



International Atomic Energy Agency

General Conference

GC(VII)/OR.75
31 December 1963

GENERAL Distr.

ENGLISH

Seventh regular session

OFFICIAL RECORD OF THE SEVENTY-FIFTH PLENARY MEETING

Held at the Neue Hofburg, Vienna,
on Wednesday, 25 September 1963, at 3.15 p.m.

President: Mr. PERERA (Ceylon)

CONTENTS

<u>Item of the agenda*</u>		<u>Paragraphs</u>
10	General debate and report of the Board of Governors for 1962-63 (continued)	1 - 110
	Statements by the delegates of:	
	Israel	1 - 10
	Nigeria	11 - 14
	Argentina	15 - 26
	Colombia	27 - 47
	Mexico	48 - 56
	Czechoslovak Socialist Republic	57 - 78
	Switzerland	79 - 89
	Netherlands	90 - 110

* GC(VII)/247.

The composition of delegations attending the session is given in document
GC(VII)/INF/66/Rev.2.

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1962-63
(GC(VII)/228, 243) (continued)

1. Mr. BERGMANN (Israel) expressed his appreciation of the support his country had received from the Agency. At the present time the Agency's most important function was to give advice to the developing countries, which could make a start with some of the applications of atomic energy that did not immediately require large and costly installations. Young people could then be trained in the necessary techniques, so that they could look forward with confidence to the installation of a research reactor. The training of their own scientific staff was one of the most important tasks facing the developing countries.
2. He was convinced that atomic power could eventually be the answer to the global problem of energy supply, but he did not think it would become a common commodity as soon as the founders of the Agency had originally hoped. One reason was that only very large installations appeared to be economically sound at present and they would not be suitable for most of the developing countries unless another large-scale use was found for the energy produced. One such use could be the desalination of sea-water. His country was particularly interested in that subject and he was very glad that a group of experts was to study it.
3. Between the training of scientific staff and the building of atomic power stations came the period of the research reactor. It was an essential stage, but it was expensive and could only be justified if the reactor was fully utilized. The Agency had been wise to hold regular conferences on the subject and Israel had been glad to take part in them and share its experience, as a country with limited manpower and financial resources, with other countries in a similar position.
4. He then gave an account of the work done in Israel with a research reactor, which had become one of the centres of scientific life in the country and had greatly encouraged fundamental research. A new research group was working on the theoretical physics of elementary particles and work was also being done on nuclear chemistry, radiochemistry and radiation chemistry. Interest in fundamental research had not, however, led his country to neglect the applications of atomic energy. It was providing short-lived isotopes for use in research, in hospitals, in agriculture and in industry, and the results obtained by their use in water planning had been most satisfactory.

5. Some work had also been done on the use of radioactive fall-out for meteorological studies and he thought it would be useful if the Agency could co-ordinate all the work on that subject.
6. A considerable amount of work was planned on radiobiology and the applications of atomic energy to agriculture. A group had been formed to study the preservation of food by ionizing radiation - a process which was of particular importance to tropical and sub-tropical countries. That was another field in which the Agency might well perform a central co-ordinating function.
7. Israel's research reactor was now being used for 80% of the total working time and he believed that within a year or eighteen months it would be fully utilized. It would then be necessary to carry on all additional activities at a new research centre.
8. Israel was particularly interested in promoting international co-operation in the uses of atomic energy and he was glad to be able to announce that his Government would again offer fellowships for 60 man-months to enable scientists from other countries to work in Israel. A course for high-school teachers had recently been held in Israel, which had been attended by teachers from several Asian and African countries. It was particularly important that high-school students should learn something about nuclear energy, but unfortunately the high schools, particularly in the developing countries, did not usually have the facilities necessary for such instruction. It would be helpful if a unified syllabus could be worked out and simple equipment devised which, when produced in sufficiently large quantities, would be within the reach of even the poorer countries. He hoped that the Agency would devote some attention to that problem.
9. He welcomed the fact that the Agency had agreed to sponsor the second international course in radiobiology which was to be held in Israel in April 1964. His Government also wished to propose that an international symposium on radiation chemistry should be held in Israel towards the end of 1965.
10. In conclusion, he said that the General Conference was meeting under the happy auspices of the Moscow treaty on the partial discontinuance of nuclear tests; he hoped that that treaty would free the nations of the world from the mutual suspicion which had poisoned their relations and give a new impetus to the spirit of international co-operation.

11. Mr. FATIKA (Nigeria) expressed his appreciation of the unanimous support given to his country's application for membership in the Agency. Nigeria had always strongly advocated the restriction of atomic energy to peaceful uses and he was therefore very happy to welcome the agreement reached at Moscow on a partial nuclear test ban.

12. The Director General, in his statement, had referred to the trend towards a regional approach in certain of the Agency's activities; it was to be hoped that the Agency would consider the establishment of a regional training centre for the African countries and that favourable consideration would be given to the proposal that a study group on reactor utilization should be organized for countries in Africa.

13. He also hoped that during the current session the Agency's Statute would be amended to provide for better representation of the African countries on the Board of Governors. As the representative of a new Member, he did not wish to enter into a detailed discussion on the working of the Agency; nevertheless, he could not but note with regret the continued representation of South Africa on the Board of Governors. His country felt very strongly that South Africa, while pursuing its inhuman policies of apartheid, had no moral right to representation on a body which had to consider issues of vital concern to developing countries in Africa. He hoped, therefore, that the Agency would, as soon as possible, take appropriate steps to exclude South Africa from the Board of Governors.

14. The developing countries were very conscious of their lack of experienced scientists and technical staff and they welcomed the offer of secondment of young scientists and administrators to the Agency. They also hoped that experienced African scientists and administrators would be given opportunities for service in senior posts on the Agency's staff.

15. Mr. QUIHILLALT (Argentina) said that the entry of new Members into the Agency was an auspicious event. The Argentine Republic was particularly gratified by the admission of Bolivia and Uruguay, neighbouring countries with which it had always collaborated, and hoped that its co-operation with them would now be extended to nuclear science.

16. Referring to technical assistance activities during the past year, he expressed his thanks for the assistance received, which had made it possible to bring various projects in the Argentine nuclear research programme to a successful

conclusion. Thanks to technical assistance, Argentine research workers and technicians had been able to improve their knowledge of various branches of atomic science. Argentina, in its turn, had been able to help other Latin American countries, taking advantage of the comparatively short distance that separated them. Argentine experts had collaborated, for instance, in the work of the mobile laboratory.

17. Turning to the question of better utilization of technical assistance, he referred to the problem of defraying fellowship holders' travelling expenses, which were a burden for States faced with economic difficulties and situated far from the usual countries of study. In many cases they had to decline the fellowships offered by the Agency or by Member States because they could not meet those expenses. The policy followed by the Agency, which was to examine each individual case and pay travelling expenses where it was considered necessary, was, in his opinion, adequate; hence, as he had maintained during the discussions of the Board of Governors, no alteration should be made in that procedure.

18. Referring to other activities of the Agency, he praised the good sense with which they had been carried out and the spirit of collaboration with other organizations related to the United Nations, which made it possible to avoid a duplication of work in many fields.

19. Progress in the field of nuclear power had not been as rapid as had been expected at first, but it was to be hoped that the work done would soon begin to show results; he therefore thought it appropriate to give priority to the Agency's studies, reports and work on that subject.

20. He was not entirely in agreement with the importance assigned in the budget to the development of laboratory work, but he trusted that the sound judgement of the Secretariat would ensure that it did not become detrimental to other activities that deserved higher priority.

21. With regard to the long-term programme, he considered it essential in the present age of planning and was certain that the fixing of immediate and long-term objectives would appreciably increase the Agency's efficiency. He was convinced that, once certain financing difficulties had been overcome, the programme would prove beneficial, particularly for the developing countries. For that reason, among others, Argentina had decided to support the amendment of

Article XIV of the Statute^{1/}; for there was no doubt that the success of the programme would largely depend on a precise knowledge of the sources and amount of funds to be allocated to it. He confessed that although he had studied the matter very carefully, he had not been able to find a more satisfactory solution.

22. Biennial programming within the framework of annual budgets would have definite financial advantages and, if approved, would make it possible to plan the utilization of resources carefully and obtain a better return from them. Among means of effecting economies without prejudice to other fruitful activities, such as technical assistance, he mentioned the possibility of the General Conference meeting only once every two years. The urgency that had made annual meetings advisable no longer existed, and in various other international organizations, such as the United Nations Educational, Scientific and Cultural Organization and the Food and Agriculture Organization of the United Nations, the new system had given entirely satisfactory results. It would not be difficult to make the necessary amendment to the Statute, and the present was a favourable time to do so.

23. He considered that the principle underlying the proposal for reorganization of the Secretariat, submitted by the Director General, was sound; the proposed changes would simplify the Secretariat's structure and make it more flexible and efficient. At present, the allocation of fellowships, the supply of equipment and the provision of experts came under separate Departments, the activities of which were difficult to co-ordinate. The amalgamation of those separate Departments would result in increased efficiency in the services they furnished to Member States. He understood that, in view of the importance of the duties he would have to perform, the official responsible for all matters appertaining to technical assistance was to hold the rank of Deputy Director General, and that he was to be a national of one of the developing countries, so that he would have a thorough knowledge of their problems.

24. He then referred to the effective efforts made by the Agency to secure international legislation on nuclear energy. Following the studies on civil liability for nuclear damage carried out by the panel of experts which had been set up in 1958, and had met in 1960 and 1961, and the work of the Intergovernmental Committee that had prepared the preliminary draft of a convention on that subject, the Agency had, in April 1963, convened the International Conference on Civil Liability

^{1/} GC(VII)/236.

for Nuclear Damage. The Convention adopted by that Conference represented a most important landmark in the history of modern legislation. Parallel with that valuable legal work of the Agency, studies had been carried out with a view to establishing legal norms for the discharge of radioactive waste into the sea. The Argentine Government had given special attention to possible extensions of the Brussels Convention on the Liability of Operators of Nuclear Ships, to bilateral and regional agreements concerning nuclear accidents and to other matters of a similar kind.

25. In conclusion, the Argentine delegation did not wish to miss the opportunity of referring to an event that gave cause for courage and hope for civilization - the conclusion of the nuclear test ban treaty, which marked the beginning of agreement between two great Powers, the United States of America and the Union of Soviet Socialist Republics. The importance of that agreement had been shown by the fact that nearly all the nations of the world had acceded to the treaty.

26. While the future was uncertain and there were factors that might still cast a shadow on the scene, he considered that the test ban agreement meant the attainment of a modus vivendi which could banish the terror of a nuclear war; he hoped that an atmosphere of reduced tension, of understanding and comprehension would henceforth prevail and that sincere collaboration between all nations of the world be established. He hoped, too, that the Agency would play its part in that collaboration and strengthen the trend recently shown in the speeches of the President of the United States and the Minister for Foreign Affairs of the Soviet Union at the United Nations General Assembly.

27. Mr. MARULANDA (Colombia) said that the problems which had existed in 1957 when the Agency had been set up were gradually being solved; there were now 83 Member States interested in the peaceful utilization of atomic energy. Atomic energy was no longer the exclusive privilege of very advanced countries, for even the least developed were trying to train experts, build laboratories and create a real interest in atomic energy among their own scientific communities.

28. Thus, since 1956, Colombia had had a Nuclear Institute which prepared and carried out nuclear studies, encouraged the use of atomic energy for peaceful purposes and, in doing so, complied with the applicable international agreements. The Institute had large and well-equipped offices and laboratories, a dilution tank for contaminated water, an insect-breeding centre where experiments on

pest eradication were carried out, a hothouse, a machine shop, a stabilized electricity service, and air, water and gas installations. Its technical staff, which included chemical and electronics engineers, chemists, physicists, agronomists, doctors and auxiliary staff, was Colombian; some had been trained in the Institute itself but most had pursued their advanced studies at American and European centres.

29. Like almost all countries in Latin America, Colombia was primarily agricultural. It was the second largest producer of coffee (its main source of foreign currency) on the South American continent. Cotton cultivation had increased rapidly in recent years -- from 85 000 hectares in 1955 to 180 000 in 1962 -- with a production of approximately 221 870 tons of cotton seed; cotton exports, second in importance amongst the country's exports, had been worth \$18 million in 1962. However, pests which threatened the crop affected not only production costs but also the quality and quantity of the harvest. Amongst such pests the worst was the Colombian pink grub (*Sacadodes Pyralis*), which destroyed 30% of the crop, representing a value of some 35 million Colombian pesos.

30. In view of the importance of cotton cultivation and the danger represented by *Sacadodes Pyralis*, the Nuclear Institute was considering the possibility of eradicating that pest with gamma radiation. In the insect-breeding centre, which provided conditions of temperature and humidity similar to those in which the insect flourished, the radiation dose which could sterilize the male insect without affecting its sexual virility, longevity and mating habits was being investigated, together with the chrysalis age at which the irradiation would have maximum effect.

31. The "gualpa" or coconut beetle (*Rhynchophorus Palmarum*) was one of the most terrible of palm tree pests because of its speed of reproduction, the difficulty of controlling it and the gravity of the damage it usually caused. In the South, along the Pacific coast, whole plantations had been destroyed, and unless a vast eradication campaign was undertaken the pest would shortly infest the whole Pacific coastline. The main problem, however, was that it might attack the African palm, whose cultivation was being intensified in Colombia in order to remedy the deficit in vegetable oil production which now stood at 45 million kilograms and might reach 100 million kilograms unless adequate measures were taken. To deal with the present problem and the problem which might arise in

the future, the Institute, in collaboration with companies cultivating the African palm and the country's agricultural faculties, intended to undertake research on that little-known coleopteron. It was a difficult task, but the use of radio-isotopes would undoubtedly yield excellent results.

32. Various studies of tuber preservation by means of ionizing radiations had been made. Potatoes irradiated in 1962 at 10-15 krads were physically and chemically in perfect condition. A comparative study was at present being made of the effects of various chemical inhibitors and of gamma irradiation on potatoes of different varieties and qualities. In collaboration with experimental farms and agronomy faculties, soil phosphorus, A-values and the influence of fertilizer types and phosphate fertilizer applications on barley crops were being studied; methods of using labelled fertilizers in fertilizer tests, and phosphorus translocation by barley in hydroponic cultures, were also being investigated.

33. The possibility of using radioactive sources for X-ray fluorescence excitation in chemical analysis was being studied. Proportional counters, operating on a mixture of argon and methane and intended for the spectrometry of characteristic X-rays of the 3 keV to 8 keV energy range, were nearing completion. A solid-state scintillation counter for thermal neutrons had been constructed and a series of experiments performed on different luminescent boron compounds in an attempt to obtain high efficiency and low gamma-sensitivity. The counter consisted of a fine layer of boron nitride bonded with collodion and extended over a support. Certain characteristics - viz. efficiency for thermal neutrons, 17%, and for the gamma rays of cobalt, 0.01% - were known. Such counters would be used in constructing beryllometers and in studies on soil and coffee **moisture**.

34. A small reactor (10-100 kW) for training and research had been donated by the United States Government and would go into operation in 1964. A neutron howitzer containing an Ra-Be source, built at the Institute, was at present being used to determine the Fermi age, diffusion length and migration area of Ra-Be neutrons in water and other liquids, and the reflection coefficient of polyenergetic neutrons in water.

35. The Institute had concentrated its research in medicine and biology on the problem of endemic goitre, which affected 52% of the population of Colombia. I^{131} was used for that purpose. The basic clinical studies were being made on the numerous patients of the Department of Endocrinology and Radioisotopes of the

National Cancer Institute (e.g. thyroid uptake of the radioisotope, excretion in the urine, conversion factor for the thyroid hormone in the blood, and so on). Special procedures were being used to investigate the distribution of thyroid hormonal products in human plasma.

36. Such studies had acquired immense importance since Stanbury in the United States and McGirr in England had described enzymatic deficiencies of the thyroid gland as a possible cause of goitre and of serious pathological changes. Such deficiencies fell into four main groups: (a) deficiencies in the incorporation of iodine and organic molecules (mainly the tyrosine group); (b) tyrosine coupling deficiencies; (c) deficiencies in partial deiodification of the tyrosines accompanied by disturbances of internal tyrosine circulation and their passage into the general circulation; and (d) presence in the plasma of an abnormal iodated protein.

37. Research had been concentrated on the last types of deficiencies. In the first place, paper chromatography studies had been made with a view to identifying the various radioiodine-bearing amino acids in the plasma; but that work had been preceded by a painstaking standardization of chromatography techniques and a careful analysis of the exchange reactions leading to in vitro synthesis of the amino acids and their subsequent identification by chromatography.

38. A chromatography analysis had then been made of the amino acids which could be extracted with butanol from the plasma of persons who had received adequate doses (1 mc or more) of I^{131} ; its purpose had been mainly to determine the tyrosine - thyronine ratio in enough cases to permit an analysis of the pathological observations.

39. As to the presence of abnormal iodated proteins, the globulin zones which carried the radioactive thyroid hormones in the same patients had been identified, during the last two years, by zonal electrophoresis on paper. The most frequent type of normal migration had thus been established.

40. Another project, undertaken at the same time as the research on thyroid physiopathology, was the recuperation of radioactive iodine from the urine of patients already treated for use again in other persons. In view of the high cost of the radioisotope and the difficulty of shipping it from United States reactors to Bogotá, that project was of considerable social and economic importance. The

number of treatments (especially in hyperthyroid cases) and diagnostic doses that could be administered to patients free of charge was limited by the ability of the hospitals to obtain the material. Moreover, since thyroid cancer patients treated with doses of the order of 100 mc could eliminate 50% to 60% of the dose through the urine within 48 hours, the active iodine recuperated could be administered in five or more therapeutic doses of 6 - 8 mc each (as in hyperthyroid cases).

41. Accordingly, a slight modification had been made in the Purves method, the radioactive urine being passed through a column of silver chloride crystals and eluted from it in the form of an iodate by means of bleaching liquid. Up to now 95% had been recuperated, and the recuperated I^{131} was beginning to be employed for diagnostic purposes, with perfect tolerance on the part of the patients.

42. A way of using I^{125} in the diagnosis of thyroid affections was being studied. For that purpose the design of scintillation counters for the detection of low-energy photons (approximately 30 keV) emitted by I^{125} was being studied in collaboration with the Environmental Radiometric Study Section. The radioisotope would be convenient to use, not only because of its longer half-life (60 days) but also because the biological dose received by the patient was lower.

43. Another project of major interest had been started: the labelling with radioisotopes of the reduviids which carried Chagas' disease and were prevalent in some of the lowlands. The labelled insects were to be released from an experimental station which had been planned in collaboration with the National School of Public Health; an ecological study of the insects would then be possible, and their migrations would be recorded. Venezuelan research workers applied a Co^{60} solution under the elytra; the Colombian experts had preferred endogenous marking studies, incorporating P^{32} in the skeletons of insects that had previously been fed with the blood of rodents labelled with the radioisotope. Endogenous labelling had the advantage of being more persistent.

44. In its nuclear policy, Colombia hoped to be a moral power, a faithful defender of the principles of the United Nations, prepared to collaborate in applying atomic energy for the peace, health and prosperity of the entire world. It was for that reason that Colombia had signed a bilateral agreement with the United States concerning the utilization of atomic energy for peaceful purposes, which had since been approved by Congress and ratified by the Government. Under the agreement the United States would provide Colombia with an experimental reactor which would be installed and put into operation with the technical assistance of the Agency.

45. In common with Venezuela, Colombia had also announced its intention of encouraging nuclear disarmament and signing the recent Moscow treaty which banned nuclear weapons tests in the atmosphere, in outer space and under water. The Heads of State of both countries had declared that to be the first step towards effective international measures which would eventually lead to total nuclear disarmament, an objective fully in consonance with the stand they had consistently taken in the United Nations, and with the proposals of various Latin American Governments in regard to the prohibition of nuclear weapons in Latin America.

46. The President of Colombia, Dr. Guillermo León Valencia, had reiterated those principles and insisted that nuclear disarmament should be really universal, so that no country would run the risk of falling unarmed into the hands of its enemies.

47. In concluding, he emphasized the need to ensure that all activities involving atomic energy should be peaceful, constructive and fruitful. Fellowships should be provided and technicians, officials and laboratory staff trained to make up for any deficiencies. For that purpose the Agency's procedures should be speeded up and the system of awarding technical assistance revised. The resources released by the ending of the "cold war" should be placed at the disposal of the Agency so that it could help countries which needed help, combat the use or even the testing of means of destruction, and replace such activities by research, training and the teaching of the nuclear sciences. That would be the best way of contributing to the United Nations Development Decade.

48. Mr. SANDOVAL VALLARTA (Mexico) said that, for Member States, the Agency's seventh year would unquestionably stand out because of the evidence it afforded of international co-operation, and of the benefits that humanity would receive from the peaceful utilization of atomic energy.

49. Mexico, having been represented at all the previous sessions, saw with pleasure that the number of Member States was increasing, and that, in a wide spirit of international co-operation, the noble ideas which had led to the Agency's creation were still prevailing. Despite all difficulties, its work continued to be helpful to all, and especially to the developing countries.

50. Turning to the Agency's technical assistance to Mexico, he wished to mention, in particular, the expert sent to help with the programme for using radiation in industry, the valuable assistance of a geologist in aerial prospecting for

radioactive ores, and the reactor expert who had advised on the selection of a reactor type and the preparation of possible research programmes. The latter two experts had been furnished by the Agency under the United Nations Expanded Programme of Technical Assistance (EPTA). The Mexican National Atomic Energy Commission aimed at producing nuclear energy for industrial purposes and had set up the necessary laboratories. With a view to increasing the uranium ore reserves, radioactive ore prospecting and development and experimental metallurgy had also received due attention.

51. The national programme of education and training was continuing to provide courses on basic radioisotope and nuclear instrumentation techniques and also on important aspects of nuclear medicine, radiobiology and radiochemistry.

52. An intensive course on the industrial uses of radioisotopes had also been initiated, a new laboratory having been constructed for the purpose.

53. The Government of Mexico had decided to establish a new nuclear centre which, to begin with, would be provided with two main pieces of equipment: a 1 MW nuclear reactor and a 12 MeV tandem-type Van de Graaff accelerator. The new reactor would be used for the training of scientists and technicians, for the production of radioisotopes and for scientific, technological and industrial research. A request had already been submitted to the Agency for the supply of nuclear fuel for the reactor. The accelerator would be devoted to research on the energy levels of atomic nuclei. While the preparations for the centre had been going on, more than 120 Mexican experts had received training in the various branches of knowledge connected with the peaceful uses of nuclear energy. Those experts would help in setting up the centre. His delegation thought that it was a magnificent idea to bring together a distinguished team of technicians to study the desalting of water with a view to obtaining supplies of drinking water. The problem was one of great importance for areas suffering from alarming droughts and water shortages. His own country was particularly interested in that question because 60% of its area was arid or semi-arid. Since the cost of nuclear power fell sharply as the size of the reactor increased, in the future huge reactors would be used to convert sea-water into water for irrigation and drinking. With that end in view, the Mexican Atomic Energy Commission had made a detailed survey of studies published by the United States Atomic Energy Commission on the use of large amounts of nuclear energy for the desalting of sea-water.

54. The proposal to establish an international centre for theoretical physics under the Agency's auspices had been supported by his country from the very beginning. Firstly, the proposed centre would help create a scientific tradition in the developing countries, since it was illusory to believe that a country could reap the benefits of the nuclear age with just a few technicians in nuclear subjects. Secondly, of all the branches of physics, theoretical physics was the least costly. Talent was available in all countries and the real problem was to develop it. Thirdly, the proposed centre could serve as a suitable forum for many of the scientific meetings sponsored by the Agency and normal Agency fellowships could be used to give the centre greater impetus. Lastly, the study of theoretical physics was in keeping with the objectives laid down in the Agency's Statute. For all those reasons, Mexico would vote for the proposal to set up the centre at Trieste.

55. In addition to the meeting on the use of nuclear energy for the desalting of sea-water, his country had followed with great interest the conferences, panels and symposia sponsored by the Agency. A Mexican delegation had likewise attended the Bombay symposium on the siting of reactors.^{2/} Mexico welcomed the entry into force of the amended text of Article VI.A.3 of the Statute, having been one of its sponsors in the Board of Governors. The amended version would enable new African Member States to participate in the work of the Board.

56. In conclusion, he wished to give expression to the great hopes which Mexico placed in the nuclear test ban treaty. He was confident that it constituted a first decisive step towards a future in which humanity would use nuclear energy for peaceful purposes only.

57. Mr. NEUMANN (Czechoslovakia) said that the seventh regular session of the General Conference was taking place in the wake of a significant event in international life - the signature of a treaty banning nuclear weapons tests in the atmosphere, in space and under water. The treaty had been welcomed by peace-loving people throughout the world. It removed the danger of the atmosphere, rivers, oceans and space becoming contaminated by radioactivity, and was a substantial contribution to reducing international tension. Signature of the test ban treaty would be the first specific step towards general and complete disarmament, as the result of which war would be eliminated and all the achievements of

^{2/} Symposium on Criteria for Guidance in the Selection of Sites for the Construction of Reactor and Nuclear Research Centres held in Bombay from 11 to 15 March 1963.

science and technology, including those in nuclear energy, would be applied exclusively for the benefit and well-being of humanity. The Czechoslovak delegation therefore considered that the International Atomic Energy Agency should give greater support to the struggle for general and complete disarmament than it had hitherto done.

58. He recalled that a resolution, GC(VI)/RES/130, had been unanimously adopted at the sixth regular session of the General Conference, requesting the Director General to collaborate with the United Nations in keeping under review the basic aspects of economic and social consequences of disarmament and the problems arising therefrom on the national and international plane. Unfortunately, the Agency had as yet taken very little action in compliance with those instructions. For obscure reasons, the implementation of Resolution GC(VI)/RES/130 had been entrusted to only a few officials of the Secretariat and Member States had not been invited to help at all. Thus, the task of demonstrating the prospects for the peaceful uses of nuclear energy in a world free from war and armaments had not been fulfilled.

59. The seventh regular session of the General Conference should correct the situation by taking steps to ensure early consideration of the possible consequences of disarmament for the use of atomic energy for peaceful purposes.

60. The Czechoslovak Socialist Republic was one of the countries for which peaceful co-existence was the main principle of foreign policy, and it considered that international organizations, such as the Agency, were the best medium for putting that principle into practice.

61. Regarding the Agency's activities, the Czechoslovak delegation was of the opinion that it had achieved certain successes since its creation and had taken a positive part in achieving peaceful co-existence and strengthening international co-operation.

62. He considered that the Agency's main work in that direction should consist in training, organizing scientific conferences, and exchanging scientific and technical information. The Czechoslovak delegation also attached great importance to seminars and symposia organized by the Agency itself or with its participation. Most of those scientific meetings had been of a high standard.

63. His delegation regarded the Agency's work in the exchange of scientific and technical documentation, scientific literature and films as very important. The Agency was granting a large number of research contracts to scientific institutes and workers in various countries. However, it should make more persistent efforts than in the past to conclude cost-free contracts, especially with advanced countries, or to obtain free of charge the results of scientific research already carried out in Member States.

64. On behalf of the Czechoslovak Atomic Energy Commission, he announced that Czechoslovakia was placing at the Agency's disposal, for use by Member States, complete documentation on sensor elements for the automatic control of reactors.

65. His delegation was pleased to note the establishment of a long-term programme for the Agency's work, which it approved in principle, especially the parts on training, the exchange of scientific data, documentation, and so on. On the other hand, it had reservations regarding those activities which it had already repeatedly opposed but which continued to occupy a prominent place in the Agency's long-term programme. He was thinking of the constantly expanding research in the Agency's Laboratory on the disposal of radioactive wastes into the sea, a method of disposal which was highly dangerous for man and should be prohibited.

66. He noted that the Agency had obtained some good results in its technical assistance to the developing countries. At the same time, however, his delegation considered technical assistance the perfect example of an activity in which the Agency had hidden reserves, awaiting the removal of various shortcomings before they could be fully tapped. His delegation also supported the Agency's regulatory activities, although in that connection it still felt some misgivings, which it had expressed at the previous session of the General Conference.

67. In approving the Agency's activities over the past seven years, he was pleased to note that it had secured a firm place among the organizations of the United Nations family, as was shown, in particular, by the steady growth in its membership.

68. He nevertheless had some critical comments to make about certain of the Agency's activities, which reduced its positive contribution to the achievement of peaceful co-existence.

69. The Agency and its Secretariat had not adequately realized, in the past, the need to recognize the existence of three social forces in the modern world, possessing equal rights and represented in the international arena by three groups of States. Instead of **pursuing** a policy of negotiation and mutual concessions as a means of solving problems, the Agency **sought** to impose decisions by a mechanical majority of votes. In recent times there had, unfortunately, been a number of such cases.

70. For example, the Board of Governors had adopted a recommendation calling for a change in the manner of financing the Agency's activities. That recommendation, which had been adopted despite the opposition of certain States, was essentially of a discriminatory nature and directed against the States not in agreement with the proposed change in the Agency's Statute.

71. His delegation also disapproved of the decision taken at the Board's June meetings regarding a so-called modification of the procedure for the award of fellowships. By that decision, Type I fellowships would be granted exclusively to developing countries receiving technical assistance under EPTA; that meant that none of the other Member States could receive Type I fellowships, a rule **which** the Czechoslovak delegation could not accept.

72. The proposed change in the procedure for awarding fellowships would of necessity lead to a reduction in the fellowship programme if there were not enough candidates, and just such an insufficiency was to be expected in view of the natural potential of the developing countries. His delegation wished moreover to stress that, despite all the importance which it, as much as any other, ascribed to technical assistance to the developing countries, it could not view the question of training under Agency auspices merely as a form of technical assistance to the developing countries, since all Member States should be interested in exchanging scientific experience and in training their scientists, as provided in Article III.A.4 of the Statute.

73. The Czechoslovak delegation hoped that the present session of the General Conference would take steps to change that irregular situation, taking into account the interests of the developing countries.

74. Regarding the equitable geographical distribution of posts in the Secretariat, he pointed out that the majority of posts in the Professional category were occupied by nationals of the Western countries, whereas the socialist and neutral

countries were inadequately represented. The situation was all the more unjust in that most of the senior posts were occupied by nationals of Western countries holding permanent contracts. That meant that the number of posts subject to the principle of geographical distribution was even further reduced. The Czechoslovak delegation therefore could not agree to the so-called principle of rotation being applied to new appointments to the Secretariat. There could be no rotation in a Secretariat where 25% of the posts were filled by officials holding permanent contracts and were not subject to rotation. The policy of rotation meant in effect that States inadequately represented in the Secretariat would lose the posts which they had held so far. The idea of rotation might have been good had it involved not only the loss of a certain number of posts but also the assignment to a Member State of the same number of equivalent posts; and also if, in establishing quotas for each of the three groups of States now existing in the world, account were taken of the number of permanent contracts held.

75. Turning to the reorganization of the Secretariat, he thought the positive feature of the existing Secretariat structure was that it was based on a unanimous decision by the Preparatory Commission. Any review of that structure, if it were not to give rise to unnecessary difficulties from the very beginning, had first to be agreed upon by Member States, particularly the main nuclear Powers.

76. Discussing Czechoslovakia's contribution to the Agency's work, he stated that his Government had made available to the Agency the sum of 200 000 crowns for the purchase of equipment, a cobalt gun which, by decision of the Board, had been transferred to the Atomic Energy Commission of the United Arab Republic, and 15 fellowships to a value of \$315 000. In addition, it had provided the Agency with scientific films and, in co-operation with the Agency, had organized scientific symposia in Czechoslovakia in 1960, 1961, 1962 and 1963, together with a summer school on theoretical physics in the Tatra Mountains in 1962. Desiring to give further active support to the Agency, Czechoslovakia had decided to propose holding another joint symposium in Prague in 1964.

77. The Czechoslovak Socialist Republic, together with the other socialist countries, was also participating in the project - which had been submitted to the sixth regular session of the General Conference - for the establishment of medical and physics centres which might become the focal points of nuclear

energy research in the developing countries. The implementation of that programme might constitute a new and important stage in the promotion of the peaceful uses of atomic energy. In spite of the fact that the proposal of the socialist States had been made a year previously, the programme was still on paper. His delegation noted with regret that the Western Powers had still not been able to give their support to the programme and participate in financing it. The attitude of the Western Powers was regrettable because precisely that programme would enable the Agency to pass, in the field of technical assistance, from the small projects which it had so far undertaken to large-scale projects for the construction of medical and physics centres, the provision of which might mean real and far-reaching support for the developing countries in their efforts to use atomic energy for peaceful purposes. The Czechoslovak Socialist Republic, like all the socialist countries, was ready to carry out its part of the programme.

78. In spite of its criticisms of certain aspects of the Agency's activities, the Czechoslovak delegation was in principle favourably disposed towards the Agency's work. His delegation hoped that the Agency would succeed in overcoming its weaknesses and in raising the standard of its activities. Czechoslovakia would make its contribution to the attainment of that goal.

79. Mr. HOCHSTRASSER (Switzerland) said that remarkable progress had been achieved during recent years in the peaceful applications of atomic energy, particularly in the accumulation of data on the construction and operation of nuclear power stations. The results gave reason to believe that competitive nuclear power would soon be within reach in certain areas. For Switzerland, atomic energy would provide a particularly valuable source of power once the entire hydro-electric potential of the country had been harnessed, as would soon be the case. That being so, Switzerland intended to redouble its efforts in the sphere of reactor development, so as to be able to make its contribution in that important field.

80. In view of the far-reaching influence of the first two Geneva conferences on the peaceful uses of atomic energy, Switzerland was looking forward hopefully and eagerly to the third conference, which would perhaps contribute decisively to securing the recognition of nuclear power stations as an economically viable means of generating electricity. The Swiss authorities concerned would do everything in their power to ensure the success of the conference.

81. The Agency's progress brought it fresh responsibilities. His delegation was fully conscious of the unremitting efforts of the Director General and the Secretariat to encourage and assist Member States to reap the benefit of the enormous potentialities offered by atomic energy. The Agency had always done useful work in the spheres of scientific training, research and practical applications. In that connection, his delegation was happy to see that for some time past a serious effort had been made to study the needs of the developing countries, and that there had been genuine attempts to reduce staff engaged on purely administrative tasks, so as to release more funds for meeting requests for assistance. Precisely because its activities were so varied, the Agency should take appropriate organizational measures and should be cautious about accepting fresh responsibilities.

82. The competition which small industrial countries had to face in the field of science and technology, if they were to maintain their positions, called for the commitment of ever larger resources; even for the richest of countries, the financial burdens and manpower requirements were such that it would be impossible to satisfy all requests simultaneously and in full measure. It was therefore essential to exercise a judicious selection and introduce an order of priority. That ~~was~~ why long-term planning was so very opportune.

83. The long-term programme before the Conference outlined the various functions which the Agency could undertake. Switzerland fully approved the general aims of the programme. However, it seemed clear that with the available resources it would not be possible to carry out large-scale activities simultaneously in all the fields in question. On the other hand, any substantial and regular increase in the Agency's budget would probably very soon overtax the financial capabilities of many Member States. It was therefore to be hoped that the policy of prudence which had hitherto been followed would continue.

84. Regarding basic research, Switzerland believed that the Agency should confine itself to a judicious co-ordination of work already in progress. Proposals for further projects involving joint training and research establishments should originate from the scientific circles directly concerned. There would thus be some guarantee that such new undertakings met a definite need.

85. A large part of the available resources was to be devoted to assistance to the developing countries. As it was scarcely possible to satisfy all requests at the same time, each country would have to assign priorities to the projects

for which it required assistance. That being so, the Swiss Government believed that all assistance to the developing countries should be granted within the framework of EPTA. That view had not so far been accepted, however, and Switzerland was quite prepared to participate, under the present system, in promoting the peaceful applications of atomic energy in the developing countries. For that reason the Federal Council had fixed its voluntary contribution for 1964 on the basis of its assessment under the Regular Budget.

86. In addition to making a voluntary contribution to the General Fund, the Swiss Government was ready to finance the training of experts from the developing countries, and fellowships would be granted for that purpose after consideration of the applications received. The number of requests for fellowships submitted by the developing countries had increased in recent years. The Swiss Government recognized that they should be given priority and would therefore not nominate any candidates of its own for Type I fellowships.

87. In view of the need to keep the Agency's total expenditure at a more or less constant level, Switzerland welcomed the proposal to adopt biennial programming. In that way the General Conference could be held every two years, and the savings thereby achieved devoted to assistance programmes and fellowships. Similarly, expenditure on meetings of the Board of Governors could be reduced by widening the powers of the Director General. Those matters should receive careful study during 1964.

88. The General Conference had to take a number of decisions which might have an important bearing on the future development of the Agency. The Conference should therefore endeavour to make a constructive and objective study of the problems lying within its competence, i.e. problems of a technical and administrative nature. There could be no doubt that the presence among the delegates of men responsible for national atomic energy programmes would prove to be most valuable, in view of the need for close co-ordination and continuous support of the Agency's activities. His delegation once again appealed to all participants to avoid purely political discussions.

89. Switzerland hoped that the decisions taken by the General Conference at its seventh regular session would make the Agency's future work more fruitful still, and that the Agency's activities on behalf of its Members, and particularly of the developing countries, would be even more effective and valuable than in the past.

90. Mr. ESCHAUZIER (Netherlands) said that the world had now entered the third decade of the utilization of atomic energy. It was very fortunate that that period had been marked by the signing of the test ban treaty.

91. In the first years of its existence the Agency had naturally been confronted with unknown problems; its activities had been more or less experimental; and the expectations entertained when the Statute had been drafted had not always been borne out by subsequent events.

92. Certain activities initially regarded as secondary had - for the time being at least - become main objectives. On the other hand the Agency's functions in regard to such fundamental tasks as the development of nuclear power, the supply of nuclear material and the application of safeguards had been in abeyance and were only now gaining momentum.

93. After a period requiring a predominantly pragmatic approach, during which emphasis had gradually been shifted and priorities had been established to bring the scope of the Agency's programme into line with the financial means available, it now seemed possible to look into the future and base the programme for the next few years on a well-considered evaluation of prevailing medium-term and long-term plans. That was a highly satisfactory state of affairs.

94. The Board of Governors, the Director General and his staff were to be congratulated on the joint memorandum on long-term planning^{3/} which constituted an excellent general guide and a sound basis for the expanding activities of the Agency.

95. His delegation was glad to note that the Agency was focusing its attention increasingly on the various forms of assistance it could provide for the developing countries, and that a new Department of Technical Assistance would shortly be set up in the Secretariat. Interest in the peaceful uses of atomic energy in those countries was constantly growing. That afforded the Agency a unique opportunity of carrying out its functions and allocating its resources "in such a manner as to secure efficient utilization and the greatest possible general benefit in all areas of the world, bearing in mind the special needs of the under-developed areas" - an obligation of particular relevance within the framework of the United Nations Development Decade.

96. However, the Agency's financial resources had proved disappointingly inadequate. In order to meet the increased demand for technical assistance, a sounder system of financing was needed. Promotion of the peaceful uses of atomic energy in the developing countries was a responsibility shared by all Members of the Agency. Both donor and receiving countries were partners in a common endeavour; and a more rational way of financing activities, by fusion of the Regular Budget and the Operational Budget into a single assessed budget, would therefore seem to be in the interests of all concerned.

97. The Agency should, he thought, receive an increasingly large share of EPTA funds. As the possibility of using commercially competitive nuclear power in certain regions drew nearer, Member States would be able to apply to the United Nations Special Fund for their pre-investment requirements, with the Agency serving as Executing Agent. A resolution on biennial programming had been submitted to the Conference which would bring the Agency's programme into closer relation with the two-year cycle of EPTA programming. His delegation continued to favour, in principle, the system of biennial budgeting. As to the advisability of reducing the frequency of sessions of the General Conference, it would be glad to consider that question.

98. The study of world power problems was of primary importance, and his delegation welcomed the fact that the Board and the Director General were responding to the resolution adopted at the sixth regular session of the General Conference calling for closer co-operation with other members of the United Nations family^{4/}. The need for closer co-operation between the governing bodies of various organizations was manifest, and it was gratifying, in the light of the resolution on the co-ordination of atomic energy activities adopted by the Economic and Social Council of the United Nations (ECOSOC) at its last session,^{5/} that the Board and the Director General and his staff were doing their best to ensure adequate co-ordination, including the concentration and integration of activities, in order to minimize conflicts of competence, duplication and waste of money. The ECOSOC resolution on evaluation of programmes^{6/} should be called to the attention of the specialized agencies and the Agency. He hoped that the Agency would be willing to

^{4/} GC(VI)/RES/128.

^{5/} ECOSOC Resolution 986 (XXXVI), reproduced in document INFCIRC/48.

^{6/} ECOSOC Resolution 991 (XXXVI).

co-operate with ECOSOC's Administrative Committee on Co-ordination in evaluating the over-all impact of the combined programmes of the United Nations family on the development of the developing countries.

99. There was a similar need for co-ordination with organizations outside the United Nations with which the Agency had relationship agreements. The Director General, in his review of technical assistance provided in 1962, had dwelt extensively on questions of co-ordination between the Agency and the Governments or competent authorities of Member States receiving assistance.

100. Activities not directly connected with aid to developing countries should also be vigorously pursued.

101. It might be advisable for the Agency to concentrate its efforts on one type of work, such as training in the applications of radionuclides in medicine and agriculture, rather than spread its activities over too many projects.

102. The Netherlands delegation was in favour of continuing the studies of comparative costs which the Agency had already undertaken for various nuclear projects in Canada, the United States and the United Kingdom. Studies of various reactor types for the generation of electricity, process-heat, desalination of sea-water or other purposes might usefully be included in that work.

103. Another function of the Agency which was of vital importance to all Member States was the application of safeguards. The Netherlands Government had always been in favour of full implementation of the relevant articles of the Statute, and welcomed the resolution adopted by the Board of Governors to extend the safeguards system to reactors with a capacity of over 100 MW(t). Safeguards were already being applied to certain Agency projects, and it was most encouraging that an agreement on the application of safeguards to the bilateral agreement between Japan and the United States had been signed in Vienna on the opening day of the present session.^{1/} There were already indications that other Member States were willing to follow the same procedure.

104. In 1963 the Netherlands Government had offered three Type II fellowships for training in the Netherlands, and it was considering increasing the number of Type II fellowships for 1964. His delegation agreed that it might be advisable to

^{1/} The text of the agreement is reproduced in document INFCIRC/47.

receive fellows in small groups and not as isolated individuals, so that they could benefit from an exchange of experience and would be able, after returning to their own country, to apply their newly acquired knowledge together, for instance in the same laboratory.

105. The question of constructing a nuclear power station had been under active consideration in the Netherlands the previous year, and it had now been decided to construct a 50-MW station.

106. A few weeks previously, the Netherlands had been host country to the Symposium on Exponential and Critical Experiments^{8/}, which had been attended by over 200 participants from 29 countries and three international organizations. The Netherlands would be glad to act as host country for Agency scientific meetings on future occasions.

107. The International Conference on Civil Liability for Nuclear Damage held in Vienna in 1963, although not satisfactory in all respects, had nevertheless managed to provide a basis for world-wide co-operation. As the nuclear industry would develop further, and international relations bearing on nuclear science would multiply, efforts must be made to amend and supplement the text.

108. The Western European countries, which were parties to the relevant Paris and Brussels Conventions, should first ascertain whether and how far those Conventions needed to be adjusted to the provisions of the Vienna Convention. That would also determine their willingness to sign and ratify the Vienna Convention.

109. His Government attached great importance to the Third United Nations International Conference on the Peaceful Uses of Atomic Energy, to be held in the autumn of 1964. The Agency, as the organization primarily responsible, would undoubtedly play an important part in preparing the conference and in making it a success. He noted that, in view of those special circumstances, the Agency's programme of scientific meetings in 1964 might be somewhat reduced.

110. In the joint memorandum on long-term planning by the Board of Governors and the Director General it was stated that the next few years should be regarded as a period of transition and preparation from the Agency's point of view. A course had been mapped out, and he was sure that the Agency would gradually develop, to the benefit of all Member States, along the lines contemplated.

The meeting rose at 5.55 p.m.

8/ Held in Amsterdam from 2 to 6 September 1963.

