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International Council for the  
Exploration of the Sea

C.M.1975/E:11  
Fisheries Improvement Committee

Report of the 7th Session of the Group of Experts on the Scientific  
Aspects of Marine Pollution

(GESAMP) 24-30 April 1975



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The 7th Session of GESAMP was held in London at IMCO headquarters from 24-30 April 1975. The meeting was attended by several well-known figures in ICES circles, mainly Mr G. Berge, Dr H.A. Cole, Dr G. Kullenberg and Dr J.E. Portmann who acted as an observer for ICES and is the author of this report. The meeting was chaired by Mr Berge. A copy of the agenda is attached (ANNEX 1). Of the various items on the agenda, number 2-8 were of direct interest to ICES and brief summaries of the outcome of discussions are presented below. The report of the Session was approved by the members and should be available before the 63rd Statutory Meeting of ICES. It can be obtained free of charge from any of the sponsoring agencies and is available in any of the four working languages of the United Nations.

Evaluation of the hazards of harmful substances in the marine environment

The main topic discussed under this item was the hazard profiling exercise started about two years ago on behalf of IMCO which had been dealt with by a Working Group meeting intersessionally. In the course of the past year the Working Group had run into considerable difficulty in obtaining data on the hazards of many of the chemicals on which hazard profiles were required and also, in some cases, had experienced difficulty in identifying trade names. Several suggestions were made to overcome these difficulties. The Group endorsed the approach made by the Working Group towards the evaluation of quantities below which no anti-pollution measures need be taken. This approach used the toxicity data and a number of typical environmental values in order to define the quantity which would prove harmful to marine life in the defined body of water.

Scientific basis for the disposal of waste into the sea by dumping

Again the subject of discussion by a Working Group in the intersessional period, this item had been discussed at the 6th Session of GESAMP following presentation of a preliminary report from the Working Group. In the light of that discussion the report had been revised and new material had been added. The completed version was presented at this 7th Session and after relatively few minor amendments was accepted in full by GESAMP. It will be published as a separate document in a new GESAMP series but will also be annexed to the report of the 7th Session of GESAMP.

\* General Secretary,  
ICES, Charlottenlund Slot,  
2920 Charlottenlund,  
DENMARK.

Although the report touches on criteria which should govern what wastes can be dumped at sea, it deals mainly with the criteria which should govern selection of the site of disposal in relation to the various other interests in the area of disposal. The Working Group had recognised that different wastes pose different degrees of hazards and their report includes some advice on these matters. The report is aimed primarily at nations observing the London Convention on Dumping, but will also be of interest to the Oslo Commission to which ICES is responsible for providing advice on scientific matters.

#### Impact of oil on the marine environment

A Working Group on this subject was established at the 6th Session of GESAMP, charged with the task of examining the conflicting evidence on a number of controversial topics concerning the impact of oil in the marine environment. Discussion at this 7th Session centred upon the proposed content of the final report which is now seen as a comprehensive treatise on oil in the marine environment and will cover sources and analytical aspects as well as those more controversial aspects such as carcinogenesis, interference with air/sea oxygen transfer, bio-accumulation etc., which the report of the 6th Session listed for coverage (ICES C.M.1974/E:19). The Working Group had proposed extending its coverage still further to include aspects of oil treatment technology, the use of biological organisms as indicators of marine pollution and certain legal implications. GESAMP expressed severe reservations as to the ability of the Working Group to complete the initial part of its task and these proposals were rejected. Furthermore, it suggested that, in case the Working Group could not complete its work, careful attention should be paid to the relative importance of the topics it proposed to cover, in order to ensure that the most important items were completed.

#### Scientific bases for the determination of concentrations and effects of marine pollutants

The report on this item stemmed from a two-panel Working Group and dealt with those parameters which should be measured in an open ocean monitoring context. Although some reservations were expressed as to the need for and wisdom of undertaking open ocean monitoring at the present time, GESAMP accepted that it had been asked by IOC and WMO to provide this advice regardless of the value of the exercise in control terms because it would provide valuable basic scientific information. With these reservations the report was approved by GESAMP; it will be annexed to the report of the 7th Session and will be submitted to the 3rd Meeting of GIPME in May 1975. It contains a list of pollutants, to be measured in both water and organisms, which are broadly similar to those selected by the ICES Working Group on Monitoring and Baseline Studies and suggests the operation of eight Atlantic Ocean stations, three of which fall within the area currently being investigated by ICES on behalf of the Oslo Commission. Also included in the report is a section on the biological parameters which should be included in an open ocean monitoring system. The use of phytoplankton is suggested although it is acknowledged that there is no proof that this is especially sensitive to pollution and that there would be great difficulties in interpreting the results.

#### Interchange of pollutants between the ocean and the atmosphere

At the 6th Session of GESAMP it had been agreed that an ad hoc group be formed by WMO to draw up proposals for a study programme to be submitted to GESAMP at its 7th Session. Although no meeting had been held, WMO had drafted proposals for subjects to be considered by a Working Group consisting of the ad hoc group and additional members. The topics proposed for discussion include:

- pollutants which enter the ocean in significant quantities from the atmosphere;
- preparation of a budget for such pollutants;
- discussion of the meteorological factors governing their transport; and
- a survey of methods of measurement of selected pollutants in the atmosphere.

The Working Group is expected to assign priorities to these study tasks. GESAMP endorsed the proposals and agreed to leave the task to the WMO ad hoc Working Group until the 8th Session of GESAMP when it would expect to receive more positive recommendations for action.

Principles for developing coastal water quality criteria

A report of a Working Group which had met intersessionally to discuss this item was presented to GESAMP. Although not yet complete, the report was accepted by the Group and will be annexed to the report of the 7th Session. Although still to be developed, the report is a useful document. It considers the various uses of the marine environment which need to be protected and proposes that different standards of water quality will be required according to the proposed use. The first priority for consideration is accorded to the health of man and there are some useful comments about the need to protect fish resources and the food organisms on which they depend. Also included are statements on the need to preserve water quality for aquaculture purposes and sectors of the marine environment for purely scientific observation.

Scientific aspects of pollution arising from the exploitation and exploration of the sea bed

This item had been the subject of discussion of yet another Working Group during the intersessional period. The Working Group had prepared an interim report which was accepted by GESAMP and which, in accordance with the normal practice, will be annexed to the report of the 7th Session. The Working Group had not had time to consider all the topics which were relevant to its terms of reference but it had completed its work on manganese nodules and their exploitation, and on the dispersion of fine-grained material and other physical aspects. Detailed discussions of these two topics are included in the report. The Working Group had also carried out an appraisal of the risks posed by the exploitation of sea bed resources of petroleum hydrocarbons and had drawn up a series of conclusions on this subject. However, since these impinged upon the work of another Working Group, GESAMP referred these conclusions for further consideration to the Working Group on the Impact of Oil on the Marine Environment. Still to be considered in detail are the effects of dredging for both mineral resources and construction materials - a topic on which ICES has recently published a Working Group report - and the offshore construction of platforms, islands and reefs.

Only one other item of interest to ICES was discussed at GESAMP and that only briefly; it arose when the Technical Secretary of UNESCO reported that they had a group of experts on the World Register of Rivers Discharging into the Oceans. The parameters were limited to the river above the tidal reach but, although many significant processes were known to take place in the estuary which might alter the river water derived polluting load discharged into the sea, the Register was of interest to GESAMP and will be of equal interest to ICES, and particularly to its Working Group on Pollution Baseline and Monitoring Studies in the Oslo Commission and ICNAF Areas.

At the end of the Session Mr Berge, who had acted as Chairman of GESAMP for two Sessions, asked to be released from his duties and Dr G. Kullenberg (also well known to ICES' members) was elected in his place for the 8th Session and intervening period.

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IMCO/FAO/UNESCO/WMO/WHO/IAEA/UN  
JOINT GROUP OF EXPERTS ON THE  
SCIENTIFIC ASPECTS OF MARINE POLLUTION  
7th Session

PROVISIONAL AGENDA FOR THE SEVENTH SESSION OF THE  
IMCO/FAO/UNESCO/WMO/WHO/IAEA/UN JOINT GROUP OF EXPERTS  
ON THE SCIENTIFIC ASPECTS OF MARINE POLLUTION (GESAMP)

to be held at IMCO Headquarters, London,  
from Thursday, 24 April at 10.00 a.m. to Wednesday 30 April 1975

Opening of the Meeting

1. Adoption of the Agenda
2. Evaluation of the hazards of harmful substances in the marine environment
3. Scientific basis for the disposal of waste into the sea by dumping
4. Impact of oil on the marine environment
5. Scientific bases for the determination of concentrations and effects of marine pollutants
6. Interchange of pollutants between atmosphere and oceans
7. Principles for developing coastal water quality criteria
8. Scientific aspects of pollution arising from the exploration and exploitation of the sea-bed
9. Data and place of next session
10. Other matters
11. Election of Chairman and Vice-Chairman for the next intersessional period and for the eighth session
12. Consideration and approval of the Report of the Session