



**INTERNATIONAL
ATOMIC ENERGY AGENCY**

General Conference

Distr.
GENERAL

GC.1/INF/8
GOV/INF/7
23 October 1957

Original: English

Programmes of the Specialized Agencies relating to the
Peaceful Uses of Atomic Energy

In accordance with the request made by the delegate of the Union of South Africa during the third meeting of the Programme, Technical and Budget Committee, the representatives of the International Labour Organisation, the Food and Agriculture Organization, UNESCO, and the World Health Organization, at the first session of the General Conference have provided the enclosed summaries of the future activities relating to the peaceful uses of atomic energy of each of these specialized agencies.

PEACEFUL USES OF ATOMIC ENERGY

Future Programme of the International Labour Organisation

End 1957: Committee of experts on Radiation Protection (to revise section on dangerous radiation of the 1949 Model Code of Safety Regulations for Industrial Establishments for the Guidance of Governments and Industry and to draw up suggested codes of Good Practice for certain branches of industry most particularly concerned).

Budget estimate for this meeting: US\$5,420. This covers the travelling expenses and allowances of the experts and other items arising directly out of the meeting. It does not cover salary costs of officials who prepare and translate the documents or who service the meeting or the fees of any outside persons who may be asked to prepare papers.

No specific projects are contemplated. There will doubtless be some follow-up after the Committee of Experts. In addition, the Office will continue to follow all atomic energy developments falling within its fields of competence.

1959: Programme still subject to decision by the Governing Body. Budget estimates. It is virtually impossible to give any meaningful figures. The ILO has at present no special atomic energy division. The general question of the possible social consequences of atomic energy is followed in one co-ordinating division as part of the general question of the social implications of technological change. The safety and health aspects are dealt with by the Occupational Safety and Health Division. Any manpower or workmens' compensation problems which arise are followed by the divisions dealing with these matters. Since the whole question is dealt with as part of the general process of technological advance, it is impossible to determine how much of his time any one of the few officials concerned actually devotes to atomic energy, and hence no estimate can be made of the proportion of their salaries which should be considered as allocated for this purpose.

PEACEFUL USES OF ATOMIC ENERGY

Future Programme of the Food and Agriculture Organization

1. The FAO Programme of Work and Budget is prepared on a biennial basis. In order to present a balanced account of projected activities in atomic energy, this statement covers the Programme of Work & Budget for both 1958 and 1959 which is to be submitted to the Ninth Session of the FAO Conference for approval in November 1957.
2. Programme of Work - major activities:
 - (i) Second Meeting of the European Contact Group on the Uses of Isotopes and Radiation in Agricultural Research - Europe, 1958.
 - (ii) A similar meeting on the Uses of Isotopes and Radiation in Agricultural Research in the Asian or Latin American regions, 1959.
 - (iii) Meeting on the Use of Radiation in Food Preservation - Europe, 1958.
 - (iv) Training Course on Radioisotope Techniques in Agricultural Research - 1959 - open to trainees from all member countries.
 - (v) Provision of fellowships for study in specific fields of application of isotopes or radiation, both under the Expanded Technical Assistance Programme and under the Regular Programme (Andre Mayer Research Fellowships) - 1958 and 1959.
 - (vi) Expert Panel on Radiochemical Methods of Analysis of soils, biological materials and foodstuffs - 1958 and 1959.
 - (vii) Participation in the work of the United Nations Scientific Committee on the Effects of Atomic Radiation - 1958 and 1959.
 - (viii) Symposium on Radioisotopes in Soil Fertility Investigations - 1958.*

* In co-operation with competent international organizations or professional bodies

(ix) Symposium on Radiation in Plant Breeding - 1958*

(x) Symposium on Radioisotopes in Animal Research - 1959*

3. Budget:--

The only figures on budget and staffing provision that can be directly related to atomic energy are those for the Atomic Energy Branch, as follows:

<u>Salaries</u> (2 Professional and 2 General Service posts)	<u>1958</u>	<u>1959</u>
	20,400	21,100
Allowances	7,200	7,400
<u>Operating funds</u> (consultants, travel, and meetings, including the Training Course in 1959)	<u>20,000</u>	<u>46,000</u>
Total	<u>47,600</u>	<u>74,500</u>

The Atomic Energy Branch is responsible for central liaison and co-ordination of activities in atomic energy on behalf of the Organization as a whole, and for the operation of certain activities of a general nature.

4. Other technical units of the Organization (in the Agriculture, Forestry, Fisheries and Nutrition Divisions) are responsible for activities of more specific nature falling within their respective fields of competence (e.g. soil fertility investigations, crop production research, livestock production research, fisheries research, forestry research, food preservation research).

Officers within those technical units are thus responsible, as part of their general duties, for the organization of specific subject matter symposia or meetings, for the technical supervision of field experts and fellowships, and for such work as the preparation from time to time of background information reports and papers on specific technical considerations relevant to atomic energy (e.g. soil or dietary factors in relation to the hazards arising from radioactive contamination of the environment, marine biological factors in relation to the ocean disposal of radioactive wastes, etc.)

In co-operation with competent international organizations or professional bodies.

In addition the general knowledge and experience available within those technical units provides the framework within which FAO activities in atomic energy as a whole are conducted.

Many of these activities and contributions to the atomic energy programme are constantly changing, so that it is not possible to relate them to specific budgetary appropriations or to specific posts within those technical units, but a considerable number of officers are involved and their overall participation in the atomic energy programme is substantial.

The figures cited in paragraph 3 above therefore provide only a partial indication of the total resources made available for atomic energy work in FAO.

PEACEFUL USES OF ATOMIC ENERGY

Future programme of UNESCO

Natural Sciences

Meetings

A round table conference on training of specialists in the atomic age will be organized in 1958, if possible, in co-operation with the new International Atomic Energy Agency. Reports on the training of specialists in atomic energy and its applications will be prepared, according to a request received by UNESCO from the United Nations.

\$10,000

Technical assistance

Requests under Technical Assistance have been received from Argentina, Egypt, Greece, India, for experts to help in research on nuclear physics and electronics, and use of isotopes as tracers.

Experts.....	34,500
Equipment.....	500

In Category II:

Experts.....	12,000
Equipment.....	4,000

Participation programme

Under Participation Programme assistance is given for teaching of nuclear physics in Egypt and Indonesia.

Experts.....	17,000
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20 fellowships related to nuclear physics are granted under 1957/58 programme.....	60,000 (approx.)
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Social Sciences

Study of socio-economic problems involved in the peaceful utilization of atomic energy

As a part of its work on the social implications of industrialization and technological change, UNESCO will:

- (i) collect the necessary information from specialist sources to enable it to keep the problem under view; and
- (ii) invite international organization of specialists, including

the International Social Science Council and the International Research Office on Social Implications of Technological Change, to include the study of these problems whenever possible in their normal work programme.

\$ 500

In addition, contracts will be concluded as follows:

(1) A contract will be made with the International Union of Scientific Psychology for the study in 1958 in two or three countries, of the present state of opinion and attitudes with reference to the peaceful utilization of atomic energy in various sections of the public, especially the younger generation, in order to ascertain the chief hopes and anxieties influencing their attitudes and to provide a basis for future action in the fields of information and education.

2,000

(2) A contract will be made with the International Association of Legal Science for the study in 1958 of the state of "atomic law" and the national and international revisions and adaptations called for by a large scale programme concerning the peaceful uses of atomic energy.

1,000

(3) A contract will be made in 1958 with a social scientist or social science institution in the Far East for the study of the social implications of the prospective peaceful uses of atomic energy for economically under-developed areas and regional planning.

200

(4) Liaison will be maintained with the United Nations and Specialized Agencies and in particular with the International Atomic Energy Agency as well as with the Member States concerned. The closest possible co-operation between international organizations and associations working in the field of social sciences will be facilitated.

500

A small meeting will be organized in co-operation with the United Nations and the Specialized Agencies, and in particular, with the International Atomic Energy Agency, late in 1958, with a view to planning future work in this field. This meeting will bring together specialists in the social sciences, natural sciences, humanistic studies, education and public information. Papers will be prepared in advance on specific aspects of the problem.

	6,200
Total for Social Sciences:	<u>\$10,400</u>

Mass Communication

The Department of Mass Communication will continue through its Press, Radio and visual media Divisions to provide the general public and specialized groups with objective information on the peaceful applications of atomic energy and the new social, cultural and moral problems which these pose. In this connection, the Department of Mass Communications will:

(i) Publish in UNESCO Features a series of articles on the Atomic Age.

(ii) Popular Pamphlet on radioisotopes.

3,500 (approx.)

(iii) Manual for youth and adult education groups on the peaceful uses of atomic energy

2,500

(iv) Publish in UNESCO Courier a series of articles on the "New Atomic Age".

Education

The Department of Education will invite organizations with which it co-operates to include problems under this heading in certain of their pilot projects or seminars.

PEACEFUL USES OF ATOMIC ENERGY

Future Programme of the World Health Organization

Central Technical Services

Atomic Energy in relation to Health^{1/}

The staff dealing with atomic energy in relation to health as approved by the Eighth and Ninth World Health Assemblies, comprises two medical officers, a secretary and a clerk stenographer.

The work consists in the collection of data, the preparation of expert committees and seminars, assistance to the regions in planning their future programmes, and also in the following up of the recommendations made by the study groups convened in 1956 on Radiological Units and Radiological Protection and on the Effect of Radiation on Human Heredity. In this connection a significant part of the activities of the staff will be devoted to co-operation with two non-governmental organizations in official relationship with WHO (the International Commission on Radiological Protection and the International Commission on Radiological Units), with other specialized agencies such as UNESCO and FAO, and with the United Nations - which implies participation in the Atomic Energy Sub-Committee of the Administrative Committee on Co-ordination and attendance at the Scientific Committee on the Effects of Atomic Radiation, set up by the General Assembly of the United Nations. It is also expected that in 1958 co-operation with the new International Atomic Energy Agency will necessitate a substantial amount of work.

In addition to services for the expert committees mentioned below, the staff dealing with atomic energy will co-operate with other units at Headquarters in the preparation of a

^{1/} Pages quoted refer to Off. Rec. Wld Hlth Org., 74

seminar on the disposal of radioactive waste (included in the estimates as a supplement to Region Undesignated). The staff will also assist the Regional Office for Europe in the organization and conduct of a training course on radiation protection, provided for in the estimates for the European Region.

For the reason already mentioned in Official Records No. 66, it has not been found possible to decide to which department this small unit should be attached. For budgetary purposes it is still shown under Central Technical Services, but its activities will still be supervised by the Director-General.

Consultants

In view of the increasing diversity and the highly specialized character of the subjects to be dealt with, short-term consultants will also be required, and provision for nine consultant months (as against six and a half for 1957) is included in the estimates for 1958.

Duty Travel

Provision is made for an increase for duty travel in view of the growing need for contact with workers in different parts of the world, for visits to training centres and contacts with the International Atomic Energy Agency and the United Nations, and for participation in inter-agency meetings.

Expert Committees and Conferences

(a) Radiochemical Methods of Analysis used in Health Studies. The object of this expert committee is to recommend analytical methods for the use of countries new to nuclear technology and to try to achieve some standardization of methods. These include analytical methods for body fluids of persons occupationally exposed to radiation, and for soils, water, bottom muds, flora and fauna as regards their content in radioisotopes from the point of view of health protection. The possible participation of FAO in such an expert committee is under consideration.

(b) Effect of Radiation on Human Heredity. This expert committee will follow up the results of a study group on the same subject which met in the summer of 1956. One aim of the committee will be to co-ordinate research in different countries on the genetic effects of therapeutic irradiation.

(c) Professional and Technical Education (see also under Advisory Services, page 53). This committee will aim at studying, as recommended by the Study Group on Radiological Units and Radiological Protection, the introduction of radiation biology and radiation medicine into the medical curricula. This is considered as being of extreme importance for the future and should be carried out without delay if the coming generations of medical and related personnel are to be prepared for the new responsibilities which they will have to assume.

The relevant budgetary provisions are as follows:

Office of the Assistant Director-General

<u>Atomic Energy in Relation to Health</u>				US\$
Medical Officer	P-5	1		9,000
Medical Officer	P-4	1		7,525
Secretary	G-4	1		2,867
Clerk stenographer	G-3	1		2,509
				<u>27,688</u> ^{1/} Total
Consultants' Fees	...	...	...	5,400
<u>Travel</u>				
Duty	...	...	...	7,310
Consultants	...	...	...	5,400
<u>Other Costs</u>				
Printing of publications	...	...		<u>4,000</u>
				<u>49,798</u> Total

1/ Including statutory staff costs

Expert Committees and Conferences

Estimated Expenditure
1958 - US \$

Central Technical Services

Expert Committees

Radiochemical Methods of Analysis used in Health Studies	7,200
Effect on Radiation on Human Heredity	5,400

FIELD ACTIVITIES

South East Asia Region

Inter-country programmes

Social and Occupational Health

SEARO 22

Training course for Health Physicists. It is proposed to hold a training course for health physicists in 1958 to provide training in the health aspects of the various applications of nuclear science and exchange of experience among research workers of participating countries. Provision is made in the amount of \$7,500 to cover the cost of participation by the countries of the South-East Asia Region. Total \$7,500

European Region

Inter-country programmes

Other Projects

EURO 100.3

Training course in Radiation Protection, Zurich. As a continuation of work started in 1955, further assistance will be given in the organization of training courses in radiation protection in 1957 and 1958. These courses are intended for medical and other personnel who will serve as advisers, supervisors and instructors in the matter of radiation protection. Provision has been made in 1958 for consultants (estimated cost \$2,600) and for fellowships for participants from European countries (\$6,900). Total \$9,500

Eastern Mediterranean Region

Lebanon

Other Projects

Lebanon 26

Fellowships (Medical Use of Radioisotopes). A six-month fellowship (\$2,800) will be awarded for study of the medical use of radioisotopes to a suitable Lebanese candidate, who on return will assist in training additional Lebanese medical personnel. Total \$2,800

Region Undesignated

Other Projects

Radiation Medicine (Fellowships). It is proposed to award three fellowships in 1958 to enable senior personnel to study health protection aspects of radiation medicine, including human genetics, or the use of isotopes in medicine, especially for research (estimated cost \$9,000) Total \$9,000

Total budgetary provision for atomic energy (excluding supplement) \$99,298

SUPPLEMENT

Region Undesignated

Other Projects

(a) Seminar on the Disposal of Radioactive Waste

This seminar is not intended to be as technical as a health physics course and therefore a wider range of applications will be considered, for instance from: (i) candidates having a medical background with some experience of atomic energy or other radiation work; (ii) sanitary engineers with some radiation experience; (iii) health physicists; (iv) certain other candidates, possibly with a chemical or biological background. The seminar (estimated cost, \$23,150) would be oriented towards the health protection aspects rather than to engineering or chemical methods of waste disposal, so far as those aspects of the subject can be separated. There is in Europe and many other parts of the world a strong demand for training in the disposal of radioactive waste.

(b) Fellowships (Radiation Medicine)

It is proposed to award a fellowship in 1958 to enable a senior member of a national health service to study health protection aspects of radiation medicine, including human genetics, or the use of isotopes in medicine, especially for research (estimated cost \$3,000).

Total supplement. \$26,150

Total Atomic Energy Budget including supplement \$125.448

Additional Projects requested by Governments
and not included in the Proposed Programme
and Budget Estimates

Inter-country Programme

Western Pacific Region

Other Projects

Health Physics Course. The peaceful use of atomic energy, in which the Organization is keenly interested, suggests that the physics side of health protection against radiation should be given some emphasis. Following the success of the 1955 international course of health physics, sponsored by the Regional Office for Europe, it is planned that a similar course should be held either in the Philippines or in India as soon as possible. The course would provide training in health aspects of the various applications of nuclear science, and would be designed particularly for physicists in the South-East Asia and Western Pacific regions, where atomic energy programmes are being developed quite rapidly. The course would also permit an exchange of experience among research workers of participating countries on the various aspects of radiation protection.

The course would be of about five weeks' duration and would be held either in Manila or in Bombay (wherever a working reactor would be available by 1958). It is estimated that \$8,189 would be required for eight participants from the Region and for a small amount of supplies and equipment.

