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President: Mr. MEDINA (Philippines)

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* A provisional version of this document was issued on 19 September 1974.

** GC(XVIII)/534.

THE RECORD

ADOPTION OF THE AGENDA AND ALLOCATION
OF ITEMS FOR INITIAL DISCUSSION
(GC(XVIII)/523)

1. The PRESIDENT informed the Conference that the General Committee recommended it to approve an agenda for the session consisting of all the items on the provisional agenda in document GC(XVIII)/523, and also to allocate those items for initial discussion as indicated in that document.

● 2. The Committee's recommendations were accepted.

GENERAL DEBATE AND REPORT FOR 1973-74
(GC(XVIII)/525, 532)

3. Miss RAY (United States of America) said that the Director General and staff were to be commended on their response to the difficult, urgent and complex demands made upon them during the preceding year. The initiative, imagination and professional competence of the Agency would probably be tested even more in the years to come. However, the Director General had clearly indicated in his statement that he knew that those challenges must be faced and surmounted.

4. She then read out the following message from the President of the United States of America:

(a) "On this, my first occasion to address the General Conference of the International Atomic Energy Agency, I want to emphasize the strong and affirmative role the United States has played in support of the IAEA. Our policy was initiated under President Eisenhower, sustained under succeeding Presidents and will continue.

(b) "The IAEA helps all nations in promoting world-wide peaceful development of nuclear energy, meeting the challenge of increased energy requirements, protecting both man and his environment and providing assurance against diversion of this resource for nuclear explosives.

(c) "The Agency exercises important responsibilities in carrying out safeguards in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons, which I regard as one of the pillars of United States foreign policy. I wish to reaffirm my Government's offer to permit the application of IAEA safeguards to any US nuclear activity except those of direct national security significance. This offer will be implemented when safeguards are being broadly applied under the Treaty in other industrial States. Our offer was made in order to encourage the widest possible adherence to the Treaty by demonstrating to other nations that they would not be placed at a commercial disadvantage by reason of the application of safeguards under the Treaty.

(d) "I have become increasingly aware of the world-wide expectation that nuclear energy should provide a far greater portion of power needs and of the world-wide concern about nuclear safeguards. The Member States of IAEA and Agency staff face important challenges in simultaneously expanding nuclear power production and safeguarding its fuel cycle.

(e) "We in the United States look forward to continuing, and in fact increased IAEA contributions in bringing the benefits of the peaceful atom to all mankind and in bringing about closer collaboration among the nations of the world.

(f) "It is a pleasure to extend to all delegates to this Conference my warmest greetings and best wishes for a successful meeting."

5. President Ford had thus clearly reaffirmed the strong support the United States of America gave to the Agency's programme.

6. As many might recall, the United States Atoms-for-Peace programme and the establishment of the Agency had been proposed by President Eisenhower in his historic message before the General Assembly of the United Nations in December 1953. The development of peaceful uses of atomic energy during the 20 years since then had been characterized by impressive international co-operation. The ability of many countries to enter the nuclear age had been facilitated by the work of the Agency. Of its 104 Members, nearly 50 were actively engaged with research reactors, and by the end of the current year the Agency had estimated that there would be 121 operational power reactors in 17 Member States, in addition to the United States of America, with an installed nuclear capacity of nearly 32 000 MW. Similar projections by the Agency showed that by 1980 those figures would have increased to 244 power reactors in 25 Member States, with a total installed capacity of over 125 000 MW. The significant role played by the Agency in fostering dissemination of nuclear knowledge and in encouraging the responsible use of the technology arising therefrom had had remarkable results in the short period of 20 years. The Agency's importance would certainly increase in years to come.

7. The Director General had provided the Conference with a carefully conceived and thought-provoking analysis of the problems facing nuclear energy throughout the world.[1] Her Government strongly supported a broad review of the prospects and problems of nuclear power in a world energy situation that was increasingly complex. As the availability of nuclear power for generating electricity expanded in both developed and developing countries, problems of safety, fuel supply and waste management would grow. Co-operation and exchange of information on an ever-broadening scale would be required.

[1] See document GC(XVIII)/OR.168, paras 45-79.

8. The United States Government supported the Agency's expanded programme in the safety field. The results of a two-year independent study of safety in United States commercial nuclear power plants, referred to as the Rasmussen study, had just been published in draft form. That definitive analysis found the risks of serious accidents to be extremely low, and that even if an improbable accident should occur, the likelihood of deaths or illness or financial losses was far smaller than from several types of non-nuclear accidents to which people were already commonly exposed. The main report and a summary had been distributed to atomic energy organizations throughout the world, and a full set of the 14 volumes of technical appendices still in draft form had been provided to the Agency. Review and comments were invited. Detailed attention to safe design, construction, and operation of nuclear plants was essential everywhere because an accident in any nation would be of concern to all.

9. The less developed countries should benefit considerably from the Agency's expanded activities of assistance in planning nuclear power projects. The draft IAEA guide-book and the advisory services that the Agency provided made the Agency the leading international body for assistance in the evaluation and introduction of nuclear power in less developed countries.

10. With regard to fuel supply and fuel cycle services, the United States of America, as a major supplier of enriched uranium, viewed its responsibilities very seriously. The United States Atomic Energy Commission (USAEC) had recently contracted up to the present limit of its authority to meet the needs of approximately 355 domestic and foreign reactors representing about 320 000 MW. Those contracts covered reactors that would require initial fuel deliveries up to June 30, 1982. Methods of extending capacity so that the international market could continue to be served reliably for decades to come were also under study.

11. Her delegation recognized the need for much better data on uranium resources and enrichment capacity, and fully supported the Director General's call for a major international conference in 1977 on prospects and problems for nuclear energy.

12. High-level radioactive wastes continued to pose long-term problems. The action taken by the Board on September 13 pursuant to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention)[2] in connection with the definition of the kinds of wastes unsuitable for dumping at sea was welcome. She could see the Agency playing a significant role in the development of standards and safety criteria and perhaps also of methodology for the handling of those wastes.

13. The Agency's technical assistance programmes had long been of great value to many

countries. Her Government continued to support and participate in those multifaceted programmes. For example, as an important early step in helping to prepare the less developed countries to use nuclear power, it had proposed co-sponsoring with the Agency a two- to three-week course on the principles and techniques of regulating nuclear power for public health, safety and environmental protection. That course, which it was proposed should be held at the USAEC's headquarters, would assist representatives of perhaps 20-30 countries to organize and administer effective national nuclear energy regulatory programmes. United States experience in that area had been wide-ranging and intense, and should be of considerable interest and utility to those Member States planning to embark upon nuclear power programmes. The essential role of specialized manpower training in that relatively new area as well as in the areas in which the Agency had been engaged for some time was fully recognized.

14. In the same connection, it was most gratifying that the Agency had reached agreement on its programme for the preparation of a set of standards, in the form of codes of practice and safety guides, for nuclear power reactors. Her Government attached great importance to that activity. The programme would have the strong support of USAEC, as her delegation hoped it would from appropriate organizations in other Member States. Her Government was prepared to make important contributions, including expert services without cost to the Agency, to help accomplish the programme's objectives.

15. She suggested a possible new emphasis for the Agency in close co-operation with the World Health Organization (WHO) to bring to developing countries the full benefits of nuclear medicine. Adequately trained medical personnel already existed in many countries, and the requisite radioactive materials could be shipped with modern air transportation. What often appeared to be lacking were sturdy, reliable, low-cost, yet sensitive instruments for diagnostic and therapeutic use in a wide variety of facilities and environmental conditions. The Agency might prepare an inventory of the potential world market for such equipment as a stimulus to manufacturers.

16. For the sixteenth consecutive year, the United States renewed its pledge to donate up to \$50 000 worth of special nuclear materials for use in Agency projects. As announced to the Board of Governors in June, parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)[3] would be given preferential consideration in the donation of those materials.

17. Her delegation continued to support the financing of the technical assistance programme by voluntary contributions. It was confident that voluntary contributions produced more funds and more assistance in kind than assessments could. The United States' cash and in-kind assistance the

[2] Reproduced in document INFCIRC/205.

[3] Reproduced in document INFCIRC/140.

previous year amounted in value to about \$2 million. For the coming year, subject to governmental appropriations, the Government intended to contribute generously to the cash target and to make additional in-kind grants. Beginning in 1975 it intended to give preference in allocation of in-kind grants to developing countries which were parties to NPT. It considered both of those actions to be consistent with its obligations under Article IV of NPT.

18. Events of the past year had caused a dramatic and renewed interest in nuclear energy, and she would focus discussion upon what she believed to be the most serious challenge facing the Agency and all those interested in nuclear energy: the need to design even more effective safeguards and to apply them to nuclear materials and facilities in order to deter proliferation of nuclear weapon capability and the need to design and apply additional measures to prevent the theft of nuclear materials.

19. The Director General had taken the lead in assessing safeguards and proliferation issues at that General Conference, and she hoped that her remarks would generate additional comments. Her remarks reflected policy developments in her own country, bilateral discussions with other nations, and a desire to share those views with all present.

20. Nations that exported and nations that purchased nuclear technology, equipment and fuels both had much to gain by making the international nuclear situation more secure. Her Government was concerned about export practices, reasonable control of the entire fuel cycle, physical security of nuclear materials, safeguards accountability for nuclear materials, clearly defined international responses to acts or threats of nuclear terrorism, and implications of peaceful nuclear explosions for nuclear proliferation. It continued to endorse fully NPT and urged nations which had not yet become party to it to do so as soon as was feasible. It also hoped that non-parties as well as parties to NPT could make a concerted effort within the Agency to enhance security and safeguards for nuclear plants and materials throughout the world. It was worth examining some aspects of the situation in more detail.

21. With regard to conditions for export, some of the major nuclear exporting countries, including the United States, had reached agreement on procedures and criteria that served as minimum common standards for the implementation of the requirements of Article III.2 of NPT which called for IAEA safeguards in connection with nuclear materials and equipment exported to non-nuclear-weapon States. Furthermore, the United States, United Kingdom, and USSR had agreed, beginning on 1 October, to report to the Agency detailed information on their export and import of nuclear materials to and from non-nuclear-weapon States.

22. Her Government recognized that many nations had well-trained scientists and engineers capable of applying or developing sophisticated nuclear technology for military as well as for peaceful purposes. It was to their great credit that so many

of those nations had chosen not to develop nuclear weapons. As the Governor from the United States had emphasized to the Board in June, the use in or for any nuclear explosive device of any material or equipment subject to an agreement with the United States for co-operation for civil uses for atomic energy was precluded. It was intended to maintain that policy, and it was believed that other exporting countries shared the view that explicit agreements and effective verification were essential.

23. Secondly, there was control of the fuel cycle. With the proposed and planned sale of reactors to countries throughout the world, including areas that were politically troubled, questions had been raised about the impact of such sales on proliferation. If each country that moved into nuclear generated electricity was faced with the necessity of developing its own means of handling the spent fuel, then each country would have to develop the technology for that purpose. As an alternative, the establishment of internationally-approved facilities to handle all the spent fuel from power reactors might be helpful to participating countries. It might also be reassuring to the rest of the world.

24. Attention must also be directed to the different types of fuel cycles. Experience in her country had been mainly with light water reactors using low-enriched uranium. Cycles using natural uranium and heavy water moderation, uranium and thorium, highly-enriched uranium, or uranium and plutonium, would each require careful analysis to provide the best safeguarding methods and most efficient handling. Each fuel cycle had different degrees of vulnerability and should be analysed from that point of view also. In such analyses Member States and the Agency's staff could make great contributions. The United States was committed to such efforts on a national basis and would be pleased to participate in international activities in that area.

25. Thirdly, there was physical security. In the face of terrorist activity in many places around the world, action had been taken in the United States to enhance significantly the physical security at USAEC and USAEC-licensed facilities and of materials during transport. The Government encouraged other nations to do the same. Widespread publicity concerning details of security plans would be unwise, but through appropriate technical working groups it would be pleased to share useful aspects of its approaches to greater physical security. In addition to improving conditions at existing locations, it anticipated that important changes could be incorporated into construction design to enhance physical security in new facilities. The booklet "Recommendations for the Physical Protection of Nuclear Materials", published by the Agency in 1972, provided useful guidelines and a basis for further recommendations by the Agency. Her delegation supported the Director General's suggestion that prospects for an international agreement on minimum standards for physical security should be explored[4]. Fur-

[4] See document GC(XVIII)/OR.168, para. 63.

ther, it agreed with his recommendation that the Agency should prepare to serve as a source for advice and assistance to those States that recognized the desirability of improving their capability in physical security systems.

26. Fourthly, there was safeguards accountability for nuclear materials. The Agency had taken the lead for many years in safeguards accountability. Further improvements in methods could be anticipated, and increased attention must be paid to correction of deficiencies identified in the process. As President Ford had reaffirmed, the United States was prepared to implement its offer to permit the Agency to apply its safeguards to any of the nuclear activities in the United States, other than those with direct national security significance. It had offered to permit such safeguards, when they were applied broadly in non-nuclear-weapon countries, in order to demonstrate its belief that there was no risk to proprietary information and no danger of suffering commercial disadvantage under NPT safeguards.

27. And lastly, nuclear explosions for peaceful purposes (PNE). The use of PNEs was a highly complicated matter, with ramifications under the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (the Partial Test Ban Treaty)[5] in the case of surface excavation, and of importance to the defining of threshold and complete test ban treaties. The Agency had done much to facilitate the exchange of information and to anticipate the needs for services. At a meeting the previous week, the Board had approved the approach to be adopted by the Agency in responding to requests from Members for such services. The Board had also authorized the Director General to establish within the Secretariat, at a suitable time, a separate organizational unit for implementing an international service for PNEs under appropriate international control.

28. The need for in-depth studies to establish the feasibility and desirability of using PNEs for any project under consideration should be stressed. The United States was ready to contribute to the planning and performance of such feasibility studies. Where these studies demonstrated the practicability of conducting a PNE project consistent with the provisions of pertinent treaties or agreements, it was prepared to meet its obligations under Article V of NPT to provide PNE services at prices that would exclude any charges for research and development.

29. It was clear that the role of nuclear power was being increasingly accepted around the world and that significant progress had been made in enhancing reactor safety. She was confident that co-operative international effort would meet the serious challenge of safeguarding nuclear materials and facilities as the benefits of nuclear energy were brought to many more countries.

30. Mr. von SCHIRNDING (South Africa) said that a gradual but profound change was taking place in the nature of the Agency's activities; the Agency had begun to exercise in full the important functions assigned to it by its Statute, in the field of nuclear safety and in the provision of assistance to Member States to introduce nuclear power. That was due largely to the impact on the Agency of the energy shortage and the growing international concern about the environment.

31. On the energy side, the continuous exponential increases in the price of oil had further emphasized the need for a dynamic programme to meet the needs for nuclear energy in Member States, particularly in the developing countries, and it was obvious that the Agency would have to acquire the competence and the techniques to make meaningful overall energy surveys which would embrace alternative sources of energy besides nuclear power. As regards the concern about environmental aspects of nuclear energy, perhaps the main contribution which the Agency could make was to ensure as far as possible that the expansion of nuclear power took place with the minimum risk of nuclear accidents. While primary responsibility for plant safety must lie with Governments, manufacturers and operators, the Agency could help by providing technologists and safety experts to provide the training and guidance which were needed by Governments and planners, and by harmonizing and promoting internationally accepted standards for design, quality of materials, siting, construction and operation. Those contributions could go far towards ensuring that safety remained of paramount importance at all times and was in no way sacrificed to meet the demands of rapid capacity expansion, and that, at the same time, plant manufacturers were not deprived of reasonable freedom in the design of nuclear power plants. That activity would be very much in line with the steps already taken by the Board of Governors towards establishing safety codes and guides for nuclear power plants.

32. The rise in oil prices had also revived an interest in nuclear-powered merchant ships, and a number of countries were moving towards that form of marine propulsion. The appearance of such vessels in the world's busy shipping lanes and their access to international ports, canals, etc. would raise new safety, legal and public acceptance questions, matters in which the Agency should be fully competent and which it should study in co-operation with other international bodies. A set of the minimum technical requirements with which a nuclear merchant ship must comply, stood out as a basic prerequisite for entry into ports. That should relate to such aspects as operating and safety personnel, handling of waste and cooling water, accident prevention and control measures, etc.; special provision might have to be made for nuclear supertankers. The problems associated with nuclear ships and their safety were not only of concern and importance in the day-to-day responsibilities of harbour masters and canal operators, but would also become an increasing preoccupation of the Governments of every country with extensive coastlines along the world's major

[5] Reproduced in the United Nations Treaty Series, Vol. 480, No. 6964.

shipping lanes, and Member States in that category should be entitled to rely on wise guidance from the Agency.

33. One of the problems caused by the increasing use of nuclear power to offset the rising demand for power and the threat of environmental pollution was the international implications of meeting the reprocessing needs of more and more countries as nuclear power programmes were introduced. A disproportionate proliferation of relatively small plants would be accompanied by a very substantial increase in the responsibilities of the Agency's Department of Safeguards and Inspection. It would seem imperative therefore for the Agency actively to expand its expertise and knowledge, not only of the technical and safeguards aspects but also of the economic and safety implications so as to be able to advise and guide Governments faced with the need for discussions in that field. Only in that way could a truly wise course be charted between the risks and costs of transporting irradiated fuel over great distances on the one hand, and the implications inherent in the erection of numerous dispersed reprocessing plants on the other.

34. Physical security in the field of international transport would also be a growing preoccupation, and while the provision of armed guards and other internal security measures were essentially a matter for national Governments, the Agency might well study and make recommendations about the physical security problems that would arise in the international transport of fissile material by air, sea and even by land. That again, would involve co-operation with other international bodies and regional organizations.

35. The problems encountered in the rapid growth of nuclear capacity, especially in the developing countries, would increasingly become the main preoccupation of the Agency during the years ahead, and that would put a considerable strain on its resources of manpower and expertise, as well as of finance. In that context the Agency's safeguards activities could have an indirectly beneficial impact on its safety programmes, since it was thereby acquiring considerable experience in nuclear materials management which was a basic requirement for an effective nuclear safety programme; in the process of setting up national nuclear materials accountancy and control systems, Governments would turn increasingly to the Agency for expert advice.

36. Bearing that in mind, an inescapable conclusion was that the Agency, given its limited financial resources, would have to take a critical look at some of the other activities which had been embarked upon before nuclear power had come really into its own and which, though by now of comparatively marginal importance, were still reflected in its programme. If the Agency was to concentrate its efforts on energy, the environment, nuclear safety and safeguards, which his delegation felt should be its present main technical preoccupations, it would have to consider abandoning many such peripheral activities. The continued pressure of inflation and currency adjustments made such a

review an urgent necessity and his delegation was glad to note that, as in so many other spheres, the Agency had responded positively and that the Director General intended to initiate discussions on the subject of priorities with the Scientific Advisory Committee.

37. The subject of financing brought him to that other major component of the Agency's activities, namely, the technical assistance programme. That programme, being largely dependent on voluntary contributions had, of course, been hit as hard as any other component of the Agency's programme by the financial uncertainties which beset the world. It was therefore not unreasonable for the target for voluntary contributions for 1975 to be adjusted to take account of those developments. South Africa would, as in the past, continue to make its contribution in accordance with the base rate of assessment. However, while periodic reviews of the target figure were clearly desirable, voluntary cash contributions should not be viewed in isolation, because they were not the sole form of technical assistance to the developing countries. Bilateral assistance and gifts in kind were vital components of the Agency's technical assistance programme, while the large expansions in the Agency's programmes in nuclear power, reactor safety and training were related directly to the introduction of nuclear power in the developing countries and therefore also represented a valuable form of technical assistance.

38. There were signs, in those days of roaring inflation, of growing reluctance to see the voluntary target figure continually increased, and it would not be surprising if any future proposal to raise the figure any further were met with firm resistance from more and more Member States coupled perhaps even with non-fulfilment of pledges previously made. On the other hand, it would often seem to be psychologically easier for Governments to make experts and equipment available on a bilateral basis, than to commit themselves to regular monetary contributions. His delegation therefore urged the Secretariat to lay even more emphasis on that method of augmenting the Agency's ability to provide technical assistance. It might perhaps even devise a participatory financing system whereby both the Agency and one or more Member States jointly underwrote specific aid to any particular State.

39. In that context, he wished to pay tribute to the contribution made by Mr. Goswami to the Agency's technical assistance activities and to wish him well on his retirement.

40. Co-operation had always been a keynote of the Agency. With the world moving more and more towards the nuclear side to meet its energy needs, an increasingly higher degree of joint effort was a prime need. He was confident that all were at one in that common cause.

41. In conclusion, he expressed his delegation's appreciation to the Director General for having made available advance copies of his interesting and thought-provoking statement to which all had

listened with great attention. That was a most useful innovation which he hoped would be continued.

42. Mr. ANAK AGUNG (Indonesia) recalled that under Article V, E. 4 of the Statute, the Conference had to consider the annual report for 1973-74 which was before it as document GC(XVIII)/525. The Director General and his staff were to be congratulated for producing that excellent document.

43. The Indonesian delegation had no objections to the report and it warmly appreciated the work done by the Agency during the year elapsed. At the preceding regular session of the General Conference his delegation had pointed out that the extent to which the Agency could implement its programme for 1973-74 would depend on the Agency's financial policy, especially in view of the prevailing currency difficulties. It was gratifying to see that satisfactory solutions had been found and that the Agency had succeeded in economizing in various fields and had yet maintained a reasonable balance between the programmes.

44. However, as in the preceding year, the report made practically no mention of regional co-operation and associated projects. It was to be hoped that in due time the difficulties which seemed to hamper those activities would be overcome and progress accelerated. Regional co-operation in atomic energy was very important and it would stimulate co-operation in other scientific fields as well.

45. As for the projects financed by the United Nations Development Programme (UNDP), however, his delegation thought they should be reported in greater detail since developing countries could learn much from other countries' programmes. Such projects should at least be covered in the same detail as those for which the Agency provided funds from its own resources. Of course, his delegation realized the difficulties faced by the Secretariat in preparing such reports, which apparently had to be drafted three to four months before the end of the period they covered. Perhaps it would be better if the report covered a calendar year, coinciding with the Agency's budgetary year, so that the Secretariat could base it on facts.

46. It was gratifying to note that over the past year the Agency had not hesitated to change the relative emphasis on its various programmes, as required by economic considerations, especially in connection with world energy requirements. In that context his Government fully endorsed the expansion of the programme on nuclear power and associated activities including the programme on staff training referred to in Annex VI to document GC(XVIII)/526, but hoped that in pursuing that policy the Agency would not place food production second to the introduction of nuclear power.

47. It was clear to everyone that the energy problem was a vital issue. Oil reserves would be depleted in 20 to 30 years. Even in the most advanced industrialized countries it would take several years before alternative energy resources

could be developed on an economical basis. It was generally recognized that nuclear energy was a very promising alternative, but the use of that special kind of energy had several aspects requiring special attention.

48. In the opening words of his statement, the Director General had pointed out that in some countries there was deep reluctance to accept nuclear power as a way of dealing with the world energy shortage. One reason was the fear of unauthorized use of fissionable material and the proliferation of nuclear weapons. The Indonesian delegation felt that the introduction of nuclear power would encounter no great obstacles through misgivings regarding nuclear safety and waste handling problems, but concern regarding the possible proliferation of nuclear weapons was an important matter, and his Government shared that concern. It was unfortunate that one of the by-products of nuclear power production could be used not only for peaceful but also for destructive purposes. Nevertheless his Government agreed that nuclear power was the only suitable immediate alternative to fossil fuel.

49. As a means of preventing the possible proliferation of nuclear devices through the construction of nuclear power plants, his Government strongly supported the Agency's application of safeguards in States which were willing to put their installations voluntarily under Agency control.

50. In a critical situation, where mankind was facing possible total destruction, salvation depended only on the sincerity of all attempts to prevent the proliferation of nuclear weapons. Every endeavour must be made to enable the Agency to implement its safeguards system effectively and efficiently.

51. Regarding the future programmes of the Agency, his delegation in general supported what was presented in document GC(XVIII)/526. He attached great importance to the Agency's programme of training. The policy of providing fellowship training for the nationals of developing countries was satisfactory and should be continued, but greater attempts were required to make the developing countries better able to train their own people, for instance by training university teachers in nuclear energy and the associated sciences. His country would welcome assistance from technically advanced countries to upgrade the teaching facilities of universities. The nuclear science teaching panels held jointly by the Agency and UNESCO with consultants from developing and developed Member States in 1968, 1970 and 1973 had also stressed the need for planning science teaching in the developing world. Since it regarded that question as a very important link in the transfer of technology chain, his delegation wanted to suggest that the Agency, in co-operation with UNESCO and UNDP, should establish and implement a purposeful programme to help developing countries to prepare the necessary facilities and teaching laboratories and to build up nuclear science teaching institutes of high standard. If that could be achieved, the

developing countries would be very thankful to the Agency.

52. Realizing the importance of that matter, his Government had decided to set up a national training centre for nuclear techniques, to give basic training in the different disciplines of nuclear science and technology. Any assistance from advanced countries, either bilaterally or through the Agency, would be welcome. As a token of its gratitude, the Government would then be willing to make the centre available for regional co-operation and training.

53. His Government also wanted to express its deep appreciation of the work done by the Agency in co-operation with UNESCO and the Government of Italy in making the International Centre for Theoretical Physics in Trieste a success. That Centre was a forum, where scientists from technically advanced and technically developing countries had the opportunity to work together, and it had proved helpful to both advanced and developing countries. The Centre was now a useful link in the transfer of science and technology. The Agency was to be congratulated on that achievement and his delegation felt that more such centres should be established, preferably on a regional basis, where contacts would be facilitated. His delegation would support wholeheartedly any initiative of the Agency in that direction.

54. His delegation also wanted to review briefly the problem of financing technical assistance, in the light of Resolution GC(XVII)/RES/307. Last June the Board had reached a consensus on that subject, basing its findings on objective data and information supplied by the Director General. [6] In a lengthy statement to the Board in the previous June the Governor from Indonesia had introduced a draft resolution, and pointed out that the problem of implementing the regular programme of technical assistance from the Agency's own resources could be best solved in two ways.

55. The first way, which could be called the short-term solution, was to provide for an annual increase in the target for voluntary contributions so as to permit a reasonable programme increase and to offset the effects of price increases and currency realignments. The second way was based on a far-reaching approach and provided for inclusion of the technical assistance budget in the Regular Budget. His delegation had always hoped that other Members would appreciate the background of the proposals, for only in that way would it be possible to arrive at an equitable solution. It had always been an aim of his delegation to promote consensus decisions, since it was convinced that only such decisions could guarantee prompt implementation. His Government would always endeavour to work out compromise solutions based on mutual understanding, respect and interest. His delegation considered that the consensus pertaining to the financing of technical assistance reached during

the June meetings of the Board was a reasonably objective and acceptable outcome. His delegation also wanted to express its appreciation to the Members of the Board, whose efforts had finally resulted in the consensus.

56. It was clear from the Director General's report that the present system of financing Agency technical assistance could be improved, although it was agreed that for the present the financing of technical assistance from voluntary contributions to the General Fund would have to be continued. His delegation accepted that reality and warmly supported the consensus reached by the Board in June. It also wanted to propose the adoption of a resolution on the subject which would be in conformity with that consensus, and a draft would be introduced in the Programme, Technical and Budget Committee. [7]

57. In regard to the nuclear developments which had taken place in Indonesia during the past year, he wanted to say that the programme of Indonesia's National Atomic Energy Agency continued to put the stress on the promotion of research and its applications in branches which were of immediate importance to the national development plan.

58. The applications of radioisotopes and radiations in agriculture and hydrology were giving promising results and both fields enjoyed active support from the Agency and UNDP. The search for uranium in Kalimantan with the assistance of the French Government was already in its fifth year and still progressing. As far as nuclear power was concerned, it was regarded as an attractive alternative to conventional energy for the production of electricity, which should be feasible by about 1985. That conclusion was based on the findings of a series of seminars on the subject; although Indonesia had oil resources, the high oil price justified the eventual use of nuclear energy for electric power generation, especially if an economical uranium deposit could be found in Indonesia. The Indonesian Government had requested the Agency to assist it in carrying out a nuclear power plant study, and the Agency had promptly agreed. His Government was looking forward to a follow-up of that study, which it hoped could be finished by the end of the year. The great importance which the Government attached to the study was understandable, because the outcome of it would probably have an important impact on the Second Five Year Development Plan.

59. Before concluding, he wanted to convey his delegation's thanks to Mr. Goswami, Deputy Director General for Technical Assistance and Publications, for his devoted service to the Agency, in particular in technical assistance.

60. Mr. HAUNSCHILD (Federal Republic of Germany) said that, during the past year, the Agency's work had been affected to an almost dramatic extent by two political events: the oil crisis

[6] See documents GC(XVIII)/529/Corr. 1 and GC(XVIII)/529 respectively.

[7] GC(XVIII)/COM. 1/121 and Mod. 1.

with its consequences for nuclear energy and the unsatisfactory situation existing with regard to measures for prevention of the proliferation of nuclear weapons. Those two issues undoubtedly called for detailed discussion and he would also be commenting on the subject of technical assistance for the developing Member States for, despite political crises, that permanent responsibility of the Agency must not be shoved aside.

61. As from October 1973, the question of energy supply had become a central topic in world politics. The temporary shortage of oil and the steady rise in its price had clearly shown the need for developing alternative sources of energy. The conclusion to be drawn from all realistic assessments was that, sooner and to a larger extent than previously expected, nuclear energy would play a decisive role based on the considerable improvement in its competitive ability. Moreover, due to difficulties in respect of their trade and payments balances, a number of countries, and particularly developing countries, would no longer be in a position to afford oil imports or to step up such imports as required to meet the demands of their growing economies.

62. Hence the chance and need for the introduction of nuclear power generation. And the great efforts in nuclear research and development made by a number of countries over a lengthy period gave good promise that the expectations now centred on nuclear energy could be fulfilled. Admittedly, many years of extensive and costly work lay ahead in order to improve proven advanced reactor systems and develop new ones but the experience gained thus far gave confidence in the successful completion of that task within the foreseeable future.

63. In itself, however, that was not enough, since accelerated development of nuclear energy would have to be accompanied by the requisite measures in safety engineering and environmental protection. The securing of the energy supply by means of nuclear power must not be accomplished at the price of lessened safety, and efforts would have to be continued to convince the peoples of the world that everything possible and necessary was being done for their protection in face of the potential hazards involved. Indeed, the onset of the energy crisis had facilitated more objective and dispassionate discussion at all levels on the conflicting objectives of ensuring a low-priced and safe energy supply on the one hand and an extensive environmental protection on the other. It was gratifying that the Agency had begun to participate in the international discussion of those extremely important issues.

64. The fourth nuclear programme of the Federal Republic - the most important research and development programme his country had ever undertaken - took the above considerations into account. Public funds to the amount of some DM 1500 million would be allocated annually for the purposes of the programme, which was being supplemented by non-nuclear energy research focusing on the gasification and liquefaction of coal, together with energy-saving techniques.

65. By 1980, installed nuclear power capacity in the Federal Republic would reach 20 000 MW(e) and would rise to between 40 000 and 50 000 MW by 1985; in other words, 25% of his country's energy demand in 1980 and over 40% in 1985 would be met by nuclear power. To achieve that objective, five large nuclear power stations would have to be built each year, the plans for which were being based mainly on light-water reactor technology.

66. In pursuing a consistent research and development programme, emphasis would also be laid on the development of the sodium-cooled fast breeder and the high-temperature reactors, for both the generation of electricity and process heat; intensified international co-operation and division of work was advocated on that part of the programme. The full fuel cycle would also be covered, with special attention to reprocessing and the treatment and ultimate safe storage of radioactive wastes. The utilization of nuclear fusion remained a long-term goal.

67. In regard to the fuel cycle, particular mention should be made of the centrifuge process for uranium enrichment, a technique that had been jointly developed by the Netherlands, the United Kingdom and the Federal Republic. A relatively low consumption of energy was involved and the process could be adapted to market needs due to the flexible size of the facilities. According to a recent decision, the international company known as URENCO was to bring into operation a uranium enrichment capacity of 2000 tons of separative work per year in the early 1980s; by 1985, a capacity of 10 000 tons was expected to be available. It would thus be seen that the centrifuge technique had reached the stage of industrial application.

68. In view of the changed situation as regarded energy policy, it was fortunate that the Conference had before it a new medium-term Agency programme for the years 1975-1980.[8] Both the industrialized and the developing countries would be utilizing nuclear energy to a greater extent and that would affect international co-operation, and also the Agency's work.

69. The programme was characterized by a greater degree of concentration on the one hand and by the setting of new priorities on the other. The reduction of programme components from 96 to 69 would enable the Agency to use its forces more efficiently. And the proposal to establish three priority areas covering nuclear power, nuclear safety and environmental protection, including training, was to be welcomed as providing the proper answer to the new challenge.

70. The Agency would be in a position to continue and intensify its studies on the future development of nuclear energy, and to provide an international forum for discussion of the technical aspects of the various types of nuclear power station. The Agency could offer the technical know-how needed by devel-

[8] GC(XVIII)/526 and Mod.1.

oping countries and could also help towards establishing the necessary infrastructures. More technical staff able to construct and operate nuclear facilities and capable of preparing and applying the necessary national safety rules had to be trained.

71. The question was sometimes raised whether it might be appropriate to extend the Agency's tasks to cover energy problems outside the area of nuclear energy. There would seem to be technical and political grounds supporting such a step; the Agency had acquired experience in the co-ordination of various scientific and technical programmes; its work was highly regarded; and the atmosphere of international co-operation within the organization was good. Finally, the development of nuclear energy was being regarded more and more in the context of the overall energy situation. Nevertheless, he would advise a cautious approach. It would first have to be specified what the new responsibilities would comprise, whether areas covered by other United Nations organizations would be touched, and whether the new tasks would be in line with the Agency's character. Only then would it be possible to examine the effects on the Agency's Statute, programme and structure. The Agency, in carrying out its work, would not, however, be excluded from giving greater consideration to the role of other energy sources. The market survey made in 1973 concerning the prospects for nuclear power stations in developing countries, as compared to other sources of energy, was a good illustration of how general energy aspects could influence the Agency's work. He had noted with interest and approval that the Director General seemed inclined also to adopt the same rather prudent attitude in regard to the issue.

72. On the subject of technical assistance, the General Conference had before it, pursuant to a request made in 1973, a report on the possibilities for the future financing of activities in that area. The study had been carefully prepared; and the proposal by the Board of Governors that for the time being the practice of financing technical assistance by means of voluntary contributions should be continued was a convincing one, as well as being in line with the general trend in organizations of the United Nations system.

73. An analysis of Agency expenditure for 1974 showed that about \$15 million, i. e. half of the funds available to the Agency, were being spent on projects of immediate interest to developing countries. The resources in question came to a lesser extent only from the General Fund; they were largely drawn from other sources, including, apart from UNDP funds, voluntary contributions in cash and in kind and the Agency's Regular Budget. The remaining half of the Agency's expenditure benefited all Members, including the developing countries. The Agency had thus succeeded in attaining a reasonable distribution of its funds for the benefit of developing countries. In fixing the target level for the General Fund, the Board of Governors had recommended that account should be taken in particular of the volume of requests for technical assistance, as well as of price increases and currency fluctuations. Such action was certainly

justified; but there were other important factors worthy of consideration, such as the amount of funds available for the work from other sources, as also the respective positions of the donor countries. The Agency could attain its goals only if Member States made adequate voluntary contributions. His delegation would like to see the more prosperous among the developing countries give additional help by making larger contributions than hitherto to meeting the costs of technical assistance.

74. The voluntary contributions of the Federal Republic for the year 1975 would comprise a number of items. In accordance with the Board's recommendation, it would raise its contribution to the General Fund from \$220 000 in 1974 to \$330 000 in 1975. It again intended to provide 30 fellowships and was prepared to send at least 15 experts, free of cost to the Agency, on missions to developing countries. It was also prepared to donate equipment. Further, the joint programme of the Agency, FAO and the Federal Republic for improving the protein content of crops by the use of nuclear techniques was to be continued until 1978; and a co-ordinated research programme to combat the tsetse fly in Africa was shortly to begin with Federal Republic support. In addition the Federal Republic would bear the entire cost of more than \$1 million for a new five-year programme aimed at studying the effects of nitrogen fertilizers and their residues by nuclear methods. That new programme would be carried out jointly with the Agency, FAO and laboratories in developing countries. Its dual purpose was to cover the economical use of fertilizers and the prevention of harmful environmental effects of agrochemicals in food and water. The total value of the Federal Republic's voluntary contributions in 1975 would therefore amount to more than \$1 million.

75. In regard to the question of the non-proliferation of nuclear weapons, his Government would, in view of the great dangers further proliferation would bring for mankind, continue to support all efforts towards preventing misuse of nuclear energy of any kind. The Federal Republic had signed NPT in the interest of détente in Europe and of worldwide peace, having formally renounced the production of nuclear weapons as from 1955. Although it was already subject to effective European Atomic Energy Community (EURATOM) safeguards, the Federal Republic had accepted, in the agreement between the Agency and EURATOM^[9], signed in April 1973, verification of the EURATOM safeguards by the Agency. Preliminary ratification procedures relating to NPT and to the Verification Agreement had been completed earlier in the year and the ratification instruments would be deposited as soon as the other participating countries of EURATOM had met their respective requirements.

76. It was his country's hope that States which had not yet acceded to NPT or not yet concluded safeguards agreements with the Agency would follow

[9] Reproduced in document INFCIRC/193.

its example. It also hoped that the negotiations on the offers of the United Kingdom and of the United States to subject their civilian nuclear activities to Agency safeguards would soon be completed and that the Board of Governors would shortly approve the relevant agreements. It could be of decisive importance for the future universality of NPT for other nuclear-weapon States to follow that example. Countries which had hitherto regarded the Treaty as discriminatory might thus be encouraged to accede to it.

77. The conference to review NPT scheduled for 1975 would offer a welcome opportunity to consider all pending questions concerning safeguards. The Government of the Federal Republic was prepared to participate actively in the proceedings.

78. With the growth in nuclear installations, there would be an unprecedented increase in the utilization, storage and transportation of nuclear material which, in turn, would increase the possibilities for diversion and misuse. Admittedly, the respective States were responsible for the physical protection of nuclear material, but the Agency had rightly assumed an advisory role in that area and should intensify its efforts in that direction. The suggestion by the Director General on exploring the prospects for minimum standards deserved careful study. National measures for the protection of nuclear material and international safeguards were closely related and should complement one another.

79. With regard to the export of nuclear material and equipment, the Government of the Federal Republic welcomed the understanding among many exporting States on permitting exports only where the receiving State accepted international safeguards in respect of the material, the equipment, and the fissionable material subsequently produced. In that connection, the Agency would have an important role to play in concluding the requisite safeguards agreements with the importing countries; and the Federal Republic would recommend that appropriate procedures for the rapid conclusion of such agreements should be prepared in advance by the Agency. All those measures would be further steps towards a comprehensive universal system that, it was to be hoped, would effectively prevent the misuse of nuclear energy.

80. In conclusion, he gave renewed assurance that the Government of the Federal Republic had confidence in the Agency's future and that it would continue to give it active support.

81. Mr. FUJIYAMA (Japan) said that the oil crisis of the previous year had served as a valuable lesson and given warning of the approaching energy problem. In the 1960s and in the first half of the 1970s, the world economy had taken a great leap forward, made possible only by the consumption of vast quantities of relatively cheap fossil fuels, such as petroleum. The anticipated increase in the world energy demand and accompanying depletion in world fossil fuel reserves, however, called for economies in the consumption of existing resources as well as a change-over to technology-

intensive energy sources. The development of energy technology was in that respect the common task of everyone today.

82. Among such sources of power, nuclear energy could alone meet the qualitative and quantitative conditions required of a long-term source of supply. It would not be overstating the case to say that the future of mankind depended on the successful implementation of nuclear energy development programmes and that it was imperative to decide on a fundamental policy forthwith.

83. Although nuclear power generation based on light-water reactors was already coming into commercial use, there was need to develop the utilization of nuclear energy in ways technologically more advanced and economically less burdensome. It was necessary, therefore, to put into effect the following overall plans for atomic energy development: firstly, in the short term, power generation by nuclear reactors already in operation, such as the light-water reactor, should be further promoted; secondly, the medium-term plan should aim at the development of multipurpose high-temperature gas-cooled reactors and fast-breeder reactors, with a view to the latter being far enough advanced for commercial use by the second half of the 1980s; and thirdly, the long-term objective should be to develop the nuclear fusion reactor for commercial use by about the year 2000, since that was to be the ultimate energy source by which mankind could be freed from further energy problems.

84. Since development programmes of that scale required a vast amount of investment on research and development, together with the use of highly qualified personnel, the result would be effective utilization of resources and fair distribution, amongst the nations of the world, of the benefits of such research and development. The whole world should thus make concerted efforts to implement such programmes.

85. With regard to the nuclear power situation in Japan, due to its high degree of dependence on overseas energy resources and growing energy demands, his country was particularly interested in nuclear power generation as a quasi-domestic source of power, and great efforts were being made to promote nuclear power plants based on light-water reactors. At the present time, a total of seven commercial power reactors were in operation, with a total capacity of about 3000 MW. A further 16 reactors with an aggregate capacity of about 13 500 MW were under construction, and the figure was expected to reach 60 000 MW by 1985.

86. History showed that the introduction into society of a new technology was usually accompanied by certain teething troubles. The bitter experience of the atomic bomb and the resultant "nuclear allergy" that still existed in Japan could potentially cause internal political problems affecting the promotion of the peaceful uses of nuclear energy. Hence, from the very start of its nuclear power development, the Government of Japan had taken appropriate and far-reaching measures to ensure the safety and protection of the environment.

But some of the people living near the sites planned for power plants were not always convinced of that, and Japan's development programme had had, at times, to be suspended.

87. Various measures had been adopted to overcome those difficulties, such as the acceleration of safety studies relating to nuclear power reactors, legislation to ensure that profits were channelled back into the locality, and the enhancement of public understanding of atomic energy. As a result, it was now expected that the Japanese nuclear power programme would be implemented according to schedule. But the problems mentioned were not only encountered in Japan; they were common, in greater or lesser degree, to all the countries of the world. It should be stressed in that connection that those countries would expect the Agency to promote still further international collaboration with a view to successfully solving such problems.

88. To secure a stable energy supply in the long term, particular emphasis should be placed on nuclear power generation based, among other types, on light-water reactors, and on measures aimed at ensuring safety, protection of the environment, and safe radioactive waste management. At the same time, research and development work on the fast-breeder reactor and the nuclear fusion reactor should be conducted concurrently by all available means.

89. Fully appreciating the importance of nuclear fusion studies and the necessity for international co-operation in that field, Japan would be acting as host for the Agency's "Fifth Conference on Plasma Physics and Controlled Nuclear Fusion Research", to be held in Tokyo in November. The conference would provide a forum for some 500 scientists, both from Japan and abroad, and it was sincerely to be hoped that it would be of outstanding significance in the field of nuclear fusion research.

90. It was gratifying that the Agency had started work on drafting an international safety code, and formulating guidelines for nuclear power plants, at a time when nuclear power plant construction projects were no longer a matter of concern only to the developed nations and when steady progress was being made in that area by the developing nations as well. The Government of Japan firmly supported the Agency's decision to set up a senior advisory group in charge of the two-year compilation project and would co-operate in every way it could.

91. The Agency should be commended for its recommendations on the prevention of marine pollution by the dumping of radioactive wastes, based upon the London Convention, although that did not mean that its work in that domain was finished. Quite to the contrary, the problem was gaining greater urgency than ever before, and the establishment of the international code and guidelines for the treatment and disposal of radioactive waste was obviously needed. The Agency would do well to continue its active initiatives in that respect.

92. It was fitting that atomic energy should be made to benefit the developing and the developed nations equally. Its application, however, required the latest, most advanced technology, and the employment of highly trained personnel. The Agency's role in assisting those countries which had yet to start their atomic energy development work was therefore vital.

93. From the standpoint of the peaceful uses of atomic energy, assistance to the developing nations was of cardinal importance and the need for such assistance was bound to grow. The Agency was planning to initiate, in 1975, a project for the training of nuclear power plant personnel in response to requests from countries which wanted to embark upon nuclear power generation. Japan was hoping to contribute to that project in as far as it could.

94. In 1974, Japan had contributed approximately \$260 000 to the General Fund for technical assistance to developing countries, i. e. a 66% increase over 1973, representing a contribution exceeded only by those of the United States and the Soviet Union. The decision to increase the target for voluntary contributions to \$4 500 000 for 1975 was to be welcomed. Japan's assessed contribution in 1975 would be more than 7%, and its cash contributions to the General Fund would be sharply increased, in accordance with the new assessed contribution. Japan was also prepared to co-operate in other assistance programmes, such as visits by experts and the acceptance of trainees under the Agency's fellowship programme.

95. The peaceful uses of atomic energy should continue to be promoted, but it was equally essential in every way to prevent the use of that vast energy source as a means of destruction. The prime responsibility for that lay with the five Powers which possessed nuclear weapons. For, if any of those countries threatened to use, or used, nuclear weapons already deployed, all the efforts exerted by non-nuclear-weapon States, including Japan, would have been wasted. But there was no doubt that the non-nuclear-weapon States also had their responsibilities. The thinking behind the nuclear explosion test recently conducted by a non-nuclear-weapon State, and said to be for peaceful purposes did not meet with the approval of the Government of Japan, since nuclear explosions for peaceful and military purposes could not be differentiated. Japan's basic atomic energy act restricted the development and utilization of atomic energy exclusively to peaceful purposes. A proper system of accounting for all nuclear materials had been maintained under specific Government regulations to ensure that such was the case. With respect to the nuclear material supplied by other countries under bilateral co-operation agreements, Japan accepted Agency safeguards under the terms of the safeguards transfer agreements. All Japan's atomic energy activities conformed strictly with the basic law and were conducted solely for peaceful purposes.

96. At the same time, however, every non-nuclear-weapon State had the right to enjoy the

benefits to be derived from peaceful nuclear explosions, as soon as they became practical and subject to international control. The role that the Agency could play in that respect was extremely important. Technological data already accumulated in the nuclear-weapon States on peaceful nuclear explosions should be collected and evaluated, and it was for the Agency to take the first step in that direction. Accordingly, Japan attached great importance to the procedures for appropriate international observation of nuclear explosions for peaceful purposes, drafted by an Agency working group in April and discussed by the Board of Governors just before the present General Conference.

97. At the present time when, in terms of nuclear problems, the international situation was extremely fluid, the Agency had itself undergone a change. It was no longer an organization of significance only to the advanced countries, but one that represented the developing States as well, thereby becoming a world-wide organization in the field of nuclear energy. That change, brought about by the decision to enlarge the Board of Governors as from 1 June 1973, was the outcome of a deep-rooted awareness that the Agency had reached a turning point. Japan was determined to contribute still further, through the intermediary of the Agency, to the advancement of atomic energy in the developing countries.

98. Mr. ABS (Holy See) said that there were three points which his delegation considered to be of special importance, both within the framework of the activities of the Agency itself and in relation to the Holy See, which by its very nature was not closely involved in the technical aspects of nuclear energy, but was more concerned about the general impact which it would have on all mankind. The three points were: first, the special problems of the peaceful use of nuclear energy; second, the dangers of misuse or of non-peaceful use of nuclear energy; and third, the institutional requirements necessary for more effective action with regard to the first two points.

99. With regard to the first point he said that in view of the oil crisis atomic energy was now considered by many to be in the long run not only the most reliable, but also the cheapest, and, with respect to the developing countries, the most promising source for bringing about changes in the fields of production, consumption, and conservation of the human environment. The three factors, in the final analysis, were so closely linked together that success with regard to any one of them seemed impossible if the other two were neglected. Even in highly developed countries environmental protection was often seen as opposed to economic progress. Protection of the environment was often identified with the goals of the rich nations, and economic growth with the demands of those that had a smaller share in the goods of the world. Measures to cut back economic growth might appeal to countries with plenty of industry and severe environmental problems, but they were no remedy for those countries which still lagged behind in industrial, social and cultural development. The

intensive utilization of nuclear energy seemed therefore an appropriate and effective answer to the problems the world was facing at the present time.

100. His delegation noted with pleasure therefore that the prospects for the peaceful use of nuclear energy had improved, especially with regard to the developing countries. It supported the Agency's plans to aid the developing countries with feasibility studies and market surveys for nuclear power, approved of the Agency's efforts to speed up the programme of training specialized personnel for the implementation of nuclear power projects and was happy to see the good progress made by the joint IAEA/FAO programmes aimed at increasing the world's food production. Furthermore, his delegation noted with interest and approval the symposium that the Agency had held in Vienna in the spring on the development of water resources. In that connection he could inform the Conference that the Pontifical Academy of Sciences would be holding, in April 1975, a high-level study session on water desalination. Expressing the Holy See's support for the Agency's programme for 1975-80 and budget for 1975, he said he was confident that implementation of the programme would contribute considerably to increasing the utilization of nuclear energy throughout the world, especially in the developing countries.

101. Concerning the second point, namely the dangers involved in the misuse or non-peaceful use of atomic energy, the Holy See, as a party to NPT, and having concluded a safeguards agreement with the Agency, [10] had noted recent developments in that area with great concern. Although two more non-nuclear-weapon States had become parties to NPT and although a further two safeguards agreements had been concluded with the Agency in connection with NPT, and six more had entered into force, the Holy See's delegation could not ignore the fact that in recent months the situation with regard to restricting the spread of nuclear weapons had become more critical, and large sums were still being spent on programmes which did not exclude nuclear armaments. At the same time his delegation realized that the whole system of nuclear non-proliferation was bound to remain doubtful and unworkable as long as any great atomic Power remained outside it. He asked whether the world, the community of nations, should permit a few States to jeopardize common efforts towards general and complete nuclear disarmament, which was one of the goals of NPT. The Holy See's delegation could only appeal again to those concerned to reconsider the course they had chosen, and to change direction before it was too late and the world suffered the holocaust which threatened us all as a result of the vast quantities of nuclear weapons already stockpiled.

102. The Holy See's delegation had noted with equal concern that the testing of nuclear weapons had taken place in the atmosphere as well as underground in spite of the dangers involved and the

[10] Reproduced in document INFCIRC/187.

protests voiced. The delegate of the Holy See to the United Nations Conference on the Law of the Sea, which had been held that summer in Caracas, had also taken the opportunity to warn against the possibility of the seas becoming an arena for nuclear weapons.

103. The slow progress, not to say the lack of progress, in establishing a security system under NPT brought him to the third point referred to earlier, namely the institutional requirements necessary for a more efficient implementation of action with regard to the first two items.

104. All the efforts that the international community as a whole, and many States individually, were undeniably making towards the banning of war and armaments, and in particular nuclear weapons, would be in vain if the whole system could be rendered ineffective by a single country's refusal to co-operate. It was astonishing to see how, in the international community of today, not only the great Powers but also many small States still on their way to development seemed to shy away from a sense of international responsibility and solidarity. His delegation therefore hoped that countries would realize that they might, sooner or later, fall an easy prey to any Power that happened to be stronger, to have better armaments or just to be more fortunate in having an advantageous politico-

geographical position. Collective security, which was the great idea underlying the United Nations and which was also at the root of NPT, would never become reality if States did not once and for all agree to establish a central, world-wide authority, able to protect each and any State against the encroachments of any and all of the others. Pope Paul VI had stressed the need for such an authority in his statement made to the General Assembly of the United Nations during his visit to the world organization in New York, [11] and the Holy See had incessantly repeated the call for more order through international institutions, the most recent occasion being at the United Nations Conference on the Law of the Sea.

105. Mankind now stood at the crossroads. It could go on to international discord, war and disaster. But it might also turn to a bright and happy future in peace and international solidarity. Man certainly had one of the tools for such a future in his hands - atomic energy. He should make use of atomic energy, not for death and destruction, but for the construction of a new world, a world of economic justice, moral qualities, mutual respect and world-wide solidarity based on the brotherhood of man under the common fatherhood of God.

● The meeting rose at 1.5 p.m.

[11] See United Nations document A/PV. 1332-1351, official record of the 1347th plenary meeting, paras 15-46.