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President: Mr. ESCHAUZIER (Netherlands)

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* GC(VIII)/285.

The composition of delegations attending the session is given in document GC(VIII)/INF/75/Rev.2.

ADOPTION OF THE AGENDA AND ALLOCATION OF ITEMS FOR INITIAL DISCUSSION
(GC(VIII)/268, 283)

1. The PRESIDENT suggested that the Conference accept the recommendations made by the General Committee in regard to the agenda and the allocation of items for initial discussion (GC(VIII)/283).
2. The recommendations of the General Committee were accepted, and the agenda was thereby approved.

DECLARATION CONCERNING THE REPRESENTATION OF SOUTH AFRICA

3. Mr. MALU (Congo (Leopoldville)), speaking on behalf of a group of delegations, made the following statement:

"The African States present at the eighth regular session of the General Conference of the International Atomic Energy Agency, namely: Algeria, Cameroun, Congo (Leopoldville), Gabon, Ghana, Nigeria, Senegal, Tunisia and the United Arab Republic:

1. Noting that the existing South African Government's policy of apartheid and racial discrimination inflicted and continues to inflict untold suffering on the African community;
2. Noting with great anxiety the refusal of the aforesaid Government to respond to the appeals coming from all sections of international public opinion and, in particular, the Security Council and the General Assembly of the United Nations;
3. Noting that the Government of South Africa has been designated by the Board of Governors to represent Africa and the Middle East on the Board, in spite of its policy which is directed against the African community, a policy which led to its inability to serve the cause of its membership on behalf of the continent of Africa, and in spite of its inability to co-operate with the group of countries it is supposed to serve on the Board;

Declare that:

The South African Government in its present status does not express the opinion and wishes of the African Member States and cannot carry out the noble mission of the Agency in Africa and definitely cannot represent the continent of Africa on the Board of Governors of the Agency."

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1963-64
(GC(VIII)/270, 270/Corr.1, 270/Add.1, 2 and 3, 280)

4. Mr. SEABORG (United States of America) said that, like many other representatives, he had been attending the Third International Conference on the Peaceful Uses of Atomic Energy, which had just been conducted with outstanding success in Geneva, under the efficient leadership of Professor Emelyanov. At the Conference he had taken part in productive discussions on nuclear developments with colleagues from all over the world. The Agency staff, the participants and the many others helping to make that Conference an outstanding scientific and technical contribution to nuclear progress were to be specially commended for their efforts. The spirit of international co-operation evident during the meetings had been especially welcome. In that connection, he would also mention that he had been present in Sweden for the first visit of the United States nuclear ship, the Savannah, and had also been to Brussels to confer with the leaders of the European nuclear industry.

5. Some general impressions had emerged from those and other experiences and developments of the past year. Two generalizations were particularly pertinent in so far as the General Conference was concerned: the world had, twenty-five years after the discovery of nuclear fission, arrived on the threshold of the nuclear power age; and the Agency had come of age, as a result both of its real accomplishments and of the growth in urgency of its responsibilities deriving from the prospect of the early widespread use of nuclear power plants.

6. As the Geneva Conference had dramatically demonstrated, the time had come when nuclear power production was an economic possibility. To be specific, there was widespread agreement that large nuclear power plants with high load factors could compete with conventional sources of energy in many parts of the world. In the United States, it was estimated that the cost of power from large reactors of today was essentially the same as that predicted for the late 1960's only two years previously by the United States Atomic Energy Commission.

7. Secondly, international tensions had diminished perceptibly. The conclusion of the Moscow Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water had been an important factor in that regard. The result had been a growth of the favourable international climate that was conducive to widespread exploitation of nuclear power in the world.

8. As a result of those two developments, an atmosphere of confidence pervaded the international nuclear community. At the present time, the prevailing optimism was rooted in the reality of experience, unlike the situation obtaining some ten years previously when the unlimited hopes had been based on no more than guess-work.

9. Lastly, the Agency had made striking progress in developing its experience in the critical matter of international safeguards. Acceptable, uniform international responsibility in the matter of those functions, which fell within the province of the Agency, was an important basis for the high hope that nuclear energy could eventually satisfy the power needs of the world.

10. Those events were encouraging. As the Agency began its eighth year, after the long struggle towards goals that had often seemed almost unattainable, the vision and faith of its Member States were shown to be justified. Today, major functions of the Agency in the world-wide development of nuclear energy had in large measure the texture of reality, and his country's feelings as to the meaning of the Agency's role could best be expressed by recalling President Johnson's message to the Geneva Conference; referring to past accomplishments and future prospects in nuclear power and desalination, the President had said that the United States looked to the Agency to play an ever larger role in peaceful efforts in those directions; already it had set standards for the care and keeping of nuclear materials - an achievement that had raised United States hopes for the establishment of a workable system of world law in respect of nuclear energy.

11. The telescoping of nuclear technology made the work of the Agency more important and more urgent than ever before. The new economics of large-scale nuclear power plants would not, it was true, have any sudden marked impact on its workload. It was to be expected, however, that further technological achievements would follow in the wake of those of the past year and there was no time to be lost in developing precedents and procedures in world nuclear law, and in equipping nations with the technical competence to take advantage of those achievements.

12. Commenting on the progress made by the Agency in the past year and on the work ahead, he singled out for commendation the advance that had been made in strengthening the safeguards system. At the present time, seventeen countries

receiving materials and equipment from the United States had agreed, in principle, to accept the application of the Agency's safeguards to the assistance in question, which was being furnished under trilateral and other agreements making the necessary provision for such action. The arrangements covered several important research reactors as well as power reactors.

13. The extension of the Agency's system to cover reactors of over 100 MW(th) had resulted in an agreement to place the United States Yankee power reactor under Agency safeguards, a step which was expected to make a substantial contribution to mutual understanding of the problems of control of nuclear materials. The agreement also provided that the Agency should continue to have safeguards responsibility for a small power reactor and two research reactors in the United States. It was to be hoped that other Member States would take similar action, thus helping to enable the Agency to carry out its statutory responsibilities.

14. Gratifying progress had been made to date on the general review of the Agency's safeguards system. The United States endorsed the preliminary assessment of the Working Group performing the review, to the effect that the basic principles of the present system were sound but that improvements in language and format were desirable. It also noted that the Working Group was giving attention to some aspects of safeguards not as yet incorporated, such as measures relating to fuel reprocessing.

15. As the world-wide development of the peaceful uses of atomic energy had to proceed with no resultant encouragement to military nuclear development, there were strong reasons for the Agency to play a central role in controls. The practical advantages of international safeguards over those applied under bilateral agreements included uniform applicability, no weakening of safeguards standards to give commercial advantage to suppliers, and a reduction in the number of inspection teams sent to countries having several suppliers. He would also add that United States experience to date had shown that the system placed no onerous burdens on the participating States and in no way interfered with the efficient operation of the nuclear installations concerned.

16. In the regulatory area the Agency was to be commended for the emphasis laid on the development of health and safety codes and practices and for the increase

in technical advice and short-term assistance to Member States; also for establishing a list of consultants that were available to advise Member States on health and safety measures and proposed shipments of irradiated fuel.

17. The increasing use of radioactive materials had also added to the importance of the work in radioactive waste management. The United States continued to believe that primary emphasis should be placed on technical assistance to developing countries regarding urgent, practical problems of waste management, even at the cost of reducing the number of symposia and panel meetings. The Agency should promote more vigorously the establishment of international waste burial grounds, as well as the solution of associated problems.

18. One aspect of the new prospects for nuclear power in which there was intense interest was worthy of special mention. A recent report of the United States Office of Science and Technology drew attention to the feasibility of very large combined nuclear power/desalting plants - which could be operational in the period 1970-75 - for converting salt water to fresh water for municipal and industrial uses at a cost comparing favourably with the price of fresh water from other sources, and also for producing electricity at a relatively moderate cost. The possible production of irrigation water at a reasonable price, as early as the 1980's, was also foreseen. President Johnson, in his message to the Geneva Conference, had offered United States co-operation to other countries in helping them to overcome water shortages. That offer had been confirmed subsequently at the Agency's Panel on the use of Nuclear Energy in Saline Water Conversion. The United States was prepared: (1) to provide the services of a nuclear desalination expert to the Agency; (2) to arrange for Agency staff to visit United States facilities engaged on desalting problems; and (3) to consider nominations by the Agency of qualified individuals from other Member States, to be given research and training opportunities in United States facilities concerned with the nuclear and conventional aspects of desalting.

19. The part taken by the Agency in two desalting projects was encouraging: it had been the focal point for discussions between the United States and Mexico on a proposed study on the feasibility of installing a nuclear power/desalting plant near the Gulf of California to meet water and power needs in

the area; and it was acting as an observer in a joint survey being conducted by the United States and Israel to define the scope and requirements of a nuclear desalting project in the latter country. A further fact of note was that recent United States discussions with scientists from the USSR had resulted in agreement on effective scientific co-operation in developing methods for desalting sea water and brackish water, including the use of nuclear power.

20. It was through its programmes of research, training and technical assistance that the Agency could assist Member States to attain the technical competence necessary to take advantage of a maturing nuclear technology. In that connection, it was gratifying that work was in progress on biennial programming. As research and technical assistance were long-range activities, programming for a two-year period would bring significant improvements in the work. The modest increases in the 1965 budget for research contracts and for the Seibersdorf Laboratory were constructive. The priority being given to the award of contracts to research reactor centres and laboratories in developing countries, and the research and educational opportunities made available under Agency agreements at the International Centre for Theoretical Physics at Trieste, the NORA reactor in Norway, and the Marine biology project at Monaco, were greatly to be welcomed. The establishment of an experimental programme for Asia and the Far East at the Philippines Atomic Energy Research Centre, on the basis of the gift of a neutron crystal spectrometer by the Indian Government, was a model effort to stimulate research at regional level.

21. The utilization of research reactors continued to be one of the Agency's most promising fields of activity. About forty-five per cent of the Member States now had research reactors in operation or under construction. The United States supported Agency plans for giving assistance in developing research programmes, particularly at newly established national centres, through such means as regional study group meetings. It would continue to provide experts for those undertakings and would maintain the "sister laboratory" arrangements with developing countries.

22. As a means of stimulating research and development, the United States was pleased to renew for 1965, the sixth consecutive year, its offer to donate up to \$50 000 worth of special nuclear material for use in Agency projects in

research and medical therapy. It offered two kinds of assistance in the construction and operation of sub-critical assemblies: (1) provision to the Agency of up-to-date technical information, covering detailed design, fabrication and operating characteristics of an inexpensive sub-critical assembly developed by an American firm at its own expense; and (2) the lease of fabricated natural uranium slugs for sub-critical assemblies. Enriched uranium in unfabricated form, to a value of up to \$125 000, might also be leased under existing policies for similar use.

23. The Agency's technical assistance activities had evolved on a sound basis, although not all needs could be met owing to the shortage of funds. Despite that shortage, in the period 1961-63 it had been able to grant about 1400 fellowships for study in the various branches of nuclear science and had sent out about 450 experts and visiting professors to assist Member States in developing their programmes. The establishment of the International Centre for Theoretical Physics at Trieste, of a regional isotope training centre and of several joint research and training programmes were also noteworthy efforts. The programmes benefited significantly through co-ordination with similar activities of the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations, and other agencies. Further benefit, particularly in applying the Agency's limited funds to the best advantage, would come from the "country programme" approach to technical assistance, and the United States urged the Secretariat to continue its steps towards full utilization of that type of programming.

24. The greatest problem facing the Agency in respect of technical assistance was financial stability. At the seventh regular session of the General Conference, the United States delegate had strongly urged the adoption of a statutory amendment to place the entire budget on an assessed basis. Although that proposal had not been pressed because there was not enough wide understanding to achieve early ratification, the United States still regarded that course as the best ultimate solution. In the meantime, it would urge all Members that had not already done so to contribute to the General Fund in an amount at least equivalent to their percentage of the regular programme. Gifts in kind for use in approved programmes would also be helpful. For its part,

the United States would continue to make available, to the greatest possible extent, training opportunities in its institutions, expert services and certain items of equipment.

25. A summary of accomplishments showed that the Agency was beginning its eighth year in the strongest position in its history. In the past three years, the total approved budget had risen from about \$8.33 million to about \$9.75 million. Research and technical assistance programmes had been meaningful; improved new laboratory, training and joint research programmes had been established; and safeguards responsibilities had expanded. The General Conference and the Board of Governors had been increasingly concerned with technical and administrative problems and, what was most important, had virtually eschewed inappropriate and unproductive political discussions.

26. For all the reasons he had mentioned, 1964 had been a year of fulfilment and maturing. The economic break-through in large nuclear reactors, the easing of world tensions, the new mood of confidence in the world nuclear community, the Agency's progress towards a world nuclear law and the ability it had demonstrated to give positive help to countries developing nuclear programmes had all contributed to the opening of a bright new phase in the exploitation of nuclear energy for the benefit of man. But the struggles of the past had merely been a prelude to the larger challenges of the future. With continued devotion and good will, the Agency could hasten the time when nuclear energy would help man to conquer want and to build a secure and peaceful world.

27. Mr. HIRSCH (France) welcomed the Agency's new Member States. France, which had long enjoyed close relations with the Malagasy Republic in nuclear matters, was particularly gratified at the admission of that State to the Agency.

28. The Third International Conference on the Peaceful Uses of Atomic Energy had shown that the experience accumulated over several years in the organization of international conferences had enabled the Agency and its Director General to acquit themselves extremely well of the heavy task presented by the scientific organization of a highly exceptional meeting, and to do so with far more limited resources than in 1958.

29. In his view, the Third Geneva Conference had been notable for its technological, rather than its scientific, character and for the almost complete disappearance of political aspects. The large nuclear installations under construction or projected, whose capacities were of the order of 500 MW(e), would certainly become competitive, irrespective of whether they used natural or enriched uranium. He thought that there should be no further large-scale conferences until some experience of operating those installations had been acquired by the countries constructing them. The next conference could therefore take place in about five years' time and should be organized by the Agency; in fact, nuclear energy was becoming part of the development of modern technology and should no longer receive special treatment in the form of being under the aegis of the United Nations.

30. The Agency's Programme and Budget for 1965 seemed reasonable. The French delegation approved the efforts of the Director General towards keeping the strength of the Secretariat at a constant level. The execution of the Agency's long-term programme was about to begin. That programme should be revised each year, and should be progressively expanded taking into account new trends in national programmes and the development of atomic energy throughout the world. For example, the problem of water desalination was assuming ever-increasing importance; it was right that the Agency should participate in general studies and multilateral projects, and that everyone should help those countries for which the problem was already acute. It was important, however, to guard against premature hopes, for the utilization of atomic energy in the treatment of sea water and brackish water would necessitate years of research and development before nuclear reactors could enter into competition with conventional sources of power. The Agency should therefore pay close attention to trends in methods of treating water and to the progress of research aimed at perfecting new methods of physical treatment of salt water.

31. The regional meetings devoted to the use of research reactors had met with great success. The French delegation hoped that the Agency would continue its work of co-ordination in order to obtain the best possible return from those costly research tools. French technicians had participated in all those meetings, and France was always ready to open its research centres to the specialists responsible for operating national research reactors. The current year had seen the commissioning, at the Grenoble nuclear research centre, of the research reactor Siloé, which was at the present time the most powerful swimming-pool type reactor in the world. Another original research reactor,

Pégase, used for the full-scale study of fuel elements for gas-cooled power reactors, was proving very valuable in developing the nuclear power stations of Electricité de France; the second of the stations at Chinon, EDF-2, had gone critical about a month previously.

32. France had always believed - and nothing that had been said at Geneva contradicted that view - that nuclear power stations would first be developed in the industrialized countries, and that in most cases other countries would wait until two conditions had been fulfilled: a considerable increase in their consumption of power, and a decrease in the price of nuclear plants of low or average capacity. That was why the Agency's technical assistance programme would continue, for a few years yet, to represent the core of its activities, which were broadly based on the use of radioisotopes. The French delegation particularly approved of the regional projects, such as those concerned with rice and maize, and France was prepared to contribute to them. On the other hand, it would prefer the number of small projects, whose practical use seemed relatively small, to be limited to a minimum. The same held true for certain research contracts whose subjects were too specialized or even too far removed from the field covered by the Agency.

33. The French delegation wanted a reasonable development of the Agency's laboratories. In that connection he was happy to announce that France, in addition to its usual voluntary contribution, had decided to present the Agency's laboratory with a pulse height selector which, with its accessories, was worth 200 000 francs. France would continue to place experts at the disposal of the Agency, and to receive fellows at its research centres. In the course of the past year it had welcomed 30 of the Agency's fellows and 14 French experts had taken part in technical assistance missions.

34. Turning to a completely different subject, he said that the French delegation was closely following the revision of the Agency's safeguards system, and had noted with interest the growing number of bilateral agreements submitted to Agency control. It thought that control would assume greater importance when it was applied to power reactors. However, he wished to stress once more the fact that, as long as safeguards were not universally applied, such control would mainly affect the developing countries, and would continue

to present a grave political problem as long as the largest Powers, and hence a large part of the world, were exempt from it.

35. Although the Agency had not yet played the part of broker in nuclear materials and equipment that had been intended at its foundation, the development of its technical activities nonetheless seemed satisfactory. He attributed that success largely to the presence of a physicist of real ability at the head of the Secretariat; that certainly justified the French delegation's decision in 1961 to support the candidature of a technician from a country with a great scientific tradition.

36. However, the French delegation recognized that the developing countries were not sufficiently represented in posts at the higher levels, that was why France had, for the time being, relinquished the Deputy Director General post, which had been occupied by a Frenchman since the establishment of the Agency. That had made it possible for the important field of technical assistance to be entrusted to an expert in the problems involved and for a representative of another part of the world to assume the office of Deputy Director General.

37. The French delegation approved the shortening of the duration of the meetings of the Board of Governors and of the sessions of the General Conference, which was proof of the Secretariat's efficiency. It agreed that the considerable sum of money thus saved should be transferred to the technical assistance budget. The developing countries would thus be the first to benefit from the acceleration of the proceedings.

38. In conclusion, he believed that, at the present stage of the development of atomic energy and of international collaboration, it was difficult to make the Agency follow a different path from that chosen for it by the Director General. However, he was certain that the Director General was fully aware, as were all the delegates, of the far wider field of action which the Agency might enter in a world in which nuclear disarmament had become a reality.

39. Mr. DAGUERRE (Senegal) thanked the Director General for the support he had given the developing countries, and congratulated the new States which had just joined the Agency and welcomed them to it.

40. The number of African Member States increased from year to year, a fact due not only to the part allotted in the Agency's programme to the improvement of social and economic conditions in the developing countries, but also to the

fact that those States were perfectly aware that political independence was inseparable from scientific knowledge and ability; they had realized that scientific and technical development constituted an essential complement to political independence and a powerful aid in the struggle with the three terrible scourges of Africa - poverty, ignorance and disease. They had also grasped the fact that national development programmes should be drawn up in such a manner as to place scientific and economic planning on an equal footing.

41. The African countries had also realized that if they wished to keep abreast of scientific progress, which was one of the basic causes of the growing gap between them and the more advanced countries, they would have to join without further delay in the process of scientific discovery and would have to set about developing conditions conducive to the formulation of a scientific policy for Africa, starting with the establishment of a reasonable balance between basic and applied science. Those had been the aims of the plans established in 1962 at Addis Ababa for education and training and at Tananarive for higher education, at Abidjan in 1963 for the teaching of science in primary and secondary schools and finally at Lagos in 1964 for scientific research and the training of scientific personnel. Those plans had shown the need for scientific and technical co-operation both regionally and for Africa as a whole. However, such co-operation could not be effective without assistance, not only from the international and non-governmental organizations, but also from the countries of other continents.

42. The final requirement for such scientific and technical co-ordination was the creation of a political body to execute all resolutions or recommendations of national, regional or continental application, and that had been one of the aims of the Charter of the Organization of African Unity (OAU), adopted in 1963. The Charter was designed to reinforce the unity and solidarity of the African States, to co-ordinate and intensify their efforts to obtain better living conditions for the peoples of Africa and to promote international co-operation, in accordance with the principles of the United Nations Charter.

43. Within OAU, a scientific commission had been established to study effective means of co-operation in the fields of science and technology; it would replace the Commission for Technical Co-operation in Africa in January 1965. Its terms of reference covered the examination of all scientific and technical questions relating to the general development of Member States, promotion of basic and advanced training, establishment of a scientific policy for Africa, conducting,

at the request of Member States, joint scientific and technical research programmes, integrating foreign aid in projects of mutual interest, establishing regional research and training institutes and collaborating in joint projects with scientific international organizations. The OAU Conference of Heads of State, held in Cairo on 17 July 1964, had decided that the scientific policy of Member States should be aimed inter alia at increasing the use of radio-isotopes and drawing up a programme for developing the peaceful uses of atomic energy.

44. The short summary he had given would demonstrate the degree to which the activities of the Agency and those of the Scientific, Technical and Research Commission of OAU were complementary; the two organizations should therefore co-operate closely for the well-being of the African nations.

45. The scientific policy of Senegal, based on the principles adopted by OAU, was determined by the desire of the Government to establish short- and long-term programmes of economic and social development. It was for that reason that the scientific programme was embodied in the four-year development plans, but the Government was looking to the future by developing the scientific infrastructure, both inside and outside university faculties. For example, increasing use was being made of radioisotopes in solving urgent problems connected with natural resources and medicine, and Dakar University, which already possessed a sub-critical assembly presented by the French Atomic Energy Commission, would soon be equipped with a research reactor.

46. However, Government support for social and economic progress would not be effective unless the Agency became aware of Africa's special scientific problems. It had been noticed that many African countries were not represented at the Third International Conference on the Peaceful Uses of Atomic Energy^{1/}, possibly owing to the fact that only a few meetings had been devoted to problems of concern to them. As pointed out by the Secretary-General of the United Nations, the training of specialists had not even appeared on the agenda. Discussions had been devoted mainly to nuclear power and especially to high-power reactors, which did not at present interest most of the developing countries.

^{1/} Held at Geneva from 31 August to 9 September 1964.

47. It would be useful if the Agency would organize an international conference in Africa on the uses of atomic energy for the development of African States, so that its programme could be adapted to the needs of Africans.

48. In the same connection, he would warmly support any move to set up regional research centres. He shared the Agency's view that training and research were closely linked, and in his opinion the creation of regional centres was the most useful form of international co-operation. However, all regional centres should be of high standing and should fit into the scientific and technical framework; they should also use the services of qualified local teachers and research workers.

49. Scientific and technical knowledge could not be transferred from advanced countries to those in the process of development without being adapted to the latter's requirements, which varied from one region or ecological zone to another. As the economy of most developing countries was 80 per cent agricultural, the choice of sites for research centres was of major importance. It would be just as pointless, for example, to make a centre in humid tropical Africa responsible for agronomic research as to ask Sweden to carry out an investigation on olive trees, required by an agricultural district in the Mediterranean area. The Senegalese Government would therefore be unable to support any project for the creation of a regional centre in Africa which was not preceded by a thorough survey to determine, in the interest of all African peoples, the best location possible.

50. As regards safeguards, the Senegalese delegation was opposed to any controls applying exclusively to the developing countries and thought it unnecessary to extend the existing system.

51. Senegal was formally opposed to South Africa continuing to serve on the Board of Governors as one of the Members most advanced in the technology of atomic energy.

52. During the Board's meeting on 10 June 1964, the Governor from South Africa had supported a project for the creation of a regional centre in Africa, whilst his Government turned a blind eye to the situation of the coloured peoples in his country, which he thus excluded from the African community, whose obligations had been defined by the OAU Charter. The South African Government refused to heed the repeated appeals addressed to it, especially by the Security Council and the General Assembly of the United Nations, but insisted on following a

policy incompatible with its political and moral obligations as a Member State of an international organization, thus endangering the peace and stability of the world and particularly that of the African continent.

53. As it considered that all countries were in duty bound to support the accession of all African territories to independence, Senegal could not agree that Portugal be designated, under Article VI of the Statute, as a producer of uranium, when it produced none on its own soil. It therefore called for a revision of Article VI of the Statute and especially of sub-paragraphs A.1 and A.2. He hoped that the Agency and the Board of Governors, recognizing the right of nations to self-government in accordance with the United Nations Charter, would take the necessary action.

54. Senegal, which was a member not only of nearly all the international organizations, but also of inter-African organizations such as the African and Malagasy Union of Economic Co-operation and CAU, was perfectly aware that the problems involved in its economic and social development could not be solved without pooling all the limited resources and means possessed by the countries of the African community. That was why those countries stood to gain so much from international scientific and technical co-operation, and specifically that furnished through the International Atomic Energy Agency.

55. Mr. HUSDAYAT (United Arab Republic), in welcoming the four new members of the Agency, expressed the conviction that they would make a positive contribution to the Agency's activities.

56. The United Arab Republic had always believed that one of the Agency's most important tasks was to improve living standards in the developing countries. Conscious of the responsibilities and duties of the developing countries to keep pace with progress in the modern world, the United Arab Republic was expanding the utilization of atomic energy for the benefit of its people and joining in international efforts to promote the peaceful uses of atomic energy.

57. The activities of the United Arab Republic's Atomic Energy Establishment included scientific programmes in various fields of nuclear physics, nuclear chemistry, nuclear engineering, reactor materials and metallurgy, the exploration and development of local ores, scientific instrumentation for research, production and application of radioisotopes and radiation protection and dosimetry. Attention was also being given to reactor development and to the introduction of reactor sciences at the universities.

58. At the invitation of the United Arab Republic's Atomic Energy Establishment an Agency panel had been held in Cairo the previous year to advise on the United Arab Republic's first nuclear power project; the detailed technical investigations for the project had been completed by a Siting Committee in May 1963. Preliminary work on the site - on the Mediterranean coast 30 kilometres west of Alexandria - was already under way. The specifications of the nuclear power project had been subject to international adjudication, and it was hoped that the project would be in operation by mid-1969.

59. The specifications called for a nuclear power station of 150 MW(e), based on a power reactor of proven type, to be integrated with the 220 kV grid system. They also called for a fuel fabrication plant and for two experimental test loops. The specifications further included an invitation to tender for a 20 000 m³/day sea water desalination plant to be used in connection with a pilot agricultural project of 10 000 acres, the aim being to study the feasibility and economics of the use of desalinated water for agriculture under arid conditions. The United Arab Republic had submitted to the Agency a project for the use of desalinated water on a pilot farm, and considered that it could be properly taken up by the new Joint IAEA-FAO Division.

60. The United Arab Republic was co-operating in projects on the peaceful uses of atomic energy with the Soviet Union, Norway, Yugoslavia, Poland and India, and was exchanging experts and scientific data with other countries.

61. One of many examples of fruitful co-operation between the Agency and the United Arab Republic was the help given by the Agency in converting the Cairo National Radioisotope Centre into a Regional Centre for the Arab countries, open also to African trainees and researchers. Since its establishment the Centre had already held three training courses, attended by 54 students from various African and Arab countries, and was just about to start a fourth.

62. He welcomed the rôle played by the Agency in the Third International Conference on the Peaceful Uses of Atomic Energy and hoped that the results of the conference would favourably affect the Agency's plans for the future. It might profitably embark on a survey of long-term world power requirements and resources and the role of nuclear power in that connection. He suggested the establishment of regional nuclear power demonstration projects under Agency auspices, as joint undertakings between one or more advanced countries and the developing countries of the regions concerned. In selecting projects,

consideration should be given to the long-term requirements of the different areas. The idea of demonstration power reactors was not a new one, but he noted with regret that so far nothing had been done to put it into practice.

63. An example of the increasing importance of regional activities was the recent decision of the Arab League to establish a Joint Arab Council for Atomic Research for Peaceful Purposes under the League's auspices. Experience gained from the Middle Eastern Regional Radioisotope Centre for the Arab countries, in Cairo, showed that it was necessary to provide trainees with equipment to enable them to introduce radioisotope techniques into their own countries and to contribute to regional research activities. Also, the activities of the Regional Centre could and should be expanded to train personnel in other fields, such as protection and health and safety.

64. On the subject of regional activities he mentioned that the Organization of African Unity had established a Scientific, Technical and Research Commission whose main purpose was the development of science and technology in Africa. He hoped for close collaboration between that Commission and the Agency. Speaking of the political situation in Africa in general, he stressed the importance of the declaration made earlier in the meeting by a group of African States, including the United Arab Republic, on the South African problem.

65. His delegation considered that the subject of research contracts called for a new approach. The Agency should prepare in collaboration with Member States, particularly from the developing regions, a plan for Agency-supervised research that did not duplicate national research and laid stress on the solution of problems of interest to the developing countries, particularly regional problems. Technical assistance should be given to the developing countries to enable them to participate as much as possible in realizing that plan. He welcomed the emphasis which the Director General had laid on that point in his reference to the expansion of the tse-tse fly project and of insect pest control^{2/}.

66. The United Arab Republic welcomed the steps taken by the Agency to create a special advisory service for the development of health and safety and waste management techniques, which it hoped would start functioning soon.

^{2/} GC(VIII)/CR.83, para. 41.

67. The Agency could play an important role in facilitating and co-ordinating assistance in cases of nuclear accidents in Member States. Such assistance should be rendered at international level, on lines similar to those laid down in the Nordic Mutual Emergency Assistance Agreement in Connection with Radiation Accidents^{3/}, and with the help of other international organizations.

68. His Government welcomed the decision of the Board of Governors to establish a Working Group to undertake a general review of the Agency's safeguards system. The United Arab Republic was one of those developing countries which held the view that the existing system represented a discriminatory control inimical to the development of atomic energy for peaceful uses in the developing countries. It was the policy of his Government to use atomic energy only for peaceful purposes. In accordance with that policy his Government had signed the Moscow Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, and would welcome the complete banning of all nuclear tests, the destruction of existing nuclear weapons, and the utilization of the fissionable materials contained in weapons for peaceful and constructive purposes.

69. In his Government's opinion the reason why many countries had abstained from applying for the fissionable material made available in large quantities to the Agency was the existing safeguards system, which had the effect of imposing restrictions on countries developing their atomic energy and in need of new sources of power. The Director General's reference to the fact that a simplification of the safeguards system would stimulate wider application of atomic energy^{4/} confirmed his Government's view of the hampering effect of the present system. Moreover, the attachment of safeguards to unprocessed source materials, equipment, non-nuclear materials, reactors and fuel fabrication plants was impracticable and unnecessary, particularly for the developing countries which lacked the know-how and resources to use nuclear energy for military purposes.

70. He announced that the Government of the United Arab Republic, in addition to its contribution to the budget of the Cairo Regional Isotope Centre amounting to £E35 000, had decided to contribute a further £5000 to the Agency's General Fund.

^{3/} INFCIRC/49.

^{4/} GC(VIII)/OR.83, para. 35.

71. Mr. TORKI (Tunisia) said that his delegation categorically condemned the criminal actions of the Governments of South Africa and Portugal, which were humiliating innocent peoples and destroying their happiness, and thus endangering peace. Under the terms of the Agency's Statute, South Africa represented Africa and the Middle East on the Board of Governors, while Portugal was a producer of nuclear source materials. The Tunisian delegation wished to stress that the present Government of South Africa in no way represented Africa and the Middle East and that that region did not wish to be represented by it; moreover, Portugal was not a producer of nuclear source materials. Accordingly, the Tunisian delegation asked that the Statute of the Agency be revised.

72. Since the seventh session of the General Conference the Agency had made great progress, the importance of which was manifest. It would take too long to review that progress, so he would confine himself to making a few comments and suggestions.

73. In its present form, the safeguards system was a means of increasing the domination of the developing countries by the technically advanced countries. Consequently, Tunisia rejected it. On the other hand, a safeguards system applied to all Member States and to all nuclear equipment without distinction - in other words, in the context of general and complete disarmament - would undoubtedly be more rational and more effective, and Tunisia would support it whole-heartedly and in all sincerity.

74. The Regional Radioisotope Centre for the Arab Countries, set up in 1962 under the auspices of the Agency, was functioning satisfactorily, but owing to lack of funds it had not been possible fully to implement the programme of activities it had recently adopted. The Tunisian delegation hoped that the Agency would be able to give the Centre more assistance in order that it might be completely successful and serve as an example.

75. Reviewing the Tunisian Government's activities, he said that Tunisia was making a great effort to promote the peaceful uses of atomic energy because that could make an effective contribution towards implementing the country's economic and social development plan.

76. For instance, buildings which had served as barracks for the Tunisian army were being converted into research laboratories. The countries that were continually expanding their programmes for military uses of atomic energy should follow that wise example and reduce their military potential.

77. In Tunisia, the use of radioisotopes in agriculture, industry and medicine was continuing to expand. Research on the extermination of the fruit fly had produced tangible results, although the Agency had not always been willing to provide assistance, in spite of the undoubted good will of the Tunisian Government. He asked the Agency to give greater consideration to those types of research, which were vital to the Tunisian economy and to that of the whole Mediterranean basin. The object of research contracts should not be merely to utilize the laboratories and installations of Member States, but to help them undertake new projects of their own choice, not dictated by the Agency.

78. After the adoption of the Resolution (GC(VII)/RES/152) submitted by the Socialist countries on technical assistance to the developing countries, Tunisia had made several applications to the Agency for one of the nuclear physics laboratories, so that it might further improve the training of its qualified staff. Unfortunately those applications had produced no result.

79. The Board of Governors had just agreed that the six physics laboratories should be replaced by radiological centres. The Tunisian Government could not understand that decision, which it considered regrettable. The need to take more account of the problems of the developing countries should be impressed on the Agency.

80. At the sixth session of the General Conference, Tunisia had brought to the Agency's attention, for the first time, the importance of the use of nuclear energy for desalting sea-water and brackish water^{5/}, and the Agency had set up a panel of experts to examine that problem at Tunisia's request.

81. The Tunisian delegation had taken an active part in the first meeting, in March 1963, and had submitted the conclusive results of a technical and economic study of a reactor used for the simultaneous production of electricity and fresh water, thus making a useful contribution to the development of the peaceful uses of atomic energy. Moreover, desalination had been one of the main topics at the Third Geneva Conference, and the Director General should take the necessary steps to ensure that greater attention was devoted to it in the Agency's programme of activities.

82. In accordance with the recommendations of the Agency's panel of experts, which had met in September 1963, Tunisia had, on 4 March 1964, invited preliminary tenders for the construction in the south of the country of a reactor producing 70 MW(e) and 20 000 m³ of fresh water a day.

^{5/} GC(VI)/OR.68, paras. 99 and 100.

83. By the end of July twelve tenders had been received and Tunisia had then asked the Agency to invite experts to assist the Tunisian technicians in examining them. The Agency had not responded favourable to two letters or to a telegram which had been sent to it. The Tunisian delegation deplored that attitude at an important stage in the development of the project, but Tunisia had called in foreign experts and the tenders had nevertheless been examined. The reactor was expected to go into operation at the end of 1970. The Tunisian Government would accept any form of assistance in carrying out the project, and negotiations were being conducted with various countries.

84. On 30 June 1964, President Bourguiba had spoken of co-operation in the following terms:

"Co-operation is a feature of our time which has no equivalent in the past in the organization of relations between communities and peoples. It is not simply a negative attitude, involving recognition of the existence of others and the respect of those concerned for each other's opinions, philosophies and religious beliefs; it is also a sincere desire to establish relations with one's partner, to communicate with him in order to understand him, to share his innermost thoughts, to help him and to grow closer to him."

85. President Bourguiba had gone on to say that, understood in that way, co-operation could be a factor in bringing peoples together, the like of which had never been seen before. History had known a succession of civilizations, but each of them had been confined within a certain geographical area, so that mankind had been divided into two parts: the civilized and the barbarians. It now seemed possible that the area of twentieth-century civilization might cover the whole world.

86. Whole peoples were sunk in ignorance and struggling against the horrors of hunger and disease. But small minorities within those peoples had achieved a level of development and maturity which enabled them to spread progress about them if they could obtain sufficient help and sincere support from the advanced nations. It was not simply a question of human duty, but of necessity, dictated both in the present and in the future by the recognized interests of all.

87. For its part, the Head of the Tunisian Government had added, Tunisia had shown a real desire to practise co-operation.

88. If co-operation allowed dominating positions achieved by coercion to be secretly maintained, or if it was designed to establish disguised domination for the benefit of anyone, his country rejected it. But if it was not tarnished by ulterior motives, it would find no more sincere supporter or ardent defender than his country. Tunisia had proved that, in the past as in the present, and in times when there were few supporters of co-operation in the world.

89. President Bourguiba had concluded by saying:

"Tunisia is proud of the part it has played in the international sphere since gaining independence. It believes that it has contributed, within the limits of its means, to the promotion of fraternal and sincere co-operation between peoples with rival ideologies, different social systems, and extreme political positions."

90. Co-operation in the project he had mentioned was all the more important because it concerned one of the widest of the peaceful uses of atomic energy, the technical and scientific results of which would lead to the solution of the water supply problem throughout the world, and particularly in the technically advanced countries.

91. It was to be hoped that the countries concerned, and particularly the technically advanced countries, would appreciate the importance of co-operating in the execution of such a project.

92. In conclusion, although the Agency's activities were, in general, progressing along the right lines, several problems remained to be solved.

93. Tunisia was always prepared to contribute to their solution with the honesty, sincerity and devotion it had always shown.

94. Mr. KAKAR (Afghanistan) said that Afghanistan had welcomed the holding of the Third Geneva Conference and had been proud to participate in it; meetings of that kind were essential to promote the peaceful uses of atomic energy throughout the world.

95. Afghanistan was engaged in developing the peaceful utilization of nuclear energy and had taken some initial steps in that direction. It greatly appreciated the essential help and assistance given in that work by the Agency. More assistance would be needed in the future as the country's plans developed. A nuclear physics laboratory had already been established in the Faculty of Science

at Kabul University, with equipment supplied by the Agency. His country was also grateful for the services of an Agency adviser on nuclear physics; with whose help a course on nuclear physics had been introduced which would serve as the basis for all future activities. His Government had already asked that the expert's services be continued throughout 1965 under the Expanded Programme of Technical Assistance (EPTA) and was glad to know that the Agency was agreeable to supporting that request.

96. Efforts were being made to set up research laboratories for radioisotope applications in medicine, agriculture, industry, and so on. Some work had already been done in regard to medical applications of radioisotopes, with the help of the Agency expert. Progress was also being made on a project for the establishment of a research laboratory in medical applications and associated fields, as an extension of the present nuclear physics laboratory.

97. In that connection, Afghanistan had asked the Agency to provide a radio-therapy unit, together with an expert in hospital physics. That equipment, if furnished, would be of immense help to his country. The groundwork for its proper utilization had already been done. The request had most recently been renewed in the month of June and it was hoped that positive action would be forthcoming in the near future.

98. A further request, under the Agency's regular programme of technical assistance for 1965, had been made for the supply of some equipment and the services of an expert for the establishment of a radiochemistry laboratory in the Faculty of Science.

99. One of the most important steps towards developing atomic energy activities in his country had been the recent conclusion of a bilateral agreement with the USSR, under which Afghanistan would be provided with a sub-critical assembly. The design and construction work were expected to be completed by the end of 1965 and operation to start by the beginning of 1966. The services of more experts in various radioisotope applications would therefore be needed from 1966 onwards. It was his Government's intention to submit a request to the Agency for that assistance, which he hoped would be accorded a favourable reception.

100. Afghanistan had taken part in several conferences and symposia organized by the Agency in various countries and expected to participate in many more in the future, for one of which it would like to be the host country.

101. In conclusion, he expressed the hope that a full test-ban and nuclear disarmament treaty would soon be concluded, as earnestly desired by all nations, and that the vast potential of atomic energy would in the future be devoted exclusively to peaceful purposes.

102. Mr. FRANGELLA (Uruguay) said that Uruguay, a country well known for its high level of organization and political stability, had always been a supporter of international agreements, as testified by its participation in the Hague Conference, the League of Nations and the San Francisco Charter, and by the fact that it had been the second Latin American country to sign the Moscow Partial Test Ban Treaty.

103. As far as the Agency was concerned, although Uruguay had accepted the underlying principles from the very beginning, it had requested admission only three years previously. He then proceeded to list the activities by which Uruguay had contributed to the development of nuclear energy between the seventh and eighth sessions of the Agency's General Conference:

- (i) The First Conference of Radiochemistry, held at Montevideo with the participation of 19 American countries, under the auspices of the Organization of American States;
- (ii) The "Atoms in Action" Exhibition, organized by the Atomic Energy Commissions of the United States of America and Uruguay, for purposes of teaching and publicity;
- (iii) Reconstruction and re-equipment of the Medical Faculty's biophysics laboratory, which had been burnt down;
- (iv) Prospecting for radioactive minerals, including the continued survey of the country using helicopters and highly sensitive detectors. In Uruguay there was an area where background activity was double the normal amount, and on the Atlantic coast there were exploitable thorium minerals;
- (v) The Chemistry Faculty had begun geochemical prospecting work;
- (vi) The Veterinary Science Faculty's Fisheries Research Institute was carrying out analysis of fish by radioactivation, which was of great importance in view of the fishery resources of the Rio de la Plata;
- (vii) The Engineering Faculty's Technology Institute was carrying out metallographic research by radioactivation;

- (viii) Neutron radiation was being applied to research on solid state physics;
- (ix) Four laboratories were using radioisotopes, mainly for therapeutic purposes: the MC², the Engineering Faculty's Physics Institute, the Ministry of Public Health's Radiological Institute and the Medical Faculty's Endocrinological Institute;
- (x) An 18 MeV betatron had gone into service, being the first of its type in the southern hemisphere. It was intended for the treatment of cancer, using accelerated electrons, and for physical and biological research. In addition Uruguay had four cobalt-60 bombs with sources of 1 and 2 kilocuries, 5 grams of radium, more than 20 machines for fixed- and moving-field X-ray therapy and contact therapy and so on, and had offered the Agency two fellowships for therapeutic training using the betatron; and
- (xi) A law had been enacted for the purchase of a research reactor, for the training of personnel and for the production of short-lived radioisotopes.

104. Currency devaluations and the enormous cost of the necessary apparatus meant that the study and utilization of nuclear energy were ruinous items of expenditure for less rich countries and explained their backwardness in the various branches of nuclear science. For those reasons Uruguay accepted the Agency's generous assistance, being also convinced that the Agency was one of the roads that led to peaceful coexistence.

105. Mr. QUIHILLALT (Argentina) said that the Argentine delegation had been associated with the Agency's work since the very beginning, having participated in the Preparatory Commission itself. Although, during the years which had elapsed since then, the hopes which had attended the founding of the Agency had not been entirely fulfilled, nevertheless, that period had been far from sterile. Not only had a large group of countries, including Argentina, benefited from the Agency's work, but the latter had proved itself an organization indispensable for the progress of mankind in the present nuclear era. The Agency was called upon to take full responsibility for all the functions envisaged by the Preparatory Commission and many others which could not have been foreseen. The Agency's work would continue to make an ever-growing contribution to raising the standard of living of mankind.

106. The Third Geneva Conference had provided further evidence of the capacity of the atom to generate electricity and produce drinking water. Argentina was particularly interested in nuclear power generation and was at present studying the possibility of building a power reactor of some 350 MW(e) on the coast near Buenos Aires. Although the study was being performed with Argentine personnel and resources, the Agency's experience represented a valuable stimulus.

107. His delegation approved the reorganization of the structure of the Secretariat, since in that way it would be able to operate more efficiently and expand its activities.

108. In conclusion, he stated that Argentina would continue to lend its enthusiastic support to the Agency, and congratulated the Director General, Dr. Eklund, and his staff on the magnificent work they had carried out, work which would have vital repercussions in the future.

The meeting rose at 1 p.m.

