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on Thursday, 21 September 1978, at 10.5 a.m.

President: Mr. MALU wa KALENGA (Zaire)

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**/ GC(XXII)/605.

ARRANGEMENTS FOR THE CONFERENCE

(b) CLOSING DATE OF THE SESSION

1. The PRESIDENT recalled that, under Rule 8 of the Rules of Procedure, the Conference had to fix a closing date for the session, on the recommendation of the General Committee.
2. The General Committee had considered the matter and had authorized him to recommend on its behalf that 22 September 1978 be fixed as the closing date.
3. The recommendation of the General Committee was accepted.

(c) THE TWENTY-THIRD (1979) REGULAR SESSION (GC(XXII)/603)

4. The PRESIDENT informed the Conference that the General Committee had recommended fixing Tuesday, 4 December 1979, as the opening date of the twenty-third regular session, which would be held in New Delhi at the invitation of the Indian Government. The Committee had also recommended that the Director General be requested to thank the Indian Government for its invitation and to conclude with it the necessary agreement on behalf of the Agency.
5. The recommendations of the General Committee were accepted.

GENERAL DEBATE AND ANNUAL REPORT FOR 1977 (GC(XXII)/597) (continued)

6. Mr. KAMIL (Indonesia) congratulated the President, the eight Vice-Presidents, the Chairman of the Committee of the Whole and the six additional members of the General Committee on their election, and commended the Director General on being the conscience of mankind in the field of nuclear energy. The Director General had been right to analyse the present difficult situation of nuclear energy in his opening statement instead of presenting the usual summary of the year's work.
7. There had been, of late, growing concern that proliferation might emanate from developing countries embarking on nuclear power programmes to secure the energy needed for their economic development. His delegation felt that such concern could be removed by closer co-operation with the Agency in the full implementation of all of its safeguards functions and of any new ones that might become scientifically necessary. There was no relationship between the expansion of nuclear power and the development of nuclear explosives. Instead of creating a new institutional framework, the Agency's system should be strengthened.

8. As an important part of the United Nations system, the Agency could not afford to ignore the ideas conceived and actions carried out within the international community as a whole. It was, therefore, only right for the General Conference to consider problems and ideas arising in other international fora, the solutions of which might have a bearing on the Agency's mission. The ministers of foreign affairs of the non-aligned countries, after their meeting in Belgrade in July 1978, had issued a declaration on the peaceful uses of nuclear energy. They had regretted the unacceptable monopolistic policies of the nuclear countries and demanded that conditions be created for unhindered transfer of nuclear technology. They had stressed the principle of free access to nuclear technology and the right of each country to conduct programmes for the utilization of nuclear energy for peaceful purposes in accordance with its economic and social development. Realizing the necessity of drawing up and adopting programmes for future joint action, the ministers had supported the idea of convening, under the auspices of the United Nations, an international conference on the use of nuclear energy for peaceful purposes with the aim of promoting international co-operation in that field.

9. The Indonesian Government therefore supported Resolution 32/50 passed by the General Assembly of the United Nations on 28 December 1977, which called for the holding of such an international conference.

10. The International Conference on Nuclear Power and its Fuel Cycle, held at Salzburg in 1977, had once more clearly brought out the indispensability of nuclear power as an energy source, and the Declaration of the General Assembly's Special Session on Disarmament had stated that it was the inalienable right of all States to apply and develop programmes for the peaceful uses of nuclear energy for their economic and social development. Indonesia strongly believed that that inalienable right should be accompanied by a commitment to safeguards acceptable to the international community. In that connection his delegation wished to state that the Indonesian Government had submitted the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)^{1/} to Parliament for ratification. There seemed to be a consensus in Parliament that it should be ratified without further delay. Indonesia's need for a peaceful nuclear capacity to secure the energy needed for its economic development was becoming increasingly evident. However, many members of Parliament had expressed concern at the non-implementation of some of the articles of NPT, especially Articles IV and VI, by a number of signatory States. A treaty was valid only to the extent that the signatory parties honoured its provisions.

^{1/} Reproduced in document INF/CIRC/140.

11. With regard to the technical assistance provided by the Agency in 1977, he welcomed the fact that the Agency's capacity for carrying out its technical assistance programme was growing and that the number of Member States receiving such assistance had increased. His delegation was confident that the Agency would continue to give objective consideration to project proposals and would select projects in a non-discriminatory manner.

12. There continued to be a decline in the value of the technical assistance provided by the Agency, partly as a result of the decrease in the value of the dollar and of price increases. Although it might sound repetitive, he wished to stress again that the two main functions of the Agency - namely, promotional and regulatory activities - should be given equal treatment. The imbalance between budgetary resources for safeguards and for technical assistance, which the Director General had referred to as "a cornerstone of the Agency's work" in his opening statement, should be redressed.

13. He was gratified to note that the Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA) was growing from strength to strength. He welcomed Australia and Japan, both advanced countries, into the ranks of the countries which had accepted RCA. It was hoped that their participation would significantly strengthen that system of regional co-operation. RCA was a unique form of co-operation among countries in a particular region that all faced the same problems. The achievements during the six years of its existence had brought about an expansion of that co-operative endeavour to other projects of common interest. There were now eleven projects under way, representing an estimated cost of about US \$234 000 in 1978. The venture deserved adequate financial, moral and technical support both from the Agency and from donor countries.

14. For some time developing Member States had been trying to remedy the inequitable geographical representation of the developing countries in the various organs of the Agency. Their efforts indicated that the Statute of the Agency no longer reflected current conditions. Many great changes had occurred since the adoption of the Statute. The number of nuclear powers had increased, nuclear technology had advanced, the interest of developing countries in using nuclear energy had grown, and the number of developing countries that were Members of the Agency had also increased. It was time to start thinking of reviewing the Statute with a view to finding a comprehensive solution to the problems faced by the Agency 22 years after its establishment. In that spirit the

Indonesian delegation supported the amendment of Article VI.A.2 proposed by Pakistan and other co-sponsors with a view to enlarging the Board of Governors.

15. With regard to the Agency's programme for 1979-84, his delegation fully endorsed the expansion of the Agency's nuclear power programme and of activities relating to safety, waste disposal and the application of nuclear techniques in food and agriculture, in the life sciences and in other fields. The efforts of the Agency to make available training courses for the staff of nuclear power plants of developing countries were particularly appreciated.

16. He noted with satisfaction the progress made by the International Nuclear Information System (INIS) and fully supported the decision to expand the INIS subject scope to include the medical applications of ionizing radiation and radionuclides, as that would contribute to increasing the effectiveness of the system, which in turn would involve more participation by Member States.

17. His delegation also noted with satisfaction the achievements of the International Centre for Theoretical Physics, which offered excellent training opportunities to scientists from developing countries and served as a meeting place for scientists from both developed and developing countries. He sincerely hoped that the Agency would continue its fruitful collaboration with the host country of the Centre, Italy.

18. In conclusion, he wished to recall that, when the Board had met in June 1978 to consider the budget for 1979, it had had to extend its meetings for several days in order to arrive at a compromise acceptable to all Members of the Board. He did not wish to refer to the substantive aspects of the discussion which had necessitated the prolongation of the meeting, but simply to request that lengthier and more intensive consultations be held before such Board meetings between the Secretariat and all Member States and also between representatives of the various regional groups.

19. He had been requested, as Chairman of the group, to announce that a number of countries represented in the Agency's policy-making organs had formed a group known as the Group of 77, with a view to co-operation between its members, consultations and negotiations with other groups, and liaison with the Secretariat. The Statute divided the world into artificial sub-regional groups and for that reason the representatives of Latin American, African and Asian countries and of Yugoslavia and Romania had felt it necessary to work together as the Group of 77 in the Agency. On behalf of its members he wished to express the desire of the Group of 77 to

establish and maintain the closest relations with the other regional groups, the Board, the Director General and the Secretariat.

20. Mr. O'SULLIVAN (Ireland) said that his delegation would like to join in congratulating the President, whose election served to underline the interest of the countries of Africa and of the rest of the Third World in the work of the Agency, as also the fact that the peaceful uses of nuclear energy were of importance to all the Agency's Member States, large and small, and not simply to those with highly developed nuclear power programmes.

21. The role of the Agency in the safeguards field was a vital element in the maintenance of world peace. It had been greatly enhanced by NPT. As delegates to the General Conference were perhaps aware, the Government of Ireland had played an important part from an early stage in promoting the concept of NPT and in the preparation of the proposals which had led to the adoption of the Treaty. The prevention of the further spread of nuclear weapons, for example through the misuse or diversion of technology intended for peaceful ends, was a matter of vital interest and concern to all nations. Ireland's commitment to that aim was well known and all its actions in the international field relating to the matter were informed by it. The steadily developing work of the Agency in the safeguards field provided as good a guarantee as could be that such misuse or diversion would not take place in the countries that had submitted their nuclear installations and materials to inspection controls. Moreover, the solidarity of the nations who accepted such controls made it increasingly difficult for those remaining outside their scope to acquire the facilities they would need to build nuclear weapons. Any nation wishing to acquire nuclear plants was now bound to agree to safeguards at least equivalent to, if not greater than, those required by the Agency, which constituted the standard model.

22. The safeguards system was an important, indeed essential, precondition for the fulfilment of the Agency's main objective, i.e. the peaceful development of nuclear energy. That form of energy was already making a significant contribution, with which it would be very difficult to dispense, to the needs of industry and the progress of the entire economy, at least in the developed world. Apart from the contribution made by the conventional nuclear power station, technologies were being developed which would make even more efficient use of uranium resources. The investigation of how those resources could be made safe from the danger of

proliferation was the task of the International Nuclear Fuel Cycle Evaluation (INFCE), which was now nearly half-way through its work. That work was supported by the Agency and by a majority of its Member States, many of which, like Ireland, had decided to make a contribution to its costs. The results could be of considerable significance for the future development of nuclear power.

23. For smaller countries with little first-hand experience of nuclear technology, the Agency's work in organizing up-to-date information services and publishing the results of experience in nuclear technology was of considerable assistance in evaluating the developments relevant to their needs. The preparation of draft safety codes and guides by the Agency was also of special value to countries which, like his own, were considering or in the early stages of planning a nuclear power programme. Although the funds available for the sponsorship of research projects were relatively small, research grants from the Agency could provide a useful stimulus and encouragement to the building up of technical expertise.

24. Ireland had studied with great interest the Director General's report to the Board on the provision of technical assistance in 1977. It recognized the value and importance of technical co-operation in helping to spread skills which were vital to economic development, and had consistently supported the work of the Agency in that field by voluntary contributions. It had been pleased to be able to accept the Agency's invitation to hold the Interregional Training Course in Nuclear Electronics in Ireland during 1978. The course, held at Trinity College, Dublin, from 19 June until 8 September, had been attended by 16 participants from all parts of the world. Five of the participants from developing countries had been sponsored by the Irish Government and had received stipends under its bilateral aid programme. Although the final assessment was not yet available, the course had been, it was believed, successful and Ireland would be happy to host a similar initiative again in future years, if invited to do so by the Agency.

25. Ireland was at present over 80% dependent on imported energy, and it was therefore necessary for it to diversify its sources of primary energy as much as possible in order to reduce its dependence on imported oil. The decision to build a nuclear power station had been approved in principle by the Government

in November 1973, but had not been proceeded with owing to the recession. The proposed site at Carnsore Point at the south-eastern tip of Ireland was regarded as one of the best in Europe. Pending a final decision whether or not to proceed with the nuclear project, the Minister for Industry, Commerce and Energy had published a discussion document on aspects of the energy situation in Ireland, including the nuclear option which, it was hoped, would lead to informed public debate in Ireland on the matter. Further information programmes by public authorities were planned on the safety and other aspects of nuclear power generation which, it was hoped, would help to correct possible misconceptions regarding the matter. In that connection, his delegation had been impressed by the thoughtful remarks of the Director General in his opening statement about the problem caused by opposition to nuclear energy among some sections of the public. Democratically elected governments were, of course, always responsive to public opinion and had the duty, at the same time, to ensure that the public was provided with the fullest and most reliable information, especially on a subject such as nuclear energy which was of such importance for public welfare in the future. It was entirely understandable that such a great technological revolution should arouse doubts and fears, especially among young people, who had seen sufficient proof that, unfortunately, technological progress did not always produce a better world. But nuclear power had too much potential for human welfare to be simply condemned as a dangerous pollutant. The "turmoil of unclear thinking" to which the Director General had referred had to be avoided. How to do that - how to bring home to public opinion the benefits inherent in the wise use of that new source of energy - was one of the most challenging tasks to face the Agency and its Member States in the years ahead.

26. Mr. KIM (Republic of Korea), after joining in the congratulations to the President and the expressions of appreciation for the work done by the Director General and his able staff, said he believed that all present shared the view that, since the previous session of the General Conference, the Agency had

made further noteworthy and commendable progress in promoting the peaceful uses of nuclear energy and in administering safeguards. The Republic of Korea, as a founding Member of the Agency and as a party to NPT, had played a full part in the common task of enhancing the peaceful uses of nuclear energy and would continue to do so.

27. As to the nuclear energy programmes being carried out in the Republic of Korea, the country's first nuclear power station had gone into commercial operation in March 1978. In addition, four other units were now under construction. Under the country's long-term plans, more than 40 nuclear power stations of approximately 50 000 MW(e) capacity were scheduled to go into operation by the year 2000. It could thus be seen that, for Korea, nuclear energy was a matter of great importance.

28. Turning to the question of how better to promote international co-operation in carrying out common tasks within the framework of the Agency he said that, as all were aware, more needed to be done in that direction in a number of fields.

29. Close and effective co-operation among Member States was a vital necessity, for nuclear energy was not likely to remain merely an alternative source; it was more likely to become a major source of energy for many countries. As the Director General had said in his opening statement, the installed nuclear capacity in the world had increased dramatically over the past decade. Despite some fluctuation in orders recorded in the past two years, the general trend now seemed to be for more countries to be planning to utilize nuclear energy as their primary source for the generation of electricity. Their plans were likely to be based on two assumptions: first, that a long-term and stable supply of source materials and nuclear fuel cycle services could be secured; and second, that the current power reactors would eventually be replaced by more advanced reactors providing for improved fuel utilization.

30. Needless to say, a stable supply of nuclear fuel and fuel cycle services was an indispensable prerequisite for any nuclear power programme. Without it many of the countries about to initiate nuclear energy programmes would soon be faced with serious difficulties. The anxiety besetting them was that, lacking supply assurances, recipient countries would have to suffer not only from the rising cost of imported energy but also from delays and uncertainties in their vital programmes. The question was not a hypothetical but a real one for many recipient

countries in that position. Accordingly, his delegation earnestly hoped that INFCE would lay a basis for the long-term assurance of a stable supply of fuel and fuel cycle services. In the relationship between suppliers and recipients of source materials, there should be a spirit of co-operation and mutual trust. The same spirit should also govern the administration of safeguards.

31. In view of the pressing demand for peaceful applications of nuclear energy, the call for an increase in the promotional activities of the Agency was likely to grow even more in the years ahead. His delegation was inclined to think that so far promotional activities had been accorded less weight, proportionally speaking. Without underestimating the many remarkable achievements of the Agency in the promotional area or discounting the importance of its work in the non-proliferation field, it might be maintained without prejudice that over-emphasis of the latter often tended to obscure the former; his delegation would like to see, in future programmes of the Agency, more emphasis placed on promotional activities in the form of technical assistance and training, technical operations and work in the field of research and isotopes.

32. As a Member State participating actively in the programme of the Regional Co-operative Agreement (RCA), his delegation wished to commend the Secretariat for its contribution to the development of excellent projects at the regional level under RCA. There was an increasing demand for the industrial application of radioisotopes and radiation processing techniques in various sectors of industry. His delegation hoped that technical co-operation in that field could be promoted more actively through such projects.

33. Finally, he again expressed the hope that the Agency would give more emphasis to such matters as the stable supply of fuel and fuel cycle services and the promotional aspect of nuclear energy. Any difficulties there might be could surely be overcome by joint action in a spirit of co-operation, mutual trust and harmony.

34. Before concluding, he wished to express his deep regret that a political statement concerning his country had been made in the General Conference the day before. Since the statement in question was not worthy of any reply, he would refrain from commenting further upon it, the more so as the General Conference was not the right forum for entering into political polemics.

35. Mr. NGUYEN MANH CAM (Viet Nam) said it was the first time his country was participating in the Agency's General Conference. It was doing so as a nation which, after a struggle lasting nearly a third of a century, had regained its independence, freedom and unity. As a result of Viet Nam's recent history, the level of nuclear technology in his country was still low compared with many other countries, but even during a period of war, efforts had been made to promote education and science. In the framework of the Joint Institute for Nuclear Research at Dubna in the Soviet Union, and the Da Lat reactor installation, it had been possible to train staff and to promote the use of radioisotopes and nuclear methods in medicine, geology, agriculture, industry, etc. His country wanted to intensify its exchange and co-operation relations with other countries and with scientific organizations abroad and, in that context, he wished to express the gratitude of his country for the approval of its requests for technical assistance under the Agency's regular programme for 1979.

36. Now that peace had been established, Viet Nam had difficult tasks to perform: it had to cleanse its war wounds, to restore and develop the economy, and to promote culture and science in order to build a peaceful, independent, united and prosperous Viet Nam. The Vietnamese people had only one desire and that was to have a durable peace on which to build, and it was also determined to preserve the independence and freedom which it had gained with such a great sacrifice. In foreign politics, therefore, the Socialist Republic of Viet Nam was following a policy of peace, friendship and co-operation with other countries - an independent, sovereign policy - which would allow it to develop relations with other countries on the basis of peaceful co-existence. His country therefore wholly supported the objectives laid down in Article II of the Agency's Statute: "... to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world." The Socialist Republic of Viet Nam undertook to play an active part in the efforts to dispel for ever the risk of a nuclear war and to defend the cause of world peace.

37. Mr. ABU EID (Kuwait) congratulated the President and other officers on their election. He also complimented the Secretariat, under Dr. Eklund, for the efficient manner in which it had conducted the Agency's work.

38. In September 1976, at the twentieth regular session of the General Conference, he had referred to the obstacles encountered by developing nations in their efforts to launch nuclear power programmes. In particular, he had stressed the shortage of trained manpower for the planning and implementation of nuclear power programmes and had proposed to the Conference the idea of establishing a number of regional nuclear training centres each incorporating a small dual-purpose nuclear power plant designed mainly for training. That idea was borrowed from the Nuclear Power Programme of Kuwait, which envisaged the establishment of such a dual-purpose nuclear power plant for the generation of about 40 MW of electric power and the desalination of about 10 000 m³ of water a day. Kuwait had developed the idea of the small dual-purpose nuclear power plant and taken it to the bidding stage. The outcome of that exercise had been described in a paper he had presented in October 1977 at the Advisory Group Meeting on Small and Medium Power Reactors, in Athens. In view of the widespread interest in small and medium power reactors, he wanted to dwell briefly on Kuwait's idea of a small nuclear plant for training purposes and also for power production and desalination. Such an installation could form the hub of a nuclear training centre not only for Kuwait but also for other countries in the region. It had been decided to invite bids after extensive consultations with expert bodies including the Agency. Bidding had been in two stages. The first stage had consisted of preliminary contacts in which the general concept and the basic requirements had been communicated to major nuclear reactor firms in Canada, the Federal Republic of Germany, France, Japan, Sweden, the United Kingdom, the United States and the Soviet Union and subsequently to firms in Belgium, Italy and the Netherlands. The purpose of the preliminary inquiry had been to identify seriously interested firms willing to submit a complete bid, and to obtain their comments on the proposed concept. Five positive responses had been received.

39. The second stage had been to invite formal bids. The bids were to cover engineering services, training, comprehensive fuel services, supply of the entire plant including the reactor, steam generators, turbine-alternator, distillation plant, electrical power system, mechanical equipment and civil engineering and building works (except off-shore marine work for the cooling water supply). Provision for physical protection and the application of safeguards in accordance with Agency requirements had been specified.

40. The nominal size suggested had been about 50 MW(e), for driving a 40 MW(e) turbo-generator and supplying steam to a 10 000 m³/day distillation plant. The reactor choice - between pressurized water, boiling water and pressure tube types - had been left open.

41. Invitations to bid had been sent to interested suppliers in November 1976; after interim discussions, bids had been received by 15 June 1977 from the Federal Republic of Germany, Italy, the United Kingdom and France.

42. The bids submitted had been of a high technical standard and had reflected the interest and competence of the bidders in the small reactor field. Technically, the bids had generally complied with the broad lines of the specification, but in their commercial and contractual aspects they had been less compliant, particularly in the scope and pricing of the fuel services.

43. The main criteria used in evaluating the bids had been:

- (1) The relevance of the small reactor to large commercial plants in actual operation - a key aspect from the training point of view;
- (2) The status of the reactor design: all the reactors offered had been based, in varying degrees, on existing technology, but certain novel and interesting features had been apparent;
- (3) The safety of the reactor: the specification had referred to the appropriate regulations of the US Nuclear Regulatory Commission as a safety standard. The evaluation had revealed that novel features appearing in some of the designs had not yet been submitted to licensing authorities internationally;
- (4) Fuel service: since Kuwait did not yet have a nuclear infrastructure, comprehensive fuel services had been asked for;
- (5) Contractual and commercial aspects, including the conditions of contract, firmness of prices, warranties on completion, output, efficiency, fuel performance, availability and maintenance: some of the bidders had offered firm prices for design, fabrication, supply and execution of plant, but most had not done so for civil works. All prices offered had been subject to escalation and, in some cases, to changes in exchange rates. Fuel warranties had been either limited or not mentioned;

- (6) Co-operation with the customer: some bids had included full co-operation and had offered the Kuwait Ministry of Electricity and Water (MEW) full participation in the design, safety analysis, project management, etc. Other bidders had made no co-operation proposals;
 - (7) Programme for completion: an early start and a short completion period had been desirable in order to obtain maximum operating training in advance of the first commercial plant, planned for 1986;
 - (8) Operational and training aspects: all bidders had offered training programmes for MEW personnel, but the programmes had varied in the degree of comprehensiveness;
 - (9) Bid prices and net outputs: the bid prices had been very much higher than expected. A number of factors had been thought to have led to the high bid prices, particularly the desire on the part of the bidders to recover a large part of the cost of developing the small reactor for the first client. The bid prices had varied from about US \$300 million to about US \$600 million. The net electrical output had varied from 30 MW(e) to 50 MW(e), all for an output of 10 000 m³ of distilled water a day;
 - (10) The bid prices had been adjusted to allow for various factors and to include owner's costs, fuel loading, contingencies, interest during construction, cost escalation and exchange rate fluctuations up to 1984. The estimated total capital cost to 1984 had varied between US \$600 million and US \$1200 million. The average specific total capital cost had been about US \$17 000 per net kW(e), after allowing for extra capacity of about 10 MW(e) equivalent to the distillation plant.
44. It had been concluded that the unexpectedly high capital costs reflected by the bid prices shed doubt on the value of such a small training reactor in relation to its overall contribution to Kuwait's future nuclear programme. The previously envisaged nuclear programme of Kuwait was, therefore, being reconsidered.
45. The negative result, however, could not be looked upon as the end of the idea of the development of small and medium nuclear reactors as a useful tool for developing countries. The size chosen for the exercise had definitely been too

small and its potential market very limited, but medium-sized commercial nuclear reactors of 200-500 MW(e) might have a tremendous potential market in developing countries, and it was definitely worth following up the idea.

46. Mr. PIETINEN (Finland) said that one of the major aims of organized international co-operation was to preserve mankind from the horrors of war and in particular of nuclear war, and the role of the Agency in that endeavour was demanding and difficult. Finland considered that the acceptance and application of a universal and strict safeguards system was in the interest of all States.

47. Many initiatives had been taken to strengthen NPT, and, although it had not fulfilled all its expectations, NPT was still the most effective tool of non-proliferation which the international community possessed. His Government hoped that the Second Review Conference of the Parties to NPT would further strengthen the non-proliferation regime and contribute to a broader consensus on international co-operation in the peaceful uses of nuclear energy. The Review Conference should also find ways of creating conditions where no State outside NPT could reasonably argue that remaining outside the Treaty was compatible with its considered national interests. At its preceding session, the General Assembly of the United Nations had adopted a resolution on the subject on the initiative of the Finnish delegation. Finland would continue to promote non-proliferation and urged those non-nuclear-weapon States party to NPT which had not yet concluded safeguards agreements with the Agency to expedite finalization of such agreements.

48. The new safeguards agreements and arrangements negotiated by the Agency would make greater demands in terms of personnel and funds, but the sum allocated for the purpose was a modest price to pay.

49. The different parts of the Agency's programme were equally important and no part should be neglected in favour of another. Considering the scarcity of energy sources, it was not surprising that the developing nations were assigning a more important role to energy in their national plans and looked to the Agency for assistance, thereby increasing the demand for such assistance. It was perhaps time to examine the question of technical assistance in all its aspects and consider how the available funds could be increased and used better. In Resolution 32/187f, the General Assembly had also emphasized the urgent need for common efforts towards a substantial increase in such assistance.

50. In the programme of technical assistance, priority should be accorded to areas where the Agency was the sole contributor - for example, reactor safety and physical protection. Finland would co-operate with the Agency in expanding its activities in such areas.

51. His country regarded the study of a possible plutonium bank to be of great importance because it would strengthen the non-proliferation regime and also contribute to the availability of energy resources, and it hoped to be of assistance in the further elaboration of the project.

52. The Agency promoted the progress of nuclear technology and science through an extensive programme of meetings, seminars and symposia, and Finland was pleased to be hosting a meeting in 1979. Considering the public's interest in nuclear matters, it might be worth holding another conference like the one on nuclear power and its fuel cycle held at Salzburg in 1977.

53. His country was very interested in the work of INFCE, which, judging by what it had achieved to date, would make a valuable contribution to creating conditions under which nuclear energy would be able to play its part in meeting world energy requirements while assuaging the growing popular concern about nuclear energy and minimizing the dangers of nuclear proliferation.

54. INFCE could also provide guidance concerning the proliferation resistance of the various fuel cycles, which would be useful to individual countries and to the world community in planning nuclear policies. Finland looked forward to practical results relating to physical protection, environmental and health aspects, and so on. Further information should also be gained on the financial aspects of the back end of the fuel cycle. Within the framework of INFCE such questions as the need for innovative legal arrangements and the international management and storage of plutonium and spent fuel would have to be tackled. The Agency's Secretariat deserved to be commended on the assistance which it had provided to INFCE. His Government supported the fifteen countries which were endeavouring to formulate a common policy with regard to the export of nuclear materials, equipment and technology and which had circulated a document containing the basic principles and guidelines which they had agreed to follow in their export policy. Having been engaged for many years in promoting international arrangements which would make the non-proliferation regime more effective, it considered that the adoption of those guidelines would be a significant step in that direction. However, acceptance by the recipient countries of the principle of full-scope control was a necessary condition for ensuring an effective safeguards system.

55. Finland, for its part, had already assumed obligations relating to nuclear exports under NPT and the recommendations of the Zangger Committee and intended to apply export conditions accordingly. In recent years the nuclear non-proliferation regime had become more cumbersome and complicated with the adoption of different export criteria by different countries and the negotiation of bilateral agreements. That trend had brought about unnecessary administrative and practical difficulties. It might be helpful to hold a meeting of the parties concerned in order to reach comprehensive international agreements satisfying both the need for administrative straightforwardness and certain stringent safeguards criteria.

56. It was gratifying to note that some progress had been made towards a convention on the physical protection of nuclear material; it had now been agreed that at the first stage the future convention should apply only to nuclear material during international transport, protection of which was imperative because of phenomena like terrorism. His Government was in favour of such a convention and hoped it would be accepted universally.

57. As regards the Agency's programme and budget for 1979, his delegation fully understood the problems and appreciated the Director General's efforts to arrive at balanced budget estimates, which it supported. It would not be to the advantage of the Agency to try to bypass the current problems by delaying their solution. As a token of its support for the technical assistance programme, Finland would, as in previous years, pay its share of voluntary contributions to the General Fund.

58. The special session of the General Assembly of the United Nations had provided the basis on which future concrete disarmament steps could be taken. While disarmament was possible only under conditions of détente, the interaction between disarmament and détente did not automatically follow from a political relaxation of tensions. Peace, security and social progress called for common efforts by all, and the Agency's role in that context was pivotal.

59. Mr. ABS (Holy See) said that the past few years had seen a growing debate about the use of nuclear energy, especially in technologically sophisticated countries. Positions had been taken both in defence of and in opposition to the use of nuclear energy. In that debate churches, church groups and individual

church leaders and spokesmen had been active, and appeals had often been made to the Catholic Church to make some declaration on the subject. It was not the Holy See's task to decide on technical matters but, because such questions had wide social, ethical and moral implications, the Church did have the responsibility of shedding light on their ethical and moral aspects in order to safeguard fundamental values for mankind. Pope John Paul I had said in that context that the Church was called to give to the world that strengthening of the spirit which was so needed and which alone could assure salvation.

60. The main problem connected with the utilization of nuclear energy was the possibility of its military use. The late Pope Paul VI had addressed a message to the United Nations Special Session on Disarmament on the need for disarmament; in it he had said that the Church appreciated very much the initiatives that had already been taken in connection with disarmament, but that all countries must be encouraged to continue and to develop initiatives with the final goal of completely eliminating the atomic arsenal; at the same time, means must be found for giving all peoples access to the immense resources of nuclear energy for their peaceful use.

61. Unfortunately, much remained to be done. NPT could not of itself guarantee progress towards disarmament so long as only those of its provisions were implemented which dealt with the obligations, on the one hand, of the non-nuclear-weapon States and, on the other hand, of the nuclear-weapon States to assist the non-nuclear-weapon States with the peaceful use of atomic energy. The restriction, and even the elimination, of horizontal proliferation was totally inadequate unless it was accompanied by the restriction and eventual elimination of all vertical proliferation. The nuclear arms race had to be stopped as soon as possible.

62. However, the peaceful uses of nuclear energy also required careful note to be taken of their social, cultural, moral and ethical aspects. While the technological and scientific advances made in the field of nuclear energy had been immense, technology and science still needed to be measured against the needs and hopes, the aspirations and values of men and women where both their own lives and the lives of generations to come were concerned.

63. In recent years there had been a deeper assessment of and more realistic discussions about the uses of nuclear energy. Public debate had helped inform citizens, and governments had not hesitated to reassess energy questions in the context of the current and future needs of society.

64. At the 1977 session of the General Conference, the Holy See had encouraged the Agency to keep the nuclear debate open. The three points he had made at that time (paragraphs 17-19 of document GC(XXI)/OR.196) were still valid.

65. In addition, there was a fourth question, namely that of human rights. Countries which experienced an energy gap might have to turn increasingly to nuclear power, and that development carried with it certain social risks. That would be particularly true where a plutonium economy was adopted, as the risks involved and the increased need to protect nuclear materials could cause invasions of privacy, increased surveillance of the public, and any number of social and political changes which might threaten fundamental human rights. Although a "police state" was not automatically the result of an increase in the use of nuclear materials, everyone should be aware of that possibility. The convention on the physical protection of nuclear material that was under discussion might provide solutions to that problem. In any case, everything possible should be done to ensure that nuclear activities did not develop at the expense of human rights.

66. However, an increase in research on and the development of applications of nuclear science to health and food and crop production was to be encouraged. The Holy See had supported an integral approach to problems connected with a new world order, development and peace, and Pope Paul had asked that means be found for giving all peoples access to the immense resources of nuclear energy for peaceful purposes. Nuclear energy had an important role to play in agricultural development and health care, including preventive medicine.

67. Finally, he stated that the question of the advisability of the utilization of nuclear energy for peaceful purposes was of world-wide importance and should be solved by international co-operation. In that respect the Agency had to continue to play a leading role. A common, internationally accepted decision should be taken about whether nuclear energy was to be employed; that implied a world-wide or at least a regional plan for sharing the benefits and risks of nuclear energy justly.

68. An appeal for world-wide co-operation in the use of nuclear energy might seem untimely in an era in which States sometimes guarded their sovereignty most jealously. However, such co-operation would show whether members of the international community were capable of working together on the solution of a problem of world-wide importance.

69. Mr. VELASCO (Philippines) congratulated the President of the General Conference on his election and commended the Agency on its twenty-first year of service to the international community. The increasing membership of the Agency and the growing interest in the Agency's activities were clear manifestations of the confidence that the Member States, especially those from the developing world, had in the present Management and Secretariat and of their rising expectations of greater benefits from the peaceful uses of atomic energy. The main concerns of the developing countries were accelerated economic development, improved health and sanitation, and increased agricultural and industrial production. They look to atomic energy as a means to help solve those problems.

70. The Philippine Government was grateful for the support it had received over the years from the Agency. The application of radioisotopes and nuclear techniques in medicine, agriculture and scientific research had already become generally accepted in the country. Efforts were currently being made to promote the industrial applications of radioisotopes. The construction of the first nuclear power plant in the Philippines was already well under way. It was expected to be in commercial operation in the second half of 1982. The Agency had extended technical assistance by sending safety missions to assist the local nuclear regulatory authority.

71. The Philippine decision to "go nuclear" had been arrived at after consideration of the alternative resources available. While local circumstances favoured concentration on the use of geothermal, hydroelectric and other indigenous sources, the nuclear option was considered to be a further approach to ensuring the long-term availability and diversification of the energy supply within the current century and beyond. The Philippine case was not unique; other developing countries were looking increasingly to the use of nuclear power. There was thus greater reason for extending substantial technical assistance to the developing countries so that their nuclear power programmes could be implemented with a minimum of risk and could be operated by qualified local personnel. Criticisms had been made of the attempts by developing countries to establish nuclear power plants without the requisite national capability and infrastructure. That problem could be solved through assistance from the Agency. The proposed publication of a guidebook on nuclear manpower development was to be welcomed. It was impossible

to overemphasize the importance of making the guidebook available at the earliest possible time.

72. The Philippine delegation was pleased to note that the Agency had already initiated moves for the accelerated implementation of its technical assistance programme. Increased and more effective assistance to the developing Member States in connection with their atomic energy programmes would ensure their continuing support for the Agency's efforts at safeguards against possible diversion of nuclear materials and technology for non-peaceful purposes.

73. The Philippine delegation appreciated the need for an increased Agency budget for 1979. However, the disproportionate increases in the establishment of new posts and in the budgetary allocations for the Agency's safeguards activities in comparison with its research and technical operations, particularly technical assistance and training, were matters of concern. Under its Statute, the Agency had a specific mandate to "seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world". It had likewise been directed to "allocate its resources in such a manner as to secure efficient utilization and the greatest possible general benefit in all areas of the world, bearing in mind the special needs of the underdeveloped areas of the world". The provision of technical assistance to the developing countries, which represented almost 70% of the membership, was therefore a basic function of the Agency. However, from 1971 to 1977 safeguards expenditures had increased from \$1.6 million to \$7.7 million, an average increase of \$1 million a year. On the other hand, the allocation for technical assistance and training had risen from \$0.64 million in 1971 to less than \$2 million in 1977. Technical assistance had always been dependent on voluntary contributions, which never seemed adequate to service all the requests of Member States. It was difficult to understand the philosophy behind supporting safeguards activities under the regular programme while technical assistance was kept dependent on voluntary contributions.

74. It was not the intention of the Philippine delegation to deny the importance of the Agency's nuclear safeguards functions. The Philippines had in fact demonstrated its support for the policy of nuclear non-proliferation by becoming a signatory of NPT and by signing a nuclear agreement with Australia which emphasized

non-proliferation objectives. Final discussions were also being held on a separate nuclear agreement with another country.

75. The non-proliferation objectives of NPT could be approached and the Agency's safeguards responsibilities considerably reduced if there was less motivation for nations to develop their own nuclear weapons clandestinely. That could be done by eliminating discrimination among countries in the access to nuclear information and equipment, by ensuring the long-term availability under reasonable conditions of nuclear fuel and related services and by demonstrations of sincerity in effecting nuclear weapons disarmament. A non-proliferation strategy for the 1980s and beyond called for multinational co-operation and international understanding. INFCE was a positive step in that direction. The study would be able to provide strategies and programmes to reduce the chances of proliferation and promote continued co-operation among developing and developed countries in the transfer of nuclear material, equipment, services and technology.

76. The agitation by anti-nuclear groups to stop further development of nuclear power was already gaining world-wide momentum. The public, which was the ultimate beneficiary, should be given proper information about the benefits to be derived from nuclear power as well as about the associated potential hazards and social problems. The Agency could not remain unconcerned about current developments. It should intensify its work on the risk assessment and social problems of nuclear power, the development of internationally acceptable nuclear safety guides, codes and regulatory standards and the publication of technical information bulletins on the performance of nuclear power plants.

77. The Philippine Government was especially interested in the Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA), which was currently in its seventh year of implementation. Australia was most welcome as a new member and the increased assistance promised by the Agency and various Governments was greatly appreciated. The long-term RCA activities starting in 1978 were of a scope and magnitude that could demonstrate the usefulness of large radiation sources in the economic and social progress of developing countries. The projects could equally show the practicability of an exchange of scientific expertise among the countries within the region. The Philippines eagerly awaited the earliest possible implementation of the recommendations of the regional industrial radioisotopes mission that had visited RCA member countries early in 1978. Programmes on the commercial use of radiation for the preservation of fish and fishery products as well as of medical products

and pharmaceuticals were urgently needed. It was to be hoped that the Agency would be responsive to the needs of the RCA countries in its future budgets.

78. The Philippine Government recognized the attention and support given by the Director General and the Secretariat to the special needs of the developing countries. As a demonstration of its appreciation of, and full support for, the technical assistance programme, it was maintaining the offer of three Type II fellowships and would be contributing to the General Fund an amount in excess of that corresponding to its base rate of assessment.

79. Mr. CHUCHOM (Thailand) said that the Director General's masterly opening statement and the concise but informative annual report provided an excellent basis for understanding the activities of the Agency.

80. The General Conference gave Member States an opportunity to expound their views on various issues, and his delegation wished to begin with the subject close to the heart of all developing countries, namely technical assistance.

81. The annual target for voluntary contributions to the General Fund, from which the Agency's technical assistance programme was largely financed, had always been a point of long discussion among Members of the Board of Governors. His delegation felt that some guideline or formula for arriving at the target should be agreed upon, so that the matter could be resolved more swiftly and rationally. Among the points to be considered in establishing such a guideline was that there should be some correlation between the target and the size of the Agency's budget. The present situation of practically no increase in the funds for technical assistance compared with a 27% increase in the safeguards budget and an increase of over 20% in the overall budget was clearly undesirable. In saying that, his delegation did not wish to minimize the important role of safeguards in the Agency's activities. However, the role of technical assistance, which was of direct benefit to the vast majority of Member States, should not be overlooked.

82. The essentially voluntary character of the method of financing technical assistance had, alas, led to the problem of unobligated funds - a subject extensively dealt with in the annual report for 1977. His delegation wished to stress that that problem did not arise simply from the fact that some contributions were received in non-convertible currencies, since statistics showed that unobligated funds occurred in both convertible and non-convertible currencies,

but was also in some measure due to deficiencies in project implementation. Thailand therefore welcomed the various steps being taken by the Agency to try and solve the problem.

83. It was a matter for regret that many worthwhile projects were still having to be turned down owing to lack of funds. For example, that year a technically and economically sound project on uranium prospecting put forward by Thailand, could not be implemented for that reason and still remained as a "footnote a/" project. For a developing country like Thailand, which was still in the early stages of nuclear development, such a front-end fuel cycle project could be of immense value.

84. Being a party to NPT, Thailand supported the concept of full-scope safeguards, but at the same time it felt strongly that, if the safeguards programme was to be successful, provision must be made for developing Member States to have access to reliable fuel supplies as well as peaceful nuclear technology. All measures designed to achieve that objective were supported by his delegation. It was also in full agreement with the Director General's statement that nuclear-weapon Member States had an obligation to implement Articles IV and VI of NPT.

85. As a party to the Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA), Thailand welcomed the meeting held recently in Kuala Lumpur to plan future RCA activities, and it also welcomed Japan as a new signatory.

86. Thailand had always supported the work of the Agency, and it had always demonstrated its support by making its contributions to the General Fund and the Regular Budget at an early stage. For 1979 it had already pledged a contribution to the General Fund in the amount of US \$9350, corresponding to its base rate of assessment. In conclusion, his delegation wished to thank the Chairman of the Group of 77, for convening a meeting of the Group for the first time during a session of the General Conference. That initiative should contribute to the effective participation of the Group of 77 in the work of the Agency.

87. Mr. OSMAN (Egypt) said that the programme for 1979-84 as presented in document GC(XXII)/600 reflected a considerable expansion in the Agency's activities over a wide range of peaceful applications of nuclear technology.

Special emphasis had rightly been placed on nuclear power, nuclear safety and environmental protection, fuel cycle requirements and services and waste management and disposal.

88. Everyone was aware of the complex and sensitive nature of the stage through which nuclear energy was passing, and in the years ahead solutions had to be found for a number of outstanding issues.

89. In the first place, the world had to meet the growing demand for energy in order to maintain and enhance industrial development and to raise the standard of living in the developing world. Over the past few years nuclear power had assumed a unique and important role as the competitive alternative for meeting large-scale energy requirements in the future. It would no doubt continue to play such a role during the next few decades.

90. But the development of nuclear power meant that three major challenges had to be met. The first and probably the most crucial challenge was that of the fuel cycle; after the discovery and mining of uranium ores, there had to be adequate enrichment services, fuel fabrication, irradiated fuel reprocessing and waste management and disposal. Secondly, it was necessary to protect the environment and to reassure the public about the safety of nuclear facilities. Thirdly, there was a need to stop proliferation and at the same time to further the transfer of nuclear energy and technology between supplier and recipient countries without pre-conditions or restrictions.

91. Egypt appreciated the fact that the Agency had pursued a highly active role in providing advice and assistance to those Member States planning or embarking on nuclear power programmes to meet their immediate energy needs and, like other developing countries, had profited greatly from the training courses run by the Agency on the planning and implementation of nuclear power programmes.

92. Among the notable achievements of the Agency during the past two decades had been those in the fields of health and nuclear safety and environmental protection. The Agency was to be specially commended for its programme on the development of standards and codes of practice for the safe operation of nuclear power plants.

93. Another important accomplishment of the Agency was the International Nuclear Information System (INIS), which provided an outstanding example of willingness on the part of States advanced in nuclear technology to share with others the results of their nuclear research and development programmes. INIS had become valuable as a means for the distribution of technical information to all Member States.

94. The Agency's achievements had been made possible by the strong support and co-operation of its Members, and, even more important, because decisions on nuclear policy had been made within the Agency by the competent bodies. But now it was found that major decisions were being taken outside the Agency by a limited number of Member States using non-proliferation as a pretext.

95. Regarding the use of nuclear explosions for peaceful purposes (PNEs) there were certain obligations incumbent on nuclear-weapon States arising from Article V of NPT. PNEs had great economic potential in major engineering projects, such as the Qattara Depression project in Egypt. There had been a slowing down of development in that important field, and Egypt was distressed to see that the funds allocated under the Agency's budget for 1979 for the PNE Services Unit at the Agency had been reduced and that scheduled meetings on PNEs had been cancelled. It was time to establish an acceptable and well-defined Agency policy to assist in overcoming those difficulties and to draw up a programme to achieve the objectives set forth under Article V of NPT, a task which had rightly been entrusted to the Agency. He hoped that the Advisory Group on Nuclear Explosions for Peaceful Purposes would continue its work in order to find solutions for the important issues that were still outstanding according to the report the Group had submitted in 1977. The Agency should also define the steps necessary for undertaking a comprehensive survey of possible projects, for promoting and participating in feasibility studies for projects and for preparing the ground for the implementation of projects which proved to be technically, economically and environmentally feasible. He hoped that the Advisory Group meeting which the Director General had announced over a year before would be convened in the near future.

96. INFCE was a tangible sign of enlightened international co-operation. Egypt had participated actively in the various INFCE working groups as well as in the Technical Co-ordinating Committee meetings and noted with satisfaction that the technical and administrative discussion showed many areas of common agreement. Topics under discussion in the INFCE meetings such as fuel assurances, spent fuel storage, reprocessing, breeder reactors, improved efficiency of thermal reactors, advanced converter reactors and alternative fuel cycles were of great importance

to developing and developed countries, to nuclear-weapon States and to non-nuclear-weapon States alike. Egypt would continue to participate actively in INFCE and to contribute to it in a constructive manner in order to achieve the dual objective of technology transfer and meeting energy needs on the one hand and nuclear non-proliferation on the other.

97. Egypt was dedicated to the prevention of proliferation and believed that the efforts made in that area had produced notable accomplishments, although many important developments lay ahead. NPT had been a milestone in efforts to prevent nuclear proliferation, and Egypt had participated actively in the negotiation of NPT and in the Geneva Disarmament Conference. As an expression of its strong support for the Treaty, his country had co-sponsored the General Assembly resolution commending NPT and asking for it to be open for signature to all States; Egypt had in fact been among the first to sign. Although his Government had not yet ratified the Treaty, that did not mean that it no longer supported it. Egypt was prepared to ratify NPT, provided that all countries in the same region did so. In the meantime, Egypt's support for non-proliferation had been demonstrated by its co-sponsorship of United Nations General Assembly resolutions on the demuclearization of Africa and on the establishment of a nuclear-free zone in the Middle East.

98. More than a year earlier a proposal for the amendment of Article VI of the Statute had been submitted to the Board of Governors by Members from the areas of Africa and of the Middle East and South Asia in order to increase the number of elected seats on the Board. Egypt's views regarding the under-representation of those two areas and the necessity for the amendment of Article VI had been presented during the discussion of item 9 of the Conference's agenda. He hoped that the General Conference would arrive at a consensus that would rectify the injustice done to those two areas.

99. Egypt was continuing to promote its national programmes for the peaceful utilization of nuclear technology to further its economic and social development. In addition to the activities of the Egyptian Atomic Energy Establishment, of the Authority for Nuclear Power and of the Authority for Nuclear Materials, the National Centre for Radiation had started operation at the end of 1977. The facilities at the centre would provide means for sterilizing medical equipment and other material and would also be used for research and development in connection with food preservation and for pilot agricultural and industrial experiments.

100. His delegation believed that the funds allocated to the promotional activities of the Agency were insufficient, and he noted that the target for voluntary contributions for technical assistance still remained far below the needs and expectations of the developing countries. Since the same problem occurred every year, the Agency might consider the establishment of criteria which could be used as a basis for establishing the target so that it need not be established on an ad hoc basis. Such criteria should take due account of inflation, increases in the costs of experts and equipment, and fluctuations in rates of exchange. The Agency should seek ways of achieving increases in the target for technical assistance; if the system of voluntary contributions proved inappropriate, some additional means could be sought. Egypt considered technical assistance to be one of the most important functions of the Agency where developing countries were concerned and had decided to maintain its voluntary contribution to the General Fund for 1979 at the same level as its contribution for 1978.

101. Mr. MEDDAH (Tunisia) said that Tunisia, which had acceded to NPT, attached great importance to the peaceful uses of nuclear energy. A number of nuclear projects had been undertaken in Tunisia in the agricultural sphere; one was aimed at suppressing the Mediterranean fruit fly using the sterile-male technique, and a cobalt bomb had been acquired for that purpose. In the field of public health, a national radiation protection service was already in operation and a number of hospitals were using radioactive sources for certain types of medical treatment. In the industrial sector, Tunisia's Central Laboratory had a team specializing in non-destructive testing for the checking of welds and concrete structures. The work of the Central Laboratory would be extended to the testing of foodstuffs and various other industrial checking procedures. Radioactive sources were also being used by two oil companies for determining hydrocarbon ratings.

102. Tunisia also had a special interest in substitute forms of energy. Following research conducted by the College of Engineering and the establishment of a company for the fabrication and installation of solar-electric water heating plants, the use of solar energy for heating domestic water was beginning to gain ground. At the same time, Tunisia, which was elaborating an energy programme up to the year 2000, was studying the desirability of constructing nuclear power stations.

103. His delegation wished to express its gratitude to the Agency for the technical assistance it had provided to Tunisia, including the secondment of an expert to the Central Laboratory and the supply of equipment for the application of isotopes in industry. Another Agency expert had recently concluded an assignment in Tunisia, assisting the National Office of Mines with the preparation of a uranium prospecting project.

104. His delegation welcomed the eloquent plea made by the Director General in his address to the Conference that developing countries should have free access to nuclear technology. It also noted with satisfaction the accent which the Director General had placed on technical assistance, which he had described as a fundamental part of the Agency's programme.

105. Regrettably, an ever-increasing imbalance was to be observed between the regulatory and promotional activities of the Agency, as a result of which technical assistance was tending to become merely an adjunct to the Agency's programme and budget.

106. Tunisia considered it of vital importance to ensure that technical assistance in the nuclear field was used solely for peaceful purposes. The application of safeguards was of course one of the two principal objectives of the Agency under its Statute, the other being to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. However, the runaway development of the safeguards system, which was reflected by an exorbitant increase in the Regular Budget of the Agency, should not be supported at the expense of technical assistance. Nor should safeguards be used to satisfy the desires of those who wished to restrict the access of developing countries to nuclear technology. Moreover, why could technical assistance not be financed from the Regular Budget rather than by voluntary contributions?

107. It was sad to note that, as distinct from all the other organizations in the United Nations system, the Agency continued to ignore the basic principle of the sovereign equality of States. The distribution of seats on the Board of Governors was a glaring illustration of that. It was with the aim of redressing the injustice to which they were subject that the Member States from the area of Africa and the area of the Middle East and South Asia were inviting the General Conference to recognize their right to equitable representation on the Board of Governors. Their objective was not in any way to upset the balance that was claimed to exist at present, but to provide countries in the two under-privileged regions with the opportunity of making a fuller contribution to the life and work of the Agency.

108. It was the desire and intention of his country, like that of all those belonging to the Group of 77, to work with other Members of the Agency towards peace and prosperity for mankind. In that spirit, the non-aligned countries, of which Tunisia was one, had reaffirmed their support at the meeting held recently at foreign minister level in Belgrade for the convening of an international conference on the peaceful uses of nuclear energy in accordance with Resolution 32/50 of the United Nations General Assembly.

109. Mr. ALLOTEY (Ghana) agreed with the Director General that developing countries could not make do with windmills or content themselves with "appropriate", "soft" or "intermediate" technologies, and that to turn the wheels of industrialization, which appeared to be the only hope for raising the standard of living in the developing countries, the best solution lay in the acquisition of nuclear technology. Ghana therefore on the whole supported the programme trends envisaged by the Agency for the period 1979-84. In the area of technical assistance, in particular, he was happy to note that the Agency planned to take measures aimed at increasing the Agency's ability to respond more effectively to technical assistance requests from developing countries. Agency intentions to place emphasis on maximizing the developmental impact of technical assistance projects in Member States was a step in the right direction. However, he wished to stress the very close correlation between the Agency's capacity to respond more effectively to technical assistance requests and the funds available to the Agency. As long as funds for technical assistance continued to be tied to voluntary contributions, the Agency could hardly meet technical assistance requests adequately. Serious consideration should be given by the Agency to changing the budgetary arrangements.

110. The escalatory trend that had characterized the Agency's budget over the past few years had still not ended. It was true that some of the factors that had influenced the increases for 1979 were beyond the control of the Agency, but if a wholesome relationship was not kept between expansion in the Agency's regulatory and promotional activities there would be a danger of frustrating the noble objective of the Agency with respect to the developing countries, which was to promote the transfer of skill and knowledge relating to the use of nuclear energy for peaceful purposes in order to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.

111. His delegation regretted that, in spite of the commendable efforts on the part of the delegates of the areas concerned to achieve an agreeable compromise on the proposed amendment of Article VI.A.2 of the Statute, no consensus had emerged in the Board of Governors. The request of Member States in the two areas was legitimate because the proposed increase would make for equitable geographical representation.

112. Ghana was continuing work on applications of nuclear energy and techniques to food and agriculture and to medicine. The programme on food and agriculture, which was actively supported by Ghana's Ministry of Agriculture, covered selected local vegetables and food crops, including grains and legumes, and involved studies aimed at establishing optimum conditions for their preservation by means of gamma-rays, including preservation from microbial spoilage, fungal attack and insect infestation. Those studies had reached an advanced stage. In addition to food preservation studies, some work was being done on plant breeding, pest control and soil plant nutrition. In the area of medical applications, the current programme had so far been mainly in the field of diagnosis because of limitations as regards facilities for therapeutic applications.

113. Mrs. ESPAÑA de MÉRIDA (Guatemala) said that hers was a small country which was still struggling to overcome the disastrous effect of the 1976 earthquake. It was looking to atomic energy to help raise the level of health of its population, to eradicate agricultural pests, to improve crops and to benefit industry and science. Guatemala had initiated a modest nuclear programme, which from the beginning had received assistance from the Agency. An effort was being made to extend the programme by training personnel at the university level. Although adequate local energy sources were available, recourse to nuclear power would eventually be necessary, and Guatemala wished to keep in close contact with progress in that field so that it could make a reasoned choice among the various options at the appropriate time.

114. With regard to the draft budget for 1979, it was understandable that there should be a considerable increase in the sums needed to meet the growing demands for technical assistance, but there was a lack of proportion between the sums provided for that aspect of the Agency's activities and those allocated to safeguards. As a signatory of NPT and the Treaty for the Prohibition of Nuclear Weapons in Latin America (the Tlatelolco Treaty)^{2/}, Guatemala was not opposed

to the Agency taking all possible steps to carry out its inspection duties efficiently, but it recognized a possible injustice in the fact that technical assistance funds had not increased in the same proportion. When general inflation, rises in the costs of equipment and in salaries, and the constant fall in the purchasing power of the dollar were taken into account, it was clear that the target of US \$8.5 million set for voluntary contributions would at best enable the technical assistance programme only to be maintained at the level of previous years. The industrialized countries should make a substantial increase in their contribution.

115. The Guatemalan delegation believed that there should be early approval of the principles governing the provision of technical assistance. The Director General ought to have the power to approve urgent requests for assistance which were submitted late; the funds involved would represent only a small proportion of the total available for technical assistance.

116. The Director General was to be congratulated on the work carried out during 1977, as detailed in documents GC(XXII)/INF/177 and GC(XXII)/597. In the Introduction of the latter document it was noted that 206 nuclear plants had been in operation "without a single radiation-induced fatality or even a serious radiation-induced accident", but "This outstanding safety record continues to receive little or no publicity in the popular press, although the most insignificant leakage or mishap is certain to give rise to headlines around the world." The Agency ought to use the services of an international publicity agent to make known what high safety standards had actually been achieved in the field of nuclear technology.

117. INFCE was to be welcomed since it could lead to measures which would assist non-proliferation. Guatemala supported the conclusion of an international convention for the physical protection of nuclear materials and considered it important that an agreement should be reached to cover all nuclear materials whatever their final destination.

118. Mr. SODNOM (Mongolia) welcomed the delegation of the Socialist Republic of Viet Nam, which was attending a session of the General Conference for the first time.

119. The present session of the General Conference was notable for the fact that it had been preceded by a special session of the General Assembly of the United Nations devoted to questions of disarmament. One of the main results of that

special session was that all participants - with just one exception - had agreed that disarmament was a problem of universal import and that the combined efforts of all countries without exception would be required if a radical solution was to be found. The adoption of practical and effective measures to halt the arms race and achieve disarmament would be the most reliable guarantee of political détente, strengthening as it was bound to do the foundations of peace and international security. In that connection his delegation fully supported the ideas and suggestions concerning practical ways of halting the arms race and strengthening peace and international security which had been put forward by the Soviet Union.

120. A few days before, the Soviet Government had come forward with a new initiative aimed at further consolidating peace - namely, a proposal to all countries of the world that they should conclude a convention designed to strengthen guarantees for the safety of non-nuclear-weapon States. His delegation supported that proposal, for it believed that a convention of the kind envisaged by the Soviet Union would help to ward off a nuclear catastrophe. All nuclear powers would, under the proposed scheme, undertake not to use nuclear weapons against States which renounced the production and procurement of such weapons and did not possess them on their territory. That would also enhance the universal character of NPT and strengthen the Agency's safeguards system. A good deal of progress had been made in the past decade, since the conclusion of NPT, but much remained to be done and fresh efforts were required.

121. Enhancement of the effectiveness of Agency safeguards occupied a particularly important place among measures capable of strengthening the non-proliferation regime, and the Agency was in fact making very considerable efforts in that direction. Even so, much still had to be done if the world was to have reliable guarantees that no nuclear materials would be diverted for military use. Thus, the present situation regarding the application of Agency safeguards in the non-nuclear-weapon member States of the European Atomic Energy Community (EURATOM) could not but give rise to concern. The subsidiary arrangements and facility attachments required in connection with the safeguards agreement concluded between the Agency, EURATOM and those countries^{3/} should be speedily completed; that would enhance the authority of NPT and strengthen the non-proliferation regime.

122. One could not help observing that the regime established to prevent the proliferation of nuclear weapons was continually being challenged, both by certain States and by the military-industrial complex of the West. The Peking leaders

^{3/} Reproduced in document INFCE/193.

were vehement opponents of non-proliferation, as everyone knew. Disquiet was felt also at the nuclear preparations being carried out in countries like South Africa and Israel. The peace-loving States of the world should not allow such plans to come to fruition.

123. The Government of Mongolia shared the concern felt by many countries at the danger of a further proliferation of nuclear weapons which would threaten the security of all. The safeguards system developed by the Agency was beyond any doubt one of the most important elements for realizing the aims of NPT, and, that being so, his delegation supported the Agency's safeguards activities and its future plans in relation to safeguards.

124. The Mongolian delegation had carefully studied the Director General's report, in which the various activities and plans of the Agency were outlined, and was pleased to note the significant achievements of the Agency. Mongolia supported the programme for 1979-84, and in particular the plans relevant to technical assistance, for the Agency's technical assistance to developing countries was highly important at the present juncture. It enabled the achievements of nuclear science and technology to be passed on to the developing countries. Mongolia had itself received technical assistance from the Agency in the training of specialists and in various other spheres of nuclear science, for which it wished to express its gratitude.

125. As far as voluntary contributions were concerned, his delegation welcomed the decision to raise the target to US \$8.5 million. Mongolia would be making its contribution to the General Fund.

126. The documents before the Conference gave evidence of the Agency's successful work during the past year and revealed, in general, a good, well-thought-out programme. In that connection he wished to give due recognition to the capable leadership provided by the Agency's Director General, Dr. Sigvard Eklund, as well as to the productive work of the whole Secretariat.

127. In conclusion, the Mongolian delegation was confident that the present session of the General Conference would make a valuable contribution to international collaboration in the utilization of nuclear energy for the good of the whole world.

128. Mr. KABBANI (Saudi Arabia) supported the endeavours of the Director General to have statements by delegates regarding work and achievements of a national character presented to the Conference in the form of documents. The

limited time available for the general debate should be used for comments on the Annual Report and the financial situation in general. It emerged from the Annual Report for 1977 that the Agency was moving away from meeting the urgent needs of developing countries. The advanced Member States were exerting pressure to transform the Agency into a tool for the implementation of their own policies alone. Indeed, certain restrictions and limitations were being agreed upon outside the Agency and communicated to it, instead of being formulated within the Agency; examples of that were the recent meeting of the "London Club" and the communications which the Agency had been requested to reproduce (see document INFCIRC/254).

129. One reason for such developments lay in the composition of the Board of Governors, which explained why Saudi Arabia had supported and would continue to support the amendment of Article VI of the Statute.

130. The proposal submitted by his country jointly with Iran and Pakistan (see Annex II of document GC(XXII)/602) did not totally remove the injustice done to Member States in the area of Africa. However, Saudi Arabia supported any amendment which would improve the representation of developing countries.

131. Turning to the financial situation, he said that in 1978 Saudi Arabia had pledged as its voluntary contribution to the General Fund an amount three times that corresponding to its base rate of assessment, and it hoped to do the same in 1979. However, large annual increases in budgets were making it increasingly difficult for many developing countries to meet their financial obligations towards international organizations. For many less fortunate developing countries, participation in some of those organizations had long been subject to a law of diminishing returns, as the organizations in question believed that large staffs and budgets enhanced their prestige irrespective of the type, quality and amount of assistance they rendered to Member States. His delegation was, however, prepared to accept the budget for 1979 in view of the untiring efforts of the Director General to effect maximum savings.

132. In conclusion, he said that technical assistance needed to be more effective. It constituted one of the main functions of the Agency and it was the activity that most benefited the majority of Member States. It should therefore be financed in the same way as, for example, the move to the Donsupark. Article VI of the Statute had been amended twice and - he hoped - would be amended again, and if there was good will on the part of all concerned it should also be possible to amend Article XIV with regard to the financing of technical assistance.