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E C L A C

Economic Commission for Latin America and the Caribbean

Regional Expert Group Meeting for the United Nations Conference
for the Promotion of International Co-operation in the Peaceful
Uses of Nuclear Energy

Santiago, Chile, 15-18 April 1985

PROVISIONAL AGENDA

1. Inauguration and organization of meeting and Adoption of the Agenda.
2. The current and projected developments in the peaceful uses of nuclear energy in Latin America and the Caribbean:
 - (a) Current and projected developments in the peaceful applications of nuclear energy in Latin America and the Caribbean in light of needs and priorities in the region.
 - (i) Role of nuclear power in social and economic development in the region.
 - (ii) Role of other peaceful uses of nuclear energy for development in the region.
 - (b) Existing and foreseeable obstacles to the rational applications of nuclear energy in Latin America and the Caribbean.
 - (c) Suggestions regarding practical measures and effective ways of promoting international and regional co-operation in the peaceful uses of nuclear energy in Latin America and the Caribbean for social and economic development.
3. Consideration and adoption of the report of the meeting.

Notes on the Meeting and Provisional Agenda

The purpose of the meeting is to prepare an expert view of priority areas for the application of nuclear technology for economic development in Latin America and identify what practical measures could be taken, through regional and international co-operation, to promote these applications. Since the meeting is to provide an input to UNCPICPUNE, which is designed specifically for the purpose of promotion of international co-operation in peaceful uses of nuclear energy for economic and social development discussion will be oriented to viable and effective means of achieving this aim. The meeting will be expected to draft and approve a report summarizing the conclusions and recommendations from the debate. This report will be submitted to the Sixth Session of the UNCPICPUNE Preparatory Committee in Vienna in October 1985.

All participants in the meeting, whether from national public agencies, academic institutions or private enterprises are invited in their personal capacity as experts. Experts from regional organizations are invited as observers but will be expected to participate fully in the debate.

Annotations on the Agenda

Item 1. Inauguration and Organization of the Meeting

In the inaugural session, a representative of the host country, the Secretariat of ECLAC, and of the Secretariat of UNCPICPUNE respectively will address the experts' meeting participants.

Officers for the meeting will be chosen - president, two vice-presidents, and rapporteur.

A provisional agenda and organizational arrangements will be submitted to the meeting participants for their consideration.

Item 2. Peaceful uses of nuclear energy in Latin America and the Caribbean

(a) Current and prospective developments in the peaceful application of nuclear energy in Latin America and the Caribbean

(i) Nuclear power:

The discussion of this topic will focus primarily on the future peaceful uses of nuclear energy in the electric power industry including issues of electricity and energy planning, regional and sub-regional interconnected grids, and opportunities for small and medium power reactors (SMPRs). (See Annex 1.)

(ii) Other peaceful applications of nuclear energy:

The range of activities in research and development (R & D) and in direct application, which results in a measurable economic or social development benefit, is extremely broad. For example IAEA

programmes cover over 60 areas in the non-power nuclear area (see Annex 2). Discussion of this topic would cover future plans and prospects for applications such as nuclear medicine, food irradiation, radiation sterilization of medical supplies, animal and plant breeding, disease control in crops and animals, metallurgical industry, mineral prospection, hydrology and monitoring of environmental quality. The nine priority areas identified by ARCAL (Arreglos Regionales Cooperativos para la Promoción de la Ciencia y la Tecnología Nucleares en América Latina) reflect a range of R & D and direct applications -radiological protection, nuclear instrumentation, cattle production research, nuclear analytical techniques, use of research reactors, food irradiation, cereal breeding, thyroid research, and use of linear accelerators in teaching and research (see Annex 1).

(b) Obstacles to the rational application of nuclear technology in Latin America and the Caribbean

Discussion of this theme involves a review of the likely future impediments to the increased use of nuclear energy in the region's economies in light of the specific needs, priorities and potential of Latin American and Caribbean countries. Chief among these obstacles are those arising in the areas of: financing, technical assistance; safety of equipment, materials, and disposal facilities and environmental protection; contacting and licensing arrangements for the transfer of nuclear technology; industrial support; research and development support; assurances of supply of material, equipment and services; access to technology and know-how; and, the adequacy of institutional arrangements at the national, regional and international levels.

(c) Opportunities for international and regional co-operation in the nuclear area in Latin America and the Caribbean

Meeting participants will be invited to discuss ideas on ways and means of promoting regional and international co-operation efforts to overcome potential future obstacles to the increased rational use of nuclear energy in Latin America and the Caribbean for economic and social development purposes.

Item 3. Consideration and adoption of the Report of the Meeting

Annex 1

PROVISIONAL LIST OF DOCUMENTS

1. Provisional agenda (LC/R.415 (Sem.23/1)).1/
2. Report prepared by Mr. L.Gálvez Cruz, Energía nuclear en Colombia, México, Venezuela, Bolivia y Ecuador, y perspectivas de cooperación regional (LC/R.413 (Sem.23/2)).1/ 2/
3. Report prepared by Mr. G.C.Lalor, Peaceful uses of nuclear energy in the English-speaking Caribbean, (LC/R.417 (Sem.23/3)).
4. Report prepared by Mr. O.Quihillalt on Nuclear Energy in Brazil, Argentina, Chile and Peru (provisional).
5. International Atomic Energy Agency, Actividades de cooperación técnica del Organismo en 1983, Vienna, August 1984.1/ 2/
6. International Atomic Energy Agency, Thirteenth Meeting of Representative of RCA (Asian Regional Co-operation Agreement) Member States (in Nuclear Energy), Vienna, 26 September 1984.
7. Arreglos Regionales Cooperativos para la Promoción de la Ciencia y la Tecnología Nucleares en América Latina (ARCAL), Situación actual.1/ 2/
8. International Atomic Energy Agency, Examen de las actividades del Organismo, Vienna, July 1984.1/ 2/
9. United Nations General Assembly Resolution A/RES/39/74 United Nations Conference for the Promotion of International Co-operation in the Peaceful Uses of Nuclear Energy, 2 January 1985.1/
10. United Nations General Assembly, Preparations for the Conference and Documentation, A/CONF.108/PC/11, 30 April 1984.1/

1/ Distributed to participants prior to the Regional Meeting.

2/ An English version of this document will be available at the meeting.

Annex 2

IAEA PROGRAMMES SUSCEPTIBLE TO REGIONAL OR INTERREGIONAL
HORIZONTAL CO-OPERATION

Programme	Component
Programme B: Nuclear Power	
Sub-programme:	
B.1, Economics	1. Energy demand analysis 2. Economics of nuclear power 3. Planning nuclear power programmes 4. Demand for nuclear materials
B.2, Nuclear power programme	5. Low temperature heat applications of nuclear power 6. Nuclear power plant operating experience 7. Nuclear power plant systems performance 8. Quality assurance for nuclear power plants
B.3, Nuclear power technology	9. Power reactor technology 10. Reactor and fuel cycle concepts 11. In-core fuel management
Programme C: Fuel cycle	
Sub-programme:	
C.1, Nuclear materials & fuel cycle technology	12. Nuclear materials-resources and supply 13. Reactor fuel technology, performance and reliability
C.2, Waste management	14. Handling & treatment of radioactive wastes 15. Underground disposal of radioactive wastes 16. Environmental aspects of nuclear energy
Programme D: Nuclear safety	
Sub-programme:	
D.1, Radiological safety	17. Radiological protection of workers 18. Radiological protection of the public 19. Safe transport of radioactive materials 20. Emergency preparedness in nuclear facilities 21. Physical protection of nuclear materials
D.2, Safety of nuclear installations	22. Safety standards for thermal-neutron power plants 23. Reactor safety research and development

Programme	Component
D.4, Risk assessment	24. Risks and benefits of energy systems 25. Risk analysis and evaluation 26. Public attitudes towards nuclear power
Programme E: Nuclear explosions for peaceful uses	27. Practical aspects of nuclear explosions for peaceful purposes
Programme F: Food and agriculture	
Sub-programme:	
F.1, Soil fertility, irrigation & crop production	28. Nuclear techniques for research on biological fixation of atmosphere nitrogen 29. Nuclear techniques for research on fertilizer uptake 30. Nuclear techniques for research on soil/crop relationships 31. Nuclear techniques for research on water use efficiency by crops
F.2, Plant breeding	32. Inducted mutation technology 33. Induced mutations for crop improvement 34. Nuclear techniques for evaluation of germ plasm in plant breeding
F.3, Animal production and health	35. Nuclear techniques for research on animal production 36. Nuclear techniques for research on animal health
F.4, Insect and pest control	37. Sterile-insect techniques for control of biting flies 38. Sterile-insect techniques for control of fruit flies 39. Nuclear techniques for research on pest management systems
F.5, Agrochemicals and residues	40. Nuclear techniques for research on chemical pest control 41. Nuclear techniques for research on residues from agrochemicals 42. Nuclear techniques for research on use of agricultural wastes
F.6, Food preservation	43. Technical and economic feasibility of food irradiation 44. Public acceptance and regulatory aspects of food irradiation

Programme	Component
Programme G: Life sciences	
Sub-programme:	
G.1, Medical applications	45. Instrumentation for nuclear medicine 46. Radioactive procedures for <u>in vitro</u> assay 47. Isotope procedures for <u>in vivo</u> assay 48. Nuclear techniques for analysis of biomedical elements 49. Radiography <u>1/</u>
G.2, Dosimetry for radiation exposures	50. Dose intercomparison development 51. Applications in disease treatment <u>1/</u> 52. Dosimetry for industrial processes
G.3, Radiation biology	53. Radiation sterilization of medical supplies 54. Nuclear techniques for control of disease vectors 55. Radio-therapy applications 56. Radiation treatment of domestic wastes 57. Research on biological hazards of energy-related chemicals and low-level radiation in the environment
G.4, Health-related environmental research	58. Nuclear techniques for analysis of minerals of environmental importance 59. Epidemiological study of health impacts of low-level ionizing variation
Programme H: Physical sciences	
Sub-programme:	
H.1, Physics	60. Nuclear physics 61. Utilization of research reactors 62. Plasma physics
H.2, Industrial applications	63. Materials testing 64. Production and industrial use of radiation sources 65. Chemistry
H.3, Isotope hydrology	66. Precipitation 67. Surface water and sedimentation 68. Ground water

1/ Programmes outside IAEA.

Programme	Component
Programme K: Marine radioactivity	
Sub-programme:	
K.1, Environmental impacts of radio nuclide releases	69. Evaluation of environmental impacts of radio-nuclide releases
K.2, Deep ocean radioactive waste disposal assessment	70. Deep ocean radioactive waste disposal assessment
K.3, International marine pollution monitoring	71. Monitoring of radioactive marine pollution

