

FOREWORD

The Scientific Committee on Problems of the Environment (SCOPE) was established by ICSU in 1969 to: a) advance knowledge of the influence of man and his activities upon his environment, as well as the effects of these alterations upon man, his health and his welfare—with particular attention to those influences and effects which are either global or shared in common by several nations; and b) serve as a non-governmental, interdisciplinary and international council of scientists and as a non-governmental source of advice for the benefit of governments and intergovernmental agencies with respect to environmental problems.

The Core Programme of SCOPE has as its immediate goal the improvement of scientific procedures for assessment over the long term of changes in environment.

This involves:

1. Defining the chief elements of environmental quality deserving assessment;
2. Specifying individual parameters which need to be monitored on the basis of provisional models of the processes in which they occur;
3. Establishing scientific requirements for collection, storage, retrieval and assessment of the data which are required;
4. Establishing procedures for accurate and balanced communication of the findings regarding changes in environmental quality to individuals and public bodies concerned with action programmes, and
5. Promoting research programmes in the biosphere which will lead to ways of analysing the environment in a more efficient and informative manner, e.g., environmental transfer processes, biotic response criteria. It is recognized that assessment should be a continuous and iterative process in which: a) existing data and findings are appraised, b) methods of sampling, observation and analysis are reviewed, c) new monitoring techniques or research activity on processes are developed to meet major needs so far as practicable, d) spatial and temporal spacing of monitoring networks for each parameter are suggested, e) the need for new parameters is examined in the light of previous observation and analysis, f) the use of the findings is appraised, and g) the effectiveness of the whole effort is assessed.

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