

A region-wide, international response to the threat of oil spills – Baltic Sea

1. Policy Objective & Theme

- ADAPTATION TO RISK: Preventing and managing natural hazards and technological (human-made) hazards
- ADAPTATION TO RISK: Integrating coherent strategies covering the risk-dimension (prevention to response) into planning and investment
- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space

2. Key Approaches

- Integration
- Knowledge-based
- Ecosystems based approach
- Technical

3. Experiences that can be exchanged

The development of a region-wide response to oil-spills from detection, through to clean-up, and eventual prosecution of the offending vessels. The measures described are also useful for individual Member States.

4. Overview of the case

The Baltic States, through the Helsinki Commission, have developed a full programme in case of oil spills in the Baltic Sea. It includes Prevention, Detection, Response, Prosecution and Testing.

5. Context and Objectives

a) Context

The issue of response to accidents at sea has a high priority within the Baltic Sea region. Very specific hydrographic, chemical and physical conditions make the Baltic Sea extremely sensitive to pollution. The sea's narrow straits and shallow waters, many of which are covered by ice for prolonged periods in winter, make navigation very challenging, and increase the risk of shipping accidents. Any large-scale oil spill could lead to an environmental catastrophe. The risk of such a spill occurring has increased substantially over the last decade, due to the rising number of cargo ships carrying large amounts of fuel, and the constantly increasing volumes of oil transported on the Baltic. The Baltic Sea today is one of the busiest seas in the world, accounting for up to 15% of the world's cargo transportation. There are about 2,000 ships in the Baltic marine area at any given moment and each month up to 5,000 ships ply the waters of the Baltic Sea.

On an average there are about 120 accidents per year in the Baltic e.g. "Volgoneft", 700-800 tonnes of waste oil (1990), "Baltic Carrier", 2,700 tonnes of oil (2001), "Fu Shan Hai", 1,200 tonnes of fuel oil (2003). Over the period 2000-2008, an average of 7% of all accidents resulted in some kind of pollution. Groundings are the most common type of accidents accounting for almost a half of all reported cases during the recent years (46% in 2007 and 44% in 2008). The areas where groundings occur most often are the Danish Straits, the Gulf of Finland, especially the Estonian coast, the Åland archipelago area, the Swedish coast of the Baltic Proper, and the sea ports. Collisions became the second most frequent type of shipping accident in the Baltic. The number of reported collisions in 2007 has decreased over the last years. Ship to ship collisions accounted for 38% of all collision cases in 2007 and 39% in 2008 the rest were collisions with fixed or floating structures etc.

b) Objectives

To protect the Baltic marine environment from oil pollution and to ensure the safety of navigation and efficient response to pollution from shipping in the region.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Management

The Helsinki Commission (HELCOM), an intergovernmental organization of the nine Baltic Sea coastal countries and the European Community coordinates the response to oil pollution at sea. One of the major subsidiary working groups of the Helsinki Commission - the Response Group (HELCOM RESPONSE) develops measures to ensure swift national and international response to maritime pollution incidents in the Baltic Sea area. The Group prepares and tests international response capabilities and emergency routines to respond to pollution incidents at sea, as well as co-ordinates aerial surveillance flights and usage of satellites in order to track deliberate pollution from ships.

b) ICZM tools

Prevention: Since the approaches to sea ports and the Danish Straits are the most risky areas for ships to collide measures have been adopted to lessen the possibility of accidents e.g. traffic separation schemes.

Detection: Jointly undertaken, co-ordinated, surveillance activities monitor the main shipping routes. Regular aerial surveillance flights have contributed significantly to the decrease in discharges because ships are aware that their illicit polluting activities can be detected. Today, the surveillance fleet comprises more than 25 aircrafts and helicopters, many of which are equipped with remote sensing equipment such as side-looking airborne radar, infra-red and ultra-violet cameras, photo and video equipment. Additionally, the Baltic Sea is covered by satellite surveillance as well as by national surveillance programmes. The satellite images are delivered in near real time to provide first indication of possible oil slicks to be checked by aircraft on the spot. In order to facilitate identification of ships suspected of illegally discharging oil into the sea, the Seatrack Web oil drift forecasting system has been developed. This tool in combination with the an Automatic Identification System is used for the back-tracking and forecasting simulation of detected oil spills, and matching the ship tracks with oil spill back-tracking trajectory. They have also been integrated with satellite information to increase the likelihood that polluters will be identified.

Response: Countries maintain adequate equipment, ships and manpower for operations in coastal waters as well as on the high sea. Today, HELCOM has more than 45 oil-combating ships on standby located around the Baltic Sea. These vessels are able to reach any place in the region within several hours of being notified of an oil spill accident. Additionally, two oil spill recovery vessels are chartered by the European Maritime Safety Agency to top-up the response resources. Due to the sensitive ecological condition of the Baltic Sea area, the Baltic countries agreed that response to oil should take place by the use of mechanical means as far as possible. Response by using dispersants should be limited, sinking agents should not be used at all and absorbents only when appropriate.

Prosecution: The Baltic Sea States are co-operating to investigate violations of anti-pollution regulations. This is particularly important when a ship violates the discharge regulations in the waters of one country, without calling at its port, and proceeds to a port in another country. In this situation one Baltic Sea country can request another to conduct a Port State Control upon the ship's arrival, to obtain necessary information and evidence of the suspected violation. To enhance this co-operation, countries have elaborated a Baltic Legal Manual specifying the requirements for obtaining a conviction in each Baltic Sea State and Guidelines on ensuring successful convictions of offenders of anti-pollution regulations at sea. The Member States have also agreed to harmonize administrative fines by deciding on a minimum level, which is intended to be preventive. The minimum level will prevent fines varying greatly between the States, and will also help to avoid a situation in which it is cheaper to discharge illegally to the sea instead of delivering waste to port reception facilities.

Places of refuge: Contracting Parties have drawn up plans to accommodate ships in need of assistance, in the waters under their jurisdiction, in order to ensure that these ships may immediately go to a place of refuge. Countries are developing a mutual plan for places of refuge in the Baltic Sea in order to ensure that a ship in need of assistance is accommodated in the safest place irrespective of countries' borders. The planning for places of refuge is no more to be regarded as a purely national

issue, but a subject of strengthened regional co-operation for the benefit of the environment. The plan is to be made operational in 2010

Testing response: the risk of accidents can never be totally eliminated and, therefore, several kinds of international training exercises have been conducted since 1990. They test the alarm procedures and response capacity of the Baltic Member States to jointly deal with a major oil spill. This operational exercise which involves up to 20 response vessels, as well as helicopters and aircrafts is the largest maritime emergency and counter-pollution drill of its kind in the Baltic Sea area and one of the largest worldwide. The general objective is to ensure that every country is able to lead a major response operation in its response area. These exercises take place each year and are hosted by the Baltic Sea countries according to an agreed schedule

7. Cost and resources

No budgetary details are available.

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

There were 133 accidents involving tankers in 2000-2008. Since 2001 when the “Baltic Carrier” accident took place, only 5 of these tanker accidents have resulted in pollution by oil. 210 illicit oil spills were detected during a total of 4603 hours of surveillance flights conducted by the coastal countries over the Baltic Sea during 2008, one of the lowest numbers since 1999 when 488 discharges were detected during 4883 flight hours.

9. Success and Fail factors

The response system established has proven to be efficient in tackling the recent major pollution accidents in the Baltic. Substantial resources to respond to pollution at sea do exist in the Baltic Sea region. However, so far no comprehensive Baltic-wide analysis has been done to check whether the existing emergency and response capacities are sufficient to tackle major spills of oil or hazardous substances. This will now be done for each sub-region of the Baltic within an EU funded project called BRISK (Sub-regional risk of spill of oil and hazardous substances in the Baltic Sea). Based on the risk assessments, it will identify the missing resources and plan how countries could jointly fill in the identified gaps. Project partners include operational organisations from all the Baltic Sea countries with the Admiral Danish Fleet acting as a lead partner.

10. Unforeseen outcomes

None.

11. Prepared by

A. H. Pickaver, Coastal & Marine Union (EUCC), The Netherlands

12. Verified by

Monika Stankiewicz, HELCOM

13. Sources

- HELCOM, reinforcing oil spill response capacity in the Baltic (2009) M. Stankiewicz & N. Vlasov, Helsinki Commission.
- www.helcom.fi



Baltic-Reinforcing Oil Spill Response Capacity (5.94 MB) 