

# How can pollution responses in emergencies be improved?

## Marine Objective: Science for Integrated Marine Management

### What's the problem?

Spills of oils and chemicals in the marine environment remain a significant threat. There is a requirement for expert guidelines in the UK for response capability, improved preparedness and effective post-incident monitoring and assessment, as well as for a co-ordinated mechanism for overseeing the practical aspects (e.g. survey design):

- We need to provide early evidence of potential impacts to government and the general public.
- We need to have an appropriate and effective way of investigating the short and long term impacts on the marine environment.
- We need to ensure a more effective use of resources to avoid unnecessary procedures and retain useful ones.
- We need provide information about the effectiveness of spill response activities including the use of dispersants

### What are the aims of the project?

The PREMIAM programme will fulfill two objectives:

1. The development of marine assessment and monitoring guidelines (The PREMIAM Plan)
2. The development and maintenance of a network of scientific and logistical partners to deliver the plan (The PREMIAM Network)

#### The PREMIAM Plan

- Assess key scientific techniques required for robust post-incident impact assessment.
- Generate a wide list of scientific disciplines for assessment of more specific incident types.
- Develop an appropriate structure for guidelines.
- Assess national gaps in the scientific disciplines and/or geographic coverage.
- Facilitate the development and validation of new scientific techniques appropriate to the objectives.
- Draft guidelines in consultation with national/international experts.

#### The PREMIAM Network

- Engage with scientific, logistics and marine sampling communities to develop a web-based portal, a workshop and exercise programmes for a fit-for purpose response network.



Figure 1: The MSC Napoli incident

### Which policy areas will the research inform?

The improvement of post-incident monitoring feeds into the UK obligations to protect our marine environment as a United Nations Law of the Sea signatory.

The project will also address UK obligations under the international convention on Oil Pollution Preparedness, Response and Co-operation, and the associated Hazardous and Noxious Substances protocol, implemented through the National Contingency Plan and the Marine Pollution Contingency Plan. The project is also relevant to the Marine Bill and the Water and Marine Strategy Framework Directives.



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## What will the results from the project be? How will they be used?

In addressing the project aims PREMIAM will introduce and co-ordinate a professional, efficient and fit-for-purpose post-incident monitoring and impact assessment mechanism.

Through the production of expert guidelines and the generation and maintenance of a national network of experts and service providers the project will result in an approach that will ensure:

- *Speed – Fast response in order to gain early impact information or baseline information concerning areas at threat*
- *Cost effectiveness*
- *Expertise identification and availability*
- *Use of appropriate techniques*
- *Use of best-practice and the ability to learn from previous responses*
- *Co-ordination and integration*

The project will be overseen by a steering group comprising representatives from all the main government stakeholders. The group will include those with regulatory, response and conservation interests and the group will ensure a more integrated approach to the project.

Ultimately the PREMIAM project will yield a co-ordinating body that can integrate fully with the current response bodies to provide an improved approach to post-incident monitoring.

## The future.....

It is anticipated that the PREMIAM approach will also act as an umbrella network for other relevant activities including:

- Annual stakeholder meetings
- Provision of a conference/symposium platform
- Involvement in emergency response exercises
- Online community for sharing of best practice and information



Figure 2: Dispersant spraying (source: Mark Kirby)

## Where can I find further information about this and related research?

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More information can be obtained from the Marine and Fisheries Science Unit at Defra, Nobel House, London.

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