United Nations Environment Programme

Distr.
RESTRICTED
UNEP/IG.23/8
8 December 1980

Original: ENGLISH

Second Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against pollution and its related protocols and Intergovernmental Review Meeting of Mediterranean Coastal States on the Action Plan.

Cannes, 2-7 March 1981

Report on the use of data processing

GE.80-3721

REPORT ON THE USE OF DATA PROCESSING

1. During the discussion on the review of institutional and financial arrangements which took place at the Intergovernmental Meeting of the Mediterranean Coastal States held in Barcelona in February 1980, one delegation expressed the wish to receive detailed information on the duties of the data processor whose recruitment was foreseen in October 1980, and requested the secretariat to submit a report on the use of data processing within some fields of the Mediterranean Action Plan.

2. The present document covers the data processing requirements of the following components of the Action Plan.

   Med Pol Data Processing - Phase II.

3. Data collected under the various activities connected with the implementation of the Barcelona Convention can be classified in several ways: by subject area, by pollutant, by medium, etc. One of the most important classifications, from the point of view of assessing priorities, is that by purpose. This gives three groupings:

   A. Data that are required for monitoring the observance of the Barcelona Convention and its protocols.

   B. Data of international (not necessarily Mediterranean-wide) scientific interest which can be re-used by scientists in other countries.

   C. Data that are of purely national interest.

4. Class A data must be processed, summarised and archived by the Co-ordinating Unit of the Mediterranean Action Plan, with the production of statistical and cartographic display material for regular distribution to the Contracting Parties, after prior authentication by the Interagency Team and the Working Group for Scientific and Technical Co-operation.

5. Class B data should be archived centrally and made available for use by scientists from the Mediterranean Region and elsewhere.

6. Class C data should not, in general, be centrally held, but should, as far as possible, be retained in compatible form in the various national archives.

7. Class A data is a priori non-confidential (within the region) in that it must be published. Data of Classes B and C that are considered confidential by the originating government should not be passed to the central archives. They should be retained in national archives, but with a central inventory of such data maintained by the Secretariat so that access is possible subject to negotiation with the government concerned. The MEDI (Marine Environmental Data Information System) of IOC is probably the best model of such an inventory with the above provisos. Under these conditions, there should be no problem of confidentiality of data, since the Secretariat will not hold confidential data, but will simply record the fact that it exists.

8. The provision of relevant data to outside international systems, including the World Data Centres (Oceanography), the International Oceanographic Data Exchange system of IOC and the Aquatic Sciences Information System of FAO remains the individual and collective responsibility of the Contracting Parties. The Secretariat will however, upon request, act as an intermediary with regard to this matter and will assist governments by transmitting the data they wish to release to such system.

9. The data collection (monitoring) procedures and pollutant analysis methods for MED POL will be standardized. It is equally important that the data reporting be consistent. This means not only standard reporting forms, but also standard methods for data validation and analysis. In addition, much effort will be saved if national files are held in formats consistent with the central archives. Finally all reporting formats must be compatible with (or convertible to) standard international formats (GF3 of IOC and other applicable formats).

10. The Data Processing Officer, with assistance from relevant units of UNEP, will perform the data analysis, archiving and reporting functions for Class A data. It will, on request, perform similar functions for Class B data released by governments. These activities require considerable preparatory work including the investigation of similar systems in use elsewhere, systems design and analysis, obtaining the agreement of experts from the Governments and Agencies concerned, file designing, programming, testing and production of reports. The tasks of system design are primarily a matter of harmonization since existing procedures in national centres will have to be taken into account. This means considerable consultation in the early stages.

11. The Data Processing Officer is not, in any way, responsible for checking the scientific validity or consistency of data submitted. Not is it responsible for conversion of this data from non-standard formats. It will be necessary, at least in the initial stages, to have designated channels through which all data pass for pre-computer checking by qualified experts. These channels or centres may use the expertise of the co-operating Agencies or of appropriate regional or national centres.

12. A Reference Handbook will need to be prepared for data handling procedures. Training in the standard methodologies will be required. Whenever possible computer programs in use in the Secretariat should be in forms available for use on national computers. This is a long-term project with some fairly immediate requirements if there is to be no hiatus between the Pilot and long-term MED POL programmes.

13. The access to data held by the Co-ordinating Unit should, eventually, be possible through the established data networks of the region, including EURONET. This is not likely to be an economic proposition until the data base reaches a sufficiently high data content and level of usage, but the long-term requirement must be borne in mind.

14. The experience of the Data Processing Officer is in computing not in marine science and certainly not in the multiplicity of disciplines covered by the Barcelona Convention and its related Protocols. There will, therefore, be a need for advisory committees to specify the scientific, management and legal requirements for data handling as well as the requirements for data display.

15. The ultimate aim of the Barcelona Convention is environmental. This means that the inter-relationship of data items will gradually need to be more closely defined and used so as to be able to produce, given maximum computer assistance, an integrated picture of the state of pollution of the Mediterranean. From the beginning, data collection methods for the various parameters should be sufficiently consistent so that inter-comparison of results is feasible. The central files should be integrated to the maximum extent possible. Nationally held files, including relevant files of data collected prior to the MED POL should be gradually brought into line with the standards decided on by Contracting Parties.

16. This work schedule implies a considerable load on the Co-ordinating Unit and on its limited staff. For efficient operation it is essential that there should be maximum decentralization of the data reduction and pre-digestion process which should, as far as possible, be achieved at country level. The building up of expertise and facilities for these functions must receive high priority in the overall programme. With this in mind, it is strongly recommended that national co-ordinators for data quality be designated in each country, even if only to provide a channel of communication for formal and informal interaction during the development of the integrated data processing system for the Barcelona Convention, with participation from the other RS/PAC regions, each of which is expected to draw on the MED POL experience as its data begins to become available.

17. There are three additional types of data processing work to be done:

    (a) The preparation of environmental and related data files for the Blue Plan.

    (b) The data processing required for the various Priority Action Programme (PAP).

    (c) Administrative work for the Co-ordinating Unit.

18. The Data processing work for the Blue Plan will be done by the technical expert appointed for this purpose. However, there will be some assistance required in Geneva both at the level of negotiation for the acquisition of data from existing UN data banks, and at the technical level in working with the International Computing Centre to extract such data.

19. It is anticipated that most of the PAP data processing will eventually be performed directly under the control of the relevant institutions. However, there will be an initial need for the Co-ordinating Unit to perform this work for some PAP Centres, and a continuing need for coordination in this respect.

20. The requirements for administrative data processing support are not large in themselves, but do require a considerable amount of initial programming. It is intended besides the normal financial control and administrative report generation, to provide a computerized information exchange service for the participants in all aspects of the Mediterranean Action Plan. This service will provide information on available documentation, financial status, planned meetings and other relevant matters. It is not expected that this service will be fully operational before the end of 1981, but there is considerable demand for such a service, and every effort will be made to satisfy this demand within available resources.

21. The requirements of the Malta Regional Oil Combating Centre are not covered by this document.

22. The above work will be phased over the first two years and will result in full time utilization of the services of the data processor. Besides, consultancy assistance will be required as follows:

(i) A system analyst to define the Med Pol data processing system and to cooperate in the task that will be performed by the data processor, as defined under paragraphs 18 and 19 above (6 m/m in 1981; 3 m/m in 1982 and 1983.)

(ii) Consultants to perform data editing on pre-validation (4 m/m in 1981; 6 m/m in 1982 and 1983.)

Cost estimates

	m/m	1981	m/m	1982	m/m	1983
A. Equipment purchase Purchase of stand-alone Interactive Graphics Terminal with associated mapping routines and software		45,000				
B. Computer Usage and Terminal Rental annual cost of VDU programmer terminal and computer usage costs for processing at ICC		17,500		18,900		20,400
C. Staff Costs Data processor	10	45,000	12	58,300	12	63,000
D. Consultant Costs						
(i) Systems analyst to define the Med Pol data processing system	6	38,000	3	20,500	3	22,100
(ii) Consultants to perform data editing and pre-validation	4	20,000	6	32,400	6	35,000
E. Travel for consultants		5,000		5,400		5,800
F. Data entry Contract Services or Staff Costs for data preparation and entry		10,000		10,800		11,600
TOTAL COSTS		180,500		146,300		157,900