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President: Mr. TAYLHARDAT (Venezuela)

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GENERAL DEBATE AND ANNUAL REPORT FOR 1982 (GC(XXVII)/684) (continued)

1. Mr. SULLIVAN (Canada) said that, particularly in the past decade, over-optimism and over-pessimism in nuclear matters had given rise to one another in endless succession. In the interest of a more accurate reading of the extraordinary venture which had been collectively embarked upon, he would like to give a brief sketch of the nuclear energy scene in Canada at the present time.

2. In 1982, Canadian companies had produced slightly more than 8000 tonnes of uranium, or in other words the largest annual output achieved in 20 years. The chief factor behind the surprisingly strong growth was the approaching completion of many of the power reactors contracted for in the mid-1970s, together with the need to ensure their supply later in the present decade and into the 1990s. Given the fact that the installed nuclear capacity of the Western world was expected to grow by about 135% between 1981 and 1990, the prospects for uranium mining in Canada were good. The bulk of the uranium was still being produced in Ontario; but high-grade surface mining operations had begun on a major scale in Saskatchewan, which would ensure that Canadian uranium remained competitive on international markets whichever way the situation turned. Preliminary statistics suggested that in 1983 Canada would emerge as the world's biggest uranium producer. It had to be stressed in that connection that the increase in production had been matched by a qualitative improvement in the conditions under which production proceeded, especially as concerned the health and safety of workers and environmental protection. Furthermore, the growth in production would have to be accompanied by an increase in Canada's uranium refining capacity, which would rise by about 300% in the coming years, as the new Port Hope and Blind River facilities were completed. The expanded refining programme provided for major improvements in pollution control and the recycling of potentially valuable wastes.

3. By the end of 1982, the Canadian nuclear power programme ranked seventh in the world, with 13 reactors connected to the grid and producing close on 7300 MW(e). A further 11 reactors were scheduled for connection to the grid by the end of the decade, making for a net output of approximately 14 500 MW(e) by 1990. The programme was unique in that it was based entirely on the Canadian CANDU reactor system, fuelled with natural uranium. Since the previous session of the General Conference, four new CANDU 600 reactors had

been started up: one in Argentina, another in the Republic of Korea, and two more in Canada. In addition, the first 540-MW(e) unit of the Pickering "B" station had become operational in 1983. He wished to point out in that connection that, as opposed to the widespread view that the lead time in the construction of reactors was growing steadily longer, the Wolsung power station (Republic of Korea) had been finished completely in 61 months.

4. The current market situation for large power reactors was very tight. The CANDU project at Cernavoda (Romania) should proceed according to schedule, but Canada was just as much affected by the current difficulties as were the other major reactor suppliers. He was counting on a high level of activity in the next few years, as the reactors already contracted for were completed, after which there would be some very difficult years, followed by an uptrend in orders in the late 1980s and early 1990s.

5. The Canadian authorities believed that the CANDU system would stand the test of the present challenges, as it had done in the past. Although pressurized heavy-water reactors accounted for only about 5% of the commercially operating 297 reactors in 1982, CANDU reactors consistently figured among the top ten reactors in the world in terms of overall performance; in 1982 five of the top ten had been CANDU reactors - and in terms of lifetime performance to the end of 1982 six CANDU reactors had been among the top ten. In a world with a serious energy shortage, a product with that record was bound to have a successful long-term future. Furthermore, the fading of short-term market prospects, while in certain respects a cause of difficulties, had also had its positive side. For example, Canada had refocused its interest on smaller power reactors likely to attract countries with smaller grids and on still smaller reactors (such as the Canadian Slowpoke design) which could perhaps be used for district heating and electricity generation. In addition, the Canadian programme of high-level-waste management, which was directed towards deep storage in stable geological formations, continued according to plan; the successful outcome of it was expected before the end of the decade and study of its commercial possibilities had already begun.

6. Turning to other applications of atomic energy, he said that radioisotopes, in particular, were being used in a large number of fields for improving the health, safety and prosperity of human beings. Canada occupied

a leading place in that respect. For example, Canada produced about 65% of the bulk-processed radioisotopes currently in use around the world, and it was estimated that more than a million people had benefited from radiation therapy using equipment produced in Canada and that the years of life added through treatments of that kind amounted to more than 13 million. In an era of continuing scepticism with regard to the merits of nuclear energy, such figures warranted reflection.

7. The Canadian nuclear programme was noteworthy for its size, maturity, strength and autonomy, and also for its peaceful nature. On that point it had to be stressed that Canada was not a nuclear-weapon State and had no wish to become one; its sole aim was to develop and expand its programme for exclusively peaceful purposes.

8. The Agency was particularly well placed to assist humanity in realizing the numerous benefits of nuclear energy while at the same time avoiding the awesome dangers inherent in it. The competence that the Agency had acquired in developing and applying a credible safeguards system, as well as in its activities aimed at bringing the advantages of the peaceful uses of nuclear energy to a growing number of States, was undeniable. Moreover, the Agency's mandate was flexible enough to enable it to take up new tasks as the need for them was felt. In that respect nuclear safety now counted among its key activities and, although it was, of course, a matter primarily for States themselves, the Director General's proposal for an international commission on that subject still merited serious consideration; a commission of that kind, provided that it was kept free of commercial bias, would be able to help rationalize safety philosophies and regulatory procedures.

9. The Agency safeguards system was contributing a great deal to world peace and prosperity. If States were to co-operate among themselves in the peaceful uses of nuclear energy, they would have to satisfy themselves that such co-operation was not being misused or misdirected and to convince public opinion and their partners of that fact. The best way for Member States to assure one another of their good intentions was to sign the Non-Proliferation Treaty or to bind themselves in some similar way and enter into a safeguards agreement of the INFCIRC/153 type with the Agency. There was no doubt that, were it not for the Agency's safeguards system, nuclear co-operation between States would be far less extensive and much more difficult than it was at the

present time. His country therefore considered that the application of full-scope safeguards was a core element of the Agency mandate. It should be emphasized that Canada's potential nuclear partners were not being asked to assume an obligation that it would not take on itself; his country's nuclear programme was entirely under full-scope safeguards and Canada expected the same of its partners, in return for which it was willing to give them the benefit of its experience in the nuclear field, including the CANDU programme and the technology acquired in the fabrication of fuel and production of heavy water.

10. In conclusion his delegation welcomed the admission of the People's Republic of China to the Agency, which would help to make it a truly universal organization.

11. Mr. BRADY ROCHE (Chile) said that his country was a firm believer in the principle of the universality of international organizations and that he was happy to see the admission of the People's Republic of China to the Agency. Chile attached great importance to the Agency's activities as an organization whose mandate was purely technical in nature; he deeply deplored the fact that issues had been raised during the debates that were in fact the concern of other bodies of the United Nations system. Past experience had proved that by introducing non-technical matters into the discussion one risked gravely impairing the integrity of the Agency and its principles and objectives. The General Conference should therefore keep to the important issues which it had before it, namely the transfer of technology, nuclear safety and ways of ensuring that the atom was used for peaceful purposes. Another problem of a technical nature which caused consternation was the disposal of radioactive waste; the Agency should work towards the rapid introduction of an international system by which to overcome that problem.

12. Chile had always been a supporter of the Agency's safeguards system and had concluded safeguards agreements on a voluntary basis. Nevertheless, it was disturbed to see that safeguards activities were absorbing practically all of the draft Regular Budget for 1984 - the appropriations were seven times higher than those allocated to technical co-operation. It was also disconcerting that the implementation of that co-operation was rather arbitrary in the absence of a planning figure for a foreseeable total of

assured voluntary contributions. That was incompatible with the Agency's basic function, which was to accelerate and enlarge the contribution of nuclear energy to peace, health and prosperity throughout the world.

13. With regard to supplies and the transfer of technology for the benefit of countries which, when starting out on nuclear programmes, did not wish that fact to involve them in any kind of energy dependence, he supported the activities of CAS on the understanding that they should represent one of the possible alternatives but not the only one. At the same time, he was perturbed by the meagre progress made so far by the Committee, mainly because of the lack of political goodwill on the part of supplier countries and their wish to introduce into the discussion considerations that had no bearing whatsoever on the Agency's functions.

14. The question of amending Article VI.A.2 of the Statute had been on the agenda for six years. He wished to clarify in that connection that any amendment which meant a reduction in the relative representation of Latin America on the Board of Governors should entail a complete revision of that Article.

15. Chile wanted its nuclear development to proceed without harm either to persons or to the environment. The bill on nuclear safety, which was at the final drafting stage, would take that requirement into account while stipulating precise standards by which investment in the national nuclear industry could be promoted. The authorities had begun an intensification of the Chilean nuclear power programme, believing it to be an additional and valuable contribution during the coming decade and a way of enabling Chile to preserve its energy independence.

16. In a similar vein the Chilean Nuclear Energy Commission and the Argentine Atomic Energy Commission had recently concluded a technical co-operation agreement for the development of the peaceful uses of nuclear energy. Signature of that scientific and technical agreement had demonstrated that, when motivated by good intentions, peoples were capable of overcoming their egoistic apprehensions and sensibilities so as to join together in mastering the most advanced technologies.

17. Chile had stepped up its efforts in all aspects of nuclear energy able to contribute to its social and economic development - for example, hydrology, mining and, especially, agriculture and food production. Significant headway

had accordingly been made in research into nutrition and agricultural production. In the area of food production, it should be noted that the consumption of irradiated foodstuffs had been authorized in accordance with the recommendations made by the FAO/IAEA/WHO Joint Committee and that the industrial irradiation of food products on a pilot scale was now under way in his country.

18. It was encouraging to note that in most of the areas mentioned above Chile had been able to work together with the Agency and various friendly countries; as a counterpart for that aid Chile hoped to give other developing countries the benefit of its experience - for example, it had offered to contribute, in the area of technical co-operation, both to the Agency and to the Inter-American Nuclear Energy Commission (IANEC). It had received fellows from Guatemala, Honduras and Uruguay, and the exchange of technical information with other countries in the region had been stepped up.

19. In conclusion, he commended the Director General for his efforts to ensure equal participation by all Member States in the Agency's activities and trusted that it would soon be possible to arrive at the equitable balance that the developing countries had the right to expect.

20. Mr. EILAM (Israel) said he shared the view of the Director General, expressed in his opening address, on the need to remain faithful to the Agency's Statute. In addition, his delegation welcomed the People's Republic of China as a new Member of the Agency. Israel was following with interest the developments in the world energy situation and also the efforts being made to find alternative sources of supply. In the recent past a major development in that respect had been the place taken by nuclear energy in the industrialized countries and the controversy to which the use of it had led. Another important trend had been the introduction of nuclear energy in many developing countries, which were employing it on an ever greater scale, including applications in agriculture and industry as well as in the life sciences.

21. The Agency had to remain fully responsive to the needs of all Member States, industrialized and developing countries alike. In the first place, it could play an ever more active role in promoting public understanding in the industrialized countries. Movements hostile to the development of nuclear energy for the generation of electricity had become worldwide; they had won

over many sections of the population and were now tending towards solidarity on an international scale. There remained much to do and say in order to dispel doubts and provide information for the public at large. The Agency should step up its activities along those lines, especially in the area of environmental protection and nuclear safety.

22. In addition, more effort and more resources should be invested in the implementation of nuclear power programmes in developing countries; Israel was following with interest the activities of the Department of Technical Co-operation and other relevant Departments, as it felt that the Agency should give more attention, in its plans and programmes, to the importance attached by those countries to the use of nuclear energy for peaceful purposes. For example, it should examine more closely the adaptation of existing power reactors to the special conditions prevailing in developing countries - relatively small-size grids, problems linked with the integration of large reactors into such grids, inadequate economic infrastructure, dependence due to the import of technology, fuel supplies and expertise. In its technical assistance programme the Agency should give prominence to activities intended to make those countries independent, among other things by the initiation of training programmes and the provision of advisory services in fields such as planning, joint construction of power plants, and the building of plants in water-deficient areas. When directed in that way, international co-operation could also be of help in formulating international standards and establishing uniformity that would enable the Agency to operate more effectively.

23. A crucial problem confronting the developing countries, particularly those located in arid and semi-arid zones, was a scarcity of water. That problem should be approached by resorting to desalination techniques based on the use of nuclear energy. He hoped that the Agency would look into that matter in the decade to come. Furthermore, the applications of nuclear energy to agriculture, industry and the life sciences were of vital importance to the international community and, above all, to developing countries; additional efforts had therefore to be deployed in the preservation of food products, in the eradication of insect pests, and in human and veterinary medicine.

24. As a developing country with limited financial resources, Israel undertook to co-operate with the Agency in carrying out its tasks. It would continue, through the Agency, to collaborate with other States, thereby making a modest contribution to international efforts in the domain of technical assistance. In areas where it had itself acquired competence, for example the use of isotopes and radiation in agriculture, industry, hydrology, desalination and the introduction of nuclear power in small countries, Israel felt it could be useful and was willing to afford other countries the benefit of its experience, limited though that might be, by awarding fellowships, sending experts abroad and providing courses for foreign trainees.

25. The global and comprehensive nature of the Agency's mission was clearly set forth in the Statute. Politicization of the Agency's work, particularly the request made by Iraq for the inclusion of an additional item on the agenda, could only undermine that principle; it should be recalled that during previous sessions many countries had expressed regret that so much time and effort had been devoted to discussion of that issue. He therefore deplored the fact that the General Conference was having to spend more of its already limited time on the consideration of an initiative that was likely adversely to affect the role and activities of the Agency.

26. The Director General had raised the subject of prohibiting attacks against nuclear facilities; Israel was in favour of any international action to regulate the status of nuclear facilities and his Government wished to state clearly on that point that it was not its policy to attack nuclear facilities.

27. The threat created by nuclear weapons had also been mentioned; Israel had long felt it a matter of concern and had always defended the principle of non-proliferation. Naturally enough, it was from the perspective of the Middle East situation that Israel viewed that problem; it appeared that the most effective barrier to proliferation in the Middle East would be to create a nuclear-weapon-free zone in that region. His country had made proposals along those lines based on the precepts underlying the Tlatelolco Treaty. He was well aware of the political differences existing between the States of the Middle East, but those differences should not be allowed to stand in the way of establishing a nuclear-weapon-free zone and Israel, for its part, was quite willing to enter into negotiations on that matter between the States of the region concerned at any moment and without any preconditions.

28. Mr. ALGOUD (Libyan Arab Jamahiriya) thanked the Director General and his staff for their work, which had borne tangible fruit in the annual report for 1982. He welcomed the admission of the People's Republic of China to the Agency, and was sure that the presence of another great Power would have positive effects on its activities.

29. He was grateful to the Agency for helping developing countries to utilize nuclear technology for peaceful purposes, and also expressed his appreciation for the assistance given his country through the sending of missions of experts and inspectors. The information services supplied by the Agency were also important, since they constituted one of the principal means by which it achieved its objectives.

30. In the current political and economic climate no effort should be spared to utilize knowledge in the most peaceful manner possible. Among the gravest incidents of recent times had been the attacks on the installations of certain countries, notably the infamous attack on the Iraqi reactor which, as was well known, had been built for research, in other words for peaceful purposes. There was also the threat from the United States, which was carrying out military manoeuvres in the territorial waters of developing countries, often with nuclear submarines which polluted the sea with radioactive waste. Such activities had an immediate effect on the natural resources of the countries concerned by exposing their coasts to radioactive contamination, quite apart from the alarm caused among the populations of those countries by such terrorist manoeuvres. Indeed, the United States had not hesitated constantly to violate the Libyan territorial waters of the Gulf of Syrte.

31. The United States, in a completely fanatical and racist manner, was refusing students from developing countries access to science and technology, and was preventing Libyan students from following courses in nuclear sciences and civil aeronautics in the United States. That phenomenon, which was unique in the world, ran counter to the Declaration of Human Rights and was incompatible with the Statute of the Agency. On the other hand, the United States was continuing to offer scientific and technical facilities in the nuclear field to fanatical racist regimes such as the Zionist entity and South Africa, which had enabled those countries, in complete disregard of the

Statute of the Agency, to stockpile hundreds of nuclear missiles and to make direct military attacks on States which had signed and observed the Non-Proliferation Treaty (NPT).

32. Certain advanced countries were monopolizing technology, and were imposing unacceptable conditions on developing countries, conditions which relegated them to the least-developed category.

33. All Member States who genuinely desired peace and who were pursuing the noble objectives of the Agency were urged to intensify their efforts to counter the barbarian and racist activities of the United States, the Zionist entity and South Africa - countries attempting to dominate the peoples of the Third World and to deprive them of the right to benefit from the peaceful applications of nuclear energy, which were capable of delivering them from the spectre of poverty and hunger.

34. Libya reiterated the need to adopt a resolution calling for the expulsion of the Zionist entity from the Agency, since it had now been proved that that entity did not respect either the Agency's Statute or the Agency's resolutions. That entity continued to defy the international community by refusing to sign NPT and refusing to conclude or apply safeguards agreements, whilst seeking to obtain nuclear weapons in order to threaten the security and independence of the States in the region and of Third World countries in general. It was clear that that entity possessed nuclear weapons, and that it had no regard for the principles and objectives of the Agency.

35. He wished to make a few comments on the agenda and on the annual report for 1982 submitted by the Director General. Libya considered that the provisions of the standard safeguards agreements were sufficient to enable the desired objective to be attained, and that additional provisions would only hamper the progress of the nuclear industry towards peace, unless they were accompanied by other practical measures requiring all facilities in all countries to submit to safeguards. The technical assistance programme should be financed under the Regular Budget if achievement of one of the principal objectives of the Agency's Statute, namely the transfer of peaceful nuclear technology to developing countries, was to be assured. Such programmes should be given appropriate funding in order to ensure that adequate assistance was supplied to countries which needed it, and his delegation suggested that the Conference adopt the principle of granting technical assistance on the basis

of geographical distribution as it applied within the Agency, so that the sums granted to each region would be in proportion to its level of underdevelopment in the technical and economic field.

36. He wished to stress once again that a resolution must be adopted for the amendment of Article VI.A.2 of the Agency's Statute in order to increase the representation of developing countries on the Board. His country had made a similar proposal six years earlier, but that justified demand had so far not been made the subject of an appropriate resolution. Any further delay could only hamper the work of most of the Agency's developing Member States.

37. Public opinion was becoming increasingly aware of the dangers which threatened mankind and which were caused by the activities of the racist regimes and the ostensible peaceful purposes behind which those countries concealed their thirst for hegemony.

38. Finally, he hoped the General Conference would arrive at results which would benefit all the peoples of the world.

39. Mr. LABOWITZ (United States of America), on a point of order, categorically rejected the insulting remarks and extraneous political considerations put forward by the representative of the Libyan Arab Jamahiriya. Such declarations were certainly not of a kind to advance the debate and could only undermine the work of the Agency.

40. Mr. AMROLLAHI (Islamic Republic of Iran), on a point of order, said it was extremely regrettable that the United States delegation should not respect the freedom of speech of the Libyan Arab Jamahiriya. It was clear that the United States were opposed to the expression of even the slightest criticism of Israel, South Africa and all other countries which defied the international community.

41. Mr. SOWINSKI (Poland) welcomed the admission to the Agency of the People's Republic of China. That was a notable event which would contribute to consolidating the Agency's authority as a universal organization.

42. The Agency had been established to promote the exclusively peaceful uses of nuclear energy and had subsequently been entrusted with the task of supervising the application of the Non-Proliferation Treaty (NPT); its work during the past year had been performed in an exceptionally difficult

international situation. Poland was very concerned at the increasing danger of a generalized nuclear conflict that might be triggered by the unrestrained accumulation of weapons, especially nuclear weapons, which had been initiated by the imperialist Powers.

43. Poland had paid heavy tribute during the Second World War, in terms of both human and material losses. It was only too well aware of the dangers which surrounded the present threats and considered it vital for the international community to spare no effort to avoid the terrifying prospect of a nuclear catastrophe.

44. The Agency's activity was of paramount importance for the safe and peaceful development of the world in the nuclear era, and the Agency continued to play a leading role in preventing the danger of nuclear weapons proliferation and in promoting the peaceful uses of atomic energy.

45. The Polish Government deeply appreciated the achievements of the Agency, in particular its safeguards activities, which it fully supported. The continuous improvement of the system, from both the organizational and the technological points of view, and its universal acceptance would contribute to eliminating the danger of seeing new countries acquiring nuclear weapons. They would also help to strengthen confidence between societies, which was very valuable if the benefits of the routine and peaceful use of nuclear energy were to be extended.

46. The growing effectiveness of the safeguards system would consolidate the Agency's authority as the organization responsible for the strict application of the provisions of NPT.

47. He sincerely hoped the number of countries concluding safeguards agreements with the Agency and placing their nuclear facilities under effective and reliable international safeguards would increase continually, thus increasing the universality and effectiveness of NPT.

48. His delegation hoped that the third NPT Review Conference would provide an opportunity for an exchange of views and a consensus allowing the adoption of decisions to strengthen the Treaty and to facilitate international co-operation in the peaceful uses of atomic energy.

49. The establishment of firm principles to govern the export of nuclear materials and equipment, including the application of the safeguards system, would be of interest not only for the development of international co-operation in the atomic energy field, but also for the strengthening of the non-proliferation regime, and it was to be hoped that the work on that subject being pursued by the Committee on Assurances of Supply would enable the Committee to attain its objectives.

50. Poland was entirely satisfied with the Agency's activities for the promotion of the peaceful uses of nuclear energy. It was interesting to note that the production of electricity by nuclear power plants throughout the world had increased by 12% in 1982 and that such plants now accounted for about 10% of the world's electricity generating capacity. Poland was pursuing a nuclear power development programme in close collaboration with the other socialist States, chiefly the Soviet Union, and with the active co-operation of the Agency. Under its nuclear programme it was also using the Agency's basic safety standards and the principles developed under the NUSS programme.

51. The Agency's accomplishments in promoting the use of nuclear techniques in agriculture, medicine and industry were noteworthy, as were the many activities relating to the dissemination of scientific, technical and economic information about nuclear energy.

52. His delegation was also deeply interested in the Agency's technical assistance and co-operation activities and was pleased to note that the resources, including the voluntary contributions of Member States, devoted by the Agency to those activities had increased fivefold in the course of the last decade. It was particularly gratifying that the Agency Secretariat was actively searching for new methods of better utilizing the financial resources which the Agency received for that purpose. A closer relationship between the assistance provided and the socio-economic objectives of the recipient countries should certainly make it possible to increase the effectiveness of the technical assistance and co-operation programme. The adoption of multi-year projects which were better adapted to the long-term socio-economic future of the countries concerned was fully justified. Poland was also in favour of using the technical assistance provided by the Agency in as effective a manner as possible.

53. The Polish Government had on numerous occasions indicated that it approved of the voluntary nature of contributions to the Agency's Technical Assistance and Co-operation Fund, those contributions being made on the basis of indicative planning figures quoted in the Agency's programme and payable in national currencies. On behalf of his Government, he had the honour to pledge the payment of a voluntary contribution in cash amounting to 20 million zloty to the Technical Assistance and Co-operation Fund for 1984. Poland was also prepared to grant ten fellowships to applicants from developing countries and to receive them at its research centres.

54. His delegation was entirely satisfied with the Agency's annual report and accounts for 1982 contained in documents GC(XXVII)/684 and GC(XXVII)/685. It also supported the proposal concerning the budget for 1984 which was contained in document GC(XXVII)/686. However, his delegation wished to stress that the growth rate of the Agency's budget must be reduced and was convinced that the Secretariat would find ways of doing that by achieving savings, rationalizing the organization of certain services and making an in-depth study of the inflation rate used at the time of preparation of the draft budget for the following year.

55. He wished to inform the General Conference that the Council of State of the Polish People's Republic had in September ratified the Convention on the Physical Protection of Nuclear Material and hoped that steps in the same direction would be taken by all Members of the Agency.

56. Poland was deeply convinced that the IAEA would continue, thanks to the effectiveness of its work for the benefit of all its Members, to help spread the many peaceful and safe uses of atomic energy, which was an important factor in the economic development of the world.

57. His delegation appreciated at its true value the interesting and detailed statement by the Director General, which contained new proposals that were worthy of careful examination. The statement seemed once again to be an eloquent confirmation of the competence, devotion, energy and inspiration with which Mr. Blix guided the Agency.

58. Mr. BELODED (Ukrainian Soviet Socialist Republic) welcomed the People's Republic of China on its admission to the Agency and hoped its participation would be fruitful. During the Agency's history the peaceful uses of nuclear energy had continued to advance steadily, but the Agency could

not ignore major political issues. The most important task was to preserve peace and prevent a nuclear catastrophe. Such was the objective of the initiatives proposed by the Soviet Union at the thirty-eighth session of the United Nations General Assembly at present meeting in New York. The Soviet Union had proposed a special item on the agenda regarding a nuclear weapons freeze and the conclusion of an agreement prohibiting the use of force in space and from space to Earth. The commitment made by the Soviet Union not to be the first to use nuclear weapons had particular importance. Note should also be made of proposals for an agreement on a total nuclear test ban and a nuclear weapons ban. The socialist countries had also made a joint proposal for an agreement on the mutual non-use of military force and to promote peaceful relations between the Warsaw Pact countries and NATO.

59. As Mr. Andropov, General Secretary of the Communist Party and President of the Presidium of the Supreme Soviet of the Union of Soviet Socialist Republics, had stressed, the Soviet leadership had no doubt as to the course of action that should be adopted in the present tense international climate. The aim of the Soviet Union was, first and foremost, to preserve and strengthen peace, to promote détente and to broaden and increase co-operation between States.

60. His country actively supported the Agency's main lines of activity in the peaceful uses of nuclear energy, which were of interest to all countries, such as nuclear power and the nuclear fuel cycle, nuclear safety and environmental protection, the International Nuclear Information System (INIS), and nuclear fusion.

61. Under the terms of its Statute, the main functions of the Agency, essential to fruitful international co-operation, were to control the peaceful uses of nuclear energy, to strengthen the non-proliferation regime and to improve the safeguards system.

62. Ukrainian research centres were carrying out integrated research in low-, medium- and high-energy physics, nuclear power and plasma physics. Work on the theory of nuclear matter, non-axial nuclei, diffraction interaction and shell correction had received world-wide recognition. Major advances had been achieved in neutron physics and in using data obtained from neutron interactions with nuclei. Intensive work was being carried out on the effect of radiation on various reactor materials and radiation damage had

been studied on models using electron beams and heavy ions. Highly resistant components had been developed, in particular large-scale reactor vessels capable of withstanding high pressure. Technical and economic aspects of using nuclear energy in the economy and its role in the energy balance were being examined.

63. The Ukrainian, Byelorussian and Moldavian Academies of Science and scientific institutes in CMEA Member States were studying the technical and economic feasibility of designing fast breeder reactors using a nitrogen-based dissociating compound.

64. The Ukraine was continuing its scientific and technical programme "ENERGOKOMPLEX", concerned with the application of research results and implementation of measures for environmental protection.

65. The Tchernobyl', Rovno and Yuzhno-Ukraina power plants, at present in operation, had a total capacity of about 5000 MW. The Khmel'nitsk and Crimea power plants and a large nuclear heating and power plant were being constructed.

66. Plans for 1981-1985 envisaged an unprecedented development of nuclear power. By 1985 Ukrainian power plants would have a total installed capacity of 13 000 MW and would have an annual production of more than 70 000 million kWh. Ionizing radiation was widely used, particularly in physics, material sciences, chemistry, geology, and biology.

67. Radiation-induced mutagenesis had been used for selecting new useful species of crops, for inhibiting plant growth in order to improve product conservation techniques, and for insect sterilization.

68. The study of the effects of fast neutrons on animals had shown that neutron radiation was much more harmful than X-rays or gamma rays and that even low levels led, after one or two years, to a high percentage of tumours. The results convincingly demonstrated the serious danger to mankind of new types of nuclear weapons, particularly the neutron bomb.

69. There were more than 70 radiation diagnosis laboratories in the Ukraine. In 1982 more than 3000 diagnoses had been made, which had led to considerable improvements in early detection of disease and development of appropriate treatment.

70. Such progress had been possible only as a result of the continuous training of scientific staff and highly qualified engineers. His country believed that the competence of those experts justified a more satisfactory representation in the Secretariat and he hoped to see that matter resolved in the near future.

71. The Ukraine had increased its participation in international co-operation in research and the peaceful uses of nuclear energy. It had become a tradition to hold, as part of the Agency's technical assistance programmes, training courses and study visits for experts from developing countries in Kiev and other cities of the Republic. During recent years, more courses and study visits had taken place, in which about 250 experts, mainly from Asia, Africa and Latin America, had participated.

72. In 1983 regional training courses had been held in the Ukraine on the application of induced mutations in vegetable selection; there had also been a study tour devoted to nuclear power, and an Agency interregional course on neutron physics and nuclear data. Experts from 50 countries had participated in them. During the last three years IAEA/WHO training courses had been held in Kiev on the medical application of nuclear techniques, which had enabled participants to learn about the latest techniques and the prospects for using radioisotopes in clinical practice. Those courses had been attended by more than 100 experts from dozens of countries. At the end of October the courses would be given for a group of experts from developing Member States of the Agency.

73. The Ukraine was actively participating in the exchange of scientific and technical information with the Agency, particularly under INIS.

74. His country appreciated efforts made by the Agency to improve the ways and means of granting technical assistance and to strengthen co-operation with developing countries. It believed that the new measures for evaluating the effectiveness of technical assistance were useful.

75. His delegation had been authorized by its Government to announce a voluntary contribution to the Technical Assistance and Co-operation Fund of 250 000 roubles in national currency. In conclusion, he expressed his conviction that the present session of the Agency's General Conference would constitute another step along the path of developing international

co-operation in the peaceful uses of nuclear energy and strengthening confidence between nations and that it would make a useful contribution to the cause of peace and international security.

76. Mr. CEIRANO (Holy See) praised the documents which had been prepared by the Director General and his staff and which reflected the effectiveness of the activities of the Agency and its organs. The annual report, in particular, clearly indicated that the use of nuclear energy remained a complex question which concerned everyone and which deserved mature consideration.

77. Without entering into a technical discussion, he wished to make some remarks on the Agency's policy and programmes, giving particular emphasis to activities which advanced the cause of the human individual and of human society, in the spirit of the remarks made by Pope John Paul II in the speech he had made at the Vienna International Centre on 12 September.

78. The Agency had originally been established in order to demonstrate that nuclear energy was not a purely destructive force, but could also be harnessed for peaceful purposes and for the good of all. However, nuclear energy seemed to have remained an ambivalent reality, an instrument which even in its peaceful applications might turn against its master in certain cases. As long as the first problem, that of nuclear weapons, was not solved, it was impossible to ignore the second problem, that of the control and safety of the use of nuclear energy.

79. Unfortunately, little progress had been made with regard to the problem of nuclear weapons since the Conference session in 1982. In fact, the present political and military situation of the world, and more particularly of Europe, gave the impression that the misgivings felt by one side in view of the armaments efforts of the other might lead to a spiral of weapons manufacture and deployment which in turn might bring about a deterioration in the world situation unless a sovereign vision and political will led to negotiations and agreements with durable results. The Holy See was interested in all honest attempts at negotiation and supported them. That idea had been the principal theme of the Pope's message during the special session on disarmament of the United Nations General Assembly in June 1982 and continued to be the basis of repeated appeals by the Holy See to all parties concerned:

appeals to negotiate in all honesty and integrity, with a sense of responsibility to individuals, and appeals to reduce tension and encourage liberty, justice and security for all nations in the present and future.

80. The Church would continue to propose to all interested parties the principles of its tradition, which had been tested in the course of centuries and which might, as they had in the past, be applied to present-day problems of armed warfare and rearmament, in the first instance so as to eliminate or minimize the risk of war, but above all to avoid the mass destruction of innocent people.

81. The peaceful uses of atomic energy had been questioned during the last decade. The protagonists of such peaceful utilization asserted that nuclear energy could be put to use in all countries, whether or not they possessed natural resources. Nuclear power therefore seemed particularly suitable for developing countries which had chosen the path of rapid industrialization. For them to renounce nuclear energy, it was said, would mean giving up rapid and certain development. Nuclear power also presented great advantages for developed countries. A high level of industrialization went hand in hand with a high energy consumption. Countries which at present faced serious ecological problems because their industries used forms of energy which were not "clean" would find in nuclear energy a clean alternative which would enable them to maintain their industrial production level while reducing the negative effects of industrialization on the environment.

82. The opponents of nuclear energy claimed that the production and use of nuclear energy was still too risky. According to them, the risks were twofold: on the one hand, the possibility of malfunctioning of nuclear reactors, which might lead to the radioactive contamination of entire regions, and on the other, the dangers connected with the storage of nuclear waste. There was no point in dwelling on those fundamental positions and trying to find a solution to a controversy which demanded a certain detachment, but he did recognize the legitimacy of that controversy, in the context of which the policies and programmes of the Agency had to evolve.

83. In 1983 the Agency had provided assistance to more than 70 Member States in various forms. Two aspects of its activities deserved mention and encouragement: first, regional co-operation. Given the funds, instruments

and personnel available, regional co-operation between developing countries made great sense and should be encouraged to the extent possible. The RCA had already brought benefits to the region of South East Asia and the Pacific. That approach, which had for some time been applied successfully to the research being conducted at CERN, in Europe, might serve as a model for other parts of the world. Assigning increasing personnel, funds and equipment to such common initiatives was certainly a way of enabling a larger number of countries to benefit from the fruits of atomic energy.

84. His delegation had already stressed in the past that it was necessary to improve techniques and the training of scientists in the developing countries, and that was probably where the emphasis should lie in regional development and co-operation programmes. Fellowship programmes, research contracts and assistance in the construction of research facilities for developing countries called for more attention, staff and financial resources, and a splendid step in the right direction would be to pool research and ideas, techniques and scientific knowledge derived from the nuclear disciplines and to let them blossom out in a growing network of national, regional and international co-operation.

85. In May 1983, the Pontifical Academy of Sciences had organized, in the Vatican, a symposium on the biological effects of ionizing radiation, which had examined in great detail the method of optimization and had shown once again what efforts the scientific community was making to protect life and minimize the real and potential threats which surrounded it. In that context, too, the Church was playing a role, not by judging the merits of a technical procedure, but by helping all those responsible to understand the ethical, moral and spiritual implications of the methods they were concerned with. The level of protection against ionizing radiation which was currently assured showed the extent to which scientific knowledge, in conjunction with ethical awareness of moral responsibilities in and to society, might lead to the discovery of methods and the establishment of programmes on the basis of which science could be advanced while protecting the common good and the life of everyone.

86. Those were only a few problems, but they were those on which the Agency should concentrate its attention more than ever. In doing so, it should be prepared to answer the question which Pope John Paul II had put in September 1983 and ask itself whether what was being done could advance the

cause of man as man, a thought which might not always be easy but which was necessary. Nuclear science and modern society should be approached with a profound respect for all the realities and their potential. The interest attached to intellectual, technical, scientific and educational questions should always be counterbalanced by an opening and a devotion to the cause of man, who was created in the likeness of God and therefore deserved a maximum of dignity and respect.

87. Mr. EL AGIB (Sudan) welcomed the admission to the Agency of the People's Republic of China, whose participation would strengthen the authority of the Agency and contribute to the development of the peaceful uses of atomic energy.

88. He congratulated the Director General and his staff on their efforts to protect the rights of developing Member States, particularly by appointing nationals of those countries to senior posts in the Secretariat. His delegation also hoped that it would not be long before Africa was equitably represented on the Board of Governors.

89. He agreed with the Director General that safeguards and technical assistance were two important programmes which were of interest to both developed and developing countries, as they constituted an indissoluble whole. Nevertheless, the problems of the developing countries were sometimes more urgent in view of the international situation. Therefore his delegation attached great importance to the financing of technical assistance and considered that the funds for that activity should be provided from the Agency's Regular Budget. The Agency was a technical organization, but some saw in it a political platform. He expressed reservations with regard to that distinction, as he felt both those aspects to be inextricably linked. Moreover, his country regarded atomic energy as a political weapon in itself. Those who adopted that position did not necessarily wish to give the political aspect ascendancy over the technical aspect. They also did not necessarily seek to politicize scientific and technical discussions, but only to expose important problems.

90. The Sudan was an immense country, rich in as yet untouched arable land and enjoying favourable natural conditions, and it might become the principal producer of foodstuffs in the Arab world. However, the realization of those possibilities depended on extensive research in various fields: botany,

zoology, development of new, high-yield varieties, prevention of diseases and epidemics, etc. His country was therefore grateful to the Agency for the assistance it provided, especially under the integrated programme for the application of radioisotopes and radiation to agriculture. The Sudan had been using nuclear medicine for a long time. Under a pilot project undertaken with the assistance of WHO and the Agency, a hospital had been built 17 years earlier which was now pursuing diagnostic and therapeutic activities using nuclear techniques. The Sudanese Government regularly organized visits and training courses for scientists from neighbouring countries. New prospects were now opening up, thanks to the use of gamma cameras and cobalt and caesium treatment. His country hoped to be able to offer modern nuclear medicine services from which the entire African continent could benefit and wished regional co-operation in the nuclear field to be developed further with the assistance of the Agency.

91. The situation in the Middle East continued to be explosive as a result of Israel's obstinacy in refusing to allow the Palestinian people the legitimate right of returning to its usurped home country. The expansionist frenzy of Israel drove it to pursue its aggression from the Golan Heights to the furthest corners of Lebanon. Israel had not hesitated to bomb the reactor in Iraq and it ceaselessly violated the Non-Proliferation Treaty.

92. As to South Africa, that country was in open defiance of the resolutions of the Agency and the Charter of the United Nations. The Director General should take the necessary steps to exclude South Africa from technical meetings which enabled it to increase its power. It was precisely because Sudan respected the much-quoted principle of universality that it considered that the status of membership should be reserved for countries which respected the universal principles of the Charter of the United Nations and refused to those which flouted them.

93. Mr. PANDEV (Bulgaria) welcomed the People's Republic of China on its admission to the Agency. He hoped that it would help to strengthen the nuclear non-proliferation regime and to promote co-operation between States in the peaceful uses of nuclear energy.

94. The twenty-seventh session of the Agency's General Conference was being held in a complex and contradictory international situation. Despite the positive results obtained recently at the Madrid meeting, the situation was

continuing to deteriorate as a result of the policy of world confrontation and the escalation of the arms race. Bulgaria believed the Soviet Union and the United States could still reach an agreement on limiting nuclear weapons in Europe. It was vital to take immediate practical steps to avert the threat of war, particularly nuclear war. That had been the objective of the political declaration adopted during January in Prague by the Political Consultative Committee of the Warsaw Pact Member States and of the proposal made by the Soviet Union at the thirty-eighth session of the United Nations General Assembly condemning nuclear war and advocating a nuclear weapons freeze.

95. Bulgaria attached great importance to strengthening the nuclear non-proliferation regime. It welcomed the accession of new States to NPT and their acceptance of the obligations devolving from it. It believed that the Agency should actively and constructively contribute to preparing and organizing the Third NPT Review Conference.

96. The Agency's activities in the peaceful use of nuclear energy, the economic and social development of countries, the improvement of the welfare of peoples, and the strengthening of the nuclear non-proliferation regime had received wide recognition. His country fully shared the opinion of the Director General, Mr. Hans Blix, that international co-operation was indispensable for the wider use of nuclear energy and for solving the energy problems facing mankind. International co-operation, particularly important for developing countries, could only be fruitful if the Agency exercised effective control over the non-proliferation of nuclear weapons. Bulgaria supported and participated fully in the Agency's safeguards system and was helping, as far as it was able, to improve the methods and techniques of its application. It welcomed visits by Agency inspectors and called upon all other countries to follow its example. The Agency's work in technical co-operation, the increase in technical assistance and the steps taken by the Secretariat to improve its effectiveness were commendable. The technical assistance given in 1982, which had helped to implement projects and train national staff, was appreciated.

97. The Agency's most important programmes were those concerned with technical co-operation, safeguards, nuclear power and nuclear safety and with the development of INIS. Priority should continue to be given to them when allocating financial resources and staff.

98. His delegation considered that contributions to the Agency's Technical Assistance and Co-operation Fund should remain voluntary and be made in national currency. Bulgaria would again pay in 1984 a voluntary contribution at the calculated level.

99. Bulgaria endorsed the Agency's budget for 1984 but believed that the 1985 and 1986 estimates should be cut down. Once again it had to be stressed that it was essential to use all resources as rationally as possible.

100. The views of his delegation on the amendment of Article VI.A.2 of the Statute were well known. The Board of Governors, as constituted at present, should carry out its work efficiently and any amendment of the kind would require profound analysis and should take into account the interests of all Members of the Agency.

101. Nuclear energy had continued to develop in Bulgaria at a fast rate and in line with the approved programmes. In 1982 the fourth unit of the Kozloduy nuclear power plant, equipped with a WWER-440 reactor, had become operational. The Kozloduy power plant consequently now had four units with a total capacity of 1760 MW(e) and during the first half of 1983 had produced more than 6000 million kWh, thereby accounting for about 30% of the national electricity production. Rapid progress was being made on the third construction stage at the Kozloduy power plant, which provided for two WWER units each with a capacity of 1000 MW(e). A second site was being prepared in the Belian region, on the banks of the Danube, for the construction, by 1990, of the first of four 1000-MW(e) WWER units of a nuclear power plant. Also under way were technical and economic studies on the use of nuclear power plants to provide urban heating and low-temperature heat and steam for industrial and consumer needs.

102. Bulgaria attached great importance to staff training and safe operation of nuclear power plants. Application of nuclear techniques, radioisotopes and radiation was continually increasing. Radiation was used for research in physics, chemistry, geology, biology and so on. Nuclear techniques were applied in medicine for diagnostic and therapeutic purposes; in industry for control and automation of various processes; and in agriculture for seed irradiation. Radiosterilization of pharmaceutical products and medical instruments was envisaged in the near future.

103. The mobilization of national resources, multilateral co-operation with CMEA Member States, bilateral co-operation, in particular with the Soviet Union, and co-operation with the Agency accounted for the success achieved by his country in the peaceful use of nuclear energy.

104. Bulgaria actively supported the activities of the Agency and contributed, as far as it was able, to developing international co-operation in the peaceful use of nuclear energy. In 1982, as part of its participation in the Agency's research programme, it had organized an interregional training course on radioimmunoassay; a training course on the application of induced mutation techniques in plant selection; and a study tour on the subject of nuclear power. It was also participating in INIS and Bulgarian experts were attending working group meetings, seminars and symposia organized by the Agency.

105. Mr. MANOUAN (Ivory Coast) welcomed the admission to the Agency of the People's Republic of China, which was one of the five leading nuclear Powers. Its admission was a step towards the Agency's universality.

106. There had always been two sides to science and technology: they enabled man to dominate nature, but also constituted a hazard for him. With the discovery of the atom and the build-up on the planet of a destructive force capable of destroying several times over all the major urban centres, that hazard at present appeared terrifying. The Ivory Coast, which believed that science and technology should serve the cause of life rather than death, subscribed unreservedly to the Agency's objectives. It was a party to NPT and had signed a safeguards agreement under the Treaty.

107. Although his country was interested in the application of nuclear techniques in agriculture, biological and physical sciences, its electricity was produced by hydroelectric and thermal power plants and it was studying the potential of solar energy and biomass. The energy requirements of the Ivory Coast were too small to make nuclear power viable. However, it might one day be viable and the Ivory Coast followed with interest the Agency's work in all areas: technical co-operation, safeguards, nuclear safety and the fuel cycle. His delegation was pleased to note that in Africa agriculture was the sector which had received most Agency assistance.

108. It was pleased that resources allocated to technical co-operation had increased by 12.5% in 1982 and that extrabudgetary resources had increased by 23.4%; however, UNDP resources had fallen by 21% in 1981 to less than 17% in 1982. It was grateful to countries which had provided those extrabudgetary resources and hoped that their number would increase. However, its satisfaction was mixed with concern for two reasons: the rate of increase in resources allocated to technical co-operation had been smaller in 1982 than in 1981 and assistance provided in 1982 had diminished in comparison with 1981, whilst unliquidated obligations had increased. It deplored the fact that \$9 million were frozen in projects which could not be rapidly implemented, whereas some high-priority projects could not be put into effect owing to lack of resources. Consequently, he noted with interest the new programming methods planned to solve that alarming problem. Obligations should be increased, and for that purpose developing countries should be assisted in identifying priorities and in planning and programming technical co-operation projects. He believed it was possible not only to reabsorb unobligated balances but also to maintain steady growth of the technical assistance and co-operation programme. The fall in UNDP resources would mean that increased contributions to the Technical Assistance and Co-operation Fund and to the extrabudgetary funds would be necessary.

109. His country fervently hoped that expenditure on armaments would be reduced. It attached great importance to non-proliferation; to the creation of an atmosphere of trust favourable to disarmament; and to the application of the Agency's safeguards system. In that connection, it was comforting to note that in 1982 no anomaly had been detected indicating the diversion of nuclear material for illicit purposes and also that the number of facilities containing material under safeguards was continually increasing, which demonstrated the effectiveness of the safeguards system and its increasing credibility. Since non-proliferation and nuclear disarmament were inseparable, it was important that that trend persist.

110. In order not to impede that development, the General Conference should refrain from adopting inappropriate measures to resolve certain international conflicts. However odious the acts or situations at the origin of certain conflicts, however legitimate the feelings of aversion they inspired, it was

essential, in an area where the co-operation of all was vital, to avoid taking steps which, by depriving certain Member States of their rights or privileges, would frustrate the basic objectives of the Agency.

111. Worldwide co-operation was also vital in the fields of nuclear safety and radioactive waste management. He noted with satisfaction the findings of the first report on nuclear safety; the issue of the revised version of the Basic Safety Standards for Radiation Protection; efforts made to develop an international system for reporting incidents in nuclear power plants; the implementation of rules governing safe transport; and the compilation of a document describing uniform action to be taken in emergencies and setting out planning measures to be applied in accidents the impact of which might extend across national frontiers. Particular study should be made of ways of improving the safety of nuclear power plants and reducing radiation risks for individuals. His delegation welcomed the importance given to the problem of radioactive waste; to the exchange of information; and to the publication of reports and the encouragement of co-ordinated research work in that field. It also approved steps taken to publish the brochure on "Nuclear Energy, the Environment and Man" in all working languages of the Agency. It did not understand, however, why 33 of the 41 safety guides had been published in only one working language and hoped that the situation would be rapidly remedied.

112. Information was the logical outcome of international co-operation. It was essential that experts of all Member States receive a continuous, directly usable flow of technical information from the Agency and be able to use the results of meetings organized by the Agency in its spheres of competence. The general public also had a right to be informed; in the light of the controversies to which nuclear power gave rise people were concerned and at times alarmed. The Agency had a fundamental duty to inform the public frankly of the problems and their solutions.

113. Mr. BARTOLOME (Philippines) said that the Philippines, as an Asian country bound by ties of friendship with the People's Republic of China, welcomed the latter's admission to the Agency. The entry of China strengthened the Agency's universality and constituted an important event since, for the first time, all the nuclear-weapon countries were Members of the Agency.

114. He was pleased to note that the present Conference session had so far been marked by a spirit of co-operation, which contrasted with the ending of its last session.

115. He welcomed the progress made by the Agency in the field of nuclear and radiological safety. It was important to show the public that every possible precaution was being taken to ensure the safety of nuclear energy. In that respect, he noted the headway made in the NUSS programme, the International Incident Reporting System, and the development of a model for negotiating bilateral or regional mutual assistance agreements between Members in case of nuclear incident. He also welcomed the appointment of teams to look into the matter of operational safety and supported the Director General's proposal to set up a high-level international commission in the field of nuclear safety.

116. It would not be possible to allay public concern regarding nuclear power until acceptable methods for waste disposal had been developed. He therefore welcomed the report of the International Conference on Radioactive Waste Management (GC(XXVII)/INF/214), and approved the conclusion contained in paragraph 3.2.2 of that document, in which final underground disposal in territory under national jurisdiction was considered to be the most practical method of radioactive waste disposal given present-day techniques. He also called the attention of all Member States to the resolution adopted at the Seventh Consultative Meeting of the Contracting Parties to the London Dumping Convention, which called for a suspension of sea dumping of radioactive waste. The disposal of radioactive waste was an international problem which consequently required international solutions. The Agency should continue to develop regional or sub-regional approaches and to study, in co-operation with regional development banks, the possibility of setting up regional waste management centres.

117. He noted with satisfaction that in 1982 the Agency had not detected any anomaly which would indicate the diversion of nuclear material for illicit purposes. However, he deplored the fact that some Member States had not yet placed major nuclear facilities under Agency safeguards. It was perturbing that inspection goals had been achieved to the extent of only 45% in 1982 and that in 1981 only 45% of routine inspections had been carried out owing to lack of resources. The Agency's safeguards system undoubtedly had an important role to play in promoting nuclear trade. It was, however, perhaps

overdoing it to claim that safeguards activities were in fact promotional. That was virtually tantamount to claiming that nuclear weapons were peaceful because, as a deterrent, they maintained world peace. Experience had shown that the best programme was bound to fail if it could not rely on a stable source of funds. Such was the case of the Agency's safeguards. The present financial arrangements were temporary and due to expire in 1984. It was necessary to develop more stable, long-term arrangements taking into account the base rate of assessment of Member States and their installed nuclear capacities.

118. The Agency's technical assistance programme had greatly helped to spread the benefits of nuclear power in developing regions. The value of efforts made by all Member States to improve it was appreciated and the policies which the Board of Governors had just adopted would help to make it more effective.

119. As a party to the Treaty on the Non-Proliferation of Nuclear Weapons, the Philippines believed that funds should be found for all footnote a/ projects. The First NPT Review Conference, in 1975, had recommended that all technically sound or footnote a/ projects should be financed. However, except for one year, the resources available for footnote a/ projects had usually been inadequate. In his statement, the Director General had informed the Conference that for 1983 only six countries had as yet contributed to footnote a/ projects, compared to ten in 1982. The continued non-application of the recommendations of the First NPT Review Conference did not augur well for the Third NPT Review Conference, to be held in 1985. The nuclear arms race was escalating rapidly despite the pervasive world economic recession. It was ironic that annual global expenditure on armaments could pay the total external debt of all the developing countries. While preparations were being made for the Third NPT Review Conference, it should not be forgotten that the implementation of only some parts of the Treaty was a sure recipe for another failure. Nuclear-weapon States should fulfil their obligations under the Treaty and initiate negotiations to put an end to the nuclear arms race.

120. The Philippine Government had noted the progress achieved in the Committee on Assurances of Supply (CAS) and was pleased that the Committee had reached an agreement on emergency and back-up mechanisms even though those mechanisms did not come up to expectation. As a party to NPT, his country

believed that under the Treaty a Government undertook to accept irrevocably general safeguards and was assured, in exchange, of full access to nuclear material and technology. Emergency and back-up mechanisms did not provide guarantees of supply. They were a monument to the sanctity of the commercial market. The Philippines was not against free trade but could not understand why interference with the commercial nuclear market was considered a transgression and why that argument was not applied to other products.

121. The Regional Co-operative Agreement (RCA) for Asia and the Pacific had entered its second decade and, as a result of the Agency's continuing assistance and the co-operation of the 13 signatories of the Agreement, one could look forward to more effective co-operation in the peaceful uses of nuclear energy in those countries. He was pleased to note that a similar regional agreement was being arranged for Latin America and he hoped that co-operation between the two regional groups would become a reality.

122. He concluded by thanking the Agency for its continuing assistance to the Philippines.

123. Mr. VYLKOV (Council for Mutual Economic Assistance) said that 1982 had been marked in CMEA member countries by further advances in economic development. Gross national income had increased by 2.6% mainly as a result of increased work productivity and savings in raw materials, goods and energy. Industrial production had risen by 2.3%, and in the first half of 1983 by 4.3%, compared with the corresponding period in 1982. Agricultural production had increased by 3%.

124. With regard to economic, scientific and technical co-operation, the development of energy resources of CMEA member countries had been one of the main objectives successfully achieved. The objectives pursued and the resources used to achieve them were set forth in the special long-term co-operation programme to meet the needs of CMEA member countries in energy, fuels and raw materials, which had been adopted at the thirty-second session of CMEA, in 1978. Among the major achievements, note should be made of the integrated energy network of European CMEA members (Mir) with a total capacity of 148 000 MW and the oil and gas pipelines "Druzhba" and "Soyuz". The gas pipeline linking Siberia to Western Europe, in which the German Democratic Republic and Poland had participated in addition to the USSR, was due to be completed in 1983.

125. The electricity production of the CMEA member countries had grown at an unprecedented rate, increasing by 57% during the last five years. In 1982, it had amounted to 1 811 million MWh; for coal production the figure had been 1381 million tonnes, for oil 627 million tonnes and for natural gas 522 000 million cubic metres.

126. The increase in the energy production of the CMEA member countries was attributable chiefly to nuclear power, which currently accounted for 22 500 MW and would in the course of the next decade reach 100 000 MW. That rapid increase was a result of efforts made by the CMEA member countries at all stages of co-operation - from basic designing to the planning, construction, production and operation of nuclear power plants. A vast system of specialization and co-operation for the production of nuclear power equipment had been set up with the participation of more than 50 large enterprises and associations in the CMEA member countries and Yugoslavia. In the Ukraine the CMEA member countries were constructing Europe's two largest nuclear power plants, whose output would be distributed through two interconnected 750-kV transmission lines to Bulgaria, Czechoslovakia, Hungary, Poland and Romania.

127. In 1982, Bulgaria, Hungary and the USSR had taken new power reactors into service. The construction of nuclear power plant units was continuing in the CMEA member countries, and so was the construction of the first nuclear district heating plant in the Soviet Union. The CMEA member countries had also established an extensive system of co-operation on the scientific level to promote the future development of nuclear power - construction of 1600 MW fast-neutron reactors, improvement of facilities for the study of thermonuclear fusion processes and reactors to satisfy district heating needs.

128. The safe operation of an increasing number of nuclear power plants was an important consideration in the co-operation between the CMEA member countries, which had prepared a manual for the classification and evaluation of the radiological consequences of accident situations due to loss of coolant in a nuclear power plant with a WWER reactor. Continuous radiological monitoring was carried out in the Danube basin and in the vast regions of the Baltic Sea and the Black Sea. In almost ten years, not a single case had been

recorded, even locally, where the maximum permissible levels for radioactive contamination had been exceeded. The reliability of the 20 operating units equipped with WWER-440 reactors was illustrated by their power utilization factor, which lay somewhere near 70%, as against the world average of 61%.

129. Questions of uniformity and standardization occupied an important place in the co-operation between CMEA member countries. For instance, the association "INTERATOMENERGO" was working on standards and unique specifications for the production and operation of equipment, devices, instruments and materials for nuclear power plants. For that purpose, the Agency's documents on the safety of nuclear power plants had been widely utilized. The multilateral co-operation between the CMEA member countries also made it possible to resolve problems connected with fuel loading, with the treatment and neutralization of radioactive waste, and with the automation of power plant control and operation procedures.

130. The manufacture of 280 new types of isotopic product had been organized, including radiopharmaceuticals and radioimmunoassay kits. The association "Interatom Instruments" had concluded an agreement on specialization and co-operation in the production of nuclear instruments which already covered about 50% of the trade between CMEA member countries in that field.

131. The CMEA member countries were convinced that nuclear power could satisfy the future energy needs of mankind and that there was no alternative to the peaceful use of nuclear energy. Co-operation and the exchange of scientific and technical information between the Agency and CMEA continued, and the CMEA countries were making efforts to extend that co-operation to other uses of nuclear energy for peaceful purposes.

132. Mr. AUDLAND (Commission of the European Communities), said that co-operation between EURATOM and the Agency had been further strengthened in the course of the past year.

133. Research and development, which was one of the principal fields of activity of EURATOM, was also one in which international co-operation was becoming increasingly important, as the Director General had stressed in his

statement. During the first years of EURATOM, research and development had been directed mainly towards the production of nuclear power, which was essential for the establishment of a Community industry. The civil nuclear industry of the Community had reached an unequalled level, and as a result EURATOM's research and development priorities had shifted towards long-term projects or infrastructures. That tendency took into account the fact that certain States Members of the European Community had not yet embarked on nuclear power programmes.

134. Current research and development work at EURATOM was focused on two large sectors. The first concerned the very distant future and involved the production of energy by controlled thermonuclear fusion. The second, more immediate, concerned the generation of power by nuclear fission. Virtually all research and development activities in the latter context related to the safety and security of nuclear power plants and nuclear materials and to the protection of populations and of the environment against the effects of radiation (reactor safety, waste management disposal, health physics and safeguards).

135. The organization of EURATOM itself was favourable to co-operation in research and development matters. A general scientific and technical research programme defined the strategy and basic priorities for co-operation at the Community level. For each research field, an action programme set forth in detail the activities required to achieve the desired objectives. Within that context, EURATOM's research was performed at various levels. In sectors, such as nuclear safety, which were of interest to all Members of the Community, the work was often carried out in the four joint research establishments in Belgium, Italy, the Netherlands and the Federal Republic of Germany. Other activities were pursued in national research institutes with the financial assistance of the Community; the results obtained there were also placed at the disposal of all Member States. That was essentially the procedure in nuclear fusion research. Finally, the Community's programmes and those of its Member States were subject to a high level of co-ordination. The flexibility of the organization enabled EURATOM to cover a vast field of research and to assist countries in improving the cost-benefit ratio of their own programmes. Moreover, EURATOM's programmes generally extended over four to five years and

thus enjoyed the continuity and stability which were required for large research projects. The extent and volume of activities deployed by EURATOM and its ability to adapt showed how valuable international co-operation could be.

136. In describing briefly the principal research and development programmes, he said that EURATOM was leading the field in thermonuclear fusion. The JET experimental device was the largest and most ambitious tokamak fusion reactor in the world. It had been put into service on 25 June 1983. Remarkably, the construction period (five years) and the costs (about US \$300 million) had not exceeded the forecasts. The Commission was at present considering the possibility of constructing a second experimental device in the 1990s. In the field of nuclear fission, EURATOM's research and development programme was concerned mainly with reactor safety and involved expenditures of US \$50 million per year, or about 30% of the total research and development budget in that field provided by all the countries of the Community. With regard to nuclear waste, EURATOM had a research and development programme under a 12-year plan which extended to 1992. In the coming years it would be necessary to demonstrate the existence and reliability of waste management and disposal techniques. In the field of radiation protection, EURATOM's research and development was directed towards acquiring a better understanding of the effects of radiation on health and on the environment. Community standards existed in that field which EURATOM's research and development work would make it possible to keep up to date. Nearly 80% of research and development work on radiation protection on the Community scale was co-ordinated by EURATOM, whose own expenditure amounted to US \$10 million per year. Finally, EURATOM was contributing to research and development on safeguards and undertaking work related to nuclear measurements and research on actinides.

137. The strengthening of co-operation could only be advantageous in most of those fields, particularly in those of nuclear safety and, perhaps, waste management and disposal. Fruitful relations had already been established in that respect between EURATOM and the Agency and between EURATOM and certain

Member States of the Agency. He recalled that three international conferences had been jointly sponsored by the Agency and EURATOM in the last three years. EURATOM was fully prepared to co-operate with the IAEA and, in particular, to allow the developing countries to benefit from its experience.

The meeting rose at 6.30 p.m.