



WORKSHOP ON ENVIRONMENTAL DAMAGE

Centro Tecnológico del Mar
CETMAR Foundation
Vigo, 11-13 July 2005



DG Environment



CENTRO TECNOLÓGICO DEL MAR
FUNDACIÓN CETMAR



Cedre



WORKSHOP ON ENVIRONMENTAL DAMAGE
VIGO, 11-13 July 2005

FINAL TECHNICAL IMPLEMENTATION REPORT

Workshop on Environmental Damage

Organized by CETMAR and INTECMAR
in collaboration with CEDRE
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11-13 July 2005

Vigo, Spain

TABLE OF CONTENTS

	Page
Background and objectives	3
Methodology	5
Scientific programme.....	8
Social programme	11
 Annexe I: Web site	
Annexe II: Participants	
Annexe III: Lectures	
Annexe IV: Perspectives and conclusions	

BACKGROUND

The **Workshop on Environmental Damage** was held in Vigo on 11th-13th July and organized by the Centro Tecnológico del Mar (CETMAR) together with INTECMAR (Ministry of Fisheries and Maritime Affairs Department (Xunta de Galicia) in close collaboration with CEDRE. It was co-funded by the DG Environment (EU Commission) under the framework of the "Call for proposals 2004 in the field of Community Cooperation against accidental or deliberate marine pollution".

The aim of the Workshop was to discuss different issues and aspects related to the environmental damage and, on the basis of these discussions, to achieve common criteria and/or harmonized approaches and guidelines for the assessment, monitoring and follow up of the environmental damage in the EU. A number of experts from relevant Agencies and Research Centres specialized in these topics such as ITOPF, SINTEF, CIIMAR and the UNEP World Conservation Monitoring Centre as well as delegates from EU Member States attended the workshop and participated in the discussions.

OBJECTIVES

The main objectives of the workshop can be summarized as follows:

- Review what has been done in recent oil spills and what is / should be provided in this field in the national contingency plans.
- Exchange and compare the experiences of the Member States on the monitoring and assessment of environmental damage caused by recent oil spills in Europe.
- Review what is provided in this area in the national-regional contingency plans

- Review current methodologies for the assessment of the sensitivity of coastal areas
- Review the use of GIS to map sensitivity areas: which kind of information should be available, what kind of data, format, access, tools.
- Review and assess the current tools, methodologies and protocols for monitoring and assessment of environmental damage
- Identify lacks and needs and issue recommendations
- Identify tools and methodology and establish criteria and guidelines for environmental damage restoration, monitoring, follow up and assessment.

METHODOLOGY

ITC technologies were used for the preparation of the workshop and for documentation management. A web site (see Annex II) was implemented with a public area including general information and a restricted area addressed to the participants in the Workshop in order to exchange relevant information and documents related to environmental damage, presentation of speakers and their institutions, relevant legislation, news and events, expert databases, and practical arrangements for the workshop (travel and accommodation).

In order to get a state of the art in the EU, a questionnaire on relevant issues related to environmental damage was delivered one month before the workshop among the delegates identified in all the maritime Member States. The questionnaire was prepared by CETMAR and INTECMAR in close collaboration with CEDRE. The information gathered is currently available at the web site of the Workshop (<http://193.144.36.199/mgm/index.html>)

The workshop lasted three days and was organized in plenary sessions with several lectures per theme (see scientific programme) given by relevant experts on the field followed by round tables (1 per theme) to discuss and stimulate the participation and exchange of experience and views among all the participants. The *Centre de Documentation de Recherche et d'expérimentations sur les Pollutions Accidentelles des Aux* (CEDRE) collaborated in the preparation of the contents of the workshop and by giving lectures and chairing round tables. In addition to CEDRE, experts from the International Tanker Owners Pollution Federation Limited (ITOPF), the World Conservation Monitoring Centre of UNEP (UNEP-WCMC), SINTEFF and the Maritime Safety Umbrella Operation project (Interreg IIIB Programme) participated by giving lectures.

Although all these organizations played a key role during the workshop, the participation and the point of view of the national and the local representatives was the core of the workshop. The workshop was attended by 20 representatives from 15 Maritime Member States and 23 Spanish delegates from a number of relevant governmental agencies and research centres that together with the organizers and collaborators yielded a total of 58 participants (*see Annex II*). Simultaneous interpretation (English, French and Spanish) was available.

The following themes were presented and discussed:

Theme I: Contingency plans and environmental sensitivity

Methodology and criteria for the assessment of sensitivity

Type of data to be included, format, access, tools, providers, etc

Use of GIS technology

Access to the environmental expertise

Theme II: Damage assessment and claim analysis

Methodology, criteria and tools for assessment of environmental damage.

Theme III: Environmental sensitivity and monitoring programmes.

Establishment of baseline status, protocols for monitoring and follow up of environmental damage programmes (short and long time).

(See presentations at Annexe III).

On the basis of the discussions, the main points and conclusions were drafted and discussed. A final document with perspectives and conclusions was elaborated (*See Annex IV*).

A visit to the mussel production areas and visits to Vigo airport and port were organized to show the participants the maritime and aerial means devoted to Maritime Safety and Fight against Pollution by the Galician Government.

SCIENTIFIC PROGRAMME:

11th July

Morning session

09.30 Welcome and Opening Session:

PRESTIGE: The Galician experience on damage assessment and cost claims.

Exmo Sr D. Enrique César López Veiga. Conselleiro de Pesca y Asuntos Marítimos.

10.30. Opening speech

Thomas de Lannoy. DG Environment. European Commission.

11.00. Coffee Break.

11.30. Environmental Restoration: what to do? When to start and when to stop? Main results of an EU seminar hold at Cedre in 2001.

Michel Girin. Director of CEDRE

12.15. Lessons learnt on environmental damage in recent oil spills.

Tosh Moller. Managing Director of International Tanker Owners Pollution Federation Limited (ITOPF).

13.00. LUNCH BREAK

Afternoon session

THEME I: CONTINGENCY PLANS AND ENVIRONMENTAL SENSITIVITY

14.30. The place of modelling in environmental damage assessments.

Mark Reed. SINTEF.

15.00. Methodology and criteria for assessment of environmental sensitivity: use of GIS technology for sensitivity mapping

Phillip Fox. UNEP World Conservation Monitoring Centre.

15.30. The role of environmental expertise and NGOs: mechanisms of integration in contingency plans.

Florence Poncet. CEDRE.

16.00. ROUND TABLE DISCUSSIONS

12th July

Morning session

THEME II: DAMAGE ASSESSMENT AND CLAIM ANALYSIS

09.00. National and Regional rules *versus* International System for Damage Assessment.

Michel Girin. CEDRE.

10.00. Assessment of immediate and future losses.

Tosh Moller. ITOPF.

10.30. Funding for Future Projects, the role of the Interreg Maritime Safety Umbrella Operation

Richard Hill. Maritime Safety Umbrella Operation (Interreg IIIB Programme).

11.00. Coffee Break.

11.30. ROUND TABLE DISCUSSIONS

13.00. Trip to o Grove

14.00. Lunch in ship (O Grove-Cambados, visiting mussel production areas)

16.00. Visit to Martin Codax wine cellars (Cambados)

17.00. Visit to INTECMAR (Consellería de Pesca y Asuntos Marítimos, Vilaxoan,)

18.00. Return to Vigo

13th July

Morning session

THEME III: ENVIRONMENTAL SENSITIVITY AND MONITORING PROGRAMMES.

09.00. The need of reference baseline data for the assessment of environmental impacts.
Irma Philippon. CEDRE.

09.30. Protocols for monitoring and follow-up of environmental damage
Franck Laruelle. CEDRE.

10.00.
Environmental damage restoration
Loic Kerambrum, CEDRE.

11.00. Coffee Break.

11.30 ROUND TABLE DISCUSSIONS

13.00. LUNCH BREAK

Afternoon

14.30. PRESENTATION OF CONCLUSIONS and PERSPECTIVES.

17.00 End of the Workshop

SOCIAL PROGRAMME:

11th July

- 08.45. BUS TRANSPORT FROM BAHIA HOTEL TO CETMAR
- 09.00. Delivery of Documentation
- 09.30. Morning session
- 13.00. Lunch at CETMAR
- 14.30. Afternoon session
- 17.30. BUS TRANSPORT FROM CETMAR TO BAHIA HOTEL
- 20.00. BUS TRANSPORT FROM BAHIA HOTEL TO RESTAURANTE EL CASTILLO.
- 20.30. DINNER AT RESTAURANTE EL CASTILLO.
- 22.30. BUS TRANSPORT FROM RESTAURANTE EL CASTILLO TO BAHIA HOTEL.

12th July

- 08.30. BUS TRANSPORT FROM BAHIA HOTEL TO CETMAR
- 09.00. Morning session
- 13.00. Trip to o Grove
- 14.00. Lunch in ship (O Grove-Cambados, visiting mussel production areas)
- 16.00. Visit to MARTIN CODAX Wine cellars (Cambados)
- 17.00. Visits to Vigo airport and port to know maritime and aerial means of Galician Government (Xunta de Galicia).
- 18.00. Return to Vigo
- 20.30. DINNER AT RESTAURANTE CLUB NAUTICO (In front of Bahia Hotel).

13 th July

- 08.30. BUS TRANSPORT FROM BAHIA HOTEL TO CETMAR
- 09.00. Morning session
- 13.00. Lunch at CETMAR
- 14.30. Afternoon session
- 17.00. End of the Workshop.
- 17.30. BUS TRANSPORT FROM CETMAR TO BAHIA HOTEL
- 20.30. DINNER AT RESTAURANTE EBANO (C/ Luis Taboada, 27)

Annex I
PARTICIPANTS

WORKSHOP ON ENVIRONMENTAL DAMAGE

Vigo, 11 July 2005

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WORKSHOP ON ENVIRONMENTAL DAMAGE
VIGO, 11-13 July 2005

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WORKSHOP ON ENVIRONMENTAL DAMAGE
VIGO, 11-13 July 2005

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WORKSHOP ON ENVIRONMENTAL DAMAGE
VIGO, 11-13 July 2005

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Annexe II
WEB SITE



Annexe III
PRESENTATIONS



Annexe IV
CONCLUSIONS AND PERSPECTIVES



Introduction

The great diversity of participants and presentations provided a wide range of views and experiences that generated open discussions fully covering the whole range of problems addressed by the workshop. The conclusions and proposals hereunder reflect to the best of their capacity the views commonly accepted by all participants. They are presented here as came out off the discussions. They do not account occasional reservations expressed by some participants. As a consequence they can be taken as a reference platform globally accepted by all but not as a personal commitment of each participant.

Methodology and criteria for assessment of environmental sensitivity: use of GIS technology for sensitivity mapping

The Internet map server elaborated by UNEP- WCMC was shown, including Worldwide Geographical reference Information related to oil spills. The importance of the knowledge on environmental sensitivity of a particular area in order to have robust criteria to support decision making (protection, establishment of priorities, clean-up techniques, etc) was emphasized.

The advantages of GIS technology are clear when compared with the old printed maps. Access to the data is very quick, the updating is very simple, scaling is automatic and storing capacity unlimited.

The question arised on the problems originated by the difficulties to have access to the relevant information due to restricted use (copyrights, etc) and due to the very diverse data format, that makes it difficult the transfer and sharing of data between experts and the transfer suitable information to decision makers and beach masters. There is agreement on the need to use formats that facilitate the exchange.



A political effort should be made in order to establish a policy that facilitate and encourage data transfer and exchange between different administrations and Research Institutions.

The importance of metadata was stressed in order to guarantee the quality of the information distributed through Internet.

Delegates of Member States informed about the use of GIS in their countries not only to manage the information on sensitivity mapping but also to integrate other relevant information used in Contingency plans.

The role of environmental expertise and NGOs: mechanisms of integration in contingency plans.

The lecture showed the importance of the environmental expertise in providing advice to the competent authorities in charge of the response to an oil spill, including that of validated NGOs when available.

Examples from the organization of such groups in the UK, France and Spain were presented and discussed, with UK (groups in place form the 1999) being shown as a model to follow in terms of organization, way of funding, stability and efficiency.

In France, the organization of groups has been initiated during Erika and Prestige operations, but they have not been formally established during peace time. Lists of experts are really in place. This initiative is part of a POLMAR instruction.

In Spain, the competent authorities have been advised by different group of experts constituted just after the Prestige accident. The idea of creating an official list of expertise has been considered but not implemented so far.

More information about the UK model was requested by the participants.



The main difficulties found to create such a group were:

- If it is necessary and how to get funding
- The group should be always ready and available although their assistance may not be needed from very long periods (10 years).
- When needed, they should leave their routine occupations no matter the time.
- During peace time to be pertinent, expert must obtain specific knowledge on spill impact
- They meet each others regularly to be prepared

Concerning funding, it was emphasized that the costs of environmental expertise, if clearly justified and documented, may be considered admissible from the Compensation Funds.

The importance of providing the group of expertise with a trans-national character was stressed. The EU Commission mentioned the existence of a three levels of experts (observers from other countries, national experts and liaison officers that would mediate between the other two groups) and informed about the EUMAREX programme that provides a framework for funding the exchanges between international experts in oil spills.

Recommendation was done on the inclusion of such expertise groups in the contingency plan. It could be suggested to use as models the English national contingency plan and French POLMAR plan.

The main characteristics are:

- The leader of the group is the relevant statutory environment agency representative with power of decision on members,
- In UK the group has a role of advice, in France experts can be involved in operations management
- In UK, during peace time the core members maintain regular contact.



ENVIRONMENTAL SENSITIVITY AND MONITORING PROGRAMMES

Baseline reference data

Interest: baseline reference data (pre-spill data) are fundamental (including the knowledge of background chronic pollution levels). In the absence of pre-spill data, when possible, a non contaminated area close to the polluted area may be used.

National observation network: they exist in several countries, mainly regarding chemical, physical and ecological quality of the environment (water, sediments, organisms). It is reported that such initiatives are being implemented within the framework of the relevant international and regional agreement and the European *Water Framework Directive*.

The need of baseline reference data in case of oil spill justify the perpetuation (see the setting up) of local and national observation network.

Long-term time series data should be profitable to improve the knowledge of the natural spatial-temporal fluctuations of the biota.

Damage assessment (Ecological monitoring and restoration)

Funding: It is reminded that possibilities of funding ('unlimited' at 50% for environmental impact survey) exist at the European level (DG Environment, fast decision-making and referred provisions). Funding is also available through Interreg initiatives and MSUO (from 50 to 70%). European funding programmes cannot overlap.

Choice of studies: it seems necessary to identify ecological monitoring according to specific purposes defined by authorities and scientists. New studies and experiments should be carried out.



Contingency plan: Monitoring should be mentioned in NCP (on a voluntary or mandatory basis, depending on the NCP framework).

Guidelines for a clear strategy in this field should be drawn as a technical annex.

National strategy: A debate on monitoring methods should be implemented. Whenever possible, data should be subjected to quality assurance systems (chemical analysis...)

The harmonization of strategies for environmental monitoring (methods, targets...) should be debated.

Data Dissemination: data dissemination is a key-issue for scientists, authorities, public, and it must be organised. Providing results of a monitoring programme of an accident must entail clearly defined step-by-step reports (workshop, web,...).

Expertise: It is reminded that advisory expertise in the decision-making process requires careful organisation.



CONSIDERATIONS TOWARDS AN IMPROVED ENVIRONMENTAL IMPACT STUDIES OF OIL SPILLS.

THE SITUATION

There is much European experience in such studies, but in general:

- financing was improvised or advanced by research institutions,
- information could have been better interpreted for stakeholders and decision makers

THE CONSIDERATIONS

1. It would be good to integrate the environmental impact study in the contingency planning with specification of :

- Objectives.
- Financing
- Management
- Resources
- Chapters
- Schedule
- Outputs
- Compensation

2. As much as possible, harmonise the options above at European level.

OBJECTIVES

- To establish the consequences of the spill on natural resources, health and the environment
- To determine the needs and possibilities of environmental restoration
- To disseminate that information



FINANCING

- To avoid delays, the plan could establish the source of financing of the minimum study or phase 1 study deemed necessary in small, medium or large spills
- Whenever possible, pre-spill agreements could be established for the real time observations and sampling needed

MANAGEMENT

- The plan could define the management structure of the impact study, so that no time be lost in doing so after the spill

RESOURCES

- The scientific resources required for the implementation of the study could be clearly identified before the spill

TECHNIQUES

Basic environmental impact study techniques are well established. But countries would gain in exchanging information on such matters as sampling methodology, analysis, description of results, etc

OUTPUTS

- Permanent information on a dedicated internet site.
- At least 1 exchange/dissemination of information scientific seminar
- 1 to 3 public reports (phases 1, 2, 3) with non technical summary

CHAPTERS

The assessment report could include:

- An introductory chapter establishing the characterisation and fate of the spilled oil
- Thematic chapters establishing the impacts on the different sectors of the environment



- A conclusive chapter globalising the information in the form of a synthetic overall assessment

PHASING

- A 3 phases schedule, with phases 2 and 3 optional, could be envisaged with:
- Phase 1, short term impact assessment, completed 2 to 3 years from the spill
- Phase 2, medium term impact assessment, completed 5 to 6 years from the spill
- Phase 3, long term impact assessment, completed 12 to 15 years from the spill

COMPENSATION FOR THE EXPENSES INCURRED

- A full documentation on decision making and expenses could be considered for compensation purposes.

GENERAL CONCLUSION

Finally, it appeared that some experience exists in each of the representative EU countries and that the experience acquired by each country is of interest for the others. That exchange of information showed a considerable need for more exchanges and a great interest for the integration in all national/regional response plans of:

- a description of the organisation and funding procedures of the impact studies with, in particular, clear specifications in methods and collection of reference data;
- the standard plan of a commonly accepted reasonable impact study with in particular clear specifications of the study subjects and duration.

