



International Atomic Energy Agency

General Conference

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

ONE HUNDRED AND THIRTY-FIFTH PLENARY MEETING

Held at the Neue Hofburg, Vienna,
on Tuesday, 22 September 1970, at 3.10 p.m.

Temporary President: Mr. BEN MENA (Tunisia)

President: Mr. SARABHAI (India)

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* A provisional version of this document was issued on 28 September 1970.

** GC(XIV)/429.

OPENING OF THE SESSION

1. The TEMPORARY PRESIDENT declared the fourteenth regular session of the General Conference open.

2. In accordance with Rule 48 of the Rules of Procedure, he invited the Conference to observe one minute of silence dedicated to prayer or meditation.

All present rose and stood in silence for one minute.

3. The TEMPORARY PRESIDENT welcomed the delegates from Member States, an observer from a State not yet a Member of the Agency, and the representatives of the United Nations and other intergovernmental organizations and of non-governmental organizations who had come to take part in the work of the session. The opening of the session was also honoured by the presence of the Vice-Chancellor of the Republic of Austria and the State Secretary in the Federal Chancellery, as well as senior officials of the Federal Government. He thanked them for the interest they were taking in the Agency's work and for attending the meeting in spite of the heavy demands on their time.

4. He transmitted to the General Conference the best wishes of the President of the Republic of Tunisia, Mr. Bourguiba, for a successful session.

ELECTION OF THE PRESIDENT

5. The TEMPORARY PRESIDENT invited nominations for the office of President.

6. Mr. WALPITA (Ceylon) nominated Mr. Sarabhai, the delegate of India and Chairman of the Indian Atomic Energy Commission. Mr. Sarabhai was an eminent physicist and his experience of international organizations made him an excellent candidate for the office of President.

7. Mr. QUIHILLALT (Argentina) and Mr. FAHMY (United Arab Republic) supported the nomination.

8. *Mr. Sarabhai (India) was elected President of the General Conference for its fourteenth regular session by acclamation.*

Mr. Sarabhai (India) took the chair.

9. The PRESIDENT thanked the General Conference for the great honour it had done his country in electing him to the high office of President. He recalled that the late Mr. Homi Bhabha, former Chairman of the Indian Atomic Energy Commission,

had made a significant contribution to the establishment of the Agency and the convening of the First United Nations Atoms for Peace Conference.

10. Atomic energy was now at a cross-road, so that the deliberations of the present session were of special importance. It was necessary to take note of the urgent need to enhance the economic and social development of all peoples and to take firm action to that effect, overcoming all ideological, political and other barriers. Such a task called for wisdom and maturity, coupled with a high degree of mutual trust and understanding, it being understood that all decisions and action taken should be in strict conformity with the spirit and letter of the Agency's Statute.

11. The past year had been marked by the work of the Safeguards Committee (1970), entrusted with preparing the Agency for the new duties it had to assume in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)¹⁾. There were positive signs of an emerging rational system of safeguards application. The Committee had requested the Director General to study the financial implications of the safeguards activities which would devolve upon the Agency; that was an extremely important matter in view of the magnitude of those activities and the need for the Agency to maintain equilibrium between its regulatory and its promotional functions.

12. Pollution of the environment was a matter of understandable concern. The delegations present were aware of the efforts which had been made to prevent pollution through the applications of atomic energy. So far, moreover, very few accidents had occurred. Nevertheless, the moment had arrived for the Agency periodically to bring together specialists to study that problem and to suggest action which would ensure that the utmost caution was taken in the development of atomic energy.

13. A long-term plan to enable the developing countries to benefit from the advantages of atomic energy, and the means to implement such a plan, were indispensable in an effective approach to the problems which would probably arise during the next decade. Unless the norms of international co-operation and assistance were revised, the gap between countries with advanced atomic technologies and those without would rapidly widen, and there would be a risk of a situation still more dangerous than that which would result from the clandestine diversion of fissile products. In that connection, he thought that the establishment of low-cost nuclear energy centres would help to strengthen political and social bonds in all parts of the world.

1) Reproduced in document INFCIRC/140.

APPOINTMENT OF THE CREDENTIALS COMMITTEE

14. The PRESIDENT proposed, in accordance with Rule 28 of the Rules of Procedure, that a Credentials Committee should be appointed consisting of the following nine Members: Ecuador, Iran, Japan, Mexico, Spain, Thailand, the Ukrainian Soviet Socialist Republic, the Union of Soviet Socialist Republics and the United States of America.

15. *The proposal was adopted.*

ELECTION OF THE VICE-PRESIDENTS

16. The PRESIDENT recalled that, under Rule 34 of the Rules of Procedure, the Conference was required to elect its Vice-Presidents after the election of the Chairmen of the two Main Committees. He therefore intended to suspend the plenary meeting for a short time to enable the two Committees to elect their Chairmen.

The meeting was suspended at 3.35 p.m. and resumed at 3.45 p.m.

17. The PRESIDENT invited nominations for the eight posts of Vice-President.

18. Mr. FRANGELLA (Uruguay) nominated the delegates of the following States: Argentina, Australia, Brazil, Gabon, Japan, Romania, the Union of Soviet Socialist Republics and the United Kingdom of Great Britain and Northern Ireland.

19. Mr. AFABLE (Philippines) seconded the nominations.

20. *The delegates nominated were declared elected to the eight Vice-Presidencies.*

APPOINTMENT OF THE GENERAL COMMITTEE

21. The PRESIDENT pointed out that, under Rule 40 of the Rules of Procedure, the General Conference was required to elect four additional members to the General Committee. He invited nominations.

22. Sir Philip BAXTER (Australia) nominated the delegates of the following States: France, Poland, Uganda and the United States of America.

23. Mr. LAURILA (Finland) seconded the nominations.

24. *The delegates of the States nominated were declared elected to the General Committee, which was thus duly*

appointed in compliance with the provisions of Rule 40 of the Rules of Procedure.

STATEMENT BY THE DIRECTOR GENERAL

25. The DIRECTOR GENERAL recalled that the year 1970 marked the twenty-fifth anniversary of the United Nations; it also marked the entry into force of NPT and the first talks on strategic arms limitation (SALT). The spirit of co-operation evidenced by the conclusion of NPT and the opening of the SALT meetings constituted grounds for reasonable optimism and it was in that context that the Agency's activities should be discussed.

26. For the second time, the General Assembly of the United Nations had invited the Secretary-General, in co-operation with the Agency, to organize a conference on the peaceful uses of atomic energy²⁾, and that conference would be held at Geneva during the period 6-16 September 1971.

27. During the past year an Ad Hoc Committee of the Whole and the Board of Governors had, at the request of the General Conference³⁾, given lengthy consideration to Article VI of the Statute. Despite the efforts which had been made it had not yet been possible to reach agreement on an amendment to that Article, but he hoped that the discussions and consultations to take place in the coming few days would bring a satisfactory solution in sight.

28. The Safeguards Committee set up in 1970 by the Board had succeeded, through hard work over a period of several weeks, in preparing the Agency for the negotiations which it had to open with parties to NPT in order to conclude the agreements provided for under the Treaty. During its next series of meetings, to begin on 13 October 1970, the Committee would be called upon to examine the detailed technical procedures for the application of safeguards as well as the financial problems.

29. The question of safeguards — and in particular their application under NPT — was a challenge which the Agency would have to meet during the next decade. It would have to revise and apply safeguards in such a way as to ensure their optimum acceptability and efficiency, and it would also have to convince Governments that their commercial interests were being protected.

30. He stressed that the Agency's safeguards system was and would continue to be in constant evolution. All available documentation proved that the Agency had remained faithful to that principle

2) General Assembly resolution 2046 (XXIII).

3) GC(XIII)/RES/261.

for eight years, and NPT represented a new stage of that evolution. Thanks to the collaboration of interested Member States the Agency had for the past two years been the repository of knowledge acquired throughout the world in matters relating to safeguards.

31. During the past year experts had been invited to define the technical objectives and the principles governing inspection as well as methods for quantitative evaluation of the results of inspections; technical working groups had studied the requirements for information in relation to installations, accounting and reports. The Symposium on Progress in Safeguards Techniques, held at Karlsruhe in July 1970, had demonstrated that important results had been obtained in systems analysis, instrumentation and other techniques.

32. The financing of safeguards had given rise to considerable anxiety. Clearly every effort should be made to keep costs low while at the same time maintaining the system's efficiency. States could help to reach that goal by constituting their own safeguards systems, as similar as possible to the Agency's one. The Agency proposed to organize courses for the training of safeguards specialists who could perform, on the national plane, many of the tasks at present entrusted to highly qualified inspectors; that too should result in savings. Furthermore, 80%-90% of the analyses which would have to be made could be entrusted to national laboratories so as to reduce the burden on the Agency's own Laboratory.

33. Safeguards activities under existing agreements had continued to increase: the Agency was now party to 44 agreements with 32 States, covering nine power reactors and 54 research reactors. In 1971 more than 12 power reactors were expected to be among the 180 installations under safeguards.

34. He realized that the efforts devoted to NPT had caused anxiety among certain Member States regarding the Agency's other activities. He shared those fears to a certain extent but felt confident that the General Conference and the Board would see to it that the Agency's other statutory functions did not suffer, the more so as Article IV of NPT made it a duty of States Parties to the Treaty to co-operate in contributing to the further development of the applications of nuclear energy for peaceful purposes, with due consideration for the needs of the developing areas of the world. The success of that action would depend in large part on the financial assistance provided by Member States. In 1970 voluntary contributions had for the first time reached more than 80% of the target. Since 1962 the Agency's technical assistance programme had been financed from voluntary contributions, the target for which had been set at \$2 million, and

the Board had now recommended that the target should be raised to \$2.5 million for 1971. He had himself proposed a target of \$3 million and felt that the target of \$2.5 million would not be enough to outweigh the effects of inflation on the real value of the programme. In fact \$2.7 million would be required to carry out the same programme as in 1962. Obviously the Agency should be in a position to meet most of the balanced and technically justified requests of Member States, but for several years it had not been able to furnish more than a quarter or a third of the aid requested. He was pleased, however, that he had been requested to consider an increase in the target for future budgets, and he would not fail to do so. An increase in voluntary contributions would be very much in keeping with the spirit of Article IV of NPT.

35. In the past year the Agency had been assisted in its technical assistance efforts by the co-operation of the Swedish International Development Authority and by the launching of co-operation programmes. He hoped that other countries would follow that example and that countries engaged in bilateral programmes would channel their assistance to developing countries through the Agency.

36. The Pearson Report⁴⁾ had recommended that countries supplying aid should devote a large part of their research and development resources to projects of particular interest for the developing countries. According to that report multilateral lending agencies should finance research and development projects on a much larger scale than heretofore. The difficulties encountered by developing countries were largely financial. To meet the goals they had set for themselves they should be generating between 20 000 MW and 25 000 MW of nuclear power by 1980, or less than 10% of the nuclear power expected to be installed in the world at that time; but to reach that goal they would have to obtain \$3000 to \$4000 million from abroad.

37. The use of small and medium-power reactors in certain developing countries with high fuel costs was to be considered by a symposium which would meet in Norway in October 1970, and a co-ordinated programme of research agreements on the technical aspects of power reactors with a capacity of less than 500 MW had already been launched. Without wishing to prejudge the conclusions of the symposium or the results of the research agreements, he thought it reasonable to say that small nuclear power plants could not at present be justified on economic grounds, except in very special circumstances.

38. The developing countries were using nuclear techniques to an ever greater extent and the Agency

4) Report of the Commission on International Development, *Partners in Development*, Pall Mall Press, London, 1969.

was playing an active role in that connection in such spheres as hydrology, agriculture, medicine and industry.

39. Regarding the agricultural programme conducted jointly by the Agency and FAO, he stressed that the immediate danger of a catastrophic famine had been banished by the "green revolution" i.e. the use of numerous high-yield varieties of wheat and rice obtained by radiation-induced mutations. Even so, half the world's population still lacked sufficient food while the other half was worried about slimming methods.

40. The application of nuclear techniques to solve the grave problems of pollution from pesticides was also being given increased attention by the Agency. In that connection it was to be regretted that the real value of the Agency's research contracts was being reduced by inflation.

41. Regional co-operation was opening up encouraging possibilities as far as assistance to the atomic energy programmes of developing countries was concerned. The India-Philippines-Agency project was a case in point. Clearly it would be desirable to expand that type of regional co-operation; preliminary discussions had been started to that end, and at the present session of the General Conference attempts would be made to formulate an agreement.

42. The General Conference would be called upon to approve the 1971 budget⁵⁾. For the first time the document before the Conference had been established entirely in accordance with the "programme-budget" system — in other words all estimates were related to the programme to be executed rather than to the objects of expenditure. Moreover, the estimates were now presented in conformity with the recommendations of the United Nations *Ad Hoc* Committee to Examine the Finances of the United Nations and the Specialized Agencies⁶⁾. Such increases as had been approved were essentially in support of safeguards. The budget did not provide funds for all the posts authorized in the approved manning table, nor did it provide for the salary increases which, as it now appeared, would become effective in the United Nations system in 1971.

43. In that connection he wished to draw the attention of the General Conference to the growing disproportion between staff costs and programme costs. In 1960, programme activities had accounted for 42% of the budget and in 1965 for 37%; in 1971, the figure would go down to 26%. For 1971 the International Civil Service Advisory Board (ICSAB) had recommended the General Assembly to approve a general salary increase which, for the

Agency, would mean an increase of between \$700 000 and \$800 000 over the budget submitted by the Board to the General Conference. The Agency had been alone in opposing that proposal, believing that a world-wide increase could be justified only after a general review of the salary scales for international civil servants. He believed that Member States should devote much more attention to those matters in the organs of the United Nations where they were decided, for once a decision had been taken by the General Assembly, the Agency was bound to follow the salary scales adopted there; and when the increase took on such proportions, a corresponding increase in the budget became inevitable.

44. Studies were in progress with a view to establishing a better balance between programme and staff costs. Those studies were designed on the one hand to remedy existing structural defects and ensure better use of personnel and on the other, to eliminate from the programme all activities of secondary importance or activities which could be more usefully entrusted to other organizations. However, that was an extremely complex problem.

45. Reverting to the subject of nuclear power, he noted that there had been a significant increase in orders for nuclear power plants throughout the world. The rising capital costs associated with nuclear power represented a disadvantage, but it had been offset by increases in conventional fuel prices, while uranium prices had risen scarcely at all.

46. With regard to nuclear fuel supplies, the Agency had pursued a joint undertaking with the European Nuclear Energy Agency the purpose of which was a periodic assessment of uranium resources in the western world. The latest survey indicated that while reserves of low-cost uranium had increased in recent years they would be exhausted before 1985 if present reactor types continued to be used. However, if the current intensity of prospecting was maintained it seemed likely that the reserves would increase and that nuclear power would continue to expand with a reasonable degree of price stability.

47. The growing demand for nuclear fuels also held out favourable prospects for the developing countries: as 95% of the uranium reserves at present being exploited were in the industrialized countries one might reasonably assume that large undiscovered reserves existed in the developing countries.

48. As nuclear power continued to expand, its effects on the environment were being carefully assessed. In fact the public appeared to be badly informed on the subject, for nuclear power was often cast in the role of the villain before any attempt had been made to examine the problem in perspective. In the past year the Agency had tried to fill that "information gap"; the Symposium on En-

5) See document GC(XIV)/433.

6) See United Nations document A/6343.

vironmental Aspects of Nuclear Power Stations, held in August 1970 with the co-operation of the United States Atomic Energy Commission, had come to the conclusion that nuclear power stations contributed far less to environmental degradation than did other forms of power production. It had been suggested in the course of that Symposium that the Agency should become the central repository for data on radioactivity released in connection with the civilian uses of nuclear energy.

49. The Agency had also taken an interest in the disposal of radioactive wastes into the seas and oceans. Over the years he had appealed to Governments to provide the Agency, on a voluntary basis, with information on their releases of radioactive waste into the sea. The Inter-Agency Group of Experts on the Scientific Aspects of Marine Pollution had recommended that a single international register be kept of all such releases and a panel to meet in November 1970 would discuss procedures for establishing limits for radioactive nuclides in the sea.

50. Turning to the legal problems that had to be faced in connection with nuclear activities, he stressed the importance of ensuring adequate financial protection against nuclear risks. The 1963 Vienna Convention on Civil Liability for Nuclear Damage had established the framework for a special legal system to deal with such problems at the international level. The panel of experts which had met in 1969 to advise on the particular problems encountered by developing countries in respect of financial protection against nuclear damage had decided that the Vienna Convention provided a highly satisfactory basis for the establishment of national legislation in that field. Unfortunately the Vienna Convention still needed one further ratification before it could come into force.

51. The International Nuclear Information System (INIS) had become a reality. However, the results obtained so far amounted to only half of what had been expected and the Board of Governors had accordingly decided to establish, in February 1971, a committee to review the operations of INIS. To encourage greater participation in INIS, especially by the developing countries, a series of training seminars for the preparation of input was being organized, the first to be held in Bombay in November and December of 1970. Apart from the ATOMINDEX, INIS provided a monthly magnetic tape service and reproduced abstracts on microfiche.

52. Within the framework of international co-operation in the nuclear data field, the Agency had taken an active part, during the past year, in the development of the EXFOR system for automated handling of information, and from 1971 onward it would publish the international reference manual CINDA.

53. The Agency was actively engaged in preparing the programme of the Fourth International Conference on the Peaceful Uses of Atomic Energy which, owing to budgetary restrictions, would be more limited than that of previous conferences. It would be the Agency's task to print the preparatory documentation and, subject to agreement with the United Nations, the proceedings as well. The Agency's regular conference programme for 1971-72 would be reduced to allow for participation in the Geneva Conference.

54. Significant progress had been made in connection with research on controlled nuclear fusion. The panel which had met in June 1970 to consider the status of fusion research had felt that fusion might indeed become a major source of power in the future, not only tapping a limitless supply of energy but also offering economic and environmental advantages. The panel had also recommended that the Agency establish an International Fusion Research Council to review progress and to discuss co-ordination of national programmes.

55. As in previous years, he wished to express sincere gratitude to the Austrian Government and administrative authorities for the valuable assistance which they were continuing to give the Agency, and also for the additional premises that had been put at the Agency's disposal. He hoped that the Austrian authorities would soon take a final decision regarding the permanent headquarters of the Agency and UNIDO, bearing in mind the views of the two organizations.

56. He took great pleasure in welcoming Ireland as the 103rd Member State of the Agency.

57. Twenty-five years had passed since mankind had witnessed the first military nuclear explosions, and nuclear weapons were still being produced, despite the NPT; that was a matter for deep regret. Nevertheless, he expressed the hope that that Treaty would soon become an important instrument of peace. In 1970 the United Nations was celebrating its twenty-fifth anniversary. At its preceding session the General Assembly had resolved that the anniversary year should be marked by a strengthening of the United Nations role in the world. Member States would have to decide whether the world needed new international organizations, or whether it would be better to reorganize the existing ones to make them more efficient and better equipped for their tasks in serving the countries of the world.

STATEMENT BY THE REPRESENTATIVE OF THE SECRETARY-GENERAL OF THE UNITED NATIONS

58. Mr. WINSPEARE GUICCIARDI (Representative of the Secretary-General of the United Nations)

said that it was his privilege to transmit to the General Conference the greetings of the Secretary-General and his good wishes for the success of its work.

59. He thanked the Director General for his remarks about the twenty-fifth anniversary of the United Nations and took great pleasure in paying tribute to his competent and untiring leadership of the Agency in the advancement of the goals and ideals of the United Nations.

60. Sometimes, as at present, wider echo was evoked in public opinion by dramatic events and failures in peace-keeping than by the painstaking efforts to build the conditions and safeguards for peace. Nevertheless, the twenty-fifth anniversary of the United Nations was marked by a number of important achievements — sometimes not very spectacular — which should encourage Member States to work together in even closer community. In that context, the United Nations was proud to be closely associated with the work of the Agency whose reports, year after year, constituted a record of the considerable amount of work accomplished. The current report revealed the striking convergence of the principal activities and occupations of the Agency and those of the United Nations on a number of important subjects, among which there were in particular: problems relating to developing countries, human environment, the forthcoming Geneva Conference on the peaceful uses of atomic energy and, of course, safeguards.

61. As regards aid to the developing countries — an area to which the United Nations had been giving major emphasis for a number of years — he was glad to note that on the threshold of the launching of the Second United Nations Development Decade further progress had been achieved by the Agency in ensuring that the benefits of the peaceful atom were shared by various countries, including a growing number of developing countries. The spread of nuclear power in developing countries was made difficult by the relative smallness of their power grids, the magnitude of the investment and the foreign exchange required, and the advanced character of the techniques that were often needed. However, it was gratifying to note that the Agency had been making steady efforts to overcome those handicaps. To quote only a few examples, the Agency was trying to promote interest in the erection of smaller nuclear power plants; it was increasing its technical assistance, for which it had received considerably more voluntary contributions in 1970 than in any previous year; it had launched in those countries a number of research programmes relating to radio-isotope applications in food and agriculture, hydrology and medicine. The Trieste International Centre for Theoretical Physics had successfully contributed to the training of young scientists from developing countries.

62. The problem of the environment had attracted more and more attention in United Nations circles in recent months. The General Assembly of the United Nations had decided to convene a major conference on the human environment at Stockholm in 1972, which would be preceded by a conference on the problems of the environment to be held by the Economic Commission for Europe at Prague in 1971. The question of pollution had been one of the constant preoccupations of the Agency since its inception, as fear of pollution might hamper the programmes of utilization of nuclear plants. On the other hand, the Director General had given reassurances on that subject when he had stated, in the Economic and Social Council, that nuclear power afforded a far cleaner alternative to oil- or coal-burning plants and a means of reducing instead of adding to air pollution. The activities of the Agency in that field would contribute to the global effort of the United Nations family in helping in the protection of the environment.

63. Among other fields in which the Agency and the United Nations were co-operating, mention should be made of the activities of the United Nations Scientific Committee on the effects of atomic radiation; there was also the common work on the economic aspects of power: a symposium on the economic integration of nuclear power stations in electric power systems, organized jointly by the IAEA and the Economic Commission for Europe, would take place in Vienna immediately after the General Conference.

64. In view of the convergence of their interests in a number of fields, the Agency and the United Nations were closely co-ordinating their activities at all levels. There were some cases, such as uranium prospecting — which the Director General had mentioned — where the principles which guided the activities of the respective organizations might result in duplication. But that was rare, and it was up to all Members to transform possible conflicts of competence into areas of common and joint work. A remarkable example of co-ordination between the United Nations and the Agency was the current preparation of the Fourth International Conference on the Peaceful Uses of Atomic Energy.

65. Particular attention must be drawn to the new functions incumbent upon the Agency with the coming into force of NPT. The aim of non-proliferation had always had the strong support of the Secretary-General who had followed the international negotiations towards that end in the disarmament talks in New York, Geneva and elsewhere. It was gratifying that the Agency had achieved an encouraging measure of success in adjusting its safeguards system to the provisions of NPT and that the Safeguards Committee (1970) had approved a set of principles to be used in negotiations between the Agency and States parties to the Treaty. Wide

acceptance of the principles and practical guidelines of the safeguards agreements would lead to wider international acceptance of NPT itself. Implementation of the safeguards agreements meant in effect that the Agency had reached a point in its existence when it was about to shoulder new and historically important responsibilities.

66. He expressed satisfaction at the co-operation between the United Nations and the Agency in con-

nection with the preparation of a number of reports requested by the General Assembly and the Secretary-General in the fields of applying nuclear explosions for peaceful purposes and of implementation of the results of the Conference of Non-Nuclear-Weapon States. In that spirit of close co-operation and understanding he extended his best wishes to the General Conference for the success of its important deliberations.

The meeting rose at 4.50 p.m.