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ONE HUNDRED AND TWENTY-EIGHTH PLENARY MEETING

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President: Mr. TORKI (Tunisia)

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* GC(XIII)/418.

ADOPTION OF THE AGENDA AND
ALLOCATION OF ITEMS FOR INITIAL
DISCUSSION (GC(XIII)/417)

1. The PRESIDENT drew attention to the report by the General Committee in document (GC(XIII)/417) on its consideration of the provisional agenda for the session¹⁾.

2. In the absence of any comments, he proposed that the Conference approve the agenda as set forth in that document and also accept the Committee's recommendations regarding the allocation of items for initial discussion.

3. *It was so decided.*

GENERAL DEBATE AND REPORT OF THE
BOARD OF GOVERNORS FOR 1968-69
(GC(XIII)/404, 416)

4. The PRESIDENT drew attention to a revised statement on the status of financial contributions to the Agency (GC(XIII)/416), which was up to date as of 22 September and accordingly superseded that contained in Annex E to the Board's report (GC(XIII)/404). He then invited delegates to participate in the general debate.

5. Mr. SEABORG (United States of America) expressed deep gratification that Dr. Eklund had agreed to serve as Director General for another term.

6. He wished to read the following message to the Conference from the President of the United States:

"I am happy to take this opportunity to greet the delegates to the Thirteenth General Conference of the International Atomic Energy Agency. This Agency is deeply involved in one of the most important areas of international co-operation in which we participate, with great and increasing responsibilities and opportunities in ensuring that the benefits of the peaceful atom are widely shared, under proper safeguards against diversion to military uses.

"The death earlier this year of President Dwight D. Eisenhower was a loss not only to me, personally, and to my nation but to all those in many lands who devote their lives and careers to advancing the peaceful uses of atomic energy. I am proud that the Atoms-for-Peace programme and the establishment of this great international agency was a proposal of President Eisenhower in his historic message before the United Nations General Assembly in December 1953. The development of this Agency and of the peaceful uses of atomic

1) GC(XIII)/400.

energy during the intervening years has been deeply impressive.

"I should like to reaffirm my country's dedication to continued support of the Agency and of the principles of its Statute. I should also like to renew our pledge to support the Non-Proliferation Treaty, which constitutes yet another step in furthering our common goal of harnessing the atom for peaceful uses.

"I send you my congratulations for the past accomplishments of this Conference and this Agency, and the best wishes of the people of the United States for your future endeavours."

7. Much had been accomplished in the common effort to harness the atom to serve man in many important and unique peaceful applications of nuclear energy. Co-operation, both bilaterally and through the Agency, had been — and would continue to be — an essential condition for progress in that direction and a way of enabling all countries, regardless of their stage of development, to share in the benefits of the peaceful atom.

8. The United States had pioneered in developing and pursuing an unparalleled programme of co-operation in the peaceful uses of nuclear energy over the last 15 years. Its international programme had stressed the activities specified in the Statute and the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) — the exchange of scientific and technical information, materials and equipment. Most important of all, perhaps, was the policy of supplying uranium and uranium-enriching services to other countries under attractive terms to satisfy their long-term needs for nuclear fuel.

9. Reviewing briefly the principal milestones in his Government's programme of bilateral and multi-lateral co-operation in the peaceful uses of nuclear energy he recalled that the United States had undertaken a major effort to share existing and potential benefits of the peaceful atom. One of the principal steps taken had been to bring about the creation of the International Atomic Energy Agency.

10. The United States had been a vigorous supporter of the Agency since its inception. Its direct financial support of the Regular and Operational Budgets had thus far totalled about \$27.5 million. That amount had been supplemented by approximately \$5 million in the form of cost-free fellowships, services of experts, equipment grants, and support for training courses. In addition, \$500 000 worth of special nuclear material had thus far been provided as gifts for use in Agency-approved projects.

11. Over 700 persons from 55 countries had been trained in the United States under the Agency's fellowship programme. An additional 5400 individuals from 69 countries had received training there under other arrangements, while 26 research reactor grants averaging about \$350 000 each had been made. Co-operation was increasing between several of the nuclear centres established around such research reactors. For example, a number of centres in South East Asia were actively considering various regional projects of interest to the countries concerned. It was to be hoped that those efforts would encourage similar co-operation elsewhere.

12. The willingness of the United States to share its scientific and technical information with other countries was well known. For nearly 15 years virtually all research conducted or financed by the United States Atomic Energy Commission in the civil uses of nuclear energy had been unclassified and the results published and made widely available. The United States had strongly supported the establishment of the Agency's International Nuclear Information System (INIS), believing that the project would bring about a substantial increase in the exchange of nuclear scientific and technical information among the Member States.

13. As to the future, there was a proposal before Congress which, if approved, would enable the United States to increase above the level of previous years its cash contribution towards meeting the \$2 million target for the General Fund under the Operational Budget. In addition, his Government would continue, to the best of its ability, making contributions in kind, in the form of cost-free experts, services, training opportunities at United States institutions and various items of equipment.

14. The United States supported the regular programme and Regular Budget which had been recommended by the Board of Governors for 1970, and hoped other Member States would do likewise. It also urged all Members to support the Operational Budget to the fullest extent possible.

15. The United States would continue supplying special nuclear materials to other countries through the Agency for fuelling reactors or for research purposes, on the same attractive terms and conditions as were applicable to materials supplied on a bilateral basis for similar purposes. For the eleventh consecutive year it was making available, as a gift, up to \$50 000 worth of special nuclear material for use in Agency projects in research and medical therapy.

16. The United States Government fully endorsed the Board's report on the Agency's role in connection with nuclear explosions for peaceful purposes²⁾.

2) GC(XIII)/410.

That report presented a very good analysis of what the Agency could do and it reinforced the conviction that the Agency was the most appropriate organization to foster international co-operation in such activities and to assume the responsibilities and functions foreseen for an international organization under Article V of NPT.

17. The report noted that the technology of nuclear explosions for peaceful purposes was at an early stage of development and that progress was likely to be made gradually. His delegation agreed with the Board's view that the organization of the Agency should be kept under review and adapted as necessary to enable it to meet the expected increase in its responsibilities in that field. The United States was contributing to the development of the Agency's competence for carrying out that task by providing it with extensive information on the experimental "Plowshare" programme and by making experts available to assist the Agency as necessary. The United States had already submitted a summary report on the current status of the technology of the peaceful applications of nuclear explosions, which the Director General had circulated to all Member States. It had provided an expert to assist in preparing an agenda and programme for the first panel meeting on the subject planned by the Agency. In addition, it had recently made available a scientist from its "Plowshare" programme to serve on the staff of the Agency. He wished to reiterate his Government's intention, once it was technically and economically feasible, to make available peaceful nuclear explosion services, pursuant to Article V of NPT, under attractive conditions which it hoped would be of interest to other countries. Charges would be as low as possible and would not include the extensive costs of research and development involved.

18. Another important role for the Agency under NPT related to safeguards. He wished to reaffirm the pledges made on behalf of his Government at the preceding session of the General Conference that it would do everything in its power to support the Agency's activities in that important area³⁾. United States research and development programmes for the improvement of safeguards technology were continuing and new instruments were being devised for non-destructive assay measurements on a wide variety of fissionable materials. Those instruments, which would be mounted in trailers to facilitate mobility, were to be on display during a symposium on safeguards which was to be held at Los Alamos Scientific Laboratory on 27-30 October 1969 and to which the Agency had been invited to send representatives. The safeguards training courses at Argonne National Laboratory, to which the Agency

3) GC(XII)/OR.120, paras 21 and 22.

and individual countries had sent safeguards personnel, were being continued.

19. Over the past year, a number of important studies and reviews bearing directly on the functions and future of the Agency had been initiated. Largely through the stimulus of NPT, the non-nuclear-weapon States had stressed their desire to be assured that they would have continued access to the benefits of the peaceful atom. At the request of the General Conference, the Board had been carrying out a comprehensive review of its own composition to determine whether any changes were necessary. There was an understandable desire on the part of some States to rectify those anomalies that existed in the composition of the Board and to make it more representative. While his delegation could sympathize with that desire, it believed that the complexity of the problem must be realistically recognized and appreciated. There was already broad agreement that some modest expansion of the Board was warranted. He hoped that in the coming year it would be possible to arrive at an amendment to the Statute that would be sufficiently attractive to command the necessary two-thirds majority. The United States would give the fullest support to such efforts.

20. A problem that had to be confronted in connection with the increasing use of modern technology in present-day societies was the possible effects of such technology on the environment. Today, as nuclear power and other beneficial uses of nuclear energy were beginning to demonstrate their tremendous promise, there was in some parts of the world a renewed public questioning of the effects of those activities. That questioning stemmed, in part, from a widespread concern that many of man's activities were having injurious effects of sometimes unknown magnitude on his own environment. The United States delegation was confident that a presentation of all the facts would support the conclusion that nuclear energy, when expertly applied, would enhance efforts to preserve for future generations the beneficial features of the existing environment.

21. To some extent there had been a failure to communicate to the disturbed public well-known facts which would have helped reassure it. His delegation believed that the Agency could make a major contribution in improving public understanding of the question. He urged the Director General and the Secretariat to assign a high priority to the matter, since failure to solve the problem might postpone for many years the enjoyment of the benefits of nuclear energy which people everywhere had a right to expect.

22. As one possibility the Agency could consider including in its programme of conferences and symposia a meeting on the environmental aspects

of nuclear power reactors. The United States would be willing to serve as host for such a meeting. The Agency should participate fully in the preparatory work for the United Nations Conference on the Human Environment which was being planned for 1972.

23. In conclusion, he wished to reiterate his country's conviction that the Agency and its Member States could look forward to an increasingly meaningful future as far as the peaceful applications of nuclear science and energy were concerned. The United States would continue to give its full support to international co-operation in those fields. Success in attracting support for soundly developed nuclear projects would depend in large part on the priority assigned to such projects by individual countries in their over-all development plans.

24. Mr. ROUX (South Africa) said that at the outset he wished to express his Government's gratification at the re-appointment of Dr. Eklund as Director General for a further four years. During the latter's years of office the South African delegation had been particularly impressed by his approach in deliberately eschewing the somewhat flamboyant expansionism indulged in by certain other international agencies and concentrating on a policy of planned development in keeping with the evolution of peaceful nuclear applications on an international basis. It looked forward with confidence to a continued period of stable growth and consolidation of the Agency and its activities under his proven guidance.

25. Each year the Conference met with the object of reviewing the Agency's progress and achievements during the preceding twelve months, of criticizing constructively the steps taken by the Board and the Secretariat in implementation of the duties assigned to them at its preceding session and of assessing whether the direction in which the Agency was moving was in accordance with the needs of Member States and with the spirit of the Statute.

26. It was perhaps the fulfilment of the last of the above-mentioned obligations that constituted the Conference's major task, and it must serve to guide and motivate the Conference to take its decisions in a logical and impartial fashion with a view to achieving both short-term and long-term objectives.

27. Thoughts at last year's session had undoubtedly been largely dominated by the Conference of Non-Nuclear-Weapon States⁴⁾ and NPT and their implications for the Agency. Enthusiasm had been running high in the belief that not only was the possibility of nuclear conflict no longer as menacing as it had been, but also that the universal availability

4) Held at Geneva from 29 August to 28 September 1968.

of all the potential benefits of the peaceful uses of nuclear energy was within sight. In the face of that optimism there had been lone voices cautioning that there was undoubtedly a tendency to under-estimate the time scale for the reconciliation of national aims with international objectives and for the translation of scientific plans and possibilities into workable realities. All had had a year in which to give sober and objective consideration to the wide and far-reaching implications arising from those deliberations, and his delegation believed that the general magnitude of the detailed problems to be solved — problems which by their nature must be fully defined and investigated by all concerned before true progress towards the common goal could be achieved — was now becoming apparent.

28. With that in mind, his delegation welcomed the Secretariat's deliberate approach towards the administration of safeguards under NPT, its appreciation of the burden which the Agency would be called upon to bear when the Treaty came into force and its willingness to promote and encourage research into the widest possible use of instruments for the application of safeguards. Only by the fullest use of the most modern scientific techniques could that aspect of the Agency's work be prevented from growing into a mammoth sub-organization with a staff so enormous that it would make it impracticable effectively to limit interference in national development. Only in that way too could the spectre of industrial espionage, which was a strong inhibiting factor, be at least partially laid.

29. South Africa had from the outset played an active role in the evolution of the Agency's safeguards system. From the outset, too, it had been among the few which, while co-operating fully and constructively in the consultations, had considered it necessary and desirable to develop its own ideas on the priorities to be established in the formulation of a safeguards system rather than accept as *obiter dicta* the pronouncements and views of the nuclear Powers. It believed that by following that line, which was always based, it should be emphasized, on the desire to be constructive, not obstructive, it had made a useful contribution to international thinking on several facets of the safeguards problem. *Inter alia*, it had drawn attention to the legitimate concern felt about certain aspects of the system by countries with a considerable capacity for nuclear development for peaceful purposes but which had no desire or intention to become so-called nuclear Powers.

30. His delegation believed that that process of consultation and exchange of views must continue, and in a more intensified form, for various reasons. The first and the most obvious was the advent of NPT, in connection with which he only wished to emphasize that the present safeguards system

was based on the voluntary submission of selected materials and facilities to Agency safeguards, whereas NPT deprived the non-nuclear Powers of any options and made inspection by the Agency mandatory. In other words, the present system had not been planned with something like NPT in mind. But quite apart from NPT there had been considerable evolution in international ideas and thinking on safeguards procedures since the Agency had produced its first safeguard's document. It had been inherent in the Agency's approach to safeguards from the very beginning that the Agency should from time to time review its procedures in the light of scientific and technological development as well as of changing international circumstances. He wondered if the time had not arrived for such a review to be set in train and for appropriate procedures to be worked out whereby all States with an active interest in such matters would be invited to participate in the same way as, for example, all States had been invited to participate in the review of Article VI of the Statute. Obviously that would be no easy task, as was illustrated by the difficulties experienced by the Secretariat in endeavouring to frame what had become known unofficially as the Draft Model Agreement. The very divergences of opinion on that first draft showed that was only one subject with regard to which a vast amount of endeavour must be expended before common agreement on that particular field of activity could be reached.

31. Furthermore, it was not sufficient for the pattern to be set by those who were at present vitally affected by such conditions as might be decided. Today it was the developed States whose interests were immediately concerned; tomorrow, today's developing countries would be numbered amongst the developed, and it was essential that the world picture of the future be taken into account when framing conditions to suit States party to NPT which today had perhaps scant conception of nuclear accounting.

32. Linked with NPT was the question of peaceful nuclear explosions. South Africa had adhered firmly to its contention that the Agency was unquestionably the appropriate body to perform the essential tasks concerned with the control and promotion of peaceful nuclear explosions. There again, however, there was a long road ahead, for the art of applying those explosives for peaceful purposes was still a long way from being perfected. All could indeed be grateful to the United States of America for the vigorous, imaginative and successful research programme which it was pursuing at its own cost and which, to judge from published literature, was unparalleled anywhere else in the world.

33. But the technology and the techniques must be known, proved and established before any institutional machinery needed to be developed to

administer those tools for the widespread benefit of the world. It was his conviction that only when peaceful nuclear explosions had become a practical and an economic fact should the Board consider whether, and if so what, institutional machinery should be established within the framework of the Agency to perform those tasks which it was so well equipped to undertake, while ensuring as far as possible that the spirit as well as the letter of the relevant provision of NPT was respected.

34. That should not however be construed as implying that the subject should be relegated to a status of virtually academic interest only. Peaceful nuclear explosions were of immense potential value, and it was most important that Member States should be kept informed of progress and development in that field to enable them to plan ahead viable projects involving such explosions. Such an information service was well within the present capability of the Agency, and the Agency, in providing it, would catalogue much essential information which would contribute to a "state of readiness" for the time when it was called upon to administer the application of that new technique.

35. While information in itself went a long way towards enabling non-nuclear-weapon States to prepare for the use of peaceful nuclear explosions, it was at the best still second-hand and might well be incomplete in respect of those techniques which were essential for undertaking such explosions in regions which differed significantly with regard to climate, geology, topography and the like, from the areas in which the published techniques were evolved. In research and development no amount of words could ever effectively serve as a substitute for the knowledge and skill acquired by actual physical involvement in the building-up of "know-how", yet it would appear to be the intention of NPT that non-nuclear-weapon States should be debarred from working on peaceful nuclear explosives as such. That was tantamount to preventing their participation in the development of the entire technology and constituted a distinct obstacle to progress in far-sighted nuclear development. There appeared however to be a possible way to surmount that obstacle safely, namely by calling on those nuclear-weapon States which had such research programmes to accept for training in the technology of peaceful nuclear explosions scientists from non-nuclear-weapon States. He was prepared to concede that such a proposal might be far-reaching and have difficult implications, but perhaps the Secretariat could explore the concept on behalf of the many Member States threatened with exclusion from such a promising field of research.

36. It was perhaps not out of place to draw attention to a matter which was particularly important in relation to issues which were the concern of both

the Agency and other organizations in the United Nations family, namely the need for the same, or at least co-ordinated directives to be issued by Governments to their various representatives in different agencies discussing the same matter. The absence of co-ordination within Governments themselves was leading to a potentially harmful, even dangerous, difference of approach to such problems in the various organs where they were discussed. Most of those present would recall the wide divergence between views expressed by certain States at the Conference of Non-Nuclear-Weapon States and the views of the same States as reflected in comments — or the lack of comments — submitted to the Agency on the issue of peaceful nuclear explosions. To judge from statements made in Vienna, there had always been overwhelming support by Members of the Agency for its basic role in connection with peaceful nuclear explosions, but the same support had not always been reflected in the comments made by representatives of the same Governments in Geneva or New York.

37. To many Governments the Agency would appear to be a somewhat nebulous organization concerned with that rather abstract matter, atomic energy. The hard fact that the Agency could and did bring enormous potential benefits to all its Members had not, even after more than a decade, been fully appreciated at all levels, and all too often the views and recommendations of nuclear authorities appeared to be subordinated to other, possibly political, considerations. The results could be unhappy, both for the Agency and for the countries concerned. The solution lay in informing and educating the policy-making departments, and the responsibility for that rested not on the Secretariat of the Agency, but on those who, as delegates and delegation members, represented their Governments at the General Conference and other conferences and, in consequence, were in a position to bring home to their Governments the full capabilities of the Agency, which was unique, and to interpret the immediate and long-term implications of the Conference's deliberations and of any projected Government policy within the context of the Agency. He wished, therefore, to appeal to all those present to spare no effort to render the fullest possible support to the Agency in discharging its widening responsibilities for peaceful applications of nuclear energy throughout the world.

38. Care should also be taken at all times to avoid regarding the Agency as a milch cow. It was a truism that, in any project, one got out just as much as one was prepared to put in, and that was more than valid in the case of the Agency. The more enthusiasm and support, which undoubtedly included financial support, which could be injected both in Vienna and at home, the more benefit could be expected to be reaped. Such benefits must of

necessity take various forms. The developing countries could look forward to a more rapid pace of national nuclear development, a progressive rise in standards of living for their people and enhanced material improvements in terms of technical assistance. The more developed States, which by virtue of their technological advancement had more to give than to receive on the technical side, stood to gain in wider and more stable international co-operation, in the growth of mutual understanding and confidence and, above all, in the satisfaction of helping mankind on its onward path by the widespread peaceful application of nuclear energy for general betterment and in particular for the alleviation of human suffering in its many forms.

39. One of the more involved problems which had arisen and with which many had been concerned during the past year had been that of a possible amendment of the Agency's Statute to provide for a modified composition of the Board of Governors. The reasons were well-known to all, and there was no call to repeat them. Nevertheless no one could but be struck by the complexity of that issue, which appeared to be resulting in an increasing measure of confusion. In such circumstances, the truly scientific approach would be to examine afresh the basic premises upon which the whole demand for change rested and to ensure that the work had not been started with preconceived ideas. An initial objective assessment of the real needs was essential to guarantee that whatever decision was ultimately taken, it would be the right decision, uncoloured by irrelevancies. Should the valid requirements not be accurately and clearly defined before examining the ways and means, the Agency would lay itself open to a charge of adopting an illogical and even unscientific approach.

40. South Africa had participated actively in the deliberations in the Board and in the Ad Hoc Committee of the Whole to Review Article VI of the Statute. Since it had initiated the first amendment to that Article⁵⁾, which had provided additional seats for Africa and the Middle East, it had had first-hand experience of the time and patience needed to develop a wide consensus on the exact nature of any change to be made in the composition of the Board. The first amendment had been a comparatively simple and not very controversial one, yet it had taken two years to bring it to the stage where it could be approved by the General Conference. The review which was at present being made was infinitely more complicated and affected a much greater number of national interests. It was therefore not asking too much that the Board should be allowed a period of longer than the one year which had already elapsed to seek a consensus which would both satisfy the terms of reference given to

5) GC(V)/RES/92.

the Board in the resolution adopted by the Conference the previous year⁶⁾ and at the same time be of such a nature that it would be sure of obtaining not only the votes, but also the ratifications, of the overwhelming majority of Member States. The importance of ratification should be stressed because, in other organizations, amendments had been approved somewhat hurriedly by the required constitutional majority but had failed to secure the requisite number of ratifications because reflection had shown that the amendments in question did not in fact represent a true and abiding consensus, but only the outcome of over-hasty consultations.

41. In the light of the continual shortfall in the funds available for the Operational Budget, South Africa had been actively exploring the possibility of raising the target for voluntary contributions to the General Fund, but unfortunately without success. It was its consistent practice, whenever the opportunity arose in the Board, to urge strongly that all Member States should contribute to the General Fund on the basis of their assessed percentage contribution to the Regular Budget. There appeared to be general agreement that that principle was acceptable, and those cases of reluctance to back up acceptance of the concept with concrete contributions could only be deplored. Indeed, it had been shown that scrupulous conformity with that approach would place the technical assistance budget on an almost healthy footing and enable the Agency to meet many more of the deserving requests for such aid. It was, moreover, noteworthy that the Secretariat had pertinently drawn attention to the fact that apart from eight Members, all developed except one, which had contributed amounts substantially less than their assessed percentage contributions, by far the largest part of the shortfall in the voluntary contributions for 1968 had been due to three large developed countries having failed to make any pledge whatsoever⁷⁾. In the view of his delegation, that was in no way compatible with the standing of developed countries which were Member States of the Agency.

42. As to the Agency's efforts to encourage Member States to assist in meeting requests for technical assistance which could not be met from the Agency's resources, the response, according to information published in February, had been disappointing, and it was regrettable that only some five developed States had seen their way clear to meet the appeal. Perhaps the Secretariat could bring the appeal to the attention of Member Governments more incisively and more frequently, now that there had been at least some positive reactions, with a view to inducing greater participation. South Africa was one of those

6) GC(XII)/RES/241.

7) See document GC(XIII)/406, Part III, paras 22 and 23 and Part IV, Schedule D.

endeavouring to supplement the Agency's efforts in the field of technical assistance by offering to consider sympathetically direct requests for such aid from Member States in the African and Middle East region. At least one Member State was at present making use of the service of a medical scientist under that scheme, and his Government was confident that that contribution to alleviating the Agency's financial problems would steadily increase from year to year.

43. In view of the constant shortage of funds, it was a matter of some satisfaction to his delegation that the practice was being initiated of undertaking a desk-by-desk survey of priorities in the programme with a view to making adjustments where warranted, re-allocating manpower and eliminating wastage. Provided that survey was wisely and diligently carried out, it should prove a valuable step towards promoting further efficiency within the Agency, and it was desirable that a report on any re-allocation and innovations introduced should be presented to the Board in February. Similar surveys might with advantage be periodically undertaken in all spheres of the Secretariat's activities so as to ensure that wasteful and inefficient practices and procedures, such as were inevitably liable to take root in large international organizations, did not become established imperceptibly.

44. South Africa was looking forward with keen anticipation to the next United Nations conference on the peaceful uses of atomic energy in 1971. He understood that planning and preliminary preparations for the conference were well advanced and his delegation was glad that the Secretariat was playing a substantial part in those arrangements. Indeed it felt that the stage had now been reached where it was the Agency and not the United Nations which should bear the primary responsibility for organizing those large conferences. The Agency now had a membership of over 100 from all parts of the world; that had not been the case during the earlier Geneva conferences and the task might then have exceeded its capabilities. The Agency had developed substantial expertise not only in the subjects to be discussed but, more important, in the practical aspects of organizing and establishing the facilities required for the smooth running of such major international gatherings. It was therefore logical, appropriate and desirable that it should be responsible for arranging the next conference after the one to be held in 1971. According to the present time-scale, that should be towards the end of the 1970s and consequently, with the experience of the forthcoming conference supplementing that already gained, there would be more than adequate time to overcome the relative difficulty which the Agency's limited resources presented.

45. With regard to conferences, symposia and seminars, he wished to warn against the insidious danger of insularity. Nuclear energy by its very newness had for a good many years been the preserve of scientists and technologists. The age of competitive nuclear power and of everyday application of radioisotopes to many facets of man's daily existence had clearly arrived. Research and development, while still of vital necessity, were being overtaken by industrial and commercial exploitation, and the emphasis was shifting to the sphere of production. Should more definite steps not be taken to draw more attention to industry by accentuating the industrial and commercial aspects of nuclear energy to a greater extent in the various technical meetings arranged each year by the Secretariat, and by encouraging experts from the world of commerce and industry to participate as fully as possible? With such a broadening of perspectives, both developing and advanced Member States would stand to gain, the manufacturing and power-generating industries would have a wider picture of the international field of nuclear energy and the ordinary people of the world would more rapidly acquire a deeper appreciation and understanding of the capabilities of the atom.

46. The underlying theme of his statement had in general been "festina lente", a principle which, with the ever-increasing tempo of modern life, was daily more difficult to sustain. The men who had founded the Agency had laid the foundations well and wisely, and in all that it did, the Agency should, as a comparatively young organization, avoid the common failing of youth, namely to want to rush forward before consolidating previous progress and without considering all the implications of any projected action. The Agency was on the threshold of large new developments and responsibilities, and their impact on its resources, finance and operations would be felt over a long period in the future. Member States should therefore try to achieve the maximum co-operation between themselves and with other organizations and so enhance the standing of the Agency and its objectives, which were such a power for good throughout the world, and beyond its terrestrial confines.

47. Mr. PEIRIS (Ceylon), after thanking the Austrian Government for its hospitality, extended his delegation's congratulations and best wishes to Ireland on its admission to membership of the Agency.

48. Ceylon had received useful assistance from the Agency during the past year in the form of technical assistance, equipment and training, and was confident that the requests for assistance during the coming year would receive the sympathetic consideration of the Secretariat. The country had hitherto suffered from the disadvantage of not having a central

authority to handle and co-ordinate requirements and planning in the field of nuclear energy. Parliament had now remedied that defect by setting up an Atomic Energy Authority, which would be responsible for research and development activities relating to the production of nuclear energy, the utilization of fissionable and radioactive materials for medical, agricultural, industrial and other peaceful purposes, and for the protection of the health of persons likely to be exposed to radiation hazards.

49. The Ceylonese Atomic Energy Authority would also make arrangements with universities, other institutions and individuals within or outside Ceylon to conduct research into atomic energy matters, would distribute information and organize educational and training programmes on atomic energy, and would also prepare regulations governing the import, transport, storage, handling and use of radioactive materials and the disposal of radioactive wastes.

50. Ceylon was anxious to benefit from the advances that had been made in nuclear technology, and had requested the Agency to undertake a study of the possibilities of developing the uses of nuclear energy in Ceylon on a long-term basis. The study would be made with special reference to the industrial development of the country and would also include such subjects as the application of isotopes in agriculture and medicine.

51. Ceylon accepted the principle of regional co-operation as formulated at a meeting at Manila recently arranged by the Agency⁸⁾, and hoped that the proposals made there would receive wide acceptance. Representatives of the developing countries had stated on many occasions that the greatest need was for experts, equipment and technical training. They had also urged that maximum possible use be made of existing institutions such as, for instance, the Radioisotope Centre in Ceylon.

52. He wished at that stage to renew the plea his delegation had made so often before that advanced countries should consider making bigger contributions to the General Fund, that other countries which had not yet made any contribution should offer at least a token amount, and that the advanced countries should consider giving assistance on a bilateral basis in cases where the Agency could not meet the requirements of the developing countries owing to the shortage of funds.

53. The Agency was in the process of preparing itself to discharge certain obligations which would devolve on it when NPT came into force. Ceylon had signed that treaty — although with certain re-

servations — in the hope that it would contribute to world peace and security and enable all the nations of the world to benefit fully from the peaceful applications of atomic energy. The super Powers had repeatedly stated that acceptance of NPT would create a proper climate for more nations in the world to reap the benefits of nuclear technology. His delegation felt that nuclear technology in the industrialized countries had now reached a stage where it could make substantial contributions towards accelerating the economic and social development of less advanced countries. Indeed, if one examined nuclear programmes in various States Members of the Agency, one was driven to the conclusion that the gap between the advanced and the developing countries was widening day by day.

54. It might be appropriate to recall the words of President Nixon on that subject when he had addressed the General Assembly of the United Nations a few days previously:

“As the United Nations looks toward the beginning of its Second Development Decade, it faces a time of enormous challenge but enormous opportunity. We can only guess at the new scientific discoveries that the 70s may bring, but we can see with chilling clarity the gap that already exists between the developed economies and the economies of the developing countries, and the urgent need for international co-operation in spurring economic development.”⁹⁾

55. It was up to the Agency to grasp that “enormous opportunity” in so far as assistance to developing countries was concerned.

56. In order to reduce the glaring disparity between the advanced and the developing countries, to which he had just referred, the Agency should play a more constructive role in bringing the benefits of nuclear technology to the latter. One of the greatest obstacles in achieving that goal was the lack of capital resources for undertaking nuclear projects in such countries. That was why his delegation had repeatedly urged the Secretariat to make a comprehensive study of financing nuclear projects in developing countries. Unfortunately, the matter did not seem to have received adequate attention so far, and his delegation therefore proposed to take it up, in association with other interested countries, in the Programme, Technical and Budget Committee.

57. There seemed to have been a certain drift and change in the Agency's programmes and in the emphasis it placed on its various statutory obligations. Its work appeared to be increasingly dominated by safeguards activities. While Ceylon had always supported the Agency's safeguards and

8) Organizational Meeting for a New Regional Co-operative Project to Succeed the IPA Project, held on 14 to 16 March 1969.

9) United Nations document A/PV.1755.

their application, it had at the same time urged that the Agency should retain a reasonable balance in its programmes so that it could serve the best interests of its entire membership. However, over the past year the net resources made available for technical assistance activities had diminished, at a time when the needs of the developing countries were greater than ever. Ceylon was apprehensive that over-emphasis on the safeguards functions of the Agency would result in a further reduction in the amount of technical assistance provided. The selective emphasis which the Agency seemed to be placing on one aspect of its obligations was causing serious concern among developing countries and eroding the confidence which was a vital factor in efficient operation. For example, when the Agency was approached for technical and economic assistance for nuclear projects in fields where the technology and techniques had been fully developed, the applicants were told that the projects were capital-intensive and beyond the resources of the Agency. On the other hand, the Agency painted a glowingly optimistic picture of the positive role it could play in areas where the technology was not yet available, as for instance in the field of peaceful nuclear explosions. There seemed to be a paradox there: the Agency apparently could not afford to provide what was in fact now available — but promised the benefits of what might become available in the future. As a result, a credibility gap was developing between the Agency and a large number of its Members, and he would appeal to the advanced countries to take that situation into account when exercising their influence in shaping the Agency's policies.

58. His delegation fully supported the Agency's role as a supplier of fissionable materials under appropriate safeguards. It was convinced that that role would grow in importance as nuclear power programmes expanded. The availability of fissionable materials through the intermediary of the Agency would not only accelerate the introduction of nuclear power but would also enable a number of countries to select their power reactor systems on the basis of economics rather than of other considerations such as assurances of the availability of enriched uranium.

59. Ceylon looked forward to the day when, as a result of the disarmament negotiations now taking place, the super-Powers would agree to limit their stockpiles of nuclear weapons and thereby release sizable quantities of fissionable materials for the peaceful programmes of Member States. It was hoped that the supply of such materials would be channelled through the Agency. Such a development would strengthen the Agency, while at the same time promoting the application of its safeguards system.

60. One of the most important items on the Conference's agenda was the proposed revision of Article VI of the Statute. The crux of the matter was that the present wording of Article VI was intended to meet a situation that existed in 1956. It was futile to argue that the same situation still existed. The terms of Article VI should therefore be amended to meet the present requirements of the Agency, whose membership had changed so greatly since 1956. Apart from the question of the arithmetical changes required in the composition of the Board, the basic provisions of Article VI were outdated. There was no justification for according an entrenched or privileged position to some countries, as was the case at present; the governing bodies of equally important organizations functioned efficiently without the privilege of such permanent membership being extended to certain pre-selected members. In the discussions on Article VI much had been said about the need to preserve the "delicate balance" which was said to reside in the current wording. In the view of his delegation, the balance should rather be struck so as to take account of the membership of the Agency as it now was, and of the need for the Agency to fulfil all its obligations under the Statute while at the same time maintaining the confidence and support of all its Member States. More would undoubtedly be said about the matter in the discussions that would follow, and at that stage he would only make a plea that effective representation be accorded to Asia, in keeping with its representation in other organizations in the United Nations family.

61. Mr. LAURILA (Finland) said that as Tunisia had been the first country with which Finland had concluded an agreement on development co-operation, Mr. Toriki's election to the office of President of the General Conference had given the Finnish delegation particular pleasure.

62. After 12 years the underlying ideas of the Agency continued to reflect a powerful urge to enable all mankind to benefit from the peaceful applications of nuclear science. At the same time they reflected a sense of obligation to guide and control the development of nuclear science so that the increasing knowledge and expanding capacity in the nuclear industry would not be used for military purposes. In that context the most remarkable development so far had been NPT, the implementation of which would give the Agency difficult and challenging responsibilities.

63. He wished to announce the Finnish Government's decision to construct the first nuclear power station in Finland. On the basis of a protocol, concluded a fortnight previously between the Governments of Finland and the Soviet Union, the two countries would co-operate in the construction of the 440-MW plant. The technical and commercial

conditions would be agreed upon in detail later by the Finnish power company Imatran Voima Osakeyhtiö and the Soviet Technopromexport organization.

64. In Finland, where the first steps in the application of nuclear power on a large industrial scale were now being taken, there was, understandably, great interest in the development of the international safeguards system. When entering into bilateral agreements with various countries it had been the wish of the Government of Finland to make it possible, with the agreement of the other parties, to put all her nuclear activities under Agency safeguards.

65. The Agency would be developed as a central organ for the application of safeguards, and several different solutions of the problems arising might be arrived at in international political agreements. It was therefore Finland's earnest desire that NPT should be brought into force as soon as possible.

66. The technological breakthrough in the case of nuclear power had undoubtedly taken place during the current decade, but the 1970s would be the decade of the economic and truly revolutionary breakthrough in atomic energy. Furthermore, until now nuclear power had principally been the subject of more or less ambitious national programmes, but from now on it would be a significant element in international transactions. In that connection commercial co-operation between countries would grow rapidly, and the Agency, and in particular the countries introducing nuclear power, would face many complex problems.

67. At that revolutionary stage, a country's power authorities were faced with quite new requirements. The main cause of those problems lay not so much in the novelty of nuclear technology as in the fact that economically sound use of nuclear power was possible only if large units could be fitted into the power system of the country. In addition, public opinion in all countries demanded that nuclear power plants be absolutely safe, a requirement which was absent in the case of, say, conventional power plants or automobiles. A further heavy burden on nuclear power plants was the need to submit them to safeguards control.

68. He was convinced that the most revolutionary effect of nuclear science would be in the supply of energy. New problems would not be technological, but would be connected with the economic structure of the country, with its administrative system and with its international commercial relations.

69. He himself was a scientist, but had also been closely concerned with problems of industry, administration and legislation. On the basis of his

experience he ventured to say that the purely scientific and technological problems could be more easily mastered than the apparently much simpler problems of organization, administration, rules of practice in international trade, safeguards, etc.

70. The Agency had not neglected such aspects as insurance, transport and administrative problems. However, Finland felt that even study of the special features of several special problems was not enough to help a Member State to solve the immense problems connected with large-scale applications of atomic energy. All such questions should be dealt with as parts of a whole, that is in the national framework of an entire country, with due consideration of the economic and administrative conditions prevailing in it. In the Finnish view, case studies throwing full light on those problems could be most valuable.

71. The varied experience of the individual Nordic countries in the application of nuclear energy had already provided and would continue to provide knowledge which could comprise an important contribution to the development of Member States. At the same time the study of that experience could be of help in the creation of a system of worldwide rules, whether connected with NPT or with safeguards philosophy in general, with problems of transport, insurance, safety, etc. The application of such rules would not then represent too heavy a burden on those who tried to promote the well-being of their nations through the use of atomic energy.

72. The background he had discussed should not be forgotten when considering enlarging the membership of the Board. The question of revision of Article VI of the Statute had been an important item on the agenda of the Board, although, to Finland's regret, the problem had not yet been solved.

73. Certain developing regions were under-represented on the Board. The revision of Article VI of the Statute was a far-reaching and politically very important matter. A solution must therefore be found on the broadest possible basis, and it should be well thought out in order to make it unnecessary to revert to the matter again. As none of the proposals presented so far for revision of Article VI had met with sufficiently wide support, his delegation favoured further study of the problem in order to find a formula generally acceptable to Member States.

74. Mr. ERRERA (Belgium) observed that during the past year nuclear energy developments had continued to be the subject of particular attention in Member States and that that fact had been reflected in the work carried out by the Agency throughout the period under review.

75. He wished to make a few remarks concerning, in particular, safeguards, the level of the budget, INIS, the peaceful use of nuclear explosives and the revision of Article VI of the Statute.

76. Belgium, as a member of the European Atomic Energy Community (EURATOM), found itself in a special position regarding the negotiations required under Article III of NPT, which were to be conducted between EURATOM and the Agency. However, it attached just as much importance to everything connected with the formulation of the agreements to be concluded between the Agency and individual Governments for the application of the safeguards laid down in Article III. In his opinion, it would be advisable to set up an ad hoc committee of the Board, membership of which would be open to all Members wishing to take part, to draw up a draft model safeguards agreement between the Agency and those of its Member States which were parties to NPT. Such an agreement could not, however, be formulated until States had agreed upon the principles which were to govern it. The aims of NPT were not exactly those of the Agency: the Treaty was intended solely to prevent the use of raw or fissionable materials for purposes other than peaceful ones. Consequently, the problem should be precisely defined in terms of the obligations undertaken by the parties and not in terms of the action taken by the Agency to carry out its statutory functions.

77. As it was unfortunately probable that initially not all the Members of the Board would be parties to the Treaty, special provision should be made by which it would not be the Board as a whole which would have authority to check whether the parties to the Treaty were complying with their obligations and, if they were not, to put an end to that state of affairs, but a special body consisting exclusively of representatives of States parties to the Treaty.

78. The presentation of estimated expenditure on safeguards under a new budget Section¹⁰⁾ not only satisfied a wish frequently expressed by the Belgian delegation but also fulfilled the recommendations for the establishment of programme budgets put forward by the General Assembly's *Ad Hoc* Committee of Experts to Examine the Finances of the United Nations and the Specialized Agencies¹¹⁾; it would be of help to the members of the proposed ad hoc committee of the Board to supply an answer to the following question: "Since the Agency was to carry out control functions under the Tlatelolco Treaty¹²⁾

10) See document GC(XIII)/405, THE BUDGET, part II.C., Section 12.

11) United Nations document A/6343.

12) The Treaty for the Prohibition of Nuclear Weapons in Latin America.

and NPT, how should it proceed in order to carry out that role in the best and most economical way?"

79. More generally speaking, the establishment of programme budgets would provide more information on the financial implications of the Agency's programmes and would also enable a just balance to be maintained between those programmes by taking careful account of the functions devolving on the Agency under its Statute and the financial resources likely to be available to it.

80. Reference to financial resources naturally led one to speak of the budget. The rate of increase of the Agency's budget continued to cause concern to the Belgian delegation. It was true that the budgets of other international organizations were growing at a similar rate, if not a greater one, but such arguments were not convincing.

81. The increase proposed for 1970, even though reduced in relation to the preliminary estimates, was still too high, and at 8.8%¹³⁾ was not in line with the rate of expansion of Member States' national incomes. Already some Member States, including Belgium, had had to defer, stagger or even cancel a large number of scientific projects during the previous months in order to keep the growth in expenditure to a level compatible with income.

82. Two features of the increases in the Agency's budget were of particular concern to the Belgian delegation, namely, those for staff salaries and the Laboratory.

83. Certainly, the Agency was under an obligation to adjust salaries to meet the increase in the cost of living. However, in view of the mobility of staff, it should be possible more strictly to limit the effects of that increase on the Agency's budget as a whole. A well-balanced rotation of staff, through which young officials could be engaged at salary rates naturally lower than those applicable to more senior ones, would also to some extent offset the effects of the cost-of-living increase. Moreover, it should be frankly acknowledged that a job was done when it was done, and that consequently either the official concerned should then be found another assignment or his services should be terminated.

84. As regards the Agency's Laboratory at Seibersdorf, the criticisms made in the past remained valid. Most of the work carried out in the Laboratory could not be justified in the light of the Agency's functions. "Research" should not be financed from Agency funds. The Belgian delegation did not share the views of the group of scientific and administrative experts, which had met in Vienna from 1 to

13) See document GC(XIII)/405, para.3.

4 October 1968, which had recommended an increase in laboratory facilities for various activities, such as the storage of agricultural and isotopic materials; the Laboratory should not attempt to become a standardization organization or a central bureau for nuclear measurements, and all the work carried out at the request of other United Nations bodies should be charged for.

85. He then drew the Conference's attention to the need to avoid an excessive inflation of the Regular Budget, with the aim, commendable in itself, of increasing the resources of the Operational Budget. In fact, there was some risk that national financial authorities would lump together the contributions they made, whether in the form of contributions to the Regular Budget or of voluntary contributions, and fix the increase in the authorized overall contribution at a particular ceiling, the end result of which would be that the extra amount required for the Regular Budget would be deducted from the part reserved for the voluntary contribution. Thus, instead of an increase in the amount available for the Operational Budget, the opposite would be achieved.

86. The decision to set up INIS on an operational basis in 1970 had been taken by the Board in February subject to certain conditions, one of which was that operations would commence with a limited subject scope capable of being extended step by step, while another was that the operation of INIS would be reviewed annually by an advisory committee. Though it had still had many doubts regarding the practical and financial aspects of the way in which INIS would develop, Belgium had supported that decision, but only on condition that the INIS project remained experimental in nature; it had not regarded the decision as irrevocable. In view of the considerable commitments which countries invited to participate in INIS would have to accept from both the financial and technical points of view, the standing advisory committee would be of vital importance, and its membership should reflect the interests of the various parties concerned.

87. As a member of EURATOM Belgium welcomed the fact that co-operation had been established between the Agency and EURATOM with a view to getting INIS under way and it hoped that the two organizations would collaborate in regard to the programmes for training indexing staff as well as in compiling the thesaurus or drawing up programmes with a view to the retrieval of information stores in INIS. Such co-operation alone could prevent duplication in the work undertaken by each of the two organizations.

88. Many States Members of the Agency attached enormous importance to the advantages which might result by the mid-1970s from the peaceful uses

of nuclear explosives. In his view the Agency was the appropriate organization to discharge the role envisaged in Article V of NPT.

89. For that purpose the Agency should set up a special department. However, that should not mean adding to its staff, since the necessary personnel could certainly be taken from other departments, which had already kept abreast of the published material, in particular that relating to the "Plowshare" operation in the United States.

90. In view of the fact that the technology of nuclear explosions for peaceful purposes was still in its infancy, international action in that respect should consist primarily in collecting all the information which would enable Member States to evaluate the usefulness of those new techniques and to have recourse to them in due time under appropriate international control.

91. As the devices used would remain in the custody and under the control of the nuclear-weapon State which supplied the services, the Agency's role would be mainly that of an intermediary, namely to arrange with one of its Members, specifically one of the nuclear-weapon States, to supply another, viz. a non-nuclear-weapon State, with the nuclear explosives and services needed to carry out the explosions in question.

92. It therefore seemed essential for the Agency to be able to obtain from the nuclear-weapon States *all* information resulting from their present experiments in order that there might be no technological gap between States which had renounced possession of nuclear weapons and those which had joined in the nuclear armaments race. The Agency should also do what it could to collect for its Members information relating to the scientific and technical results deriving indirectly from the use of nuclear explosives for peaceful purposes, i.e. in the fields of geology, palaeontology, seismology, hydrology, nuclear physics, etc. All those points would, in his country's opinion, have to be kept in view in implementing Article V of NPT.

93. Belgium, realizing how important the question of membership of the Board was both for the present and for the future, had felt it its duty to take an active part in the work which had been undertaken to implement the resolution on the subject adopted by the General Conference in 1968. In presenting its proposals, it had sought to take into account the fact that quite apart from the increase in the Agency's membership, the nature of the relations between its Member States was in process of developing in the sense that the co-operation in which they were at present engaged, which had to do with the dissemination of knowledge and techniques, was being supplemented by a second,

at least equally important, form of co-operation which related to the action to be taken to prevent the dissemination of nuclear weapons. The effect of NPT would be to lead a large number of States to accept, in the overriding interests of mankind, restrictions on their sovereignty, the practical scope of which would be all the greater in that such States had attained, or would sooner or later attain, an advanced stage of development in the peaceful uses of nuclear energy. The membership of the Board should reflect that new situation and, while the representation of States which stood to gain most from the dissemination of knowledge relating to nuclear science and technology must be improved, so must also that of States which, without necessarily being nuclear-weapon Powers, had already acquired a broad basis of knowledge. Admittedly some of those groups of States would inevitably form only a single group, after a process which one should do all in one's power to accelerate. The new structure of the Board must be such as to accommodate that process without its being necessary every so often to revert to the question of the Board's membership. Stable yet flexible formulas were needed. Such were the considerations underlying the proposals made by Belgium during the discussions in the Ad Hoc Committee of the Whole to Review Article VI of the Statute, which had met in April, June and also on the previous Friday.

94. Mr. PRETSCH (Federal Republic of Germany) said it was a well-established practice of the General Conference to look back upon the achievements of the year past, and to discuss the aims of the Agency's future activities and the methods that should be applied in carrying them out. The Board's annual report served as a good basis for an exchange of ideas between delegations and the Secretariat.

95. In the past year the Agency had again done excellent work in a number of scientific and technological fields, an achievement which deserved all the more appreciation as the financial resources available for the Agency's programme were still small and had to support activities of many kinds. Moreover, the number of requests for assistance by Member States was steadily increasing.

96. The annual report emphasized the growing importance of the Agency's safeguards work. Clearly safeguards would have to be adapted to the rapid progress being made in the utilization of nuclear energy. They should be effective and should not hamper the operation of nuclear installations. Their cost should be kept as low as possible and should not become a source of economic discrimination. His delegation had accordingly been pleased to learn of the new Division of Development set up within the Secretariat's Department of Safeguards and Inspection, which would be responsible for developing modern safeguards methods and for testing new procedures.

97. On the other hand, the Agency's increasing inability to meet the growing need for technical assistance was regrettable. The value of requests had jumped from \$1.5 million to \$3.7 million in seven years, but the assistance actually provided had risen only from \$750 000 to just under \$1 million, an amount which had remained practically unchanged for three years. Thus the proportion of requests that could actually be met had dropped from 50 to 25%. Under those circumstances the Agency would have difficulty in ensuring adequate planning, selection and continuity in its technical assistance activities; the only solution was for more Member States to contribute to the General Fund in the amounts expected of them.

98. Promotion of the peaceful uses of nuclear energy was after all the Agency's main responsibility and should continue to be so regardless of the requirements of more specialized work. Representatives of the Agency had emphasized that, despite its increased responsibilities in relation to safeguards, the Agency would continue to be primarily a technical organization dedicated to the task of promoting the peaceful applications of nuclear energy in its Member States. The delegation of the Federal Republic of Germany shared that view.

99. The world-wide exchange of information was another major task of the Agency, and there could be no doubt that direct exchanges of information between specialists in many working groups and symposia had proved worth while. To those exchanges should be added international co-operation between documentation services. In view of the flood of publications and reports, it was particularly important to devise a system whereby the work of documentation and communication in relation to nuclear energy could be shared. Those Member States which produced most of the information should participate in the system, and all countries desiring such information should have easy access to it. EURATOM, which had already been co-operating effectively with the Agency in information work, should participate in INIS, as the delegate of Belgium had already emphasized, and should do so directly; INIS would then have access to documentation relating to the nuclear programmes of EURATOM as well as to the scientific and technical reports published by Member States of EURATOM.

100. With regard to the peaceful application of nuclear explosives, a new sphere of interest, the compilation and dissemination of information would also constitute an important element of international co-operation during the next few years; and the Agency was certainly the appropriate organization for such a task. In that field, as in others, the recommendations of the Conference of Non-Nuclear-Weapon States should be regarded as a useful con-

tribution to any discussion of the Agency's future tasks.

101. If the Agency was to be successful in performing its tasks, it would have to provide for the additional expenditure of 8.8% envisaged in its budget for 1970, an estimate which the German delegation considered justifiable. Although the addition of 45 posts was no negligible increase, the German delegation would approve the budget.

102. Turning to the nuclear energy programme of the Federal Republic of Germany, he pointed out that the Federal Republic had, on the commercial side, reached a stage where orders were being placed by power supply companies for the construction of big commercial nuclear power stations; the chemical industry, too, was interested in purchasing nuclear reactors for the generation of process heat. Nuclear engineering had become a part of the German economy. Nuclear power plants with a total output of 2200 MW(e) were under construction or in operation. Another six power plants, which would generate 3500 MW(e), were being planned. A pressurized water reactor plant with a rating of 1100 MW(e), to be built near Biblis on the Rhine, had been ordered in May 1969. Under a joint programme involving research centres, industrial firms and power supply companies in Germany, Belgium, Luxembourg and the Netherlands, a 300-MW(e) sodium-cooled fast breeder reactor was being designed. The United Kingdom, the Netherlands and the Federal Republic of Germany were planning a joint project for the development and application of the gas centrifuge method of uranium enrichment.

103. New facilities were being set up for basic nuclear research: particularly deserving of mention were the heavy ion accelerator to be built near Darmstadt; the 3-GeV intersecting storage rings for the Electron Synchrotron DESY near Hamburg; and the institutes of solid-state physics proposed for construction at Jülich and Stuttgart. The work being done at the Karlsruhe Nuclear Research Centre for the development of advanced nuclear safeguards methods, to which he had referred at the previous session of the General Conference¹⁴, was also of great interest. It was based on the assumption that now, since the use of nuclear energy had reached the commercial stage in several countries and a large number of nuclear installations were being built, the conditions for application of safeguards had undergone a basic change. Fissile materials passed through several nuclear installations during a fuel cycle, the quantities involved were larger than in the past and, under conditions of free competition, the commercial interests of the various countries were bound to come to the fore. That being so, a control system was needed which would safeguard

the flow of fissile materials by means of instruments and other techniques at certain key points.

104. The most important areas covered by the development work at Karlsruhe were systems analysis, control experiments, and direct and indirect control methods. Two control experiments completed at the Eurochemic reprocessing plant at Mol (Belgium) and at the ALKEM fabrication plant at Karlsruhe had proved that the new concept worked and that it was possible to exercise effective control at relatively low cost. In view of the favourable results obtained so far, the Agency was preparing a symposium on the technological aspects of safeguards, to be held at Karlsruhe in the summer of 1970.

105. The Federal Republic of Germany endeavoured to give active support to the scientific and technical programme of the Agency. During the past year many German experts had taken part in the Agency's symposia and in nearly all of its panel meetings and working groups. An International Training Course on the Use of Radiation and Isotope Techniques in Horticultural Research, organized by the Agency in co-operation with FAO, had been held at Hanover from July to September 1968. Four hundred experts had participated in the Symposium on Advanced and High-Temperature Gas-Cooled Reactors, held at Jülich in October 1968. A Conference on Clustering Phenomena in Nuclei had been held at Bochum, in July 1969, under the auspices of the Agency. In August the Symposium on the Utilization of Large Radiation Sources and Accelerators in Industrial Processing had taken place in Munich. The Agency intended to hold a Meeting of Specialists on In-Core Instrumentation for Sodium-Cooled Fast Reactors at Karlsruhe in October. Ten German research institutes were participating in co-ordinated research programmes undertaken by the Agency, programmes which were described in detail in the Board's annual report. In 1968 the Agency had sent nine German experts to developing countries and had made use of 45 fellowships offered by Germany. Physicists from Trieste had been sent to Heidelberg under a partnership agreement concluded between the Agency's International Centre for Theoretical Physics at Trieste and the Max Planck Institute of Nuclear Physics at Heidelberg. The Karlsruhe Nuclear Research Centre had been awarded two research contracts by the Agency for the development of safeguards, one of them concerning a reprocessing facility and the other pressurized heavy-water reactors. In June 1969 about 60 members of the Board, of delegations and of the Secretariat had visited Karlsruhe and learnt something of the work on fissile material flow control being done there.

106. In 1968 the Federal Republic of Germany had made a voluntary contribution of \$133400 to the General Fund and had contributed equipment

14) GC(XII)/OR.124, paras 16 and 17.

worth \$26 000. It wished further to intensify its co-operation with the Agency, and once again would make a volutary contribution to the General Fund corresponding to its percentage assessment under the Regular Budget.

107. In addition the Federal Republic intended to offer fellowships for 1970 — the number of which would initially be unlimited — covering the whole sphere of nuclear research and development. It would continue to provide an increasing number of experts to render technical assistance to interested Member States on behalf of the Agency. Finally, the Federal Republic intended to give a spectrophotometer worth \$10 000 to the Laboratory of Marine Radioactivity at Monaco.

108. If the Agency was to function with maximum efficiency, its structure should, in the opinion of his delegation, be adjusted to changing circumstances. One such adjustment would be an enlargement of the Board, and in that connection he wished to discuss the review of Article VI of the Statute. The Federal Republic of Germany deplored the fact that the Board had been unable to comply with the request made in the resolution adopted by the Conference at the previous session. Like others, it had welcomed the appointment of an ad hoc committee, in which interested countries were given the opportunity to present their views. Discussions within that committee had doubtless served to clarify the different aspects of the problem, but it had also become obvious that delegations interpreted differently the three criteria laid down by the Conference.

109. The first of those criteria related to progress in the peaceful uses of nuclear energy — the progress achieved by many Members of the Agency since its foundation. Member States which had made considerable progress in nuclear research and technology and had thus enhanced their intellectual, material and financial contribution to the Agency's activities should, in accordance with that criterion, be given an adequate share in the framing of the Agency's decisions. Adequate representation of the technologically advanced countries in the Board would certainly give them greater encouragement to contribute to the Agency's scientific programme and to technical assistance. The participation of an appropriate number of such countries in the Board's activities would seem to be the best way of promoting the Agency's work. In recent years, most governing bodies of organizations in the United Nations family had increased their membership, and they had applied functional criteria in selecting new members.

110. But, while emphasizing the importance of a country's technological standard, he wished at the same time to stress the need for equitable geographical distribution — the importance of which

had also been underlined at the previous session of the Conference. His delegation was therefore in favour of increased representation for the developing countries, in particular for the nations of Africa, the Middle East and Latin America. Of course, neither of the two criteria mentioned should be pursued to the exclusion of the other; a balance must be struck between them. The Federal Republic endorsed the proposal submitted by Italy because it appeared best suited to fulfilling the requirements originally laid down by the Conference.

111. In conclusion, he said that his delegation was pleased to endorse the proposed re-appointment of Dr. Eklund as Director General. The Federal Republic of Germany wished to assure Dr. Eklund again of its confidence, trusting that under his experienced guidance the Agency would succeed in adapting its programme and its structure to the challenges of the future. The Government of the Federal Republic was prepared to give the Director General and the Secretariat every assistance to ensure the success of the Agency's future activities.

112. Mr. SCOTT (Jamaica) said that considerable changes had been witnessed in the world social and economic situation since the Agency had first been founded. Mutual suspicion had given way to mutual co-operation and the initially small number of sovereign developing countries had considerably increased.

113. Addressing the forty-seventh session of the Economic and Social Council of the United Nations, the Agency's Director General had indicated that emphasis should be placed on the activities which were primarily of interest to the developing countries. Not only should the planning and implementation of existing scientific and technical programmes be continued, but the Agency should also be in a position to effect the rapid transfer of practical technological knowledge to developing countries.

114. The Agency could play its role most effectively by modifying the content and orientation of its main programmes, including the preparations for NPT responsibilities, and also by modifying its structure.

115. The review of Article VI of the Statute was still occupying the attention of the Board and an ad hoc committee. Whatever the reasons for the criteria on which the size and composition of the Board had been based in 1956, the changing circumstances of today had made them somewhat out-dated. No solution had yet received the unanimous support desired, but whatever criteria were eventually adopted, they must provide above all for flexibility, while ensuring that the Agency became a more effective instrument of development.

116. His delegation also recognized that there had to be the closest co-operation between the Agency and the specialized agencies, for example in the co-ordination of programmes as opposed to administrative co-ordination. Although significant progress had been made in that respect in the case of programmes carried out jointly with FAO, UNESCO and WHO, there was still much to be done, for example, as regards co-operation with the Intergovernmental Maritime Consultative Organization on measures to prevent the continued pollution of the sea. The steps taken in relation to waste management and the monitoring of radioactive wastes were now more effective, and the Agency had an important role to play in solving some of the problems of the human environment.

117. The Agency had a creditable record in the application of nuclear science to food and agriculture, the life sciences, physical sciences, and health, safety and waste management, and Jamaica had already benefited from such activities. That record of achievement pointed the way to further activities for the benefit of more and more developing countries.

118. As far as nuclear power and reactors were concerned, the results had been most disappointing. The annual report of the Board to the General Conference contained figures indicating that of 300

plants in operation, under construction or firmly ordered, only 10 were located in five developing countries. Unless that trend was reversed, the technological gap that so sharply divided the rich from the poor countries would continue to widen.

119. He felt that that situation was in part due to the limited functions and resources of the Agency itself, and the policies adopted by the more advanced countries, and that it was also due in part to a lack of information and expertise in the developing countries. A remedy had to be found, and the Agency's report to the Secretary-General of the United Nations relating to recommendations made by the Conference of Non-Nuclear-Weapon States, in which it was stated that an increase in the Agency's resources would have a cumulative effect in introducing the applications of nuclear energy into developing countries¹⁵⁾, was relevant in that connection.

120. Among the other questions to which the most careful and patient consideration would have to be given were the Agency's safeguards system and the use of nuclear explosives for peaceful purposes. But the way ahead would be made much easier if the Agency were to draw up a policy for the benefit of all developing countries, and that could best be done if each country had a say in the formulation of such a policy.

The meeting rose at 1.5 p.m.

15) GC(XIII)/INF/110, para.107.

