reactor, Viet Nam wished to integrate it into the region's nuclear reactor network and to take part in the RCA training and research programme.

140. Viet Nam was contributing both to the Agency's technical co-operation activities and to other activities aimed at ensuring the safe utilization of nuclear energy. It had signed the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency in 1988. His Government was party to the RCA and to the Asian regional project on food irradiation.

141. His country intended to use nuclear energy exclusively for peaceful purposes. It strongly supported all international efforts aimed at the progressive elimination of the threat of a nuclear war, and welcomed any step that would ensure the safety of non-nuclear-weapon States. Consequently, having signed a safeguards agreement in 1981 concerning the Dalat research reactor, it was now prepared to sign a safeguards agreement pursuant to NPT, to which it was a party.

142. The peoples of the world wanted peace, international independence and economic progress. Viet Nam's foreign policy was one of peace, friendship and co-operation. The withdrawal of all Vietnamese troops from Kampuchea had just been completed and would undoubtedly contribute to peaceful coexistence in South East Asia.

143. Mankind was now on a path which would lead it to a world free of nuclear weapons, a world of mutual understanding and genuine co-operation. His delegation was confident that the Agency would make a valuable contribution to the attainment of that noble objective.

Mr. CHUNG (Republic of Korea) resumed the Chair.

144. Mr. AL-WAHAIBI (Observer from Oman) said that his country, although not a Member of the Agency, followed its activities and programmes with increasing interest. The transboundary consequences of any nuclear accident and the issue of nuclear safety in all its aspects were problems which concerned the entire world. That made it imperative to establish a non-proliferation regime in the Middle East and to prevent an arms race in that region. Furthermore, nuclear power, which posed no risks for health and the environment, was a reliable long-term energy option.

145. Countries which opted for nuclear programmes should accept the responsibility and consequences which such a choice entailed and, more

specifically, should make every effort to resolve the problem of nuclear waste disposal. It was of paramount importance that nuclear energy be used without jeopardizing the safety and security of man's environment.

146. His delegation welcomed the effective work carried out by the Agency in training technical staff from developing countries, the increase in the number of training courses since 1980, and the achievements attained under the technical co-operation programme. It also appreciated the significant contribution made by the safeguards system in preventing nuclear proliferation.

147. Oman was deeply troubled by the grave threat posed by the expansion of Israel's nuclear capabilities, by the fact that Israel refused to implement the resolutions of the General Conference and of the United Nations organization calling for it to place its nuclear facilities under international safeguards, and by the fact that Israel and South Africa were co-operating closely in order to increase their military nuclear capabilities. Those actions posed a great threat to a large area of the world. His delegation therefore called on the General Conference to take due account of what was happening and to adopt the only attitude that was possible towards those two régimes.

148. The recent peace initiatives, the international climate of détente and the agreement signed between the Soviet Union and the United States on the elimination of certain categories of medium-range nuclear weapons in Europe all offered new hope and confidence in the possibility of achieving the noble humanitarian goal of placing nuclear energy at the service of mankind and ridding the world of all nuclear weapons. Oman would welcome and support any measure enabling nuclear technology to be exploited as quickly and widely as possible for the creation of a peaceful and more prosperous world.

149. Mr. BUCHOWIECKI (Council for Mutual Economic Assistance (CMEA)) said that the Agency's achievements in 1988 had made a major contribution to resolving the economic and energy problems facing the world. Special mention should be made of the steps taken to create an international régime for the safe development of nuclear power and the work done in the nuclear safety and radiation protection area. Those actions had only been made possible because of the favourable climate prevailing in international relations.

150. The growing role of nuclear power in the economy of CMEA countries was attributable to their desire to have relatively inexpensive electricity, to reduce consumption of fossil fuels and to avoid environmental pollution. The installed capacity of nuclear power plants in CMEA countries exceeded 45 000 MW. Those plants produced some 280 billion kW/h of electricity per year, which represented about 13% of those countries' total electricity generation and resulted in savings of more than 90 million tons of fossil fuels.

151. At its forty-fourth session, CMEA had stressed the importance it attached to increased co-operation in nuclear energy, and had confirmed that most of the increase in its electricity requirements would be met by expanding nuclear power programmes. By the end of the century, nuclear power would account for 30-40% of total electricity output in CMEA countries. Also, a decision had been taken to draw up a design for a nuclear power plant of the next generation, which would have water-cooled and water-moderated VVER-1000 reactors that ensured a high level of safety and offered better technical and economic performance. It was planned to complete the design work by 1992 and to put the first units into operation by the year 2000.

152. CMEA countries were showing considerable interest in such promising applications of nuclear energy as its use for district heating, in which they had already acquired a great deal of experience. The Soviet Union was currently constructing nuclear plants for district heating equipped with 500 MW reactors. A number of other CMEA countries wished to build nuclear plants of the same type, but with a capacity of between 30 and 200 MW.

153. The CMEA was committed to helping create an international nuclear safety and had drawn up measures to strengthen the safety of nuclear power plants in its Member countries. Those measures, which were aimed at creating the physical, technical and scientific basis for the safe development of nuclear power in Member countries, included theoretical and experimental work on quality assurance in plant design, construction and operation; monitoring and diagnostic systems during plant operation; manpower training, protection of workers, the public and the environment; and the elaboration of international legal instruments pertaining to nuclear safety.

154. The CMEA was finalizing a draft intergovernmental agreement on mutual assistance between its Member countries in the event of a nuclear accident. That draft, which was to be signed in October, provided for both the immediate notification of any accident and mutual assistance in eliminating its consequences. It was also planned to build up a stock of equipment to be used in clean-up operations and for protecting workers and the public.

155. As the third millenium approached, mankind was increasingly aware that the protection of the environment was a vital social and economic issue. CMEA countries had co-operated in that area for 25 years and were currently implementing a comprehensive programme of co-operation for the period 1986-90 in the areas of environmental protection and the rational utilization of natural resources. Part of the programme dealt with radiation protection, including the assessment of the effectiveness of personnel protection systems, with the development of waste management and disposal technologies, and with the strengthening of nuclear power plant safety. In addition, the CMEA countries were preparing a draft strategy for the protection of the environment up to the year 2010.

156. The CMEA co-operated with the Agency under an agreement signed in 1975, the main form of co-operation being the exchange of scientific, technical and legal documents. The results had been good and the contacts between the two international organizations had become a tradition. However, that co-operation could be extended to many other activities.

157. The joint meetings held as part of the co-ordinated research programme on the probabilistic modelling of accident sequences in nuclear power plants were a good example of mutual understanding. Under that programme, which had brought together scientists from about 16 countries (of which 7 were members of the CMEA), specific research activities were being carried out and technical reports prepared. Within the regional programme, recommendations had been made to five CMEA countries on the probabalistic safety assessment of VVER-440 reactors.

158. The CMEA would continue to intensify international co-operation and to work towards improving public confidence in nuclear power and towards greater openness in that area. To that end, it would make every effort to work with other countries and international organizations, especially the Agency.

159. The PRESIDENT invited the representative of the Islamic Republic of Iran to exercise his right of reply, but requested all delegations to keep statements of a political nature to a minimum so that the debate could continue in the spirit of reconciliation which he had urged when accepting the presidency of the Conference.

160. Mr. AYTOLLAHI (Islamic Republic of Iran) said that certain parts of the statement which he had made the previous day seemed to have been misinterpreted by the Iraqi delegation. To avoid any unnecessary discussion, he therefore wished to make a number of comments.

161. The Islamic Republic of Iran had never been opposed to United Nations resolution 598, but had accepted it in good faith and genuinely sought its full implementation. Contrary to the allegations made by the Iraqi delegation, it was not putting any obstacles in the way of peace negotiations. It was Iraq which still held a large part of Iranian territory, in violation of the first item of resolution 598.

162. With regard to the inspection of shipping in the Persian Gulf, his country was acting in accordance with its rights under international maritime law. With regard to the Arvand River and, indeed, all other boundary disputes between his country and Iraq, those had all been clarified in the 1975 treaty between the two countries, which was still in force.

163. In conclusion, his delegation wished to stress once again its commitment to United Nations resolution 598 and to its full implementation.

164. The PRESIDENT, observing that the Iraqi delegation had asked to exercise its right of reply and after consulting the Secretariat, said that that right could not be exercised indefinitely. He therefore requested the representative of Iraq to show understanding by forgoing his right of reply.

165. Mr. AL-MATOOQ (Iraq) said that he would forgo his right of reply.

166. The PRESIDENT thanked the representative of Iraq for his co-operation.

The meeting rose at 6 p.m.

