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Report

drawn up on behalf of the Committee on the Environment, Public Health and Consumer Protection

on combating the effect of disasters where oil is released into the sea and reaches the shore

Rapporteur: Mrs A. SPAAK

English Edition PE 65.851/fin.

On 19 September 1979, Mr Muntingh tabled a motion for a resolution pursuant to Rule 25 of the Rules of Procedure on combating the effects of disasters where oil is released into the sea and reaches the shore.

The European Parliament referred the motion for a resolution to the Committee on the Environment, Public Health and Consumer Protection as the committee responsible and to the Committee on Agriculture for an opinion.

On 11 October 1979 the Committee on the Environment, Public Health and Consumer Protection appointed Mrs A. Spaak rapporteur.

The committee considered the motion for a resolution at its meetings of 25 April and 25 September 1980 and at the latter meeting unanimously adopted the motion for a resolution and explanatory statement.

Present: Mr Johnson, acting chairman; Mr Alber, vice-chairman; Mrs Spaak, rapporteur; Mr Ceravolo (deputizing for Mr Segre), Mr Combe, Mr Del Duca (deputizing for Mrs Maij-Weggen), Mrs Fuillet, Mr Ghergo, Miss Hooper, Mrs Krouwel-Vlam, Mrs Lenz, Mr Mertens, Mr Muntingh, Mrs Roudy, Mrs Schleicher, Mrs Seibel-Emmerling, Mr Sherlock, Mrs Squarcialupi and Mr Verroken.

The opinion of the Committee on Agriculture is attached.

C O N T E N T S

A

The Committee on the Environment, Public Health and Consumer Protection hereby submits to the European Parliament the following motion for a resolution together with explanatory statement:

MOTION FOR A RESOLUTION

on combating the effects of disasters where oil is released into the sea and reaches the shore

The European Parliament,

- having regard to the motion for a resolution by Mr Muntingh (Doc. 1-310/79),

- having regard to the increase in the transport of oil by tankers and to the increasing number of accidents which have affected coastal regions and populations of the Community,

- having regard to the serious economic and environmental consequences of the accidents,

- considering that the best way of controlling maritime pollution is to implement an effective prevention policy,

- having regard to the damage caused to the marine fauna and flora by certain chemical products used to disperse oil slicks,

- having regard to the inadequacy of the mechanical means at the disposal of the local, regional and national authorities of the maritime states,

- having regard to the report of the Committee on the Environment, Public Health and Consumer Protection and the opinion of the Committee on Agriculture (Doc. 1-467/80),

1. Draws attention to its resolutions of 13 June 1978 and 14 February 1979 on the best means to prevent accidents to shipping and consequential marine and coastal pollution and on shipping regulations[1];

2. Repeats once again that only coordinated action at Community level and the effective application of international conventions can safeguard the marine and coastal environment;

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[1] OJ No. C 163, 10.7.1978, p. 17 and
C 67, 12.3.1979, p. 22

3. Looks to the Commission to continue its efforts in this field and to submit as soon as possible proposals for directives relating in particular to mechanical methods, in the light of the studies carried out under the action programme on the control and reduction of pollution caused by oil spills at sea adopted by the Council on 26 June 1978;

4. Calls on the Commission to further in its proposals the procurement of the necessary funds:

   - to improve mechanical methods and interest the oil companies in financing this research,

   - to encourage the broadest possible and coordinated use of mechanical methods,

   - to supply mechanical equipment in particular to the inhabitants of coastal regions, for instance the fishermen, since they are the first to be affected,

   - to assist in the financing of the specialized research centres responsible for defining the most appropriate mechanical and chemical means of controlling pollution and protecting the marine flora and fauna.

5. Instructs its President to forward this resolution to the Council and Commission.

B

EXPLANATORY STATEMENT

1. Tanker accidents account for only 10% of marine oil pollution. But the human, ecological, social and economic costs of such accidents make action imperative.

2. The motion for a resolution covers only part of the problem. It confines itself to the question of mechanical or chemical means for combating disasters where oil is released into the sea and reaches the shore.

3. Mechanical methods are theoretically the best solution because they remove the source of pollution for good and do not carry the risk of secondary effects.

But despite their toxicity (which has been reduced in the last few years), chemicals remain more effective.

This explains why the Member States today rely basically on chemicals to combat oil pollution. Most do not have access to mechanical methods. Only the Netherlands and the Scandanavian countries have developed and tried out mechanical methods.

4. The first difficulty is that each case of oil pollution has unique features.

The following factors come into play:

1) the nature of the product recovered : its grade of refinement, its physical and chemical characteristics, which vary with ambient temperature and sea-swell;

2) the physical environment of the slick; presence or absence of currents, tide, seaweed, flotsam and jetsam, distance from the coast, presence of reefs etc...;

3) weather conditions

5. The requirements for using mechanical methods of recovery of oil are the second difficulty :

1) weather conditions;
2) high staff levels;
3) high costs.
4) can only be used on deep slicks which have not had time to disperse; this poses the problem of intervening quickly (not always possible owing to weather conditions) as oil 'ages' in salt water :

- spreading : depending on the weather and tides, currents etc.;
- evaporation : fairly considerable;
- propensity to dissolve;
- dispersal : i.e. formation of a suspension of minute droplets of oil in sea water. Sometimes oil and water emulsify to form a semi-solid mass (nicknamed "chocolate mousse") which remain stable, turn into round lumps of bitumen or break up into minute particles;
- possibly, sedimentation;
- natural elimination by biodegradation (by living organisms) and photochemical oxidation (by the sun).
  (There is as much oil in the sea for natural reasons as we pour into it).

6. The phenomenon of the ageing of oil in the sea takes place fairly quickly. Pumping dispersed oil also means pumping 80% water which poses a storage problem.

The chocolate mousse can be pumped along with the crude.

But the act of pumping forms a new emulsion which eventually stablizes and is difficult to remove from storage vessels.

7. In the case of heavy fuel oil, which accounts for 10% of petroleum consignments, both mechanical and chemical methods are totally ineffective at present.

8. The use of mechanical recovery methods raises a third difficulty in the storage of oil recovered and its possible retreatment.

9. Lastly, the present mechanical methods can only be used effectively in conditions in which accidents do not often happen. If they could be improved they would represent the ideal means of fighting marine pollution.

10. In view of the cost of this equipment and the associated research and since it is in the interests of the Member States to have standardised equipment, the Commission should take the lead in providing coordination and finance in this field.

11. The Commission should propose the promotion and financing of research into the design and/or refinement of mechanical oil-recovery methods.

The oil companies spend a lot of money on research into chemical methods. The Commission should encourage them to spend equivalent amounts on mechanical methods.

12. It should also make a contribution towards promoting and financing adequate mechanical equipment and storage capacity for the oil recovered, wherever possible.

13. Further, it should organize the the local workforce directly affected, i.e. people living in coastal areas and in particular fishermen. Mechanical equipment could be designed for fitting to fishing vessels for example.

14. When it adopted the report by Lord Bruce of Donington, the European Parliament requested the Commission to play its part in research into mechanical methods.

15. The European Parliament eagerly awaits proposals from the Commission to be made on the basis of the studies carried out under the action programme for the control and reduction of pollution caused by the discharge of oil at sea and more particularly on :

- possible participation by the Community in the design and construction of anti-pollution vessels to carry the equipment required to deal effectively with oil;
- the drawing up of a proposal for a programme of research into chemical and mechanical methods for combating oil pollution.

16. By way of information, it should be noted that the points and comments made here can be found in more detailed form in working document PE 63.126 which served as a basis for the Committee's discussions.

OPINION OF THE COMMITTEE ON AGRICULTURE

Draftsman: Miss J. QUIN

On 30 October 1979 the Committee on Agriculture appointed Miss Quin draftsman.

At its meeting of 22 to 24 April 1980 it considered and unanimously adopted the draft opinion.

Present: Mr Früh, acting chairman and vice-chairman; Miss Quin, draftsman; Mr Battersby, Mr Bocklet, Mr de Courcy Ling (deputizing for Mr Curry), Mr Dalsass, Mr Helms, Mr Lynge, Mr Maher, Mr Newton-Dunn (deputizing for Mr Howell), Mr B. Nielsen, Mr d'Ormesson, Mr Papapietro, Mr Provan and Mr Woltjer.

I. Introduction

1. In the October 1979 plenary session, a motion for a resolution, tabled by Mr Muntingh, was referred to the Committee on Agriculture.

Mr Muntingh, emphasizing the serious damage done to the marine and coastal environment by oil escaping into the sea, and pointing out the hazards involved in the use of chemical dispersants for the marine and coastal environment, asked that the Commission of the European Communities investigate and eliminate shortages of mechanical control equipment in waters around the Community.

The disastrous consequences of accidents such as the 'Amoco Cadiz' to the coastal environment and economy cannot be over-emphasized.

Mr Muntingh, in his motion for a resolution, considers two solutions: mechanical skimmers and chemical dispersants. These represent two possible lines of action out of a number of possible options. The steps proposed by Mr Muntingh can be evaluated by reference to:

(a) the likely effectiveness of each of the options open to the Community, and

(b) the existing division of responsibility between Community bodies and other international agencies such as the International Maritime Consultative Agency.

2. However, it is clearly not sufficient to restrict oneself purely to treating the means of combating marine oil pollution, if the most effective policies would be those for preventing pollution. And to do that, the causes of accidents must be examined.

The nature of the problem

3. Accidents, involving vessels or land-based installations and resulting in the release of hydrocarbons into the sea, present a serious threat to employment in maritime regions, cause serious damage to the marine and coastal environment, including the delicate interacting chain of flora and fauna, and result in very heavy short-term costs to the budgets of the countries affected.

4. In the last ten years, 500 accidents resulting in pollution of sea have occurred throughout the world; that represents a rate of one a week.

5. The Atlantic European coast is the most vulnerable coast in the world and the one most affected by oil pollution. More than two billion tons of oil are moved by sea every year, with one million tons passing every day through the English channel. Oil pollution disasters will occur at regular intervals unless the most effective measures possible are taken to prevent, control and combat the results of accidents.

6. In Europe, the ecological disaster inevitably becomes an economic disaster. From the 'Torrey Canyon' disaster of 1967, 'Olympic Bravery' 1976, the 'Boehlen' 1976, and the 'Amoco Cadiz' 1978, the regions most affected have been the western peninsulas, particularly Brittany and Cornwall. The sea, in the form of fishing or the holiday trade, forms the backbone of the economy.

In the Department of Finistère, a significant part of the regional economy is dependent on the oyster beds, the fishing of lobster and crab, the harvesting of seaweed and increasing the farming of salmon. The loss following the 'Amoco Cadiz' was more than 80 million francs, with thousands of people losing employment.

Factors leading to accidents

7. At sea, the possibility of an accident, resulting from bad weather conditions, malfunctioning of the vessel or human error, can never be excluded.

8. The dramatic increase in the size of oil tankers increases the dangers once an accident has occurred: the inertia of the mass of the vessels making control and towing by tugs problematical in bad weather conditions.

9. The situation has been aggravated by the continuous search of the tanker owners to reduce costs. This has created pressure to be less strict in the drawing up, implementation and observance of rules on standards of ships, seamanship and training of crews. The most significant cost-cutting measures are:

- the increasing recourse to multi-purpose crews, with the aim of reducing the number of crew to the lowest possible;
- the increasing pressure on masters to berth on time in view of the very high costs of failing to meet a tide.

10. A related problem arises from the lack of international manning standards, which results from two main factors:

(a) IMCO[1] training and qualification standards take a long time to come into force.

(b) The spread of flags of convenience: vessels flying under certain flags of convenience have the higher than average casualty rate; certain of these flag countries are reluctant to ratify international conventions and to ensure their respect by their flag vessel.

The lack of effective implementation by flag of convenience states, and resulting lower costs of vessels under that flag, has led to a growing reluctance on the part of the traditional maritime states to improve their conditions.

One should not condemn out of hand all convenience flag states. 32% of the world's tonnage falls under the Liberian flag, but Liberia accounts for only 25% of accidents. On the other hand, the United States with 3.9% of tonnage accounts for 11% of accidents:

	Tonnage %	Accidents %	Index Accidents/tonnage	Index Oil released/tonnage
Liberia	32.4	25.4	0.8	1.2
Panama			1.9	2.1
Japan	8.8	4.9		
Norway	8.6	6.2		
Greece	5.4	11.1	2.3	1.9
France	4.5	2.7		
US	3.9	11.1	2.8	1.4
Cyprus	0.1	1.6		

Age rather than flag is as likely to be the cause of an accident.

[1] See page 22, para. 37

11. A further problem arises from the decrease in the past practice of stationing powerful tugs at strategic locations. This practice enabled the tugs to act quickly in the case that an accident occurred.

One reason for this trend is the increase in cost of the very sophisticated tugs. A second factor is the tendency of owners and underwriters over the last ten years to reject the normal 'no cure - no pay' contract and to ask for a fixed price or daily rate, so as to reduce their costs for a towing operation by cutting out payment for idle time.

In the past, payment to the tug operators was fixed by arbitration, under the procedure laid down by the standard contract such as Lloyd's form of salvage agreement.

The lack of tugs at permanent readiness is a clear source of danger. Measures should be taken to ensure that the standard contract is universally accepted. At the same time, it should be updated: with time it has become too unwieldy.

In addition, masters should be required to seek assistance at the earliest possible moment: delays can transform a difficult situation into a dangerous one.

At present there exists no control point of command where owners, underwriters, seamen and representatives of governments can get together to establish contingency plans for accidents and to take rapid decisions once they have occurred.

12. Such points should be established regionally, and in critical areas, such as the English Channel, be based on a permanent body of onshore radar operators, controlling the movement of ships, establishing their identity, issuing instructions to vessels and tugs, able to inspect vessels on land and at sea, and backed up by patrol vessels and tugs.

13. Finally, it should be noted that there is no standard emergency drill taught to seamen as to aircraft crews. Such training for emergencies would prove of tremendous worth in time of accidents.

The different possible types of action to help avoid catastrophes

14. The grounding of the Amoco Cadiz made people in the Community aware of the necessity to prevent a new catastrophe. Calls for action to prevent a recurrence were heard in all quarters. The problem is to decide what kind of action is needed and by whom the action should be taken.

15. There are numerous measures that could be prepared. They can be classified as follows:

I. Action to deal with pollution once it has occurred

A. The development of a proper coordination of national actions and the technical means to combat maritime pollution, including mechanical devices to scoop up oil.

B. Research on the marine environment.

C. Monitoring of marine pollution.

II. Accident prevention by means of international agreements intended

A. To improve standards of vessels and seamanship.

B. To regulate the movement of vessels.

C. Coordinate salvage operations and practices regulating towing operations.

D. To ensure that adequate sanctions are imposed against vessels infringing.

Such measures can be carried out at a number of levels:

i. International level, principally by the drawing up of international conventions intended to regulate the rights and duties, and the division of responsibility between the flag and the coastal states.

ii. Regional level to render more effective:

(a) the implementation of international conventions

(b) measures to combat pollution

iii. Community level to adopt measures to prevent further catastrophes, to facilitate the imposition of sanctions against ships masters and owners infringing international regulations and to coordinate and develop measures to clean up hydrocarbon released into the sea.

16. It should be stressed that there is no necessary conflict or incompatibility in acting simultaneously at each level; one reinforces the other. International conventions provide rights and duties; regional actions can ensure that they are implemented effectively. This is particularly true in Europe. The power of example of the most powerful maritime nations should not be underestimated.

Outline of the opinion

17. The report will examine whether the mechanical and chemical methods of controlling oil marine pollution are a sufficient solution. If not then other solutions must be examined and their strengths and weaknesses analysed. In this way, it can be established more exactly the measures required to be taken.

II. The effectiveness of methods to remove oil spilled at sea

18. There is as yet no internationally accepted method of effectively combating oil pollution at sea. Different methods are considered appropriate in different waters and for different oils. There is as yet no agreement on the best methods of combating oil pollution, or on the advantages and disadvantages of each approach. It is certain, however, that there is no clear evidence that mechanical methods of controlling pollution are sufficiently effective. It is also evident that chemical dispersants create more problems than they solve.

Chemical dispersants

19. Chemical dispersants are now widely used in the treatment of oil spilled at sea. Their two main problems are firstly, that they are not universally effective, and secondly there is not yet universal agreement on the method of determining how toxic each chemical might be.

Leaving aside the problem of human error, which might cause chemicals to be used in too concentrated a form, thus harming marine life, most chemicals now in use undergo stringent tests. The hit-or-miss approach used at the time of the Torrey Canyon shipwreck, when chemicals were used without adequate testing and in too toxic a form, has given way over the last few years to methodical routine testing for toxicity in the presence of oil for various marine species. The UK, which is responsible for two thirds of all Community waters, operates a licensing system, with approval being given to the use of certain chemicals in certain environments after testing by the Ministry of Agriculture, Fisheries and Food.

The results of these tests are available to the nine signatory states of the Bonn Agreement through its technical working party. Bilateral discussions are also taking place between the UK and France to try to reach a common agreement on which dispersants should be used in areas where both have a mutual interest. The test procedures being used by the UK and France are slightly different, and the technical experts are trying to agree upon common standards.

20. The other major problem with chemicals is that they do not work in all circumstances. Firstly there is the difficulty of inshore breeding grounds. While some chemicals may be safe here, others that are being used in spraying on deep water - where the risk to marine life is reduced - are too toxic.

There are also oils for which there are as yet no effective chemical dispersants. Very viscous oils, such as the heavy fuel oil from the Eleni V, tends to congeal in large patches. Dispersants currently available are relatively ineffective in these circumstances, and in the present state of knowledge there is little prospect of developing a dispersant that will be both fully effective for dispersing heavy oils and which will fully satisfy the stringent toxicity tests applied by the Ministry of Agriculture, Fisheries and Food.

21. Despite the problems with chemical dispersants some governments still devote most of their efforts to combat the effects of oil pollution to chemical-oriented approaches. In addition to stockpiling chemicals, or chemical concentrates, governments have substantially increased their dispersant spraying capability in recent years (and intend to do more in this area). Until the mechanical methods of controlling oil pollution are proved to be effective the principal effort of most governments looks likely to be in improving the effectiveness of the dispersant chemicals through research and development, and in enhancing the techniques for spraying through the use of aircraft.

Mechanical control equipment

22. Most governments would probably prefer mechanical control equipment to dispersant chemicals if the technical problems affecting their use in areas such as the North Sea can be overcome. Some states, including Norway and the Netherlands, have adopted policies strongly supporting the use of this type of equipment. The combined dredging and pollution control vessel currently under construction in the Netherlands will be watched with interest when it begins operations. Its success is not guaranteed as no similar vessel has previously been built and tested in the North Sea. Mechanical control equipment tested so far in the North Sea has not worked.

23. The Bonn agreement states have been discussing the use of mechanical control equipment for some time, and various pieces of equipment have been developed and tested by the UK's Warren Spring Laboratory throughout the last five years. Many problems remain to be overcome, however, before successful equipment seems likely to emerge.

24. One major difficulty facing mechanical recovery is that oil from the spills caused by the Ekofisk Blowout, and the Eleni V, Christos Bitas and Amoco Cadiz incidents was observed to spread rapidly, with resulting extremely thin layers - average thickness 0.1 mm - on the surface of the sea. This is an ideal thickness for dispersants to tackle, but is extremely inconvenient for mechanical recovery skimmers.

If skimmers move faster than 1 knot per hour speed oil will escape underneath the skimmer, and at that rate a 1m wide skimmer will only encounter about 0.2 tons of oil per hour. The rate can be increased by working along the ribbons of oil, produced by the wind, or by using longer booms.

25. Another complication is that water and oil emulsification happens within a few days at most and within a few hours at worst, depending on sea state or type of oil, and in recovery it is found that the emulsions quickly become unpumpable.

26. The conclusions of tests in the United Kingdom on a variety of different mechanical means of combating oil pollution including a range of skimmers, suction equipment, absorption devices, and booms, has so far given little encouragement: the performance of oil recovery equipment in general falls off extremely rapidly with increase in sea state, and in some cases performance is negligibly small even in conditions that could only be described as calm.

Waves cause problems of water displacement and turbulence, and of the skimmer only being in the oil momentarily - the rest of the time being above or below it. It is possible that the Dutch barge system being built at a cost of about £4 million, and the UK's Springsweep System may both work satisfactorily in inland waterways and harbours where the wave height may not be more than 15 cm. Unfortunately both may find the North Sea waves present insuperable difficulties. In the North Sea waves are seldom less than 1 m high.

27. It is clear from the research work so far that it would be premature for the riparian states of the North Sea, English Channel, Irish Sea and Mediterranean to adopt mechanical recovery at the expense of chemical dispersal until the former can be shown to work satisfactorily in the conditions likely to be encountered in the sea around the European Community countries.

Monitoring system

28. Monitoring, particularly in sensitive coastal areas, will clearly be required:

- to assess the wholesomeness of fish and shellfish as food
- to ensure the protection of fish stocks
- to detect deterioration of water quality, and
- to protect amenity.

29. So far there exists no adequate system for monitoring and identifying the effects of hydrocarbon pollution on the marine environment[1]. And before such a system can be created, serious scientific methodological problems have to be overcome, and in particular

- the fact that there exists no simple method for distinguishing the amount, source and age of hydrocarbons in the sea;
- the problem of identifying the degree and mechanisms of toxicity and possible toxic interaction with other substances such as metal; and
- the difficulties of monitoring hydrocarbon pollution in open seas which would render routine monitoring of little value.

30. If petroleum pollution studies are to continue, there must be some standardization of methods. Attempts so far have been too limited.

Conclusions on methods to control existing pollution

31. It is clear that passive methods to combat pollution once it has occurred are not a sufficient answer. Pollution must be prevented. The international community and regional organizations must establish rules and ensure that they are implemented effectively.

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[1] See: Petroleum Hydrocarbons in the Marine Environmental Proceedings of ICES Workshop, 1975

III. International conventions

32. International conventions provide the starting point for policies to deal with the problem of oil pollution. They define the basic rights and duties of all signatory nations and largely set the limits legally of possible action by individual nations in the fight against pollution. By means of international conventions the duties of the flag state and the rights of the port state are being developed.

33. The United Nations provides the principal forum for the elaboration of conventions through three bodies:

(a) IMCO (the Intergovernmental Maritime Consultative Organization), the specialized United Nations agency, was established to administer the first London Convention for the Prevention of Sea Pollution 1954 (OILPOL), together with further conventions:

- the 1973 London Convention (MARPOL) which also regulated the discharge of pollutants other than oil, and
- the 1978 Protocols which dealt not only with discharges but also with the causes of pollution.

(b) The International Labour Office has drawn up a number of conventions intended to improve the quality of crews, for example, ILO Convention No. 147, concerning the minimal norms on board merchant ships.

(c) The Third Conference on the Law of the Sea is concerned with a wide-ranging codification and revision of all aspects of the sea, its resources and the protection of the marine environment.

34. International conventions form the starting point for action to deal with oil pollution at sea; they are not, however, a guarantee that effective steps to prevent oil pollution will be taken:

- international conventions enter into first very slowly, taking an average of five to ten years;
- it is very difficult to introduce new concepts along the lines required to prevent pollution;
- the division of competence between the coastal and flag states has still to be decided by the United Nations Conference on the Law of the Sea;
- it is unlikely that the detailed rules required, concerning norms for shipbuilding and controls over vessels, will emerge by the process of customary law, as, for example, the consensus on the introduction of exclusive economic zones.

35. Beyond the problems of conventions themselves, lies the difficulties of achieving proper cooperation between parties to the convention, so as, for example, to provide information on measures taken to apply conventions, supply to other states proof of violations needed to apply sanctions, or so as to ensure that sanctions can be applied beyond the borders of the state suffering pollution.

IV. Regional Agreements

36. International conventions to control marine pollution can achieve very little if they are not implemented effectively. Consequently a number of regional cooperation arrangements have been established, in order to achieve greater coordination of national efforts.

(a) North Sea

(i) National level

In the wake of the 'Torrey Canyon' tanker disaster, states bordering the North Sea signed an 'Agreement for Co-operation in dealing with Pollution of the North Sea by Oil' in Bonn on 9 June 1969. Representatives of the signatory states meet regularly to discuss pollution control, including recently a review of mechanical recovery techniques.

(ii) Administrative level

The Hague Convention of 2 July 1978 is particularly important: the port authorities in the North Sea apply at a regional level the ILO Convention 147. The administrations of eight countries fix minimum conditions for seamen and exchange information on the degree to which vessels conform to safety regulations etc.

(b) North East Atlantic

37. In the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft signed in Oslo in 1972, the North East Atlantic states agreed, inter alia, 'to establish complementary or joint programmes of scientific and technical research, including research on alternative methods of disposal of harmful substances, and to transmit to each other the information so obtained. In doing so they will have regard to the work carried out by the appropriate international organisations and agencies' (Article 12), and 'pledge to promote in international agencies measures concerning the protection of the marine environment caused by oil and oily wastes...' (Article 14).

Following an IMCO convention of the following year, which dealt with ways in which the discharge of oil at sea from ships and rigs might be reduced, the North East Atlantic states met in Paris in 1974 to discuss ways of limiting the discharge of pollutants from the land into the sea. They agreed (Article 10) 'to establish complementary or joint programmes of scientific and technical research, including research into methods of eliminating or replacing noxious substances so as to reduce marine pollution from land-based sources, etc...'

(c) Mediterranean

38. Oil is the most obvious source of pollution in the Mediterranean. 40% of the world's oil traffic passes through it.

In the Mediterranean, following a series of warnings by scientists from 1970 onwards, a comprehensive cooperative action was established, initiated in 1974 when the United Nations Environmental Programme (UNEP) emerged as the recognized coordinating agency.

UNEP in cooperation with the Mediterranean states formulated a comprehensive action plan for the protection of the Mediterranean region which was approved by 16 Mediterranean states in Barcelona in 1975.

The action plan consisted of four components:

(i) A framework convention together with protocols each relating to one particular aspect of pollution;

(ii) An environmental assessment programme initially consisting of seven pilot projects;

(iii) An integrated planning programme to provide information to governments on the economic and environmental aspects of national planning;

(iv) At the suggestion of Malta, it was agreed to consider the feasibility of a coordinating centre to deal with emergencies arising from accidents at sea.

Two protocols came into force in February 1978, concerning the prevention of pollution by dumping from ships and aircraft, and cooperation in combating pollution by oil and other substances in the case of accidents.

The integrated planning programme was approved in February 1977. Commonly called the 'Blue plan for the Mediterranean', it sets out six priority fields: Protection of soil, management of water resources, management of fisheries and aquaculture, human settlements, tourism and soft technologies for energy.

In addition, the Mediterranean is given special consideration in the IMCO 1954 Convention whereby oil ballast discharge is prohibited within 100 miles of land, with two free areas in the eastern Mediterranean[1]. The 1973 Convention prohibited oil discharge but has not yet come into force.

(d) The Baltic

39. In the Baltic, the Helsinki Convention on the Protection of Marine Environment provides for the coordination of emergency intervention plans in the seas in the Baltic Sea.

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[1] Under the 1979 amendments to the convention, which came into force in January 1978, discharge of oily ballast is permitted up to 50 miles from the nearest land but only under certain conditions.

V. Community involvement

40. The Community's record on marine oil pollution so far has been one of declaration of high intent in the wake of oil disasters, with an unwillingness to follow up with concrete measures once the memory of the disaster fades.

41. In the aftermath of the Ekofish blow-out, which dramatically highlighted to public opinion the problems of oil pollution, the Commission, in June 1977, forwarded a set of proposals to the Council. The Council never found the time to examine these proposals.

42. Following the Amoco Cadiz disaster, the European Council in April 1978, in examining what could be done, adopted a declaration stating that the prevention of oil pollution should be an important objective; it invited the Council to take appropriate measures under the auspices of the Community and to pursue a common policy in the competent international fora, regarding:

- rapid implementation of international rules, particularly on norms of ships;
- coordination of action (if any) of Member States to prevent accidents;
- adequate functioning of a system of compulsory routing for ships;
- strict control over sub-standard ships;
- and a reference to the necessity for research.

43. The Commission, in response, produced a communication to the Council on 27 April 1978 setting out a series of lines of action.

The Commission stressed that, to the extent it was desirable to carry out common action, this should be done within the existing framework, that is, as far as pollution is concerned, within IMCO. The communication proposed that Member States use all the means at their disposal to accelerate the entry into force of IMCO conventions and to render their application effective.

The Commission also said that the Community might

- encourage the application of certain provisions of IMCO before the conventions in question had entered into force;
- seek to protect particularly vulnerable maritime zones when taking initiatives within an international organization;
- take measures regarding vessels which had not been envisaged in international conventions.

The Commission's action programme concentrated for the most part on measures to be taken after an accident rather than on prevention aspects. It proposed,

- the collection of data and the efficiency of available means of fighting pollution;
- the study of towing of threatened vessels with a view to possible common action;
- a study to improve the legal regime defining compensation against risks of pollution;
- research programmes on chemical and mechanical means for cleaning up the effects of a disaster; and the impact of hydrocarbons on the marine environment.

44. The Council has really taken no further concrete action since these proposals were formulated.

45. Further initiatives which the Community could consider might include:

(a) action in common against vessels suspected of violations by international conventions rather than simply implementing those conventions individually;

(b) going beyond international conventions in regulating the movement of ships so as to prevent the pollution;

(c) establishing a proper surveillance of tanker movements and the means to ensure that vessels respect regulations;

(d) establishing the physical means to combat pollution once it has occurred;

(e) establishing an information system to coordinate actions to prevent pollution and to ensure effective sanctions against masters and vessels infringing international and Community rules.

(f) encouraging the construction particularly in Community yards of new tankers with separate ballast tanks and subdivided so as to reduce the amount of damage and oil spillage in the event of collision or stranding of tankers.

VI. Conclusions

46. Mr Muntingh has drawn Parliament's attention to a problem that is growing in significance in the waters around the Community - oil pollution and its potentially harmful consequences for the marine life within those waters. He is right to do so, and Parliament ought to encourage the Commission and the individual Member States of the Community to devote more resources both to preventing oil pollution and to dealing with the consequences whenever and wherever it occurs. Parliament should also urge the EEC to take a lead in the various international fora considering oil pollution.

47. The Atlantic European coast is one of the most vulnerable coasts in the world to marine oil pollution, with one million tonnes of petrol passing through the English Channel each day and this means that unless effective measures are taken to prevent accidents involving oil tankers and to combat loss of oil into the sea after accidents, a new pollution catastrophe such as that resulting from the wrecking of the 'Amoco Cadiz' is inevitable.

48. Oil spillages have a disastrous impact on the economic life of the more peripheral regions of the Community particularly dependent on the sea, through fishing, the holiday trade and related industries, for their livelihood.

49. With regard to combat pollution once it has occurred it must be stated that mechanical control equipment has yet to be shown to be effective in the sea conditions likely to be encountered in Community waters, and that chemical dispersants do not work in all circumstances.

However, Community funds should be made available to promote further research on the mechanical and chemical means of dispersing of oil released into the seas.

50. With regard to the prevention of pollution, the Council, while recognizing the divergent economic interests of Member States, should seek to ensure that at the United Nations Conference on the Law of the Sea the Community defends the necessity for rules intended to prevent pollution at sea.

51. Since the majority of accidents at sea are caused by human error, the Council should also encourage measures to improve the quality of crews and in particular to take measures to speed up the implementation of: the 1978 IMCO Convention on standards of training, certification and watchkeeping; and the ILO Convention No. 147, on minimal norms on board merchant ships.

52. A further contributing factor to accidents, particularly those involving the larger oil tankers, is that the vessels are not built and maintained to sufficiently high standards. Therefore, the Council should also take measures to ensure that vessels passing through Community waters and landing at Community ports conform to minimum standards, and in particular:

(a) should encourage the construction of new tankers in Community yards meeting the highest environmental standards;

(b) should adopt measures on the minimum conditions under which tankers may enter and leave Community ports;

(c) should urge that all Community countries ratify the IMCO Convention on Tanker Safety and Pollution (TSPP);

(d) should ensure that the Community apply within Community waters the rules of the TSPP Convention relating to requirements on the steering and power units of tankers (duplication of systems).

53. Additional measures to combat and prevent marine pollution could also be considered including:

(a) stricter rules on the movement of tankers, including the displacement of tanker lanes further from the coast, and permanent monitoring, and where necessary compulsory pilotage, of tankers in the more sensitive zones;

(b) the establishment of the legal responsibility of the master and owners: to ensure that their vessels conform to international standards when entering Community waters; and to take prompt action in the case of emergency;

(c) joint action against vessels infringing international and Community rules with a possibility of sanctions;

(d) an information system so that proof of responsibility can be established, even where pollution occurs in one Member State and the suspected vessel docks in another;

(e) stand-by plans to ensure adequate towing facilities in the case of accidents;

(f) regional response plans to coordinate actions of Member States, with interested third countries, including the establishment of coordinating centres to draw up advance plans and ensure prompt collective action in the case of emergency;

(g) the setting up of an adequate system for the monitoring of marine pollution.

ANNEX

MOTION FOR A RESOLUTION (DOCUMENT 1-310/79)

tabled by Mr MUNTINGH

pursuant to Rule 25 of the Rules of Procedure

on combating the effects of disasters where oil is released into the sea and reaches the shore

The European Parliament,

- profoundly disturbed by repeated disasters in which serious damage has been done to the marine and coastal environment by oil escaping into the sea,

- again alarmed by the recent accidents in the Caribbean area,

- considering that the control measures recently applied involving the use of chemicals present serious hazards for the marine and coastal environment,

- aware of the fact that there is a severe shortage of mechanical control equipment in north-west European waters and in the Mediterranean,

1. Requests the Commission to investigate what mechanical methods of control have been developed and vigorously to encourage the further development of such techniques;

2. Requests the Commission to investigate the extent of the shortage of mechanical control equipment in the riparian states of the North Sea, the English Channel, the Irish Sea and the Mediterranean;

3. Requests the Commission, on the basis of information obtained, to take the appropriate steps to ensure that such deficiencies are eliminated;

4. Draws the Commission's attention to the fact that the construction of pollution control vessels, such as the combined dredging and pollution control vessel currently under construction in the Netherlands, to combat disasters in north-west Europe or in the Mediterranean could also be beneficial for the shipbuilding industry;

5. Requests the Commission, finally, to continue to encourage the search at international level for modes of cooperation which would ensure that disasters are combated with optimum effectiveness.