

UNITED NATIONS
GENERAL
ASSEMBLY



Distr.
GENERAL

A/3864
6 August 1958

ORIGINAL: ENGLISH

Thirteenth session

EFFECTS OF ATOMIC RADIATION

Report of the Secretary-General on the strengthening
and widening of scientific activities in the field
of the effects of atomic radiation

1. This report is submitted in accordance with resolution 1147 (XII) of the General Assembly, which requested the Secretary-General, in consultation with the Scientific Committee on the Effects of Atomic Radiation, to "consider the question of the strengthening and widening of scientific activities in this field, taking into account in this connexion the discussion of this item at the twelfth session of the General Assembly, including the proposals submitted thereunder, and to report to the Assembly at its thirteenth session".
2. My first consultation with the Committee, in the nature of a preliminary exchange of views, took place on 19 February 1958, in the course of its fourth session. I consulted further with it on 13 June 1958, during its fifth session, on the basis of a first draft of this report. The report now submitted takes into account the views expressed and proposals made in the Committee and in the twelfth session of the General Assembly, as well as the nature of the work and the working procedures of the Committee and its comprehensive report to the General Assembly in 1958 (A/3838),^{1/} in response to resolution 913 (X) of 3 December 1955.
3. The report called for by the General Assembly is to be concerned with ways and means of "strengthening and widening" scientific activities in the field of problems relating to the effects of ionizing radiation upon man and his

^{1/} Official Records of the General Assembly, Thirteenth Session, Supplement No. 17.

environment. The starting point and firm foundation for any such programme is clearly the existing Committee. This Committee, established in 1955, has functioned well. In its three years of activity, the Committee has developed a close and fruitful co-operation and has become a well-balanced scientific instrument for carrying out the purposes of the General Assembly, as defined in resolution 913 (X). As its 1958 comprehensive report indicates, it has sought to assess known sources of risk from radiation and to uncover previously unknown sources. It has stimulated research in this field. The international collaboration among scientists in the work of the Committee has contributed to the advancement of knowledge about radiobiology, changes in the natural levels of radiation and the possible impact of such changes on the human organism. In view of this experience, and the clear need for continuing work of this kind by the United Nations in this vital area, it is my considered view that the Scientific Committee on the Effects of Atomic Radiation should be prolonged.

4. The existing Committee consists of scientists designated by the following fifteen Member States: Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Japan, Mexico, Sweden, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom of Great Britain and Northern Ireland and the United States of America. The question has been raised as to whether a measure of flexibility in the composition of the Committee, if it is kept on, might be achieved in the future. The objective would be to afford an opportunity for more countries to participate in this important scientific effort, while at the same time fully safeguarding continuity in the work of the Committee. It seems clear that if its effectiveness as a scientific working body is to be maintained, the number of members of the Committee should not exceed the present fifteen. Some flexibility could be achieved by a rotation, which, however, in the interest of continuity, should be moderate. In this direction, I would suggest a rotation of not more than two members of the Committee each year. It is likewise desirable that no member should serve less than two years.

5. In view of the very nature of its work, the Committee, if continued, should be extended for an indefinite time. The work the Committee will be called upon to do will be the best measure of how long it will be needed. It will be readily

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apparent, and it would certainly be pointed out to the General Assembly, when there is no longer need for this Committee.

6. If the Committee is prolonged, its terms of reference and work programme should include, of course, all of its present activities, as provided in resolution 913 (X). The question is valid, however, whether, in the light of experience to date, now is not the time to consider some broadening of the Committee's terms of reference towards the end of enabling that body more effectively to perform its intended task, and to assure the continuing active interest and international collaboration of scientists on the same basis as in the past.

7. The basic activity of the continuing Committee, necessarily, would be that of bringing up to date, periodically, its original (1958) comprehensive report on radiation levels and radiation effects on man and his environment, and making the required evaluations. Although the Committee has covered much ground in its 1958 report, it is apparent that there is still a great deal of work to be done in the field of radiation and radiation effects, particularly the ecological. The problem of fall-out, of course, would continue to be of special significance to the work of this Committee. Increasing importance should be attached to the Committee's "watchdog" role, whereby it would be constantly on the look-out for all sources of risk from radiation and concerned with ensuring their examination and evaluation by appropriate means. A widened programme of work for the Committee, and the resultant demands made on the scientists comprising its membership, should be kept consistent with maintaining the effectiveness of the Committee as a strictly scientific body. The Committee itself, naturally, will afford the most competent judgement on how to carry on its activities within the limits which the General Assembly will define.

8. In the direction of a wider range of activity, attention should be given to the extent to which the Committee might take initiative in research beyond the indication of research projects requiring further study, as provided in resolution 913 (X). In the comprehensive report of the Committee are many indications for research which might be followed up by appropriate Committee initiative, instead of being left to chance. In this regard, advantage should

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be taken, to the extent practicable, of facilities and resources to be found within the United Nations family.

9. In the wide area of facilitating exchange of scientific information, it has been suggested that the Committee might undertake the sponsoring of appropriate conferences, symposia and seminars. It may be pointed out, however, that while there may be opportunity for useful initiative by the Committee in this direction, particularly in providing opportunities for technical experts of different scientific disciplines to meet and exchange ideas in small panels and working groups, and in convening experts on unexplored problems, the Committee's responsibility would necessarily be limited to proposals to the General Assembly. It may be added that as the Committee itself comes to serve, as it properly should, as a centre for the evaluation and co-ordination of information and knowledge in the realm of the effects of atomic radiation, the significance of and need for special conference activity might be reduced.

10. It has been suggested also, as a means of widening activity in this field, that the Committee might undertake, on a modest scale, certain operational functions, such as sponsoring a publication for the dissemination of the information it collects and collates, rendering assistance in the form of experts and equipment, or the institution of a kind of international monitoring service for carrying out necessary measurements on a purely voluntary basis. An activity such as a monitoring service, of course, should be established and maintained only on a high scientific level, which would involve the availability of adequate staff and equipment and support by appropriate research and development services in instrumentation and methods of analysis. This, in turn, raises the question of costly laboratory facilities essential to the support of any such service. The possibility of developing an international laboratory has been mentioned by some, but this would be beyond the scope of the activities of this Committee, as organized. Thus, should the Committee be authorized to proceed in this direction, it would need to explore alternative means of securing the necessary scientific and technical support for a monitoring service, such as by contract or by farming-out to established laboratories. It may be pointed out, in this context, that the International Atomic Energy Agency will have an

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increasing interest in the development of internationally standardized and co-ordinated measurement, with particular regard to the application of nuclear energy to peaceful purposes.

11. It is a natural development that the Scientific Committee on the Effects of Atomic Radiation, established by the United Nations, should remain a centre for the co-ordination of knowledge in the field of problems relating to the effects of ionizing radiation upon man and his environment, and for the promotion of co-operation in the work necessary in that field. There are a good many national and international bodies, both public and private, working in this field, and there is definite need for more co-operation and for an avoidance of duplication of effort arising from the overlapping of interests. Amongst the specialized agencies, the Food and Agriculture Organization of the United Nations, the International Civil Aviation Organization, the International Bank for Reconstruction and Development, the International Labour Organisation, the United Nations Educational, Scientific and Cultural Organization, the World Health Organization and the World Meteorological Organization have been interested in and have participated in the work of the Committee. Some of them - notably FAO, ILO, UNESCO, WHO and WMO - have assisted it with reports and information. The International Atomic Energy Agency, whose permanent staff will include a number of atomic energy experts in various specialities, has a special interest in the work of the Committee, has participated in it, and wishes to co-operate closely with it in those aspects of its work relating to the peaceful uses of atomic energy, which is the sole concern of the Agency. The International Commission on Radiological Protection and the International Commission on Radiological Units and Measurements, as non-governmental bodies, have also assisted the Committee, on its invitation. In the course of the consultations, it was suggested by some scientists that an effective means of expanding activities in the field of radiation protection could be through a formal co-ordination and integration of certain international bodies in the field, such as the Committee, the ICRP and ICRU. The twenty-second report of the Administrative Committee on Co-ordination to the Economic and Social Council (E/3108), pointed out that the Scientific Committee on the Effects of Atomic Radiation "provides a framework within which specialized agencies, the IAEA and

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non-governmental scientific institutions can co-operate on specific matters of common interest in the radiation field, and through which the relevant research programmes can be stimulated and co-ordinated and results evaluated".

12. In the light of the foregoing, I recommend the continuance of the Scientific Committee on the Effects of Atomic Radiation, under revised terms of reference suitably broadened to cover activities of such types as those indicated above, as the best means of achieving "the strengthening and widening of scientific activities in this field" envisaged in General Assembly resolution 1147 (XII).
