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President: Mr. BOSWELL (Australia)

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THE RECORD

GENERAL DEBATE AND REPORT FOR 1972-73
(GC(XVII)/500, 500/Corr.1, 510) (continued)

1. Mr. ABS (Holy See) said that the Holy See, as a founding Member, had from the beginning followed the affairs of the Agency with interest and offered encouragement, for it believed that the Agency's principal objective, that of seeking "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world", could profoundly influence the development of nations and the quality of life of future generations. "Development" had come to mean peace, as had been affirmed by His Holiness Pope Paul VI in his Encyclical Letter Populorum Progressio, and the Church regarded it as a duty always to support those who strove to improve the lot of all peoples, and particularly of those less fortunate and less well endowed economically.

2. However, to ensure ordered development it was necessary not only to give economic and technical aid but also to imbue the conscience of men with the principles of social justice - justice in the relationships between individuals and in those between nations - so that it would be felt on the international plane, too, as an irresistible force. To that active search for justice the Church could contribute through its doctrinal teachings and through the educational work of Catholic institutions. And it was above all to promote that highest goal that the Holy Sea was present and active in the Agency and the other international organizations.

3. The Permanent Mission of the Holy See had been particularly happy to join in celebrating the World Day of Peace, on 18 January 1973, in the Agency's Board Room, thus signifying palpably the common accord of the Church and of the international organizations with regard to the two great concerns of the times: development and peace. The World Day of Peace was, according to the message uttered by its founder, Pope Paul VI, on 8 December 1967, designed "to educate new generations to reciprocal respect between nations, to brotherhood between peoples and to collaboration between races, with a view also to their progress and development".

4. On 14 February 1973 the Holy See had deposited an instrument of acceptance of the amendment to Article VI of the Agency's Statute with the Government of the United States of America in Washington. Given its religious and spiritual nature, which shunned questions of a political character, the Holy See had decided to take that action solely because it believed that the entry into force of that amendment would allow the wider participation in the Board which many developing countries had long sought.

5. His delegation wished to express its satisfaction at the ample technical assistance provided by the Agency in 1972, as outlined in document GC(XVII)/INF/142, in most important areas of development. It was to be hoped that the Agency,

in responding to requests for technical assistance, would continue to give priority to those coming from countries which were listed by the United Nations as being most in need of assistance. The more favoured peoples had a special duty to provide those countries with the means of achieving their own advancement; indeed, that was an important factor for the peace of the whole world. To support that noble goal, were it only symbolically, the Holy See was offering again, for 1974, a voluntary contribution to the fund which the Agency used for financing the provision of technical assistance.

6. The Agency's environment programme, expanded pursuant to a decision of the Board in March 1972 and the recommendations of the United Nations Conference on the Human Environment (the Stockholm Conference) merited whole-hearted support; that much was evident from the annual report for 1972-73 now before the Conference. But, though the progress of international co-operation in that vital sector gave reason for satisfaction, legitimate fear was being created by the fact that new nuclear arms tests were being carried out also in the atmosphere.

7. "The production of arms", Pope John XXIII had written in his Encyclical Letter Pacem in Terris, "is allegedly justified on the grounds that in present-day conditions peace cannot be preserved without an equal balance of armaments. And so, if one country increases its armaments, others feel the need to do the same; and if one country is equipped with nuclear weapons, other countries must produce their own, equally destructive.

8. "Consequently, people live in constant fear lest the storm that every moment threatens should break upon them with dreadful violence. And with good reason, for the arms of war are ready at hand. Even though it is difficult to believe that anyone would deliberately take the responsibility for the appalling destruction and sorrow that war would bring in its train, it cannot be denied that the conflagration may be set off by some uncontrollable and unexpected chance. And one must bear in mind that, even though the monstrous power of modern weapons acts as a deterrent, it is to be feared that the mere continuance of nuclear tests, undertaken with war in mind, will have fatal consequences for life on earth.

9. "Justice, then, right reason and humanity urgently demand that the arms race should cease; that the stockpiles which exist in various countries should be reduced equally and simultaneously by the parties concerned; that nuclear weapons should be banned"

10. It was a pleasant duty to extend congratulations to Mr. Eklund on his reappointment as Director General of the Agency. On the eve of his fourth consecutive mandate, the delegation of the Holy See wished to convey to him its cordial wishes for a successful and happy outcome of his important mission.

11. Social progress, if it was to be achieved in justice and harmony, demanded a special dedica-

tion on the part of all men of goodwill, for "the increasingly close relations between peoples impose the obligation of uniting the efforts of all in order to ensure the peace and stability of the world community", as His Holiness Pope Paul VI had stated not long ago. To strengthen the bonds of universal brotherhood and to ensure peace and the benefits of closer collaboration in science, technology and culture for all peoples was the Holy See's most earnest wish; nor would it limit itself to words in pursuing those aims. The Holy See offered the international organizations taking part in the common task its most willing collaboration and hoped that the General Conference, at its seven-teenth session, would also make a valuable contribution towards the realization of those noble goals.

12. Mr. URSU (Romania), after congratulating Mr. Eklund on his appointment for a fourth term as Director General, said that during the period that had elapsed since the last session of the Conference the international situation had been characterized by an amplification of contacts, exchanges of opinion and negotiations among States, by a normalization of relations among States and by the conclusion of important agreements for collaboration in various fields. A political event of historic importance was the Conference on Security and Co-operation in Europe, the second phase of which had opened in Geneva, by a happy coincidence, on the same day as the current session of the Agency's General Conference.

13. Romania had always strongly supported the principle of universality in the Agency, and he therefore wished to express his delegation's satisfaction at the admission of the German Democratic Republic and the Mongolian People's Republic. That development would give new impetus to the efforts of Member States to bring about the participation of the Democratic People's Republic of Korea, the Democratic Republic of Viet-Nam and all other interested States in the Agency's activities.

14. One of the most important problems for the future was to free humanity from the fear of armaments, and particularly from the nightmare of a nuclear war. The Romanian delegation considered that the Agency, as an institution specialized in the peaceful uses of nuclear energy, could and should make a contribution to international efforts to halt the arms race with a view to reaching the final goal of general disarmament.

15. For Romania, as a socialist developing country, nuclear energy was a means of making rapid progress in acquiring and applying advanced techniques to raise its economic potential and living standards. The basic directions for developing peaceful applications of nuclear energy in the Romanian economy and in the social sector were laid down in the national nuclear programme, the provisions of which were being successfully implemented. An important part of the programme was scientific research directly applicable to industry, agriculture, medicine and other fields. In order to extend activities in connection with physics and nuclear physics, the development of basic and

applied research had also been taken into account. The provision of Romanian institutes with new equipment and installations, such as a Van de Graaff accelerator and a medium-sized computer, had made it possible to raise the level of research in such fields as nuclear structure, nuclear reactions and theoretical physics. Plasma physics, semiconductor and laser research and the study of materials by different methods (nuclear magnetic resonance, electron paramagnetic resonance etc.) were being pursued with good results; many of the results had been presented at international scientific conferences, including those organized by the Agency. Special measures had been taken to relate the results to design and production problems; for example, the structure of some laboratories and centres had been modified with a view to solving certain problems connected with the needs of the national economy.

16. One of the main aims of the national nuclear programme was the development of technological research relating to nuclear fuel, nuclear reactor components and other aspects of nuclear energy. Other activities which had been planned were the manufacture of nuclear instruments, the construction of nuclear facilities and the production of stable and radioactive isotopes. It was hoped in that way to cover, as far as possible, the requirements of domestic users and to create possibilities for export. The application of nuclear techniques in industry had experienced a rapid and extensive development, particularly in such branches as oil production, mining, metallurgy, chemistry and machine building. In agriculture the results of research based on nuclear techniques had been put to use, special attention being paid to soil fertilizers, plant physiology, plant and animal protection and breeding, and the prevention of water pollution.

17. Romania was promoting and developing extensive and mutually advantageous international co-operation in relation to the peaceful uses of nuclear energy, both on a bilateral basis and through the international organizations. Its co-operation in nuclear matters with socialist and other countries had been continuously enlarged and intensified in the past year, and new agreements and other instruments had been concluded. Annual co-operation programmes on specific problems of mutual interest were being carried out jointly with Bulgaria, Czechoslovakia, Hungary, Poland, the Soviet Union and Yugoslavia. Common research activities in different fields and exchanges of specialists, materials and information had taken place with those countries on the basis of agreements concluded directly between research institutes and laboratories. Co-operation agreements had also been concluded with the national commissions of Argentina, the Federal Republic of Germany, India, the Netherlands, Pakistan and Sweden; together with existing agreements, they had made it possible to solve jointly certain research and development problems of common interest.

18. Romania paid special attention to the development of the Agency's activities and to the extension of its own co-operation with the Agency. It believed

that the increased emphasis on nuclear technology in the Agency's work was a significant and indispensable factor in the efforts of the developing countries to introduce commercial nuclear power.

19. The contribution made by the Agency to the process of development was necessarily a multi-lateral one and should be as substantial as possible. He was thinking of the support it could give in introducing nuclear power, elaborating health and safety regulations (including those for protection of the environment), extending the applications of radiation and radioisotopes (especially in agriculture, industry, medicine, biology and hydrology) and providing nuclear information through the International Nuclear Information System (INIS). He wished to express his delegation's satisfaction with the positive results obtained by the Agency in those vital fields.

20. The serious financial difficulties confronting the Agency were a reason for justified concern on the part of Member States. Regardless of the causes of that situation, Members were being presented with an unprecedented budgetary increase and a reduction of some major activities of benefit to the developing countries. The Romanian delegation was unable to support the proposed figures for the 1974 budget. At the same time, it shared the concern expressed by other delegations from the developing countries regarding the decline of technical assistance. It was essential to maintain an adequate balance between the basic functions of the Agency. Recognizing the particular role and importance of technical co-operation and assistance, Romania took an active part in that aspect of the Agency's work and would therefore, as in the past, contribute in 1974 to the General Fund and also grant ten fellowships of ten months each for training at its nuclear centres.

21. Romania believed that the Agency should be active in promoting and implementing international co-operation aimed at ensuring that more States, particularly the developing ones, benefited from the achievements of nuclear science and technology. It had therefore been advocating the elaboration and adoption of an international legal instrument laying down principles which would govern international co-operation in the peaceful uses of atomic energy. Such an instrument should be based on the premise that all States could freely participate in the development of peaceful applications of nuclear energy and benefit from its advantages, under conditions of equality, national independence and sovereignty, non-interference in internal affairs and mutual advantage.

22. In conclusion, he wished to thank the Director General and his staff for their work in carrying out the technical assistance project on "Development of nuclear technologies in Romania", which was being financed by the United Nations Development Programme (UNDP).

23. Mr. ALI (Bangladesh) expressed the great satisfaction of his country at the admission of the German Democratic Republic and the Mongolian People's Republic to the Agency, as Bangladesh

was committed to the principle of universality of the international organizations. His Government was also very happy at the appointment of Mr. Eklund as Director General for a further four-year term.

24. Since its independence less than two years before, Bangladesh had embarked upon the enormous task of rehabilitation and reconstruction. Although constrained by economic limitations and national priorities, the Government of Bangladesh attached great importance to the development of science and technology and, after creating separate ministries for science and technological research, atomic energy and natural resources, had established a National Atomic Energy Commission charged with promoting the peaceful applications of atomic energy in Bangladesh.

25. At present the atomic energy programme was modest but oriented towards achieving self-reliance in that field, with major emphasis on applied research in agriculture, food and medicine. The scientists of the Commission had already evolved high-yielding rice varieties known as IRATOM and disease-resistant, high-yielding varieties of jute known as ATOMPAT. Desirable varieties of other crops such as pulses and sugar-cane had also been developed by mutation techniques and were awaiting field trials for ultimate use by farmers. Significant results had also been achieved in studies of soil-plant relationships and the control of diseases and pests using radioisotope techniques, and he wished to acknowledge the assistance received from the Agency in that connection.

26. The Commission hoped that construction of the Institute of Nuclear Agriculture at Mymensingh would be completed in 1974, enabling the Commission to pursue extensive programmes in nuclear agriculture. An Irradiation and Pest Control Research Institute was also under construction, near Dacca, and was expected to be completed during the current five-year plan (1973-1978). Research into aspects of the radiopreservation of food which were of special interest to Bangladesh would be the Institute's main activity, and some co-ordinated research programmes had already been undertaken in collaboration with the Joint FAO/IAEA Division.

27. There were three nuclear-medicine centres in the country and six more were planned. The three existing centres, which were attached to general hospitals, had been employing radioisotopes and radiation successfully in the diagnosis and treatment of many diseases and the Agency had helped provide valuable equipment for those centres.

28. The Atomic Energy Research Centre at Dacca was now well established, with several major research facilities such as a Van de Graaff machine, an IBM-1620 computer and a 5000-curie, cobalt-60 irradiation source. The Centre was engaged in research relating to low-energy nuclear physics, solid-state physics, electronic instrumentation and control, nuclear chemistry, radiobiology and health physics.

29. In the coming decades many developing countries would be employing nuclear power to meet their energy requirements. Because of the small grid systems involved, those countries would have their choice restricted to small and medium-size reactors, whose unit capital cost still remained high compared to those of conventional power plants.

30. In that connection the Agency's market survey for nuclear power, carried out in 14 developing countries including Bangladesh, was an excellent piece of work, but he felt that it should be updated and expanded in the light of new information becoming available. That applied particularly to Bangladesh, as the survey had been conducted when the country had just been recovering from war devastation.

31. He hoped to see small- and medium-size reactors become competitive and suggested that the Agency collaborate with the manufacturers to find ways of reducing the unit capital costs.

32. Nuclear power feasibility studies had been undertaken in Bangladesh. As the known reserves of fossil and hydro-energy resources were limited, the introduction of nuclear power might become essential in the early 1980s; a site suitable for a nuclear power station had already been selected in the western part of the country. In order to create the technological infrastructure for nuclear power and to undertake research and development in that field, an Institute of Nuclear Technology would be built adjacent to the proposed site and would be completed in two phases covering the first and second five-year plans.

33. Bangladesh was very interested in international collaboration in the field of science and technology in general and atomic energy in particular. He was very pleased to announce that India and Bangladesh had signed an agreement for co-operation in the peaceful uses of atomic energy and that an agreement had also been signed between Australia and Bangladesh for co-operation in pilot-plant studies for the exploitation of beach sand minerals.

34. Bangladesh supported the Agency's technical assistance programme but noticed that the amount allocated under the Regular Budget for technical assistance was rather small and that most of the funds came from voluntary contributions. In the interests of the developing countries, he therefore wished to suggest that more funds be allocated to technical assistance from the Regular Budget.

35. Sir Lenox HEWITT (Australia) said his delegation wished to join in the expressions of welcome to the German Democratic Republic and the Mongolian People's Republic and in congratulating Mr. Eklund on his reappointment as Director General.

36. Australia had always attached importance to the objectives and work of the Agency. Since the organization had a specialist role, its significance to individual Members would vary according to their

particular circumstances and needs, and it was natural therefore that views about the balance which it should maintain in its activities would not always coincide, the more so as there were limits to what could be achieved with the resources at its disposal. In considering the Agency's priorities, he wished to mention first the major new roles accepted by it under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)[1] and pursuant to the recommendations of the Stockholm Conference. That did not mean, however, that his delegation did not also recognize the importance of the specific needs of the developing countries. It understood completely their desire to share fully in the benefits of nuclear technology and for ways to be found of enabling the Agency to undertake a larger programme of technical co-operation.

37. Delegations would be aware that Australia had ratified NPT on 23 January 1973 - one of the first acts of the Australian Government elected in December 1972, reflecting the great importance which the country ascribed to NPT. Australia was at present negotiating a safeguards agreement with the Agency to provide for the application of safeguards to nuclear materials in its territory.

38. The rapidly expanding, insatiable demand for scarce energy resources was inevitably drawing attention to the importance of the world's uranium deposits. It was necessary to contend with problems of values and currencies when trading in uranium and other materials as well as with the physical tasks of exploration and the proving of reserves. Since Australia had the potential to become a major exporter of certain nuclear materials, it was very conscious of the need for the application of appropriate Agency safeguards to such exports in the interests of upholding the principles and spirit of NPT. Australia would continue to concert with other like-minded countries in order to develop a reasonable and practicable international policy for safeguards on nuclear exports.

39. His delegation was convinced that, to be effective, NPT required the widest possible participation and support. If nations were to give such support, they had to have confidence in NPT and in the existence of an efficient system of verification. Australia therefore attached great importance to the Agency's role in connection with NPT. It believed that confidence in the verification system would be reinforced if it was clearly apparent that safeguards in connection with NPT would be applied with equal effectiveness and impact in all non-nuclear-weapon States party to NPT.

40. Australia believed that it was the desire of the international community that there should be no further testing of nuclear weapons in the atmosphere, or indeed in any other environment, and that there should be no further proliferation of nuclear weapons. It was very concerned that certain countries were continuing to test such weapons in the atmosphere in and around the Pacific area

[1] Reproduced in document INFCIRC/140.

and it fervently hoped that they would respond to the clearly expressed wishes of the countries affected by their activities and cease their programmes for nuclear weapons testing.

41. His delegation could sympathize with the attitudes of the developing countries, Members of the Agency, which had never contemplated acquiring nuclear weapons, had done nothing to create the problem with which all were now faced, but saw a substantial proportion of the Agency's Regular Budget being expended on the safeguards function, with less available for other Agency tasks. Because they too would suffer from the consequences of a breakdown in NPT, Australia believed that all Member States had a strong interest in its success. Nevertheless, it understood their point of view and believed that the Agency could do much to help them by facilitating the freer transfer of nuclear technology from the more advanced to the less developed countries. In that connection he wished to commend and endorse the remarks made at the present session by the distinguished delegate of Indonesia about the advantages and possibilities of the transfer of knowledge and technology through regional co-operation schemes. [2]

42. The recommendations of the Stockholm Conference [3] had placed new obligations on the Agency; for example, the Conference had recommended that the Agency's co-operation be sought in connection with the tasks of elaborating recommended standards of safety covering the dispersion of radioactive waste and providing - in collaboration with the Organisation for Economic Co-operation and Development and other appropriate international bodies - a basis for the most effective development of the world's energy resources, with due regard to the environmental effects of energy production and use. Since then the Agency had been given more specific responsibilities under the Convention on the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter (the London Convention). All who had participated in the Stockholm Conference welcomed the Agency's co-operative response.

43. As a maritime nation, Australia was very conscious of the need to protect the seas against pollution, and it welcomed the Agency's new role as adviser to the international community on the dumping of radioactive materials in the oceans. It had already given its support to the special fund established by the Agency for implementing the 1973 programme and was ready to consider any further request for assistance.

44. His delegation continued to see value for Members in INIS and in such activities as setting safety standards, developing regulations for the safe transport of radioactive materials and providing for the exchange of information in many fields.

45. He reiterated that Australia supported the technical assistance activities of the Agency.

Although it still believed that UNDP, having been set up for that specific purpose, should remain the principal channel for technical assistance rendered through the United Nations system, it did regard those activities as an important part of the Agency's work and would seek ways of offering increased assistance under its auspices. His country, which had already contributed to the General Fund an amount corresponding to its base rate of assessment, whole-heartedly supported the Director General's appeal to Members to increase their contributions to the Fund and had recently informed him of Australia's readiness to pay up to a further 10%, provided that enough other countries did likewise to make a significant impact on the total. He wished to add that, regardless of what others might do, Australia would be paying a total of \$44 300 for 1973. That sum included an additional sum equal to 5% of its assessed total, and Australia would be prepared to pay more if other countries joined it in doing so. It expected to make a similar additional payment and a similar additional offer for 1974.

46. His country was also engaged in active discussion with the Agency about other forms of practical aid in kind and in training through the Agency as a part of regional co-operation schemes. That applied in particular to countries in the area of Australia, with which it had already established technical co-operation programmes. That was a form of assistance which his delegation thought could offer interesting and useful possibilities.

47. Mr. WARNOCK (Ireland) congratulated the Director General on his excellent annual report, which was at once interesting, informative and attractively presented.

48. His Government was heartened by the progress made by the Agency over the past year in the negotiation of safeguards agreements and their implementation. A particularly notable development had been the signing on 5 April 1973 of the safeguards agreement between the Agency, EURATOM, and the seven non-nuclear-weapon States of EURATOM, including Ireland. His Government was confident that that agreement would provide a more favourable safeguards regime for those non-nuclear-weapon States than the agreements previously concluded with the Agency by individual States. The new agreement, when ratified, would replace the agreement between Ireland and the Agency which had been signed on 29 February 1972 and had entered into force on the same day.

49. No less vital than the negotiation of safeguards agreements was their implementation. The continuous improvement of equipment and procedures was of paramount importance, and an example of such improvement cited in the Agency's annual report was the use of automatic camera equipment to take over part of the surveillance work carried out by inspectors. His Government was convinced that the research and development aspect of the Agency's safeguards activities was most beneficial and worth while.

[2] GC(XVII)/OR. 160, para. 125.

[3] See United Nations document A/CONF. 48/14.

50. His Government was also happy to note that the Agency had intensified its work in the field of environmental protection, with a substantial increase in the number of symposia, panels, publications and research contracts. As had been recognized in the London Convention, the Agency had a unique competence in the field of radioactive waste management. His Government was anxious that, when the detailed United Nations environment programme was drawn up and approved in March 1974, the Agency's environment programme should be accorded its rightful importance.

51. The number of demands made on the technical assistance funds of the Agency during the past year - and the fact that those demands originated in a wide number of countries - was in itself a healthy sign. It indicated that atomic power was no longer the prerogative of the few; moreover, its commercial potential was being increasingly exploited by the developing countries for their own benefit. The ability of the Agency to meet the increasing number of demands had been hampered by lack of funds. The annual report pointed out that, in 1973, 34 requests for assistance had been adjudged technically sound but had had to be turned down simply due to lack of funds. His Government appreciated the problem of inflation that had beset the technical assistance programme and had decided to increase its voluntary contribution to the General Fund for 1974. The amount of that increase had yet to be decided.

52. He stressed, however, that the spectre of inflation should not be allowed to overshadow the other very real problems that had to be tackled in administering a technical assistance programme of such magnitude - for example, the relative weighting of short-term and long-term projects, the need for project diversification, and the alternative benefits of expenditure on personnel and equipment.

53. His Government was anxious that Ireland's relationship with the Agency should be characterized by vigorous two-way co-operation. Since joining the Agency in 1970, Ireland had followed its activities and achievements with great interest. In order that Ireland might better contribute to the work of the Agency, it had been decided to present its candidature for membership of the Board for the following year. He sincerely hoped that Ireland's candidature would be successful and that its tenure of office would be fruitful.

54. The nuclear energy situation in Ireland had not changed substantially in the past year. The Nuclear Energy Board, provided for in the Nuclear Energy Act of 1971, had not yet been set up. Active consideration was being given to constructing a nuclear power station, the timing of which would depend on a number of factors, including the results of oil and gas prospecting on the Irish continental shelf. The Agency's annual report pointed out that the whole process of the introduction of nuclear power required the State concerned to start planning at least eight to ten years before a nuclear plant was to go into operation. Ireland had started planning and would be seeking to draw more and more on Agency experience and expertise,

as communicated through its symposia and publications. The scientific information made available through INIS was extremely valuable to Ireland, and he was confident that Irish academic and scientific bodies would become increasingly interested in contributing to, as well as benefiting from, INIS.

55. His Government was keeping under continuous review the possibility of arranging for some of the symposia, seminars and other meetings sponsored by the Agency to take place in Ireland.

56. The services performed by the Agency in connection with environmental protection especially those relating to radioactive waste management, were of particular interest to Ireland. Being an island, his country had always been most concerned about the protection of the marine environment and was greatly encouraged by the Agency's activities in the field of radioactive waste management - particularly by its readiness to discharge its responsibilities under the London Convention. Although Ireland had not been represented at the panel convened in Vienna in June to discuss the question of the Agency's responsibilities under the London Convention, it had followed the proceedings very closely. The panel's recommendations were being studied with great interest by the competent Irish authorities.

57. Mr. TALABHAT (Thailand) expressed his delegation's satisfaction at the reappointment of Mr. Eklund as Director General for a further term of four years. His long experience with the Agency, his breadth of vision and his devotion would be of benefit to all. Mr. Eklund's visit to Bangkok in August had been the occasion for the establishment of useful contacts between him and Thailand's Office of Atomic Energy for Peace.

58. His delegation also welcomed the market survey for nuclear power, which had included Thailand and had been carried out under the sponsorship of the Agency with generous assistance from the advanced countries. It considered the results highly satisfactory, although the survey data had become somewhat outdated owing to the problems created by the present energy crisis, as a consequence of which a number of countries, Thailand among them, had found it necessary to provide for the construction of nuclear power stations at earlier dates. He was happy to learn that the Agency would continue rendering assistance and services to those countries.

59. The delegation of Thailand looked with favour on the efforts of the Board and the Secretariat to amend the Rules of Procedure of the General Conference. It hoped the amendment would come into force at a relatively early date.

60. The financial difficulties resulting from general inflation had affected many countries and had left their mark on the budget of the Agency. However, his delegation was glad to learn that the Secretariat would do everything possible to make judicious use of the funds available to it.

61. Thailand was among the developing countries of South East Asia which had often requested aid from the Agency under the heading of regional co-operation; in that connection, he wished to mention how much his country appreciated the efforts of India, which had done everything possible to promote such co-operation. However, the concept of regional co-operation, while presupposing increased mutual assistance, required as a primary condition that each country make a maximum effort of its own. That was the principle which Thailand intended to apply.

62. Mr. OTERO NAVASCUES (Spain) said he would first like to congratulate the Director General on his reappointment for a further term of office.

63. For several decades Spain had been undergoing extensive economic and industrial development, as was shown, for example, by the fact that over the ten years between 1960 and 1970 the total consumption of energy, in terms of millions of tons of equivalent coal, had been more than doubled. To ensure that future energy requirements were covered, a national energy plan - of which the national electricity plan was a part - was being prepared. Spain's installed electrical capacity at the present time was 32 500 MW, and was expected to reach 48 700 MW by 1983.

64. Nuclear power was playing a steadily increasing part in the national electricity plan, and it had been calculated that by 1988 more than 45% of the total installed capacity would be accounted for by nuclear energy. Three nuclear power stations were in operation (José Cabrera, Santa Maria de Garoña, and Vandellòs), and other reactors were in the process of being licensed.

65. The proposed investment in power station components amounted to 60 000 million pesetas for the stations to be established within the present decade, and would have risen to 300 000 million by 1990. The expenditure on fuel was expected to have exceeded 25 000 million pesetas by the same year. The recently formed Empresa Nacional de Uranio (National Uranium Corporation) was developing uranium ore deposits and would shortly start constructing a fuel fabrication plant in Spain, with the collaboration of the Junta de Energía Nuclear.

66. He then requested that the following part of his statement be reproduced verbatim[*]:

(1) "Between the previous session of the General Conference and the present session an event of great importance has taken place in the life of the Agency, namely the entry into force of the amendment to Article VI of the Agency's Statute which was approved at the fourteenth session of the Conference in 1970. The Board of Governors is a key element in

[*] This translation of a part of a statement made in Spanish is reproduced verbatim at the speaker's request under Rule 89(b) of the Rules of Procedure,

the Agency's operation, and the organization's successes or failures will, to a large extent, depend on the efficiency with which the Board can function; and this efficiency, in turn, depends on the Board being of the right size and composition. My delegation therefore considers that the present session, at the end of which the first Board of Governors appointed under the new version of Article VI will take up its duties, is one of particularly great importance.

(2) "In 1970 the Spanish delegation voted in favour of the amendment to Article VI. During the last few years there has been a marked increase in the number of States Members of the Agency and, what is still more important, in the number of countries pursuing activities connected with the peaceful uses of nuclear energy. These two factors necessitated a corresponding increase in the size of the Board, and my Government considered the proposal approved in 1970 to be reasonable in that respect. Similarly, my Government felt that the proportions in which the various geographical areas would be represented on the new Board were suitable. Consequently, we consider the new composition of the Board of Governors to be such as to enable it to function smoothly and efficiently.

(3) "But, Mr. President, my Government would like to draw the attention of other Member States to the fact that it is not enough for the Statute to lay down an appropriate formula for selection of the Board of Governors; it is also essential that suitable standards of judgement should be applied when the time comes to designate or elect the Members of the Board.

(4) "Firstly, my delegation considers that when the outgoing Board designates the Members which, under Article VI, A, 1, are to serve on the next Board, it should adhere strictly to the prescripts of the Statute - in other words, that it should designate those Member States which are most advanced in nuclear technology, whether in the world as a whole or in the individual geographical areas.

(5) "When the outgoing Board of Governors was called upon to designate the five Members most advanced in the technology and utilization of atomic energy in the world as a whole, there was no doubt as to which countries qualified. Now that the number has been raised to nine, the Board has to select four more Members from among several whose attainments in these matters are very much the same. Hence, each year the outgoing Board of Governors must take into consideration the situation existing in each Member State with regard to the technology and utilization of nuclear energy. Since this situation is neither permanent nor immutable, the review will of necessity result in the annual replacement of some of the States designated

to serve on the Board of Governors. To agree to a procedure whereby the Members designated for the previous Board are systematically reappointed would be tantamount to transforming the 'designated Members' into 'permanent Members'.

(6) "It is clear that this would run counter to the prescripts of the Statute and would give rise to a situation unfair in every respect. I think that my Government's position is sufficiently clear and comprehensible for me not to have to refer to the specific ways in which a country could unjustifiably benefit therefrom.

(7) "As regards the Members elected under Article VI, A. 2, my delegation considers that the General Conference should not apply an indiscriminate and wholly egalitarian standard of judgement in selecting the representatives of each geographical region. We maintain that the state of advancement in the technology and utilization of nuclear energy in a country has an important effect on the efficiency with which that country's representative can function in the Board and thereby contribute to the smooth operation of the Agency. Hence the frequency with which Member States serve on the Board should not be governed by a simple rotation of seats; there should be a sensible relationship between the frequency with which they serve and their attainments in the technology and utilization of nuclear energy, as well as their experience and tradition in such matters.

(8) "My delegation would like to make it clear that the principles which I have expounded are fundamental and must be observed if the composition of the Board of Governors is to be the most appropriate for the smooth functioning of the Agency.

(9) "As I have already said, my Government voted in favour of amending Article VI, but has still not ratified the amendment for the very reason that it wished to emphasize, at this session of the General Conference, the deep concern it feels about the practical application of the new Article VI; for it is that application which could determine to a large extent the future success of the Board's work".

67. In nuclear research, the Junta de Energía Nuclear had continued to promote the activities of the nuclear industry, giving priority to safety, fuel technology and reactor engineering.

68. On the international plane, an agreement on co-operation in the peaceful uses of nuclear energy had recently been signed between the Junta de Energía Nuclear and the Gesellschaft für Kernforschung in the Federal Republic of Germany, covering research in reactor physics and fuels and components for fast reactors. In addition, co-operation agreements had been concluded with other countries, particularly those of Latin America.

69. International co-operation was essential in solving those problems of nuclear technology which were common to all countries. Among such problems was the availability of nuclear fuel, including fuel enrichment. Uranium isotope separation was an area in which the world's potential had to be considerably increased if a shortage of uranium was to be avoided in the years to come. Spain was anxious to collaborate with other countries in such work, particularly with those located in its own geographical area.

70. Nuclear safety and environmental protection were also problems that required ever-increasing attention. The studies being carried out at present by the Agency were of great benefit to Member States; it was hoped that such activities would continue on a larger scale, with a view to establishing regulations which could be applied internationally.

71. With regard to the Agency's budget, it was gratifying to see that the nuclear safety and environmental protection programme had been considerably enlarged as compared with the previous year. Conversely, there had continued to be an unfortunate decline in the volume of technical assistance, which had dropped from 17% of the budget to less than 15.5%. Provision of technical assistance was one of the Agency's main objectives, which all Member States should further. His country had systematically provided experts' services and fellowships, in addition to its voluntary contribution, and would strive to maintain the same level in coming years.

72. Mr. ZHMUDSKY (Ukrainian Soviet Socialist Republic), noting that each of the preceding regular sessions of the General Conference had been characterized by some special feature, said that in the opinion of his delegation the present session was being influenced as never before by the improvement in the world political climate, which - resulting, among other things, from the recent visits of Mr. Brezhnev to the United States, the Federal Republic of Germany and France, the normalization of the situation in Central Europe, the end of the war in Viet-Nam and the successful start of the Conference on Security and Co-operation in Europe - opened up before all organizations within the United Nations family, including the Agency, new possibilities for contributing to the strengthening of peace throughout the world. It was the duty of all States and international organizations to ensure the irreversibility of the favourable changes which had taken place in the world situation.

73. His delegation noted with pleasure that the Agency reacted sensitively to positive developments in all parts of the world, as demonstrated by the approval for Agency membership of the German Democratic Republic, a sovereign State which had for some time been co-operating with the Agency as a party to NPT, and welcomed the new Member State not only because, with its considerable economic potential and achievements in the peaceful utilization of atomic energy, it would be able to make a valuable contribution to the Agency's work, but also because its acceptance into the

Agency was a triumph of realism in a changing world.

74. It was also gratifying that the Conference had approved for membership of the Agency a further socialist State - the Mongolian People's Republic, which had been transformed within a short time from a feudal, backward country into one with highly developed industry and agriculture.

75. However, the elimination of the basis for the "cold war" in no way meant that all the causes of distrust between States with different social systems had been removed; there were still forces trying to use the achievements of science and technology to intimidate. All depended on the use to which those achievements were put; as Einstein had foreseen, they would contribute to the further progress of human civilization only if man's moral and social foundations were strengthened.

76. Science had become a productive force capable of satisfying man's material and spiritual needs. That was particularly so as regards atomic energy, and the role of the Agency in contributing to world peace and human welfare was correspondingly important.

77. Turning to his country's recent activities in the nuclear field, he reported that questions of nuclear structure and the mechanisms of nuclear processes were being studied with the help of neutrons and charged particles at the Institute of Nuclear Research and the Physico-Technical Institute of the Academy of Sciences of the Ukrainian SSR. Important new data had been obtained on cross-sections for the scattering and capture of particles by various nuclei and on the quantum characteristics of the ground and excited states of nuclei. A number of new isomeric nuclear states had been discovered and their nature ascertained. Using a 2-GeV linear electron accelerator - one of the most powerful in the world - Ukrainian investigators were studying the mechanism of the interaction of high-energy photons with matter, the photo- and electroproduction of particles, the charge distribution in nuclei, nuclear disintegration and various other nuclear phenomena. Considerable work was also being done on high-temperature plasmas with a view to achieving controlled thermonuclear fusion, and plasmoids with high parameters had been obtained.

78. At institutes of the Academy of Sciences of the Ukrainian SSR a wide range of questions relating to the use of nuclear radiation in solid-state physics, radiation physics and chemistry, the study of materials, geology, radiobiology and other fields was being investigated. The results of research into the use of radioisotopes were finding wide practical application, with important economic consequences; for example, the savings achieved through the use of radioisotope instruments in the Ukrainian coal industry during 1972 had been estimated at 1.5 million roubles.

79. Many problems relating to the functioning of human organs and systems in both normal and pathological situations were being studied with

success, while radioisotope methods of investigation were being improved and used in both clinical and ambulatory cases. Modern equipment, labelled compounds and radioisotopes were being produced on a scale sufficient to permit widespread scanning of the internal organs of patients. The research leading to the advances which he had enumerated was being carried out at clinics as well as at scientific institutes.

80. At Kiev University, it had been demonstrated for the first time that the characteristic X-ray spectra associated with the atoms produced in radioactive electron-capture decay could be used as a standard for all other roentgenography methods, for the excitation process was not connected with the external action of excitation agents on the atom.

81. The Ukrainian delegation appreciated the excellent work being done by the Agency in connection with NPT and was pleased to note that the number of safeguards agreements and of nuclear facilities subject to international safeguards was increasing from year to year.

82. The Agency's activities in the field of environmental protection had expanded considerably, to some extent as a result of the Stockholm Conference, and new responsibilities had been entrusted to the Agency under the London Convention. Agency experts had formulated interesting recommendations concerning radioactive waste and the Agency would undoubtedly contribute a great deal to the prevention of marine pollution. In that connection, the Ukrainian delegation felt that the Monaco Laboratory should expand its activities and start using nuclear methods in the study of non-radioactive marine pollutants. In the Ukrainian SSR there was considerable interest in such activities and work had been in progress for some time on radioactive marine pollution, the migration of radioisotopes in the hydrosphere and their concentration in marine organisms.

83. In conclusion, the Ukrainian delegation was very happy about the re-election of Mr. Eklund, who had done so much to increase the Agency's efficiency, especially as regards INIS and safeguards in connection with NPT.

84. Mr. OSEI TUTU (Ghana) extended his delegation's congratulations to Mr. Eklund on his reappointment as Director General and warmly welcomed the German Democratic Republic and the Mongolian People's Republic to the Agency. The more the membership of the Agency increased, the further away, he fervently hoped, the world would move from the spectre of nuclear destruction.

85. Ghana believed in and fully supported the objectives stated in Article II of the Statute, and it was in furtherance of some of them that it had established a National Centre for Radioisotope Applications in 1969 and, since then, directed its efforts to the solution of some of the practical problems facing Ghana in agriculture, pharmacology and medicine.

86. In agriculture, techniques for the protection of dry cocoa beans against attack by insects and fungi and against economic waste during storage were being developed. In collaboration with the Cocoa Research Institute at Tafo, the Centre had also started investigating radiation techniques for the development of hardier, more disease-resistant strains of cocoa. Similarly, projects relating to certain other crops, such as tomatoes, were being planned with the Faculty of Agriculture of the University of Ghana.

87. With regard to pharmacology, the possible harmful effects of antimalarial drugs were being studied. Work was nearing completion on a walk-in growth chamber which would be used for studying, among other things, the medicinal properties of some of the country's local herbs. In that connection, he was happy to mention that scientists in a European country had shown interest in the project and wished to collaborate in it.

88. As far as medical applications of radioisotopes were concerned, the limited radioisotope diagnostic services being provided in collaboration with the Ghana Medical School were in the process of being expanded, and a shadow shield whole-body counter for clinical investigations and research would shortly be commissioned. Training of the staff that would be required to maintain those clinical services was also under way.

89. He was happy to mention that the Agency had been helping Ghana under its technical assistance programme; its help was greatly appreciated. His country was also most grateful to the United Kingdom for substantial financial assistance. Ghana looked to those two sources and to other friendly Member States, such as the Federal Republic of Germany, for further collaboration and help in its efforts.

90. Besides the activities which he had briefly summarized, the National Centre for Radioisotope Applications was also providing important services to various bodies engaged in general scientific work, particularly in projects involving the use of radioisotopes or large radiation sources. For example, the Centre offered various training facilities and, in 1971, under the auspices of the Agency and with funds provided by UNDP, it had successfully organized a four-month training course in general scientific and radioisotope laboratory techniques for technicians from a number of the English-speaking Member States of Africa. At the moment, it was considering a request recently made by UNDP for the organization in 1974 of a further, similar training course in Africa.

91. The activities of the Centre were a demonstration of Ghana's belief in the use of nuclear energy solely for peaceful purposes. A further demonstration of that belief was its signing of NPT and the recent conclusion of a safeguards agreement with the Agency.

92. It was to be regretted that one highly respected Member State of the Agency had recently

carried out nuclear bomb tests in complete disregard of the Agency's objectives and of world opinion. His delegation fervently hoped that that would be the end of such tests. It hoped also that those Member States of the Agency which already possessed nuclear weapons would clearly demonstrate their awareness of their moral obligation never to give mankind genuine grounds for fear, as such fears understandably tended to lead other States to want to develop their own independent nuclear force.

93. In conclusion, he wished to comment on a matter which was very important to Ghana and to many other Member States - namely, the method of financing the technical assistance programme of the Agency - and to reiterate the serious concern of his delegation, which had been expressed the year before, at the fact that, whereas there had been an increase in the budget of the Agency, the allocation for the regular programme of technical assistance had shown a decrease, albeit a small one, in 1973. Various weighty and convincing reasons had been given for that decrease. However, in the view of the Ghanaian delegation, the most disturbing feature of the whole problem was the very unsatisfactory way in which the provision of technical assistance was financed - that is to say, from voluntary contributions instead of from the Regular Budget. In that regard, he fully supported the views expressed on the subject by the distinguished delegate of Indonesia both when the Administrative and Budgetary Committee had met in May and during the present session of the Conference. Ghana would work in concert with Indonesia and all other interested Member States in urging that a speedy solution be found to that problem and therefore reserved the right to speak on the issue again.

94. Mr. ALPAN (Turkey) wished to join other delegations in warmly congratulating Mr. Eklund on his reappointment as Director General.

95. Turkey had been observing with growing concern the ominous effects of the international monetary crisis on the Agency's budget, especially on the provision of technical assistance, which was one of the Agency's major tasks. The Agency needed the financial support of its Members to a more substantial extent than ever before. Besides, many countries were counting on the allocation of increased funds to the Agency's technical assistance programme. In that connection, his Government had pleasure in informing the Conference of its decision to increase its voluntary contributions to the General Fund in the years to come.

96. Although the total cash contributions pledged to the General Fund for 1973 had exceeded 90% of the target, it was regrettable that during the same year 34 technically sound requests could not be met for lack of funds. The outstanding amounts of contributions to the Regular Budget represented another disquieting point, and it was imperative that an appropriate remedy should be found to that persistent problem.

97. Turkey was closely following the recent developments connected with nuclear energy and carrying out extensive studies in several fields, including uranium ore prospecting in western Turkey with the assistance of the Agency and UNDP.

98. Radioisotopes were being used in agriculture, medicine, industry and basic research, and in view of the increasing demand for different radioisotopes it had been decided to step up the power of the Turkish research reactor to 6 MW.

99. The symposium on nuclear medicine held under the joint auspices of the Agency and the Turkish Atomic Energy Commission in Istanbul between 10 and 14 September had been very successful. His Government wished to assure the Agency of its continued support for such activities.

100. The feasibility study and the selection of a site for Turkey's first nuclear power reactor, which was to go into commercial operation by 1981-1982 and would have a capacity of 600 MW, had been completed; tenders would be invited in the spring of 1974. It was estimated that his country would be generating approximately 6000 MW of nuclear power annually by the year 2000.

101. The market survey of the potential demand for nuclear power in developing countries, which had covered 14 countries including Turkey, had been a very useful exercise. The report on Turkey was now being studied by the various governmental bodies concerned.

102. However, the accuracy of the results of the survey depended largely on the energy forecasts

and other data provided by the national authorities concerned. Considering that the 14 countries covered by the survey were developing States, it would be a useful practice to revise the survey results periodically, as the conditions in those countries changed, so that they could be evaluated more realistically. He suggested that the Agency hold a panel meeting where the representatives of the developing countries which had participated in the market survey might have an opportunity to discuss the assumptions and results of the survey.

103. Furthermore, the Agency should devote more attention to exchanges of experience, inventions and data in the field of nuclear power production. Agency assistance in the four stages mentioned in paragraph 107 of document GC(XVII)/INF/142 would be an important step towards the introduction of nuclear power in developing countries.

104. Referring to the widely held view that nuclear energy was one of the causes of environmental pollution, he considered that the Agency should take urgent measures to enlighten public opinion and dispel public concern. The Agency had an important role to play in identifying the present and future problems associated with the environmental aspects of nuclear power plants and in the development of international standards and regulations.

105. In conclusion, he wished to assure the Agency that his Government would continue to lend its full support to the Agency's activities in promoting peaceful uses of nuclear energy.

● The meeting rose at 12.50 p.m.