

MRC

Medical Research Council

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Professor M. Meselson,
The Biological Laboratories,
Harvard University,
16 Divinity Avenue,
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Mass. U.S.A.

Dear Matt,

You may be aware that ICSU decided to set up a new organisation called SCOPE. In case you do not know what the scope of SCOPE is, if you will forgive the pun, I am enclosing a note written by the Foreign Secretary of the Royal Society about it.

At a recent meeting of the Executive Committee of IUPAB we decided to nominate you as a member of SCOPE if you were prepared to serve. I should be most grateful if you could let me know if you feel able to do this. My understanding is that the work will not be very heavy, since SCOPE is unlikely to meet more than once or possibly twice in a year.

We all felt that you were ideally qualified and I hope very much that you might feel able to take this on.

I should be grateful for your reply as soon as convenient because the nominations have to be in very soon.

Kind regards,

Yours ever,

John

SCOPE (Special Committee on Problems of the Environment)
of the International Council of Scientific Unions

Note by Professor Sir Harold Thompson, October 1969

Scientists attending meetings of the I.C.S.U. have for some years been discussing among themselves the social problems which have arisen, and are likely to increase, on an international scale, as a result of the rapid increase in the application of science and technology. Their concern about the possible needs of foodstuffs in relation to population growth led, in part, to the establishment of the International Biological Programme several years ago.

At the General Assembly of the I.C.S.U., Paris, September 1968, the International Unions of Geodesy and Geophysics, and of Biological Sciences, in consultation with the special Committee of the International Biological Programme, were asked to set up an ad hoc committee to report on those characteristics of the environment which man himself is altering, emphasising those which are of international concern, and to the solution of which the scientific ^{conferences} ~~conference~~ of the I.C.S.U. might be applied.

The ad hoc committee has held two meetings, in Washington (March 1969) and Stockholm (June 1969), and at the second meeting representatives of the International Unions of Chemistry and Geology were also present. Its report was discussed by the Executive Committee of the I.C.S.U. at Erevan on October 2nd 1969. It was then decided formally to establish SCOPE (Special Committee on Problems of the Environment). This committee will include eleven members appointed by the I.C.S.U., together with representatives from each of the International Scientific Unions wishing to take part in its work. Presumably, also, representatives of intergovernmental agencies will participate in the same way as for other committees of the I.C.S.U. The Committee has been asked to examine in greater detail the different aspects of the whole problem listed in the report of

the ad hoc committee, and to suggest specific actions and monitoring procedures that could be organized by the I.C.S.U. On the basis of its recommendations, a plan of action will be sanctioned by the General Assembly of the I.C.S.U. in September 1970.

The basic problems are to decide in what ways, qualitatively and quantitatively, the global environment of man is being adversely affected by the present technological revolution: to determine the unforeseen and unwanted side effects of population growth upon the environment: and to estimate their consequences for the life of man on earth.

The ad hoc committee of the I.C.S.U. has considered the problems and threats to the environment under three headings:-

(a) Global (in the sense that the whole planet is involved).

- (1) Increase in human population density
- (2) Increase in atmospheric carbon dioxide from the combustion of fossil fuels
- (3) Increase in turbidity (particulate content) of the atmosphere
- (4) Pollution of the oceans and coastal waters
- (5) Radioactivity in the atmosphere, natural waters, soils and living organisms
- (6) Deliberate and inadvertent modification of the atmosphere, including the effects of cloud seeding and jet contrails.

(b) Confrontation (aspects which have less than global significance but in which a wide measure

of international cooperation, even confrontation, is required)

- (7) Effects of introduced species
- (8) Pressures on available water resources
- (9) Eutrophication of international waters
- (10) Soil erosion and destruction
- (11) Noise as a pollutant.

(c) International by virtue of research cooperation

(where the effects may be local, but the problem involves international cooperation because of the volume of research and exchange of information which is required).

- (12) Dissemination of pollutants in air, soils, water, and living organisms (including industrial and domestic waters, pesticides, reactions in the atmosphere, biological molecules).
- (13) Degradation of natural ecosystems with the loss of gene pools
- (14) Thermal pollution (atmosphere and international waters)

The ad hoc committee considered in detail each of the items listed above, and the research effort which might be required to deal with these. Some are beyond the competence of the I.C.S.U., but in most cases a number of possible monitoring operations can be suggested. The whole programme is very large, and it may be necessary at the start to limit action to selected parts of it. The committee stressed the need for the I.C.S.U. to establish certain monitoring arrangements, to stimulate public awareness of the whole problem, and to get some younger scientists

involved in the programme.

It is clear that many other bodies, including inter-governmental organisations, are directly interested in the plan, such as UNESCO, FAO, WHO, WMO, I.O.C., I.A.E.A. and the U.N. itself. Full consideration of many of the aspects will also need the cooperation of demographers, social scientists and economists.

The ad hoc committee of the I.C.S.U. recommended also the establishment of I.C.E. (an International Centre for the Environment), which could serve as the headquarters of the SCOPE Secretariat. The Executive Committee of the I.C.S.U. has decided, however, that the question of creating I.C.E. should be deferred until the more detailed examination of the programme has been carried out. A suggestion has also been made that a formal resolution might be placed before the U.N. after the Conference on the Human Environment planned for 1972.

H.W. Thompson