GC

International Atomic Energy Agency

General Conference

GC(XIV)/OR.139
25 February 1971 *

GENERAL Distr.

ENGLISH

RECORDS OF THE FOURTEENTH REGULAR SESSION (22—28 SEPTEMBER 1970)

ONE HUNDRED AND THIRTY-NINTH PLENARY MEETING

Held at the Neue Hofburg, Vienna,
on Friday, 25 September 1970, at 10.30 a.m.

President: Mr. V. A. SARABHAI (India)

later: Mr. O. A. QUIHILLALT (Argentina)

CONTENTS

* A provisional version of this document was issued on 1 October 1970.
** GC(XIV)/442.

The composition of delegations attending the session is given in document GC(XIV)/INF/125/Rev.2.

ADDRESS BY H.E. MR. N. CEAUŞESCU, PRESIDENT OF THE STATE COUNCIL OF THE SOCIALIST REPUBLIC OF ROMANIA

1. The PRESIDENT, after expressing his appreciation of the honour which H. E. Mr. Nicolae Ceauşescu was according the Agency by his visit, invited him to address the Conference.

2. Mr. CEAUŞESCU, President of the State Council of the Socialist Republic of Romania, said it was a special pleasure for him to be able to take advantage of his presence in Austria on an official visit to greet participants at the General Conference of the IAEA.

3. The annual session of the General Conference was an important event in international life, as problems relating to an essential sphere of contemporary science, which had far-reaching implications for human society and for the peace and security of mankind, were debated at it.

4. Nuclear physics had opened a way for great accomplishments in the development of productive forces, in the extension and refinement of material and spiritual creativity and in the raising of the standard of living and well-being of mankind. At the same time, it was nuclear physics that had contributed to the development of the most fearful means of destruction, the atom and hydrogen bombs.

5. The basic mission of the Agency was to encourage and facilitate the peaceful uses of atomic energy. Science could only develop and flourish under peaceful conditions, in a climate of confidence and collaboration. If the material and financial resources at present spent on the production of nuclear weapons and the research devoted to their improvement were to be diverted to the peaceful uses of atomic energy, a considerable step could be taken towards improving the standard of living of mankind. To prevent that great victory of the human mind from being transformed into an instrument which would spell disaster for the planet in which mankind lived, to bestow upon it the exclusive role of generating progress and prosperity, was one of the great ideals of the present age to which all men of good will were devoting their efforts and energy.

6. Acting in that spirit, nuclear scientists and research workers could find a common language which, irrespective of their philosophies and political convictions or of the socio-political systems to which they belonged, would enable them to contribute jointly to promoting the noble aims of the Agency, which responded to the desires of all peace-loving people.

7. Romania had always favoured and would always favour firm steps towards general disarmament, particularly nuclear disarmament, believing that the only way to free mankind from the nightmare of a nuclear war was the halting of the production of such arms, the destruction of existing stocks, and the total prohibition of the use of atomic energy for military purposes.

8. As a result of the conclusion of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)[1] the Agency was called upon to organize a safeguards system, so that proliferation of nuclear weapons would be prevented, and, at the same time, to see that all States were allowed free access to the full utilization of nuclear energy for peaceful purposes.

9. The Agency could contribute, through its activities, to ensuring that the great benefits that were to be derived from the application of nuclear energy were distributed as widely as possible throughout the world to help eradicate underdevelopment and raise the standard of living of all people.

10. In that connection, the Agency's work in developing co-operation in research and in the peaceful uses of atomic energy, in intensifying the exchange of information and experience, in supporting the efforts of those Member States which were trying to make up their backwardness in those fields, was of particular importance. In that way the Agency could make a full contribution to the relaxation of international tension, to understanding between people and to the cause of world peace.

11. Romania recognized the decisive importance of nuclear physics in the contemporary context, and it was making considerable efforts to develop nuclear research and to use nuclear energy in different spheres of production and social life and to apply nuclear energy to the vast task it was undertaking, namely the building of a new society.

12. It was for that reason that his country was most interested in developing collaboration and co-operation with all States and in intensifying its participation in activities and exchanges that took place within the framework of the Agency.

13. As a founder member of the IAEA and aware of the importance of its functions and aims in respect of promoting nuclear research for peaceful purposes and disseminating the results throughout the world, Romania would continue to give all its support to the work of the Agency.

14. He hoped that the Conference's work would open up new perspectives for fruitful collaboration and co-operation in research and in the peaceful application of nuclear energy for the benefit of all States, and for progress and international security.

---

1) Reproduced in document INFCIRC/140.

15. The PRESIDENT, speaking on behalf of all participants at the General Conference, expressed deep appreciation for the encouraging remarks just made and thanked His Excellency for his memorable visit.

16. He would take the opportunity of saying how impressed the world had been by what the Romanian people had done, under the leadership of their President, in the face of the catastrophic floods that had struck their country earlier that year.

GENERAL DEBATE AND REPORT OF THE BOARD OF GOVERNORS FOR 1969-70 (GC(XIV)/430, 440) (continued)

17. Sir John HILL (United Kingdom) said that when the IAEA was set up in 1957, the world had little experience of the nuclear generation of electricity, whereas at the present time some 40 nuclear power stations were in operation in 11 countries, about 100 further stations under construction and a further 120 planned to be built by 1980. In the short period of two decades nuclear energy had moved from making no contribution to the world's energy requirements to providing nearly 20% of installed generating capacity. Advances had also been made in the use of isotopes, a particularly welcome example being the development of heart pace-makers powered by plutonium-238. Such pace-makers had been developed at Harwell and the first two devices had been installed in heart patients in recent months.

18. The rapid development of nuclear energy and the establishment in many countries of important atomic programmes had helped to stimulate a demand for enlarging the Board of Governors and that question had been discussed during the past year by a special ad hoc committee. Many diverse suggestions had been put forward as to what should be done and the Board had not unfortunately been able to transmit an agreed recommendation to the General Conference. In the view of his delegation one of the proposals before the Conference, namely that which was now co-sponsored by more than a score of States[2], commanded more general support than any of the others. He hoped that the supporters of the other proposals would be willing to accept that proposal even if it did not give them all they wanted.

19. He singled out two of the Agency's tasks for special mention, its activities in connection with safeguards and the possibility of dangerous pollution by nuclear plants. By virtue of NPT the Agency had a central and most important role to play in the application of safeguards and during the past year the Safeguards Committee (1970) had been giving the question of NPT safeguards a thorough examination. He paid tribute to the progress made by the Committee and hoped that its further meetings in October would be marked by the same cordial and business-like atmosphere and that a satisfactory outcome of its deliberations would enable a number of important States to become full parties to the Treaty.

20. Turning to the question of nuclear pollution, he said that no industry had shown so responsible an approach to pollution control as the nuclear industry. Modern nuclear facilities made so little impact on the environment that their effect could not reasonably be called pollution. He cited the New York Symposium on the Environmental Aspects of Nuclear Power Stations where many papers of a serious and non-propagandist nature had been submitted and concluded that the world needed more, not less, power to protect man's environment.

21. At the same time he was glad to see that a correct balance was being maintained between the Agency's safeguards responsibilities and its positive promotional activities. He confirmed that the United Kingdom would implement in full its assessed contribution to the increased Operational Budget for 1971 and would continue to support the Agency's technical assistance programme.

22. In the international field he welcomed the signing in March 1970 by the Federal Republic of Germany, the Netherlands and the United Kingdom of the Tripartite Centrifuge Agreement. Although the gas centrifuge process for the separation of uranium isotopes was a sensitive area in which all processing States regarded the technology as highly secret, there was a rapidly growing demand for enriched uranium as fuel for nuclear power stations and the project in question was directed to meeting that demand. In the United Kingdom view that type of industrial collaboration was essential if countries were to achieve a rational development of nuclear power and make it available widely and cheaply. He stressed furthermore that the terms of the Tripartite Centrifuge Agreement had been published and were available for all to see; it included binding undertakings with regard to the use of equipment and material and appropriate provisions for the application of safeguards.

23. He concluded by paying tribute to Dr. Pretsch of the Federal Republic of Germany whose untimely death would be greatly regretted and wishing Mr. Henry D. Smyth of the United States of America every success in his retirement at Princeton.

24. Mr. SCOTT (Jamaica) said that since 1970 marked the 25th anniversary of the United Nations Organization it would be fitting for the General Conference to set some guidelines for future Agency

2) See document GC(XIV)/437, section A.5.

action. It was important to try and make the Second United Nations Development Decade more effective than the First, and target dates should therefore be included for the implementation of agreed policy measures. In the context of the Development Decades there was a need for a more accurate definition of the least developed developing countries; for the Agency, of course it was the non-nuclear States which were relatively less developed, and in his opinion the Agency had so far not done enough to help those States to establish the appropriate infrastructure for an effective nuclear technology. Thinking particularly of the relatively less developed countries, he wanted to mention a few areas of vital concern where the Agency could prove more effective. One such area was the transfer of technology.

25. The "spin-off" associated with nuclear weapons technology had long been recognized as having an intimate connection with developments in the peaceful uses of nuclear energy. In the area of power reactors one saw that clearly: gas-graphite reactors were an outcome of weapons-grade plutonium production facilities and light-water reactors were off-shoots of submarine propulsion reactors.

26. The NPT had been designed to decrease the dangers of the "horizontal" proliferation of nuclear weapons, and a large measure of support had been given to NPT by the developing countries, because many subscribed to the view that "horizontal" as well as "vertical" proliferation of nuclear weapons could be a menace to the peace and prosperity of mankind.

27. However, the Director General had stated that, despite Article VI of NPT, "vertical" proliferation was still continuing. If the developing countries, the non-nuclear weapon States, were called upon to forego their nuclear weapons options, there must be the necessary support and compromise at the international level. The least developed of the developing countries would not have the capability of joining the "nuclear club" even in the distant future. Those non-nuclear States must be able to count upon the United Nations family and particularly on the Agency to assist them — through nuclear-power feasibility studies, technical assistance and training opportunities — to make the best use of the peaceful applications of nuclear science and technology. It was pointless to spend 25 years of scientific effort developing nuclear reactors and then to hold up the transfer to developing countries because they were unable to pay.

28. Still on the question of technology he wanted to comment briefly on environmental problems. The Director General was partly correct in pointing to the "information gap" concerning environmental factors related to nuclear technology, but he thought the problem was largely a result of unplanned development, characteristic of highly industrialized societies. The developing countries had great problems to overcome in providing the necessary social and economic infrastructure for the unemployed and the poor, and they would have to avoid the mistakes of others. Concern for environmental factors, however, should not obscure from view the urgent tasks of development that had to be tackled.

29. The cost of the transfer of technology, in all its forms, posed a number of problems for developing countries. One of the items on the agenda of the annual meeting of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD) being held in Copenhagen was the creation of additional development financing and the softening of the terms on which developing countries could borrow on international markets.

30. He was pleased to hear of the positive step taken by the World Bank in setting up a Special Projects Division to search out nuclear projects that could be financed according to World Bank criteria. However, those criteria should be further examined, since the lending policies of the World Bank Group were repeatedly being called too restrictive. He was also happy to learn that the United Nations Development Programme (UNDP) had given approval for multi-mineral surveys.

31. The Director General had touched upon an alarming trend in alluding to the rising proportion of Agency funds earmarked for administrative expenses and to highly inflationary costs. Those trends were encountered not in the IAEA alone, but in the entire United Nations system and they were holding up the transfer of technology to developing countries.

32. Every effort should be made to give developing countries the facilities to train their scientists and technologists so that they could carry out their own development projects.

33. The primary responsibility for development was a country's own. The international organizations could only supplement and assist, but if they did not do so they were meaningless.

34. The forthcoming Conference on the Peaceful Uses of Atomic Energy, to be held in September 1971, would provide developing countries and the Agency with the opportunity for putting together concrete programmes to be implemented during the 1970s.

35. Referring to the question of Article VI of the Statute, he noted that neither the Ad Hoc Committee of the Whole nor the Board of Governors had been able to arrive at a unanimously agreed formula.

36. Since his Government was of the view that the membership of the Board should certainly be enlarged, it would give its support if a consensus could be reached.

37. Within the Agency there was another matter that called for careful analysis. The Director General had pointed to Article IV of NPT as providing developing countries with some kind of guarantee that restraint on the one hand would be matched by constructive initiatives on the other. His delegation stressed that the Agency's promotional and developmental projects must not be impaired in any way by its safeguards work. There were a number of good reasons for that view, not least of which was the fact that it was the non-nuclear States that would be affected most.

38. The Second Development Decade would be just a misnomer were the Agency's developmental projects to be curtailed and brought to a standstill either through its safeguards activities, through inflation, or through disproportional increases in administrative costs.

39. Finally, he agreed with the President that atomic energy was at a crossroad. There was a common obligation to establish a base for the future, with science and technology available to all in equal measure.

40. He recalled that the Director General had asked whether the world needed more international organizations or the reorganization of those already existing. If the existing international institutions did not adequately reflect the opinions of its members, nor fulfil their needs, there would be demands for new organizations. New organizations, however, would not of necessity bring the required solutions and it would no doubt be better to try and improve the existing ones.

41. Mr. TRIVEDI (India) said that India's nuclear energy effort was now 25 years old and that the anniversary had been fittingly celebrated in January 1970 when the Indian Prime Minister had dedicated to the nation the 400-MW(e) nuclear power station at Tarapur, the first such plant in the developing world and the largest in Asia. In response to an approach made jointly with India's collaborator the United States, the Board of Governors had approved a trilateral agreement on safeguards in respect of Tarapur at its meeting in February 1970.

42. The quarter-century of the history of nuclear energy development in India dated from 1945 with the establishment of the Tata Institute of Fundamental Research in Bombay. The plans and the projections of Dr. Homi Bhabha, who first formulated the idea of that Institute, had since proved valid. India had already had some "notable firsts" to its credit.

43. In addition to Tarapur, two other atomic power stations were presently under construction, the second of which, at Madras, would mark another milestone in India's technological development in that it was being built entirely by Indian engineers and scientists.

44. The Indian Atomic Energy Commission had recently outlined a ten-year programme embracing co-ordinated and far-reaching plans for the development of peaceful uses of nuclear energy and space research. It included the commissioning by 1980 of 2700 MW(e) of nuclear power, the design and construction of a large 500-MW prototype fast-breeder reactor and of advanced thermal reactors of approximately 500 MW(e) unit size, and the increasingly widespread application of isotopes in industrial processing, food preservation, medicine and scientific research.

45. Simultaneously with its own progress in the peaceful uses of nuclear energy, India had been making special efforts to promote regional co-operation in order to share its own experience in that field with its neighbours. It had accordingly contributed the necessary equipment and experts for a programme on the utilization of research reactors, particularly in the field of solid-state physics (using a neutron crystal spectrometer), in order to establish in Manila, with the collaboration of the Philippines and the assistance of the Agency, the IPA project for South East Asia. The subsequent progress of that project during the five years of its existence had more than fulfilled the expectations of that modest beginning.

46. As a result of the success of that co-operative venture, plans were now under way, with the assistance of the Agency, to formulate programmes of co-operative research and training in nuclear science and technology for the countries of Asia and the Pacific.

47. Programmes for developing techniques for the radiation preservation of perishable foods were of great interest to many countries, including India, which had outlined a major programme in that field. At the same time, there was much work still to be done in relation to the harmful effects possibly resulting therefrom before public health authorities in various countries could safely permit the consumption of such food. The efforts made by the Agency to stimulate experimental work and discussion by specialists so as to evolve a sound basis for future development were therefore greatly appreciated.

48. The present session of the General Conference marked a significant stage in the evolution of the ideals and aspirations which had inspired the Agency's creation and which had been embodied in its Statute. At the present crucial point in the Agency's history, therefore, it was necessary for Member States to

rededicate themselves to the aims and objectives of the Statute.

49. There were two issues of vital importance in that context which would need special attention by the Conference. Those issues had an intimate bearing on the philosophy of the Agency as well as on a healthy development of its institutions and activities.

50. The first issue was the amendment of Article VI of the Statute. By the time of the first General Conference, 58 States had become Members of the Agency. The present membership was 103, with most of the new Members belonging to the developing world. India had therefore consistently supported the proposal for an appropriate enlargement of the Agency's executive organ, its Board of Governors.

51. It was clear that the right solution to that problem lay in maintaining and even strengthening the abiding validity of the philosophy of the Agency and the fundamental soundness of its structure. In stipulating the three criteria for examining the problem the General Conference had unanimously adopted that approach in 1968 in its resolution GC(XII)/RES/241.

52. The mandate of the General Conference had been satisfactorily put into effect by the Board and the Ad Hoc Committee of the Whole. In the course of their discussions, the Indian delegation had expressed its views in detail. It believed that the developing countries, for which the Agency had a special statutory responsibility, would find their interests effectively promoted by the draft amendment contained in document GC(XIV)/437, section A.5. That amendment envisaged representation of the developing world among the proposed nine designated Members of the Board, besides giving additional elective seats to the developing countries.

53. The second issue was the question of finances, which did not, however, relate primarily to money, since it went far beyond the problem of expenditures and contributions and affected the basic philosophy of the Agency. The expenditure on safeguards had risen in a few years from $200 000 to $2 million per annum, and a conservative estimate placed it at $25 million in the near future. Those figures were in themselves a matter of deep concern to developing countries, which had not been asking for a reduction in the activities in question, but for a just and equitable system of financing them, based on the letter and spirit of the Statute.

54. The developing countries were even more concerned that the substantial increases in the safeguards component of the Budget had already led to a disruption of the balanced development of the Agency's manifold activities. The Agency had been established in order to enlarge the contribution of nuclear energy to peace, health and prosperity. Safeguards activities were, of course, as important as its other activities, but, as had been repeatedly pointed out by a large number of delegations from developing countries, the Agency's policing functions should not be allowed to override or overwhelm its vital promotional functions.

55. It was therefore gratifying to see that the Safeguards Committee (1970) had been specifically directed by the Board to discuss the problem of financing safeguards. The Committee had already done useful work. The delegations of several developing countries, including that of India, had proposed in the Committee a system of safeguards financing, based strictly on the letter and the spirit of the Statute.

56. The basic principles of the proposed system were that safeguards expenses which were related to the Agency's promotional work, i.e. research and development activities and safeguards services in respect of research and development facilities in Member States, should be shared by all Members according to their assessed contributions but that, broadly speaking, safeguards expenditures on commercial facilities, which could be determined on the basis of the volume of safeguards work that the Agency actually performed, should be met by the countries concerned entering into bilateral or multilateral agreements with the Agency. That was what Article XIV of the Statute provided for and what should now be systematized.

57. In addition, direct technical assistance to Member States, which was met from voluntary contributions, was also in a sorry state and had been so for a much longer time. For many years, the target for voluntary contributions had remained stable at $2 million. Meanwhile, the cost of equipment and services had gone up considerably so that, according to calculations by United Nations experts, even if the same goods and services were provided for technical assistance to the same number of developing countries in 1970 as in 1962, one would need a target of $2.75 million. At the same time, the membership of the Agency had increased and most of the new Members were developing nations.

58. The Board had now recommended that the target for voluntary contributions be raised to $2.5 million. The developing countries would have wished for a much higher target, but in any case it was to be hoped the General Conference would approve that modest increase.

59. India was a developing country and its monetary resources were scarce. Nevertheless, India was conscious of its international responsibilities and

the provision of assistance to other developing colleagues was an article of its faith. It had therefore provided fellowships to young scientists from many countries, particularly those from the regions of Asia and the Pacific, at various facilities in India, including the Tarapur Power Station, both under the Agency's assistance programme and under bilateral arrangements. Moreover, India had consistently contributed more than its assessed share to the common fund of voluntary contributions. For the coming year as well, India pledged a contribution of 300 000 rupees — equivalent to $40 000 — which was higher than its assessed share of the increased target.

60. Monsignor MORETTI (Holy See) said that for the first time for many years two prominent figures were absent from the gathering, namely Dr. Frank Folsom, who had died on 12 January 1970, and the Reverend Father Theodor Hesburgh, who had resigned following the death of his inseparable friend. In recalling the moving memory of the two departed personages, he read part of a personal letter from His Holiness The Pope to Father Hesburgh, in which the Holy Father expressed appreciation of his well-nigh 14 years service as representative of the Holy See and at the same time spoke of the high esteem in which he held the Agency, with its noble mission to place science and its technical discoveries at the service of mankind.

61. The Holy See was a very willing party in frank exchanges and sincere agreement with the international organizations, the object being attainment of man's high hopes, of peace among the nations, and of internal tranquility and progress in every country. It had accordingly welcomed with keen interest and real satisfaction the news of the ratification and entry into force of NPT. It laid particular stress on the article providing for co-operation among the nations in the material, scientific and technological field for the application of nuclear energy for peaceful purposes "with due consideration for the needs of the developing areas of the world".

62. As the Director General had recently pointed out, the main obstacle to that vast programme was one of finance. Pope Paul VI was greatly grieved by that impasse and he repeatedly called for part at least of the savings accruing from a reduction in armaments to be devoted to that noble objective. In the Encyclical "Populorum progressio", addressed to all statesmen, the Pope had added that it was their duty to mobilize their communities so as to obtain a more effective world solidarity, and above all to make acceptable to them the requisite levies on their luxury and waste.

63. He would stress that the appeal was meant for all men of goodwill, all the citizens of the world. It was for that reason that the theme of the forthcoming World Peace Day would be: "Every man is my brother".

64. The call to reflect on that problem was addressed to all mankind, but it was valid also for the General Conference which was responsible for attainment of the Agency's aims and objectives, namely, to speed up and increase the contribution of atomic energy to the peace, health and prosperity of the whole world.

65. Mr. USMANI (Pakistan) said that, as the new decade began, the two most important goals before the civilized world remained the same as for the 1960s, namely the avoidance of nuclear war and the achievement of rapid economic growth in the developing countries, which accounted for nearly two-thirds of the world's population.

66. As far as the first goal was concerned, it was a matter of deep satisfaction that, despite tensions, frustrations and suspicions, mankind had moved forward on the road to sanity and peaceful coexistence, two major milestones on the way being the Partial Test-Ban Treaty and NPT. As all were aware, NPT was not as yet out of the wood; some countries had not adhered to it on the ground that it discriminated between countries possessing nuclear weapons and those without such weapons. Then there were countries which had developed nuclear complexes enabling them to exercise the so-called "nuclear option" and which claimed that the development and testing of nuclear explosives for peaceful purposes was a perfectly legitimate activity. Obviously, there was no difference between a nuclear explosive device for peaceful purposes and a nuclear weapon. The country developing such devices in the guise of peaceful explosives would in fact be acquiring nuclear weapon capability, thus wrecking the spirit of NPT. Since during the 1970s nuclear technology was bound to develop to a point where the use of nuclear explosives for such peaceful purposes as canal digging or tunnel blasting would be economically feasible, it was of paramount importance that nuclear explosives in the territories of non-nuclear-weapon States should be used only under strict international control and supervision. An international peaceful nuclear explosives service should therefore be organized under the Agency's auspices and for that purpose a separate unit should be formed immediately within the Secretariat to collect the data needed for study of the technological, financial and political implications of the use of nuclear explosives for peaceful purposes. Once a project was cleared by the Agency as economically feasible and justified, the requisite nuclear explosives should be provided through the service, being placed under the Agency's safeguards system in the same way as enriched uranium supplied for nuclear reactors.

67. The Safeguards Committee (1970) was to be congratulated for its effective work on the principles to govern negotiations on safeguards agreements under NPT. It was to be hoped that the Agency

would be successful in negotiating and concluding satisfactory safeguards agreements with countries Members of the European Atomic Energy Community (EURATOM), which agreements would serve as models for others to come. The European countries, which mostly were sufficiently advanced to be in a position to exercise the "nuclear option", held the key to the entire working of an effective and economical safeguards system. The Agency, for its part, could and should guarantee the secrecy of processes under inspection to prevent any leakage of proprietary, commercial or industrial information. In that connection, the voluntary placing by the United States and the United Kingdom of all their peaceful nuclear facilities under Agency safeguards should dispel doubts concerning industrial espionage. The sole problem arising out of that voluntary action related to the financing of safeguards on an expanding scale. Estimates of cost differed, but it was no exaggeration to say that the cost of inspection of all those facilities, together with others in Europe, would easily double the Agency's Regular Budget. The question was whether that burden should be shared by all the Members in proportion to their regular contribution to the Agency or by each Member in proportion to the number of nuclear facilities inspected in its country. There was no reason why the poor countries of Africa, Asia and Latin America, with no nuclear plants, should have to pay large sums to cover inspection in the United States and the United Kingdom, while knowing full well that those inspections would not prevent proliferation. The Statute was clear on the point. Under Article XIV.B.1(b), the cost could be met by the Regular Budget only in the case of safeguards applied to an Agency-assisted project; otherwise, in the case of safeguards administered under bilateral or multilateral arrangements, the reimbursement provisions of Article XIV.C were applicable. Since most of the peaceful nuclear facilities in the United Kingdom and the United States were reactors, a system of rotation of inspection could perhaps be instituted and where in a particular year a facility was not inspected, the national operation record could be accepted by mutual agreement for safeguards purposes. In the same way, for EURATOM countries and countries in other areas where similar regional arrangements might develop regional records would suffice. If that system were adopted the rigours and frequency of inspections could be minimized, expenses reduced, and the atmosphere of common understanding created that was so vital to the success of safeguards and NPT.

68. The second goal, that of economic development in the developing countries, could be achieved only if the richer countries came to realize, first, that their technical and financial assistance was not a gift but a form of insurance against adversity at home and, secondly, that aid was followed by trade. The larger the market, the richer everyone was likely to be, so that economic self-interest alone required that the industrialized societies should hasten forward the process of development in poorer countries. The earmarking of 1% of their gross national product by the richer countries for aid of that kind could be a decisive factor in the fight against poverty in the developing countries. And the insignificance of the amount in question would be clear when compared with the defence expenditure of the Soviet Union and the United States in 1970, which amounted to nearly $115 billion. It was to be hoped that the conscience of the rich would be pricked to the point of ungrudgingly sparing that moral charge on their wealth. The question then arose how that aid would be expended by the developing countries. It was recognized that no one formula for development and no one set of priorities would apply universally to all the developing countries. Each country had to live with its past and plan in the present for its future. The doctrine of a multi-valued society would therefore have to be adopted so that the developing nations could be allowed to evolve in their own ways. And if the means that modern science and technology had placed at the world's disposal could cut short the road to prosperity, the developing countries should adopt them no matter how complex or sophisticated they might be.

69. The Agency also had an important part to play in the attainment of the second goal. The one peaceful use of atomic energy that could have a perceptible impact on economic development was the generation of cheap and abundant electric power; yet it was precisely in that field that the Agency had failed to move vigorously enough. Year after year the Conference was told that small and medium-power reactors were uneconomic except in very special circumstances. Yet all were aware that most of the developing countries could not at present integrate in their grids nuclear power plants of more than 150-250 MW. The term "uneconomic" was relative. What was uneconomic in an advanced country might very well be economic in a developing country. The small production units in the developing countries could not compete with the giant-sized factories of the industrially advanced countries; but that did not rule out industrialization in the developing countries on the basis of small units. The same was true in agriculture. Indeed, the argument of economists against small-size production could be stretched to the limit of absurdity. And his delegation did not share the view of the World Bank and other financing agencies in regard to financing of small and medium-sized nuclear power reactors in developing countries. If their verdict were taken as unassailable, there would be no nuclear power today in the Tennessee Valley in the United States or in the United Kingdom. Agency estimates showed that the developing countries would require nearly $3-$4 billion in foreign exchange to install about

20 000-25 000 MW of nuclear power over the coming ten years. Viewed in isolation those figures might be frightening; in practice, however, the difference between the capital cost of nuclear power stations and the capital cost of conventional power stations required to attain the same target entered the picture; and the extra capital investment in nuclear plants could be wiped out in a few years by savings in fuel costs. Estimates made in Pakistan showed that, if an additional $100 million in foreign exchange per year was made available, the modest target under the Agency's estimates could be achieved. That amount, incidentally, was a fraction of the total foreign exchange loans advanced each year by the World Bank for power projects in the developing countries. If NPT required that the developing countries should renounce for all time to come their sovereign right to manufacture, acquire or possess nuclear weapons, surely justice and fair play demanded that the nuclear-weapon States should honour their moral obligation, under Article IV of the Treaty, to ensure that funds were forthcoming to finance nuclear projects in the developing countries. The money to be raised for the promoting of peaceful uses of atomic energy in developing countries, including nuclear power, should be equal to the money to be raised each year, nearly $25-40 million, for implementing safeguards under NPT. The Agency should give serious consideration to the setting up of a special nuclear fund for financing its promotional activities and programmes for the benefit of developing countries.

70. He welcomed the reference made by the President, in his opening address, to the prospects of establishing big energy centres, employing nuclear power reactors[3]. The Agency should keep its Members fully informed on developments in that area and particularly as to the economic viability of nuclear desalination.

71. With regard to the proposals before the Conference for amendment of Article VI of the Statute[4], his delegation believed that the 21-nation proposal co-sponsored by Italy and others could gain the necessary two-thirds majority. However, the Soviet Union and other Members were unable to accept that proposal mainly on the ground that expansion of the permanent members of the Board from five to nine would distort the political balance on which the Statute was based. Irrespective of the merits of that objection the Soviet Union and the United States would have to be willing parties to any amendment of the Article in question; for it would be an exercise in futility unless the Soviet Union was prepared to co-operate whole-heartedly in the work of the expanded Board. No proposal, whatever backing it had, should be formally adopted if likely to disrupt the existing harmony in the Board and the Agency. It was gratifying that the framework of the Pakistan proposal for amendment to Article VI was acceptable, not only to the Soviet Union and the other socialist countries but also to a growing number of important countries in the West and elsewhere. The compromise advocated was therefore a possible one and the various proposals before the Conference could undoubtedly be amalgamated to give a happy outcome. If that should not prove possible, however, his delegation would suggest that consideration of the various proposals be postponed for a limited period of time, in order that the major groups might reach an understanding and be able jointly to sponsor an agreed text for submission to the fifteenth General Conference with an assurance of near unanimity and speedy ratification.

72. Lastly, the Pakistan Atomic Energy Commission was grateful to the Director General and his colleagues for the willing assistance extended to it; help had been given with fellowships, experts and equipment within the limits of the resources at their disposal. The advice given on technical matters had been most valuable to the Commission, particularly that coming from the special mission of Agency experts on the evaluation of the feasibility of the Rooppur nuclear power project. The scientific seminars and meetings and the excellent scheme of associateship sponsored by the International Centre for Theoretical Physics, Trieste, had helped young Pakistan scientists to make their contribution to the international pool of knowledge.

73. The Agency was a great international workshop, bringing together people from all corners of the world to design the instruments of peace and prosperity. Let it have faith in its destiny and refrain, whatever the temptation, from sacrificing principles to expediency.

74. Mr. BIGGAR (Ireland) said that his country had already expressed on frequent occasions, particularly in the United Nations, its firm support for the IAEA in its present area of operations; in addition it had made known its hope that the Agency, as the organization most suited to provide the necessary services on a world basis, would take on new roles and new responsibilities in the co-ordination and control of the applications of atomic energy for peaceful uses in the future.

75. In the past year Ireland had made progress towards the establishment of a Nuclear Energy Board and his Government hoped in the near future to introduce legislation for that purpose in Parliament. The main functions of the Board would be to offer expert advice to the Government on the significance for Ireland of developments in the field of nuclear science and to be a focal point for the collection and dissemination of information on that subject.

3) See document GC(XIV)/OR.135, para. 13.
4) Reproduced in document GC(XIV)/437.

Although as yet Ireland had no nuclear power industry, it was, as part of the programme to meet its future electricity needs, considering the establishment of a nuclear power station.

76. The most important event for the Agency during the past year had been the entry into force of NPT. He recalled that over a decade ago Ireland had been the first country to introduce a resolution in the United Nations urging the negotiation of an international agreement on that subject. The fact that to date a large number of States had signed and ratified NPT was a source of great satisfaction to his country which had lent constant support over the years to the idea of nuclear non-proliferation, subject to international inspection and control. He felt that the greatest effort should be made so that the practical provisions of the Treaty could come fully into effect. NPT was not a perfect instrument, but it was the most practical framework for attaining the desirable equilibrium between the mutual obligations and responsibilities of the nuclear and the non-nuclear weapon States and the best instrument likely to be available at the present time for preventing the further spread of nuclear weapons, as well as providing a strong stimulus for further disarmament measures.

77. His country had followed carefully the progress of the Safeguards Committee (1970) and was satisfied with the results to date. The Board in endorsing the Committee's First report[5] authorized the Director General to use that report as a basis for negotiations, and his Government had indicated that they were prepared to enter into such negotiations with the Agency pursuant to Article III.4 of the Treaty.

78. His Government was anxious that the Safeguards Committee, when it resumed its discussions, should reach early agreement on the outstanding matters such as the important question of the financing of safeguards. His Government would naturally support any equitable system of financing which could be agreed on. Its prime concern was that the legal, technical and financial obstacles should be overcome as speedily as possible so that detailed negotiations on a widely agreed common basis could be pursued without delay.

79. On the question of the Agency's safeguards system his Government had noted carefully the work being done by the Agency in the improvement of the necessary techniques and methods, a task which had become all the more urgent on account of the Agency's new responsibilities under NPT and because of the continuing expansion of nuclear power reactors and the growing sophistication of the nuclear power industry throughout the world. The streamlining of the safeguards system should help considerably in reducing costs.

5) GOV/1420.

80. With reference to Articles IV and V of NPT, his Government had always held that, concurrently with the question of safeguards, the provisions in those Articles should without delay and on a progressive basis be translated into concrete proposals through the establishment of suitable international machinery. His Government had noted the report to the Secretary-General of the United Nations on the further action taken by the Agency in connection with the recommendations contained in resolutions adopted by the Conference of Non-Nuclear Weapon States[6], which provided a useful summary of the Agency's activities in that whole field.

81. He welcomed the coming into operation of the International Nuclear Information System (INIS) and the Agency's studies on the financing of nuclear projects. The Fourth International Conference on the Peaceful Uses of Atomic Energy would provide a useful occasion for a discussion of that question.

82. With reference to peaceful nuclear explosions, his delegation had noted the special report to the Secretary-General of the United Nations on the subject[7] and the important contribution made by the Panel of Experts meeting in Vienna in March 1970. His Government regarded the Agency's work to date as a useful preliminary contribution on the question of the provision of the international service for peaceful purposes under Article V of NPT in accordance with the evolving technology of the subject.

83. His delegation welcomed the increase in the Agency's technical assistance programme; it was an indication of the growing need for such assistance and was particularly appropriate at the beginning of the Second United Nations Development Decade. He announced that his Government had pledged a contribution to the General Fund in accordance with the recommended target.

84. In view of the growing world concern on the question of environmental pollution, his Government had taken a keen interest in the work of the Agency in the handling and disposal of radiological wastes. As a coastal state, Ireland was naturally concerned at the great and urgent problem of marine pollution. His Government had already made known its view that consideration should be given to the desirability of preparing an international instrument establishing rules relating to the extent and mode of dumping waste including radioactive waste into the sea. The joint group of experts on the scientific aspects of marine pollution (GESAMP) had made important recommendations earlier that year and the United Nations Committee on the Peaceful Uses of the Sea-bed had expressed concern at the practice of using the sea-bed for dumping toxic, radioactive and

6) GC(XIV)/INF/120.
7) GC(XIV)/INF/121.

other dangerous materials and had appealed to all Governments to refrain from using the ocean floor as a dumping ground for materials which caused serious danger to the marine environment.

85. His delegation welcomed the Director General's proposal to set up under the auspices of the Agency an international register of disposal of radioactive waste into the sea. That was a timely and eminently practical suggestion which could set an example for similar measures in other fields of environmental pollution control. To establish on an international basis the machinery for the collation of reliable information regarding the time, place and location of radiological waste discharges into the sea would represent a small but significant step forward. He hoped that the Director General's proposal would be supported and felt that the Agency, in close co-operation with the United Nations and other bodies concerned, was the most suitable organization to take on the overall technical responsibilities involved.

86. He complimented the Agency on the work which it had in hand in studying the ecological and other effects of radiological pollution of the seas. The forthcoming panel to advise on procedures for establishing limits for radionuclides in the sea was another step in that direction. Studies on which limits could be determined for the discharge of wastes into the sea were of the highest importance in view of the great need for accurate knowledge on the subject.

87. As nuclear power was increasingly becoming a prime fuel source in an ever larger number of States, the need for adequate international control over the many possible applications of atomic energy would, if supported by States, be of vital importance for the peace, security and prosperity of mankind. His country looked forward to close co-operation with the Agency in its important work.

Mr. Quihillalt (Argentina), Vice-President, took the Chair.

88. Mr. GUZINA (Yugoslavia) said that the entry into force of NPT was an important event for the Agency, since it increased the Agency's safeguards responsibilities and gave a new force to international co-operation, through the Agency, in peaceful uses of atomic energy.

89. Yugoslavia had ratified the Treaty, because it would contribute to the cessation of the nuclear arms race, initiate nuclear disarmament and promote a universal system of international security conducive to development.

90. His Government had expressed its readiness, in conformity with its obligations under Article III of the Treaty, to enter into negotiations with the Agency with a view to concluding a safeguards agreement. It hoped that the Safeguards Committee (1970) would be able to find appropriate solutions to the problems involved in such agreements, such as export and transport of nuclear material, financing of safeguards, etc., without detriment to the economic interests of the countries concerned.

91. The application of safeguards should be based mainly on direct inspections of nuclear plants (direct auditing of records kept by such plants), due precautions being taken against the violation of technical and commercial secrets, rather than on examination of the reports submitted by the countries.

92. With reference to the most difficult question of financing safeguards, his delegation supported the view expressed by a number of small as well as developing countries that an excessive burden should not be placed on such countries and that the Agency should have a separate safeguards budget apportioning safeguards costs to nuclear and non-nuclear countries on an equitable basis. The share of the latter countries should, in his view, be proportional to the quantity of nuclear fissionable material subject to control.

93. Although the application of safeguards would certainly mean an expansion in the Agency's activities and lead, consequently, to greater expenditure, the Agency's other activities must in no way suffer on that account.

94. His delegation was concerned about the fact that the Agency's financial situation did not enable it fully to meet the growing needs of the developing countries, as was evident from the annual report of the Board of Governors (GC(XIV)/430, Table 2). Although the approved allocation for expert services and equipment had increased from $977 000 in 1969 to $1.25 million in 1970, only about a third of the requests for such assistance could be met in 1970. It was essential to strike a balance between the various activities of the Agency. The Agency should continue to play an important role in the planning and effective implementation of the programmes of technical assistance to developing countries in order to meet the provisions of Articles IV and V of the Treaty. If nuclear powers wished that the Agency should assume greater responsibilities, they should also show a fuller understanding of the needs of non-nuclear and developing countries.

95. In regard to the question of the review of Article VI of the Statute, his delegation did not consider any of the proposals contained in document GC(XIV)/437, part A, to be satisfactory, although they all had some merits, and felt that further efforts must be made in order to find a solution providing for a fair representation of Member States on the Board.

96. Although the Agency, in the years of its existence, had proved itself to be a useful international organization, its achievements must be reviewed continuously in the light of new developments in the nuclear field and, in particular, in the context of international events. His delegation appreciated the Director General's efforts in that direction and supported the proposal to raise the level of voluntary contributions.

97. In regard to the proposed programme for 1971-1976[8], attention should be drawn to the usefulness of providing for integrated individual projects and to administering them in such a way that additional resources for their implementation could be mobilized to the maximum.

98. He felt that under technical assistance programmes continued emphasis should be placed on the organization of courses and schools at the regional and interregional levels, on the training of technical staff in the practical uses of atomic energy and on the implementation of integral technical assistance projects.

99. Lastly, he commended the work done in giving effect to resolution GC(XIII)/RES/256 calling for a study of the financing of nuclear projects and urged that the work should be continued so that the most appropriate and optimum recommendations could be prepared.

The meeting rose at 12.55 p.m.

8) See document GC(XIV)/433.