



Oil Spill in the Kerch Strait

Ukraine Post-Disaster Needs Assessment



European Commission
United Nations Environment Programme



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Introduction

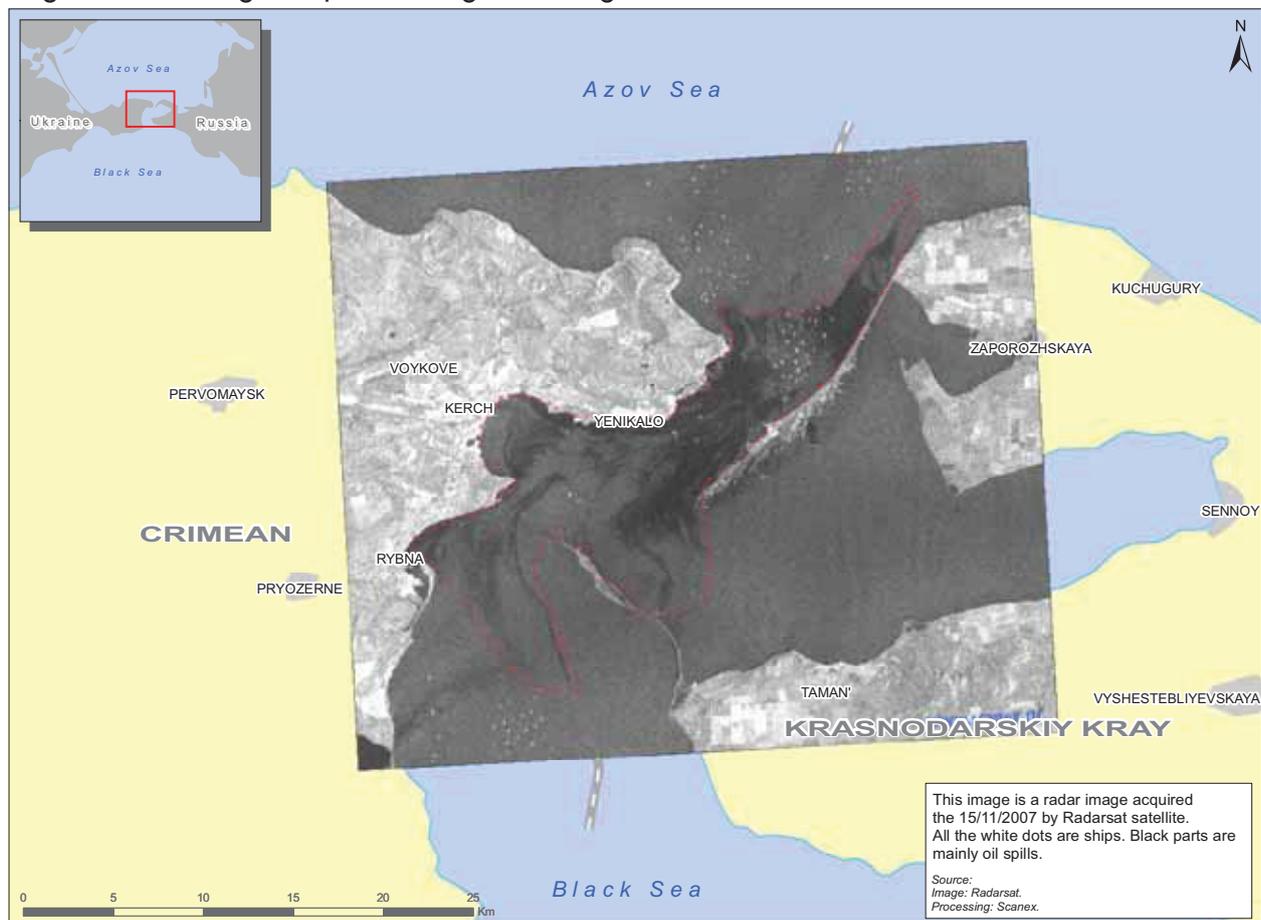
On 11 November 2007, a strong storm in the Kerch Strait (which connects the Sea of Azov with the Black Sea and separates Ukraine from the Russian Federation) blew winds of up to 35 m/s and waves of up to five meters. The storm resulted in thirteen vessels being sunk, stranded, or damaged and the incident caused loss of life, of property, and environmental harm. The four vessels that sank were: motor tanker *Volgoneft-139* (Russian Flag), motor vessel *Volnogorsk*, motor vessel *Nahichevan* (Russian Flag), and motor vessel *Kovel* (Russian Flag).¹ Russian motor vessel *Volgoneft-139* initially leaked approximately 1,300 tonnes of fuel oil into the sea. Treacherous weather conditions at sea (18-20 m/s wind, 2.5 m waves), hampered any clean-up efforts in the sea during the initial 24 hours, resulting in oil being transported to the shorelines on both sides of the Kerch Strait.

By 21 November 2007 more than 500 people from the Ukrainian Ministry of Emergencies and civilian volunteers were involved in shoreline clean-up

operations on Tuzla Island – situated north of the shipwreck in the middle of the Strait and one of the main affected areas. Seventeen technical units were engaged in clean-up efforts and fifteen ships performed oil spill contingency operations in the Kerch Strait. The European Commission (EC) immediately offered assistance for “preparing the environmental assessment as to the magnitude of the catastrophe as well as allocation of technical and financial resources to remediate its impact.”

On 16 November 2007, the Government of Ukraine accepted the EC's offer of assistance. From 18-24 November 2007, the EC Monitoring and Information Centre (MIC)² deployed a mission. A team of five experts was deployed [to Ukraine] immediately; this team included a representative from the Joint UNEP/OCHA Environment Unit to “assist the Ukrainian authorities in assessing the environmental impact of the disaster; to observe the development of the pollution and to advise on immediate remediation needs.” To undertake this rapid assessment mission, the MIC team conducted site visits to affected

Figure 1. Image acquired during monitoring of the oil slick in the Kerch Strait in November 2007





Industry in Kerch

areas and held numerous meetings with ministries at national and local levels. In the report of the MIC team, the situation observed on the field was described as follows:

The motor tanker "Volgoneft-139" with 3,463 tonnes of residual oil (heavy fuel oil type M-100 which corresponds to IFO 280-600) broke into two parts, leaving the front part anchored at 45° 13' 01" N; 36° 31' 06" E. The back part drifted to the position 45° 15' 06" N; 36° 30' 07" E causing an oil spill of about 1,300 tonnes coming from its tanks. The motor vessel "Volnogorsk" sank at 45° 11' 05" N; 36° 31' 07" E. It is now at a depth of 10.6 m with 2,436 tonnes of sulphur on board. There is no observed leakage of bunker oil i.e. marine diesel fuel. The motor vessel "Nahichevan" sank at 45° 12' 00" N; 36° 33' 05" E. It is now at depth of 9.5 m with 2,365 tonnes of sulphur on board. The motor vessel "Kovel" sank almost in the middle of the channel and has drifted to near the Ukrainian shoreline at 45° 09' 02" N; 36° 26' 06" E. It is now at a depth of 9.3 m with about 2,100 tonnes of sulphur on board. Divers surveying the vessel observed a slight marine diesel fuel leak due to the destruction of the engine compartment.

According to the data provided by the Ukrainian Ministry of Transport, as of 20 November 2007,

*the total amount of the immediate spillage was 1,300 tonnes of heavy fuel oil, 2.3 tonnes of oil lubricants, 25 tonnes of marine diesel fuel oil and 5.5 tonnes of heating oil.*³

At the launch of the MIC report, *Ukraine Oil Spill in Kerch Strait, Black Sea*, in December 2007, Commissioner Benita Ferrero Waldner, External Relations and European Neighbourhood Policy, and Commissioner Stavros Dimas, Environment and Civil Protection, EC, jointly stated: "Our cooperation with Ukraine is beneficial for both parties. The Black Sea is one which we both share and manage. It is in our mutual interest as well as that of other littoral countries to continuously strive not to unbalance its delicate ecosystem and the livelihood of all those that benefit from it."⁴

Following the MIC report and adoption of Resolution P6_TA, *On shipping disasters in the Kerch Strait in the Black Sea and subsequent oil pollution*, by the European Parliament on 13 December 2007⁵, the EC, through its Directorate General for External Relations (RELEX), invited UNEP to coordinate a joint EC-UNEP comprehensive multi-sectoral Post-Disaster Needs Assessment (PDNA). In addition to the scientific assessment of the damages caused to the coastal and marine environment, the EC was keen to understand the institutional and economic

mid to long-term needs of Ukraine related to the oil spill incident, as well as to review existing data on coastal sensitivity mapping for the region. Thus, the Ukraine PDNA was divided into the following four assessment categories: scientific, coastal sensitivity mapping, economic and institutional.

Thereafter, UNEP assembled a broad multi-disciplinary international team of experts to undertake the scientific, technical, and institutional assessments for the Ukraine PDNA. To assess the economic valuation of the environmental impacts of the oil spill UNEP initiated a partnership with a local Ukrainian university, Kyiv-Mohyla Academy.

The EC-UNEP PDNA team, supported by the Government of Ukraine (thereafter referred to as the PDNA team), was composed of the following four sub-teams:

- Coastal and Marine Assessment team
- Coastal Sensitivity Mapping team
- Institutional Assessment team
- Economic Assessment team.

The coastal and marine assessment team and the coastal sensitivity mapping team undertook the

fieldwork component of a mission from 15-26 July 2008 in the Kerch Strait. Their aim was to identify the nature, extent, and location of remaining damages to the environment from the oil spill. From 1-17 July 2008, the institutional assessment mission was undertaken to review existing legal provisions and institutional mechanisms in Ukraine for oil spill emergency situations. The assessment objective was to ensure lessons learned from this incident would be incorporated into Ukrainian legislative and institutional systems, in order to facilitate a more effective emergency situation response in the future. The team engaged and consulted with a range of national, regional, and local stakeholders (see Appendix 4: List of Institutions consulted during the institutional assessment mission). The economic assessment team from Kyiv-Mohyla Academy conducted its field work in Kerch from 7-17 July 2008. Extensive secondary data gathering, field surveys, and interviews were conducted by the team during this period.

This report summarizes the findings of the PDNA team and provides a set of concrete recommendations for recovery and disaster risk reduction in Ukraine. It has been prepared by the EC-UNEP team with the participation of the Government of Ukraine.



UNEP experts collecting samples from contaminated materials found on the shoreline