

## Preface

In May 1973, Dr. R.E. Munn was appointed by SCOPE, in a contractual arrangement with UNEP, as a SCOPE consultant to the Inter-Agency W/G on Monitoring. The consultant was asked to prepare a proposal for an Action Plan for Phase I of a Global Environmental Monitoring System (GEMS).

Meetings were held with UNEP Officers in Geneva on May 23, and with the Inter-Agency W/G on Monitoring on June 11, when the guidelines for a written report were discussed, noting the decision at the first session of the Governing Council of UNEP that monitoring in Phase I of GEMS should be limited to a small number of priority pollutants of broad international significance. In addition, the Inter-Agency W/G decided that the organization of the table of contents should be according to media, and that in a separate Appendix (See Appendix D), the individual priority pollutants should be discussed.

During June and early July, the consultant reviewed the relevant published literature, and discussed the principles of monitoring with a number of individual scientists. This was followed by a two-week visit to the Specialized Agencies (July 9-20) and a meeting with the Inter-Agency W/G on July 19th. In this connection, the consultant is grateful to the Agencies for their cooperation and provision of detailed documentation.

The first draft of the report was prepared between July 23 and Aug. 5 at the Laboratory of the Marine Biological Association of the United Kingdom in Plymouth, England. The consultant is indebted to the Director, Dr. J.E. Smith, for providing an office and other assistance, particularly the opportunity to discuss the principles of monitoring with a number of marine biologists.

The first draft was distributed on August 6 to UNEP, to the Specialized Agencies and IAEA, to selected members of SCOPE, and to a number of other scientists around the world. During the period Aug. 7 - Sept. 15, the consultant prepared the Appendices, and reviewed the hundreds of written comments that were received from the Specialized Agencies and IAEA, and from the scientific community. In this connection, recognition is given to the following scientists for assistance in preparing first drafts of parts of Appendix D: Dr. M.L. Phillips, Toronto, Canada; Dr. D.M. Smith, Ottawa, Canada; Dr. J.E. Smith, Plymouth, England; Dr. J. Watkins, Ottawa, Canada.

During the week of Sept. 17-21, the Royal Society in London hosted meetings of the Inter-Agency W/G on Monitoring and of a SCOPE W/G on Monitoring and Assessment. The first draft of the consultant's report (and the written comments) were reviewed at that time, and many helpful suggestions were made. Special credit must be given to Dr. G.C. Butler, Ottawa, Canada, who chaired the SCOPE Working

Party that reviewed the "First Draft" in London and who undertook to edit Appendix D (priority pollutants). A Second Draft of the entire document was submitted to the Second General Assembly of SCOPE, in Kiel in October, which decided that early publication would be desirable.

GEMS contains as components, the monitoring of the atmosphere, oceans, rivers, lakes, ground-water, soils, vegetation and forests, drinking water and foods. The scientific basis for GEMS is so multidisciplinary that no single person can be expected to be a specialist in all fields. Nevertheless, because the environment must be considered as a single entity, the consultant gladly accepted the challenge in the belief that the alternative, a report by a committee of specialists, is not the best vehicle for obtaining a balanced view of a multidisciplinary subject.

Finally, it is to be noted that the Abstract is in the form of a Table summarizing the Phase I monitoring program. Other important specific proposals are scattered throughout the report in the form of recommendations, and have not been summarized.