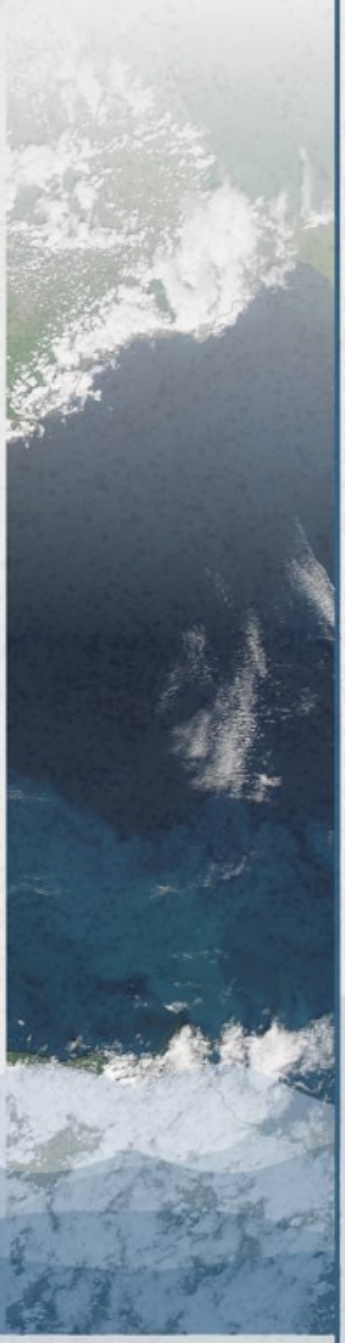
RESPONSE

Building Response Frameworks under existing & new Marine Pollution Challenges in the Black Sea



Deliverable D1.1

Stakeholder analysis

Co-funded by the European Union

The RESPONSE project is funded by the European Union under Grand Agreement no. 101124661. Views and opinions expressed are however those of the beneficiaries only and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

DOCUMENT INFORMATION AND VERSION CONTROL

Project Acronym	RESPONSE
Project Title	Building Response Frameworks under existing & new Marine Pollution Challenges in the Black Sea
Grant Agreement Number	EU grant agreement No 101124661
Work Package	WP1
Related Task(s)	T1.1
Deliverable Number	D1.1
Deliverable Name	Stakeholder analysis
Due Date	31 May 2024
Date Delivered	31 May 2024
Dissemination Level	Public — fully open(automatically posted online on the Project Results platforms)

VERSION CONTROL

Revision-N°	Date	Description	Prepared By	Reviewed By
1	18.05.2024	1st Draft	Aleksandar Shivarov	Emma Gileva
2	28.05.2024	Final Draft	Aleksandar Shivarov	Emma Gileva, Tsavdaridou Anastasia-Despoina
3	31.05.2024	Final Version	Aleksandar Shivarov	

Executive Summary

This report summarises the information on the legal background and the main actors in the field of marine pollution prevention, as well as the distribution of their roles in case of emergencies affecting the environment of the Black Sea. It uses some of the tried and tested approaches to stakeholder analysis that have been applied in the various fields of environmental policy over the past decades.

The report provides an overview of the legal framework for marine pollution response in the Black Sea basin, focusing on Bulgaria, Georgia, Romania and Ukraine. It presents, in qualitative terms, the main characteristics of the stakeholders involved in the monitoring, reporting, management and mitigation of marine pollution, including the impact of military conflicts.

Project background and context

The RESPONSE, supported by the European Union EMFAF, under Grant Agreement no 101124661 has duration of 36 months, starting from 01.10.2023. The project consortium involves six partners from five different countries: Greece, Bulgaria, Romania, Ukraine and Georgia. Five of the participants are based in countries bordering on the Black Sea, and the lead beneficiary, the Aristotle University of Thessaloniki (AUTH), has a long history of working with the region and with members of the consortium. The partnership includes one university, two research institutes and three environmental NGOs: the Black Sea NGO Network (BSNN) regional NGO network based in Varna, Bulgaria; the National Institute of Marine Research and Development (NIMRD), based in Constanta, Romania, leading research institute for the Black Sea; the Institute of Market Problems and Economic-Ecological Research (IMPEER), Odesa, a public institution, part of the National Academy of Sciences of Ukraine; the Black Sea Branch of Ukrainian Environmental Academy of Sciences (BSBUEAS) is Odesa-based NGO with a team of professional researchers; and the Greens Movement of Georgia / Friends of the Earth (GMG/FoE) – Georgia, an NGO, part of the international environmental network. All three beneficiaries from EU Member States have extensive experience in marine pollution projects under the Horizon 2020 and Horizon Europe programmes.

RESPONSE aims to identify and promote the development and establishment of new-generation advanced training schemes and curricula to support early warning, region-wide mechanisms for monitoring natural and man-made disasters. Various training programs, platforms and curriculum have been implemented to monitor marine pollution and ensure knowledge integration and dissemination. Still, training material, best practices, standards and protocols often differ among platforms and programs, hindering progress towards implementing an integrated, transdisciplinary and multidisciplinary marine pollution training system. Peculiar events, such as armed conflicts, create new environmental and societal challenges that call for international, coordinated responses.

RESPONSE acknowledges the importance of deeper understanding of marine ecosystems and river-delta-sea connections, the need for development of harmonized procedures, standards and methodologies in marine monitoring across the Black Sea countries to support healthy and resilient seas and foster integrated marine governance. The sustainable changes that are required for the establishment of efficient, advanced training schemes that would be integrated with the challenges, goals and specificities of the scientific and social context and make the most of the untapped capacity of stakeholders to promote regional awareness in the field.

In view of the background and context described above, the four overarching objectives of RESPONSE are: 1) IDENTIFY and UNDERSTAND the institutional and societal gaps and needs for effective, integrated, transdisciplinary and multidisciplinary marine pollution training systems; 2) DEVELOP effective training programs by assembling, integrating, and improving the most promising approaches and results into a comprehensive framework that consists of a set of methodological training tools, databases, policy recommendations, and background information; 3) SUPPORT the implementation of the EU and Regional Strategies, by developing operational guidelines for effective application, updating, monitoring and management of training programs on marine pollution; 4) EMPOWER marine pollution training, monitoring and mitigation by involving, inspiring and influencing stakeholders through *a broader vision of co-design, co-creation, co-*

establishment, co-implementation and co-assessment of the training programs.

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Aim of the Deliverable

The aim of D1.1 Stakeholder analysis is to map the legislative, institutional and operational context established across Black Sea countries and at regional level in terms of dealing with monitoring, reporting, management and mitigation of marine pollution, paying attention to armed conflicts.

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Introduction

The present report represents an attempt to describe all the relevant organisations involved in the process of preparedness and response to accidental marine pollution, in order to understand how they operate, what their institutional structure is, what their capacity is and what their training needs are. It begins with a brief overview of current approaches to stakeholder mapping and analysis, and outlines the methodological choices made and implemented by the RESPONSE team. Special attention is given to the legal framework that regulates the conditions for marine pollution response in the Black Sea. The legal framework includes international agreements on the state of the marine environment, pollution prevention and liability in case of accidents. European legislation on the subject is also briefly presented, as it is mandatory for Bulgaria and Romania and serves as a guideline for national legislation in EU candidate countries Georgia and Ukraine. The regional dimension is outlined through the Bucharest Convention and its specific protocols. The relevant national legislation of Bulgaria, Romania, Georgia and Ukraine is presented in relatively concise form.

The main characteristics of a large subset of stakeholders are identified through the questions applied in an online survey conducted in the spring of 2024. They provide information on the responsibilities of the institutions in relation to the state of the marine environment, their obligations in the event of an emergency or accident and the level of cooperation. The survey also outlines the level of expertise and experience in marine pollution response training among the wider group of stakeholders. The results of the survey provide a largely qualitative picture of the institutions involved and give an insight into the existing differences between the four countries. The English text of the survey is annexed to this report.

The main actors in all Black Sea countries are government agencies with clearly defined responsibilities in existing legislation. An additional but important role is played by research institutes and universities involved in monitoring, curriculum development and training. A lesser role is played by business associations and NGOs with specific expertise.

1. Literature review

Institutional and stakeholder mapping and analysis has emerged as a critical tool in environmental policy, assisting in the identification, categorisation and engagement of diverse stakeholders. Different methodological approaches for describing and involving stakeholders have been applied in a variety of contexts, ranging from business, planning and policy, environmental management to education and public health.

Stakeholder analysis has served as a versatile decision support tool for environmental policy and management for more than three decades (Bendtsen, Clausen & Hansen, 2021). Stakeholder approaches and concepts can be traced back to the 1930s in business management, but the analysis of relevant actors to understand their behaviour, interests, intentions, linkages and influence on the policy design and implementation process has proliferated since the 1990s (Brugha & Varvasovszky, 2000). The broad application of stakeholder analysis in different contexts has given rise to a variety of methodological approaches.

Recent literature has highlighted the evolution of stakeholder mapping methodologies to better address the complexity of environmental policy (Aligica, 2006). Reed et al. (2018) introduced a participatory approach to stakeholder analysis, advocating the involvement of stakeholders in the mapping process to increase the accuracy and legitimacy of the results. This approach is growing in popularity as it ensures a more democratic and inclusive process.

The use of social network analysis (SNA) has become increasingly important in stakeholder mapping (Prell et al., 2009). SNA provides a detailed examination of the relationships and influences between stakeholders, allowing for a more dynamic understanding of stakeholder networks. Bodin and Prell (2011) highlight how SNA can reveal key influencers and the structure of stakeholder interactions, which is crucial for effective environmental governance.

Stakeholder analysis has been applied to a variety of environmental policy areas. Carr et al. (2012) illustrate the use of stakeholder analysis in integrated water resource management to identify and include stakeholders in the decision-making process, leading to more sustainable and equitable water use practices. According to Vervoort et al. (2012), participatory scenario planning involving different stakeholders can contribute to the development of robust climate adaptation strategies. This inclusive approach ensures that the perspectives of vulnerable communities, policy makers, scientists and industry leaders are considered. Collaborative mapping of ecosystem services has been applied by engaging stakeholders with different levels of influence in the environmental decision-making process (García-Nieto et al., 2015).

Environmental issues often span multiple sectors and regions, requiring coordinated efforts across different stakeholder groups. Van den Hoek et al. (2012) highlight the importance of cross-sectoral collaboration in addressing environmental challenges, suggesting that stakeholder mapping should incorporate a broader range of actors, including those from the private sector and civil society. Participatory approaches are also gaining traction, reflecting a shift towards more inclusive and democratic environmental governance. Reed et al. (2018) argue that involving stakeholders directly in the mapping process not only improves the accuracy of the analysis but also enhances stakeholder buy-in and support for environmental policies.

Despite its benefits, stakeholder analysis in environmental policy faces several challenges. A key challenge is the dynamic nature of environmental issues, which requires continuous updating of stakeholder maps. Reed et al. (2010) underline that stakeholder interests and influences can change rapidly, making it difficult to maintain an accurate and up-to-date stakeholder analysis.

Bias in stakeholder identification and categorisation is another challenge. Researchers and practitioners may inadvertently prioritise certain stakeholders over others, leading to biased engagement strategies. This issue is highlighted by Balint et al. (2011), who emphasise the need for transparent and inclusive processes to minimise bias and ensure that all relevant stakeholders are considered.

The presentation of the results of the analysis can take different forms: from descriptions, to tables of attributes, to visual representations of stakeholder positions in relation to each other and to the policy in question. A commonly used method is to present stakeholders' power and interest in the issue in a matrix or grid. Each of the two attributes can be characterised from low to high, resulting in four segments with different characteristics. Another possible combination is between the stakeholder's influence and its supportive or disruptive influence. Although originally designed for project management, this grid can be used to assess stakeholder attitudes to a proposed policy or its aspects. More complex approaches involving the three dimensions of power, interest and attitude have been proposed by Lucidus Consulting (Murray-Webster & Simon, 2006). Visualisation tools for stakeholder mapping and management are used to present complex situations and improve understanding of the relationships between actors and their position towards a policy or project (Walker et al., 2008; Cenek & Částek, 2016).

Stakeholder analysis is an important tool in environmental policy, helping to navigate the complex web of interests and influences that characterise environmental governance. Methodological advances have improved the effectiveness of stakeholder mapping. However, challenges remain, including the dynamic nature of stakeholder relationships and potential biases.

2. Methodology

Stakeholder mapping and analysis is a crucial first step in delineating the actors involved in ensuring preparedness and timely and professional response to marine pollution. For the purposes of the RESPONSE project, we define stakeholders as those organisations and professionals who have a legal responsibility to protect the marine environment or who provide training in the prevention and mitigation of marine pollution, either from normal activities or from accidents and emergencies.

The geographical scope of the stakeholder analysis is limited to the four Black Sea countries involved in the project. These include two EU member states: Bulgaria and Romania; and two EU candidate countries: Georgia and Ukraine. All the information was collected and processed by the project partners in the respective countries. Here are the key steps followed in the stakeholder mapping and analysis:

1. Stakeholder identification
Objective: To create a comprehensive list of all potential stakeholders.
- Methods:
  - Brainstorming sessions: Gather input from team members and other project participants.
  - Consultation with experts: Engage with industry experts and key informants.
  - Review Documentation: Examine project documents, contracts, and any previous stakeholder lists.

2. Legal framework mapping
Objective: To describe the existing legal framework regulating all the responsible entities involved in the process of preparedness and response in case of accidental marine pollution
- Approach:
  - Classification of legal acts by type: law, decree, order, national plan, strategy, programme, regulation, and their relevance to the protection of the marine environment from pollution
  - Scope and purpose of the legal document: general provisions, principles, structure, and responsible institutions / authorities.
  - Relationship to other documents in the national legal framework
  - Relevant EU legislation and international agreements.

3. Stakeholder role, level of responsibility and coordination with other actors
Objective: To establish the responsibilities of the stakeholders related to the state of the marine environment and to emergency response, as well as their level of interaction with other agencies.
- Survey and face-to-face interviews:
  - Responsibilities related to the state of the marine environment
  - Responsibilities related to emergency response
  - Best practices
  - Collaboration with other stakeholders

4. Stakeholder power, interest and attitude

Objective: To understand what each stakeholder needs and how much power they have to affect project outcomes.
- Power: How much power does the stakeholder have to impact the project? This can be based on their authority, resources, or connections.
- Interest: What does the stakeholder care about? What are their expectations and concerns?
- Attitude: To what extent the stakeholder will support, ignore or try to block the project?

5. Prioritisation of stakeholders
Objective: To determine which are the key stakeholders requiring most attention and resources.
- Tools:
  - Power/Interest Matrix: Plots stakeholders on a grid based on their level of power and interest, categorizing them into groups such as:
    - High power, high interest: Manage closely.
    - High power, low interest: Keep satisfied.
    - Low power, high interest: Keep informed.
    - Low power, low interest: Monitor.

Through these steps we aim to gain an understanding of the relevant stakeholders responsible for marine pollution response, their roles, networks and coordination mechanisms. This has been achieved through close coordination between RESPONSE partners, leveraging expertise and reaching out to stakeholders to collect responses through online surveys and face-to-face interviews.

3. Legal Framework

INTERNATIONAL LEGAL FRAMEWORK

Several key international agreements address marine pollution and aim to protect the marine environment from various sources of pollution. These are some of the most important:

1. UNCLOS (United Nations Convention on the Law of the Sea) 1982:
- Objective: Establishes a comprehensive legal framework to regulate all aspects of the resources of the sea and uses of the ocean.
- Key Provisions: Part XII of the convention specifically addresses the protection and preservation of the marine environment, including the prevention, reduction, and control of pollution.
- Parties: all Black Sea countries, except for Turkey.

2. MARPOL (International Convention for the Prevention of Pollution from Ships) 1973/1978:
- Objective: To prevent pollution of the marine environment by ships from operational or accidental causes.
- Key Provisions: Covers pollution by oil, chemicals, harmful substances in packaged form, sewage, garbage, and air pollution from ships.
- Annexes: The convention includes six technical annexes, each addressing a different source of pollution:
  - Annex I: Oil
  - Annex II: Noxious Liquid Substances in Bulk
  - Annex III: Harmful Substances Carried by Sea in Packaged Form
  - Annex IV: Sewage from Ships
  - Annex V: Garbage from Ships
  - Annex VI: Air Pollution from Ships
- Parties: all Black Sea countries apply MARPOL. Only Annex VI has not been ratified by Georgia as of May 2024.

3. London Convention (Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter) 1972, as replaced by the "London Protocol" (1996; entered into force in 2006):
- Objective: To control pollution of the sea by dumping and to encourage regional agreements supplementary to the convention.
- Key Provisions: Prohibits the dumping of certain hazardous materials and requires a permit for other materials.
- Parties to the London Convention '72 are Bulgaria, Greece, Russia and Ukraine, and the London Protocol 1996 is in force for Bulgaria and Georgia.

4. Basel Convention (Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal) 1989:

- Objective: To reduce the movement of hazardous waste between nations, especially from developed to less developed countries, and to minimize the generation and promote environmentally sound management of such wastes.
- Key Provisions: Controls the export and import of hazardous waste and obliges parties to ensure that such waste is managed and disposed of in an environmentally sound manner.
- Parties: all Black Sea countries and Greece.

5. Stockholm Convention on Persistent Organic Pollutants (POPs) 2001:
- Objective: To eliminate or restrict the production and use of persistent organic pollutants.
- Key Provisions: Addresses substances that persist in the environment, bioaccumulate through the food web, and pose a risk of causing adverse effects to human health and the environment.
- Parties: all Black Sea countries and Greece.

6. CLC International Convention on Civil Liability for Oil Pollution Damage 1992:
- Objective: To ensure adequate compensation to parties who suffer damage caused by oil pollution resulting from maritime incidents involving oil-carrying ships.
- Key Provisions: The convention applies to pollution damage caused by spills of persistent oil from tankers in the territory, including the territorial sea, of a state party. It also covers preventive measures taken to avoid or minimise such damage.
- Parties: All Black Sea countries, Greece and the European Union

7. OPRC International Convention for the Preventing, Combating and Compensation of Marine Pollution 1990:
- Objective: To facilitate prompt and effective response measures to minimise the environmental damage caused by oil spills and to ensure that adequate resources and plans are in place for oil pollution preparedness and response.
- Key Provisions: Establish and maintain adequate oil pollution emergency plans at national and regional levels, including ensuring the availability of equipment, trained personnel, and operational procedures to respond promptly and effectively to oil pollution incidents.
- Parties: All Black Sea and Greece countries, except for Ukraine

8. Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances (OPRC-HNS Protocol) 2000:
- Objective: To improve the ability of countries to respond to marine pollution incidents involving hazardous and noxious substances.
- Key Provisions: Extends the framework of the OPRC Convention to cover marine pollution incidents involving hazardous and noxious substances.
- Parties: Greece; only Turkey in the Black Sea.

9. Bunkers Convention (International Convention on Civil Liability for Bunker Oil Pollution Damage from Ships) 2001:
- Objective: To ensure adequate, prompt, and effective compensation to persons who suffer damage caused by spills of bunker oil from ships.
- Key Provisions: Applies to pollution damage caused by spills of bunker oil from ships, which includes any hydrocarbon mineral oil used or intended to be used for the operation or

propulsion of the ship. It covers pollution damage in the territorial waters and exclusive economic zones (EEZ) of the contracting states.
- Parties: All Black Sea countries, Greece and the European Union

10. Ballast Water Management Convention (International Convention for the Control and Management of Ships' Ballast Water and Sediments) 2004:
- Objective: To prevent the spread of harmful aquatic organisms and pathogens in ships' ballast water and sediments.
- Key Provisions: Requires ships to manage their ballast water and sediments to meet certain standards and establishes a Ballast Water Record Book.
- Parties: Bulgaria, Georgia, Greece, Russia and Turkey.

These agreements collectively create a comprehensive legal framework aimed at mitigating marine pollution from various sources and protecting the marine environment on a global scale.

EU LEGISLATION

The European Union has established a comprehensive legal framework aimed at mitigating marine pollution and protecting the marine environment. This framework includes several directives, regulations, and strategies that address different sources and types of marine pollution. Key components of the EU's legal framework include:

1. Marine Strategy Framework Directive (MSFD) (Directive 2008/56/EC):
- Objective: To achieve Good Environmental Status (GES) of the EU's marine waters and to protect the resource base upon which marine-related economic and social activities depend.
- Key Provisions: Requires member states to develop marine strategies that assess the state of their marine waters, set targets, and implement monitoring programmes and a set of measures to achieve GES.

2. Water Framework Directive (WFD) (Directive 2000/60/EC):
- Objective: To protect and enhance the status of aquatic ecosystems, including marine waters, and to promote sustainable water use.
- Key Provisions: Establishes a framework for the protection of inland surface waters, transitional waters, coastal waters, and groundwater. It includes the development of River Basin Management Plans that cover coastal and marine waters.

3. Bathing Water Directive (Directive 2006/7/EC):
- Objective: To protect public health and the environment by ensuring the quality of bathing waters.
- Key Provisions: Sets quality standards for bathing water and requires regular monitoring and public information on water quality.

4. Urban Waste Water Treatment Directive (Directive 91/271/EEC):
- Objective: To protect the environment from the adverse effects of urban wastewater discharges and discharges from certain industrial sectors.

- Key Provisions: Requires Member States to ensure that urban areas have appropriate collection and treatment systems for wastewater.

5. Nitrates Directive (Directive 91/676/EEC):
- Objective: To reduce water pollution caused or induced by nitrates from agricultural sources.
- Key Provisions: Requires Member States to identify polluted waters, designate vulnerable zones, and establish action programs to reduce nitrate pollution.

6. Port Reception Facilities Directive (Directive 2019/883/EU):
- Objective: To reduce marine pollution from ships by improving the availability and use of port reception facilities for ship-generated waste and cargo residues.
- Key Provisions: Requires ports to provide adequate reception facilities and obliges ships to deliver their waste to these facilities.

7. Ship-Source Pollution Directive (Directive 2005/35/EC, as amended by Directive 2009/123/EC):
- Objective: To incorporate international standards for the prevention of pollution from ships into EU law and to establish penalties for illegal discharges.
- Key Provisions: Establishes rules to prevent and penalize ship-source pollution, particularly from oil and other hazardous substances.

8. Single-Use Plastics Directive (Directive 2019/904/EU):
- Objective: To prevent and reduce the impact of certain plastic products on the environment, particularly the marine environment.
- Key Provisions: Bans certain single-use plastic products, imposes consumption reduction measures, and sets requirements for product design and waste management.

9. European Maritime and Fisheries Fund (EMFF) Regulation:
- Objective: To support sustainable fishing and the protection of marine environments through funding and investment.
- Key Provisions: Provides financial support for initiatives that reduce the environmental impact of fishing and aquaculture, including measures to reduce marine litter.

10. Integrated Maritime Policy (IMP):
- Objective: To provide a coherent approach to maritime issues across different sectors and policies.
- Key Provisions: Includes the Blue Growth strategy, which promotes sustainable growth in marine and maritime sectors while protecting the marine environment.

11. European Neighbourhood Policy (ENP) and Eastern Partnership (EaP):
- Objective: To strengthen relations between the EU and its eastern neighbours, including efforts to protect the environment and promote sustainable development in the Black Sea region.
- Key Provisions: Include cooperation on environmental protection and the sustainable management of natural resources, with specific actions targeting marine and coastal pollution.

Together, these legal instruments provide a robust framework to prevent and reduce marine pollution, protect marine ecosystems and promote sustainable use of marine resources in the EU.

REGIONAL AGREEMENTS

The Convention on the Protection of the Black Sea against Pollution (also known as the Bucharest Convention) was signed in 1992 and ratified in 1994 by the six Black Sea coastal countries (Bulgaria, Georgia, Romania, the Russian Federation, Turkey, and Ukraine). Three additional protocols have were together with the Convention: Protocol on Protection of the Black Sea Marine Environment against Pollution from Land Based Sources; Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and Other Harmful Substances in Emergency Situations (Emergency Protocol); and Protocol on the Protection of the Black Sea Marine Environment against Pollution by Dumping (Dumping Protocol). A detailed Black Sea Emergency Plan to the Emergency Protocol has been adopted in 2006 as a response to oil spills.
In addition to this, the Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea was adopted in 2009. The Commission on the Protection of the Black Sea against Pollution adopted in 2009 a Protocol on the Protection of the Marine Environment of the Black Sea from Land-Based Sources and Activities, whose aim is to prevent, control and to the maximum possible extent eliminate pollution from land-based sources and activities, but its entry into force is still pending.

The Convention on Cooperation for the Protection and Sustainable Use of the River Danube (Danube River Protection Convention) is the overall legal instrument for cooperation and transboundary water management in the Danube River Basin. It was signed in 1994 and entered into force in 1998. The main objective of the Danube River Protection Convention is to ensure the sustainable and equitable management and use of surface and groundwater in the Danube River Basin. As the Danube is the largest river flowing into the Black Sea, its condition has a significant impact on the marine environment, particularly in the western part of the sea, bordered by Ukraine, Romania and Bulgaria.

LEGAL FRAMEWORK FOR MARINE POLLUTION RESPONSE IN BULGARIA

Water Act (WA)

1. *Name* of the legal document in English - Water Act

Date of adoption/entry into force, most recent amendment - 27.07.1999/entry into force 28.01.2000 when published in the Official Gazette; 8.12.2023
Name of the document in the official language of the country - Закон за водите

2. *Type of the document – law, decree, order, national plan, strategy, programme, regulation, etc. – and its relevance to the protection of the marine environment from pollution* – law, 6 of its ordinances are related to protection of the marine environment
3. *Scope and purpose of the legal document* – general provisions, principles, structure, and responsible institutions / authorities - The Water Act aims to ensure integrated water

management in Bulgaria, taking into account the principles of the Water Framework Directive, such as precaution, prevention and sustainability.

4. *Relationship to other documents in the national legal framework, such as strategies, plans, programmes of measures, etc.* - The Water Act is closely linked to the National **Black Sea Programme** (BSSP), which is a strategic document approved by the Bulgarian Council of Ministers. The Programme aims to promote cooperation between the Black Sea countries to improve the state of the Black Sea and its coastal areas. The BSNMP was developed in accordance with the Convention on the Protection of the Black Sea against Pollution (Bucharest Convention), which is an international treaty signed by the six Black Sea countries (Bulgaria, Georgia, Romania, Russia, Turkey and Ukraine). The Convention aims to protect and improve the state of the Black Sea through cooperation between the signatories. The Water Act contributes to the implementation of the **National Waste Management Programme** NWMP by providing the legal framework for water management in Bulgaria in a manner that is compatible with the objectives of the programme. For example, the Water Act sets the objectives for surface and groundwater quality, which is a key component of the NWMP. In addition, the law establishes measures to prevent and reduce water pollution, which is a major focus of the programme. The Water Act thus plays a crucial role in Bulgaria's efforts to meet its commitments under the Bucharest Convention and to contribute to wider efforts to protect the Black Sea.

The Water Act is directly linked to the **Marine Strategy of the Republic of Bulgaria**. The Marine Strategy is a strategic document that outlines the vision, objectives and actions for the sustainable development and use of marine and coastal resources. It has been developed in accordance with Directive 2008/56/EC of the European Parliament and of the Council on Marine Environmental Policy (Marine Strategy Framework Directive) and aims to ensure the long-term protection and improvement of the quality of the marine environment. The Water Act provides the legal framework for water management in Bulgaria, including marine waters. It sets quality objectives for surface water and groundwater, establishes measures to prevent and reduce water pollution and regulates the use of water, including marine waters. Bulgaria's Marine Strategy is based on the principles of the Marine Strategy Framework Directive, which requires Member States to apply an **ecosystem approach** to the management of human activities related to the marine environment. In this respect, the Water Act plays an important role in the implementation of the Marine Strategy as it helps to ensure that activities carried out at sea are consistent with the marine environmental protection objectives set out in the Strategy.

5. *Implementation, management, financing of emergency response / prevention measures* - The Water Act includes provisions aimed at preventing and responding to accidents and pollution in the marine environment. These provisions generally fall under Chapter Ten of the Act, which deals with "Protection against water pollution". In particular, Section 143 of the Water Act stipulates, that necessary measures must be taken to prevent pollution of the marine environment from all sources, including but not limited to mining, oil and gas extraction, road construction and operation, and landfills. Article 144 further states that **contingency plans** must be established to prevent and contain pollution of the marine environment caused by oil spills and other pollutants. These contingency plans are essential for ***responding to accidents and disasters in the***

Black Sea as they define the measures, responsibilities and procedures for responding to incidents such as oil spills or chemical spills. They help to ensure that potential risks to the marine environment are minimised and that if incidents do occur, they can be effectively addressed and mitigated. The Water Act thus contributes to disaster and emergency preparedness in the Black Sea by providing a legal framework for preventing and responding to marine pollution.

6. *Related higher level national legislation* – laws, regulations
7. Relevant EU legislation, where applicable - The Water Framework Directive (WFD) of the European Union has been transposed into Bulgarian legislation through the Water Act (WA). The Water Act was adopted in 2000 and has undergone several amendments to bring national legislation into line with the requirements of the WFD.

Directive 2008/56/EC of the European Parliament and of the Council on Marine Environmental Policy (Marine Strategy Framework Directive) is also transposed through the Water Act.

The Water Act and its subsequent amendments are adopted by the National Assembly of the Republic of Bulgaria (to be published in the Official Gazette in order to enter into force on the date of publishing). This is the supreme legislative body of the country, which is responsible for making and adopting laws and other regulations.

Relevance to Marine Strategy of the Republic of Bulgaria: The Water Act is directly linked to the Marine Strategy of the Republic of Bulgaria. The Marine Strategy is a strategic document that outlines the vision, objectives and actions for the sustainable development and use of marine and coastal resources. It has been developed in accordance with Directive 2008/56/EC of the European Parliament and of the Council on Marine Environmental Policy (Marine Strategy Framework Directive) and aims to ensure the long-term protection and improvement of the quality of the marine environment. The Water Act provides the legal framework for water management in Bulgaria, including marine waters. It sets quality objectives for surface water and groundwater, establishes measures to prevent and reduce water pollution and regulates the use of water, including marine waters. Bulgaria's Marine Strategy is based on the principles of the Marine Strategy Framework Directive, which requires Member States to apply an ecosystem approach to the management of human activities related to the marine environment. In this respect, the Water Act plays an important role in the implementation of the Marine Strategy as it helps to ensure that activities carried out at sea are consistent with the marine environmental protection objectives set out in the Strategy.

Environmental Protection Act (EPA)

Закон за опазване на околната среда (ЗООС)
Adopted 25.09.2002, most recent amendment 06.10.2023

The Environmental Protection Act (EPA) is broad in scope and concerns the protection and improvement of environmental quality, including the prevention and abatement of pollution. It sets out the legal framework for the management and protection of environmental components such as air, water, soil, waste and noise, as well as the protection of natural resources and cultural heritage. Bulgaria's Marine Strategy falls under the Environmental Protection Act (EPA), which sets the framework for protecting and improving the quality of the environment, including marine waters.

The Environmental Protection Act (EPA) is relevant to emergency and disaster response in the Black Sea, as it sets out the general principles and measures for environmental protection in Bulgaria. While the Waste Management Act (WMA) focuses specifically on the management of waste, including that generated by emergencies, the EMA provides a broader set of provisions that can be applied to mitigate the environmental impacts of emergencies.

1. General Principles: the EPA establishes general principles for environmental protection, including preventive action, environmental impact assessment, and environmental remediation. These principles can be applied to mitigate the environmental impacts of emergency situations. For example, pre-emptive action could include developing contingency plans and investing in infrastructure and technology to prevent accidents.

2. Environmental Impact Assessment: the EIA requires an Environmental Impact Assessment (EIA) for certain investment proposals, plans and programmes that may have a significant impact on the environment. This may include assessing the potential environmental impacts of an emergency situation and identifying measures to mitigate these impacts.

3. Risk management: the EIA promotes environmental risk management, which includes the assessment and mitigation of risks that may cause environmental harm. This may include assessing the risk of an accident and implementing measures to reduce the likelihood of such an accident occurring or to mitigate its effects on the environment should it occur.

4. Environmental remediation: the EIA provides for environmental remediation where damage has been caused. This may include restoration of habitats affected by an accident or clean-up of contaminated soils and waters.

5. Public Participation: the EPA encourages public participation in environmental decision-making processes. This can include involving community groups and local communities in emergency planning and response, which can improve the effectiveness and fairness of these efforts.

In conclusion, while the Waste Management Act (WMA) provides specific provisions for the management of waste, including that generated by emergencies, the Environmental Protection Act (EPA) offers a broader set of principles and measures that can be applied to mitigate the environmental impacts of emergencies. The two laws can complement each other to provide a comprehensive approach to environmental protection in the Black Sea.

Marine Strategy of the Republic of Bulgaria 2016 – 2021

1. Name of the legal document in English - Marine Strategy of the Republic of Bulgaria 2016 - 2021

Date of adoption/entry into force, most recent amendment – 16.10.2026

Name of the document in the official language of the country - Морска стратегия на Република България 2016 - 2021

2. *Type of the document* – law, decree, order, national plan, strategy, programme, regulation, etc. – and its relevance to the protection of the marine environment from

pollution – strategy, with focus on ecosystem approach and pollution minimization and prevention

3. *Scope and purpose* of the legal document – general provisions, principles, structure, and responsible institutions / authorities - Bulgaria's Marine Strategy was adopted by the Council of Ministers in 2016. The Strategy includes a programme of measures to achieve good environmental status in marine waters by 2020. This programme of measures is divided into four main areas: pollution, biodiversity, natural processes and anthropogenic impacts. Each area contains specific targets, indicators and measures to achieve good environmental status in marine waters. It represents the transposition of MSFD of EU. Public consultation for the Marine Strategy for the period 2022 - 2027 is under way since 2023.

As the lead ministry responsible for environmental protection, the MoEW plays a crucial role in the preparation, adoption and implementation of Bulgaria's Marine Strategy. The Strategy falls under the Environmental Protection Act (EPA), which sets the framework for protecting and improving the quality of the environment, including marine waters. In accordance with the SEA, the MoEW develops and updates the National Environmental Monitoring Programme, which includes monitoring of marine waters. In addition, the MoEW is responsible for implementing the European Union Marine Strategy Directive, which requires Member States to adopt and implement a Marine Strategy for their marine waters. Bulgaria's Marine Strategy is an instrument for implementing the country's commitments under this Directive.

As the *institution responsible for the management and development of maritime transport and port infrastructure*, the MTC also plays an important role in the maritime strategy process. Activities taking place in marine waters, such as shipping, oil and gas extraction and port operations, can significantly affect the state of the marine environment. The MTC is therefore involved in the development and implementation of measures aimed at mitigating the negative impacts of these activities on the marine environment. Furthermore, the MTC is responsible for the implementation of international conventions and agreements related to the protection of the marine environment, such as the International Convention for the Prevention of Pollution from Ships (MARPOL) and the International Convention for the Control of Antifouling Agents (AFCN).

4. *Relationship to other documents* in the national legal framework, such as strategies, plans, programmes of measures, etc. -
5. *Implementation, management, financing of emergency response* / prevention measures - The strategy includes a programme of measures to achieve good environmental status in marine waters, which includes specific targets, indicators and measures to prevent and respond to pollution of the marine environment. Some of these measures are aimed at establishing contingency plans to prevent and limit pollution of the marine environment caused by oil spills and other pollutants. These contingency plans are essential for responding to accidents and disasters in the Black Sea as they define the measures, responsibilities and procedures for responding to incidents such as oil spills or chemical spills.
6. *Related higher level national legislation* – laws, regulations - The Marine Strategy of the Republic of Bulgaria is linked to other laws, including the Water Act and the Environmental Protection Act. It is also linked to the Disasters and Accidents Act, which

regulates the preparation, planning, organisation, management and commissioning of rescue activities in the event of disasters, fires, emergencies and catastrophes. The contingency plans are essential for responding to accidents and disasters in the Black Sea as they define the measures, responsibilities and procedures for responding to incidents such as oil spills or chemical spills. They help to ensure that potential risks to the marine environment are minimised and that if incidents do occur, they can be effectively addressed and mitigated.

7. Relevant EU legislation, where applicable– Marine Strategy Framework directive (MSFD) of EU.

Disaster Protection Act (DPA) and related subordinate acts
Закон за защита при бедствия – law, adopted by National Assembly - 19.12.2006, most recent amendment - 07.07.2020

National Disaster Protection Plan - Национален план за защита при бедствия - 29.12.2010 – valid till 2040
National Black Sea Oil Spill Emergency Plan - Национален авариен план за борба с нефтени разливи в Черно море

Updates and amendments to the subordinate acts are adopted by the council of ministers. The DPA and its subordinate plans and strategies provide information about types of risks for the environment, some of them relevant to the Black Sea, list responsible institutions, subordination, process of emergency response and other details of the process.

The **National Disaster Protection Plan** has been prepared based on Article 62(2)(2) of the Disaster Protection Act. It is supported by a set of subordinate documents.

The **National Black Sea Oil Spill Emergency Plan** is part of the National Disaster Protection Plan. It was adopted by Decision No 868 of the Council of Ministers on 1 December 2011.

The National Disaster Protection Plan was amended by Decision No 1004 of the Council of Ministers of 12 December 2012. The consolidated version has been published.

By Decision No 1004 of the Council of Ministers of 12 December 2012, Part 1: Earthquake protection and Part 2: Flood protection were added to the plan.

By Decision No 767 of the Council of Ministers of 14 September 2012, Part 3: Kozloduy NPP External Emergency Plan was added to the plan. The decision was amended by Decision No 509 of the Council of Ministers of 17 July 2014 (the consolidated version of the plan has been published).

The Disaster Risk Management Plan (DRMP) for Bulgaria sets out objectives, investment priorities and financial mechanisms for managing this risk. The DRMP supports the implementation of the National Strategy for Disaster Risk Reduction (NSDRR) 2018-2030 adopted in April 2018 by the Council of Ministers (CoM) to provide an overarching vision and principles, expected outcomes and strategic objectives for disaster risk management (DRM) and related climate change adaptation. The operational objectives for DRM for the next five years are set out in

the National Disaster Risk Reduction Programme (NDRRP) 2021-2025, which the RMP also supports.

The DRM Plan aims to inform responsible institutions, stakeholders and the general public about the objectives, measures, tools and resources for DRM in Bulgaria. It serves as a basis for consensus building among stakeholders and supports the implementation of the relevant European Union (EU) trigger related to financial resources for 2021-2027 for disaster risk reduction and climate change adaptation. It also supports the implementation of the Paris Agreement and contributes to the development and implementation of planning documents related to disaster protection in the Republic of Bulgaria.

The DRM Plan proposes six summary objectives for three time periods: 2025, 2030 and 2040. These include: (a) increasing disaster risk awareness among the population and stakeholders; (b) strengthening institutional capacity; (c) improving the effectiveness of DRM and related planning; (d) increasing the effectiveness of inter-institutional coordination and dialogue between institutions and citizens, academia, business and the non-governmental sector; (e) increasing the effectiveness of DRM financing; and (f) strengthening economic, social, health and environmental sustainability.

The **Black Sea Unified Rescue System** (URS) was established under the **Disaster Protection Act** (DPA). This Act regulates the general principles and procedures for disaster protection in the Republic of Bulgaria, including the establishment and functioning of the Single Rescue Coordination Centre (SRCC) and the Unified Rescue System.

According to the DPA, the Unified Rescue Coordination Centre (URCC) is a structure responsible for coordinating the actions of all structures of the unified rescue system in emergency situations. In the context of the Black Sea, the URCC plays a crucial role in ensuring effective cooperation between the various state structures and organisations involved in the URS, including those responsible for maritime safety and environmental protection in the Black Sea.

The Unified Rescue System (URS) for the Black Sea is managed by the General Directorate for Fire Safety and Population Protection (DGFSPP) at the Ministry of Interior of the Republic of Bulgaria. The GDFSPP is responsible for the coordination and supervision of all state structures and organisations involved in the URS, including those responsible for maritime safety and environmental protection in the Black Sea.

Many agencies and organisations are involved in the URS, including the Maritime Administration Executive Agency, the Danube Research and Maintenance Agency, the Bulgarian Red Cross, the National Border Police Service, the State Enterprise "Port Infrastructure", etc. All these entities work together to ensure an effective response to disasters and accidents in the Black Sea.

In addition, the Law on Maritime Spaces, Inland Waterways and Ports of the Republic of Bulgaria (Law on Maritime Spaces, Inland Waterways and Ports) also contributes to the establishment and functioning of the Unified Rescue System in the Black Sea by establishing a

framework for prevention and preparedness for major accidents involving hazardous substances and measures to protect cultural heritage in the event of a disaster.

Law on Maritime Areas, Inland Waterways and Ports of the Republic of Bulgaria (LMAIWPRB)
Закон за морските пространства, вътрешните водни пътища и пристанищата на Република България (ЗМПВВППРБ)
adopted 11.02.2000, most recent amendment 22.12.2023

***Relevance*:** Disaster and emergency operations in the Black Sea are regulated by the Law on the Maritime Areas, Inland Waterways and Ports of the Republic of Bulgaria (LMAIWPRB). The Act regulates the procedure for the establishment and functioning of the Unified Rescue System (URS), which includes state structures and organisations that have competences in the prevention, preparedness, response and recovery from disasters and accidents in maritime waters.

In addition, the Ordinance on the Conditions and Procedures for Cooperation between the Central and Territorial Bodies of the Executive Power in the Conduct of Rescue and Urgent Emergency Recovery Work also contributes to the coordination of disaster and emergency response in the Black Sea. This Regulation lays down the modalities of interaction between the various state structures involved in the URS, including those responsible for maritime safety and environmental protection in the Black Sea.

EU legal framework: Directive 2006/87/EC of the European Parliament and of the Council on the management of major-accident hazards involving dangerous substances and Directive 2009/147/EC of the European Parliament and of the Council on the protection of cultural heritage are the two main European Directives that have been transposed into Bulgarian legislation through the MHRLM. These Directives require Member States to establish a framework for the prevention of and preparedness for major accidents involving hazardous substances, as well as measures to protect cultural heritage in the event of a disaster.

In addition, Regulation (EC) No 391/2009 of the European Parliament and of the Council on common rules and standards for ship inspection and survey organisations (Flag Manual) and Regulation (EC) No 392/2009 of the European Parliament and of the Council on common rules and standards for the organisation of the maritime services market (Marin Package) are also related to maritime safety legislation, which indirectly affects the establishment and functioning of the Unified Rescue System in Bulgaria. These regulations establish common standards and guidelines for maritime safety that can influence overall maritime safety and emergency preparedness in the Black Sea.

Pollution prevention: The Law on Maritime Areas, Inland Waterways and Ports of the Republic of Bulgaria (LAMAIWPRB) aims to prevent various types of pollution in the Black Sea. The main pollutants targeted by the law include:
1. The law aims to prevent oil and oil product spills by requiring ship owners to keep their ships clean and to take appropriate pollution prevention measures.
2. Pollution by other harmful substances: the Act prohibits the discharge of harmful substances into waters by requiring persons carrying out activities at sea to comply with established

environmental norms and standards. This includes chemicals, heavy metals and other toxic substances.
3. Solid waste pollution: the law aims to reduce the amount of solid waste discharged into the Black Sea by requiring owners and operators of vessels and facilities to take the necessary measures to prevent the discharge of waste into the sea.
4. Although not explicitly mentioned in the law, reducing underwater noise due to human activities is an important consideration for the protection of marine biodiversity and ecosystems.
5. Nutrient pollution: Excessive algal growth (algal blooms) can deplete oxygen in the water, which can harm marine life. The law has no specific provisions to address this type of pollution, but encourages practices that minimize the introduction of nutrients into water bodies.
In general, the Law on the Maritime Areas, Inland Waterways and Ports of the Republic of Bulgaria (LAMWIPRB) aims to protect the Black Sea from various sources of pollution in order to preserve its biodiversity and ecosystems.

Related to international legal framework: UNCLOS, MARPOL 73/78, STCW 95, SOLAS, Paris Memorandum on port state control, Convention on the Protection of the Black Sea against Pollution (BSC), the Danube River Protection Convention (DRPC), Convention regarding the regime of navigation on the Danube.

Role of the **Executive Maritime Administration Agency (EMAA)** in the Black Sea Unified Rescue System (URS) is regulated by the Law on Maritime Spaces, Inland Waterways and Ports of the Republic of Bulgaria (LMAIWPRB) and several by-laws. The functions include:
1. Coordination.
2. Search and Rescue Plans.
3. Search and Rescue Operations.
4. Inspections and surveillance: EMAA carries out inspections of marine vessels and port facilities to ensure compliance with safety and environmental standards, contributing to the prevention of incidents and accidents in the Black Sea.
5. International cooperation.
These roles and responsibilities of EMAA in the URS are supported by several regulations, including Regulation No. 12 of 2011 on preventive measures to prevent and reduce the impact of oil spills and Regulation No. 11 of 2011 on special conditions and procedures for the placement of floating buoys marking navigational hazards and signs restricting navigation and access to water areas of ports.

Waste Management Act (WMA)

Закон за управление на отпадъците – 30.09.2003 – 13.07.2012

The Waste Management Act (WMA) has a direct link to the Black Sea and emergency response activities in the Black Sea as it concerns the generation, collection, treatment, transportation and disposal of waste, including that arising from emergency situations. These are the functions relevant to emergency response.
1. Waste generation: Emergency situations often lead to the generation of waste, such as shipwrecks, oil spills and other pollutants. These wastes can pose a threat to the marine environment and the Black Sea ecosystem if not properly managed.

2. Waste collection. The Waste Management Act sets out the requirements for the collection of different types of waste, including those generated by emergency situations. For example, shipwrecks must be collected and removed from the area as quickly as possible to minimise their impact on the environment.
3. Waste treatment. Proper treatment of this waste can help prevent pollution of the Black Sea and protect its ecosystems. For example, oil spills must be cleaned up immediately to prevent oil from seeping into the sea.
4. Waste transportation. Proper transportation of this waste can help prevent pollution of the Black Sea and protect its ecosystems. For example, shipwrecks should be transported to an appropriate recycling or disposal facility.
5. Waste disposal. Proper disposal of this waste can help prevent pollution of the Black Sea and protect its ecosystems. For example, oil spills must be treated or burned to prevent oil from entering the sea.
In conclusion, the Waste Management Act plays an important role in ensuring that Black Sea emergencies are managed in a way that minimises their impact on the environment. By setting requirements for the collection, treatment, transportation and disposal of waste, it helps to protect the health of the Black Sea and its ecosystems.

Ordinance on reducing the environmental impact of certain plastic products PM No 354 of 26.10.2021 promulgated on 31.12.2011. No. 91 of 2 November 2021, as amended by SG 100 of 16 December 2022.
Наредба за намаляване на въздействието на определени пластмасови продукти върху околната среда ПМС №354 от 26.10.2021 г. обн. ДВ бр. 91 от 2 ноември 2021г., изм. ДВ бр. 100 от 16 декември 2022г.

The Ordinance on the reduction of the environmental impact of certain plastic products (PM No 354 of 26 October 2021) is linked to several elements of the legal framework, including the Waste Management Act (WMA) and the Directive on single use plastic articles (Directive 90/425/EEC).
1. Waste Management Act (WMA). It defines the objectives, principles and requirements for waste management, including waste prevention, collection, transport, treatment and disposal. The Ordinance on reducing the environmental impact of certain plastic products complements the MSW Act by specifying requirements for certain categories of single-use plastic products.
2. Directive on single-use plastic articles (Directive 90/425/EEC). It aims to reduce the impact of certain single-use plastic products on the environment, especially marine environments. The directive identifies the products to be addressed and sets targets to reduce their consumption. The Ordinance on reducing the environmental impact of certain plastic products implements some of the requirements of this Directive in national legislation.
3. A European Strategy for plastics in a circular economy. It sets targets to reduce the use of certain single-use plastic products, increase recycling and improve waste management. The Regulation on reducing the environmental impact of certain plastic products contributes to achieving these objectives in Bulgaria.
4. Other national and international initiatives. These include national strategies and plans, international agreements and voluntary commitments by businesses.

Relevance to national and international legal framework: The Ordinance to reduce the environmental impact of certain plastic products is linked to various elements of the legal framework, including the Waste Management Act, the Single Use Plastics Directive, the European Strategy on Plastics in a Circular Economy and other national and international initiatives. These laws and initiatives work together to promote the transition to a circular economy for plastics and reduce its environmental impact.

LEGAL FRAMEWORK FOR MARINE POLLUTION RESPONSE IN ROMANIA

The **Water Law**, adopted in 1996 (Legea apelor nr. 107/1996), regulates the use, protection and conservation of national waters, the achievement of environmental objectives, and improvement of aquatic ecosystems in the immediate vicinity of the coasts, bays and the Black Sea.

Law on the legal regime of inland maritime waters, the territorial sea and the contiguous zone of Romania, adopted in 1990 (Legea privind regimul juridic al apelor maritime interioare, al marii teritoriale şi al zonei contigue ale României nr. 17/1990). It regulates the specific limits of inland waters, the rules applicable to foreign vessels in Romanian territorial waters, the rules for scientific research and environmental protection in territorial waters, as well as the sanctions provided for violations of the law. Directive 2005/35/EC on ship-source pollution and on the introduction of criminal penalties for infringements, as amended by Directive 2009/123/EC is implemented through a Law amendment nr. 102/2008.

Decree No. 893/2006, amending Decree No. 1593/2002, approving the National Plan for Preparedness, Response and Cooperation in the Event of Marine Pollution by Oil. Joint Order MMGA, MTCT, MAI No. 1/217/182, approving the Regulation on the Organisation and Operation of the Operational Command for the Clean-up of Marine Pollution (CODM). The Decree is linked to OPRC International Convention for the Preventing, Combating and Compensation of Marine Pollution, 1990 and Decision No 2850/2000/EC setting up a Community framework for co-operation in the field of accidental or deliberate pollution

The National Contingency Plan against Marine Pollution includes the following parties:

- Operational Commandment for Marine Pollution / Comandamentului Operativ pentru Depoluare Marina (CODM)
- General coordinator: the prefect of the county Constanta
- Deputy General Coordinators: President of County Council of Constanta and Tulcea
- Coordinator of Terrestrial Operations Division: Inspectorate for emergency situations Constanta
- Coordinator of Maritime Operations Division: Romanian Naval Authority

Members:

1. Romanian Waters Administration – Dobrogea-Littoral
2. County Police Inspectorate of Constanta and Tulcea
3. Inspectorate of gendarmes
4. Coast Guard
5. Inspectorate for emergency situations Tulcea
6. General staff of the air forces
7. Fleet commandment Constanta

8. County directorate of public health
9. Veterinary health and food safety department
10. Constanta Maritime Ports Administration
11. EPA
12. Environmental national guard
13. Danube Delta Biosphere Reserve Administration
14. NIMRD
15. Romanian agency for saving life at sea
16. Authority for Offsore Operations Regulations

Government Decree No 1016/2010, for the establishment of the information and traffic monitoring system for maritime vessels entering and leaving the national navigable waters of Romania implements Directive 2002/59/EC on the EU vessel traffic monitoring and information system.

The correspondence between Romanian legal acts, EU legislation and international agreements, which are not already mentioned is presented in Table 2.

Table 2. Romanian legal framework related to the state of marine environment and corresponding EU and international norms

Title	**EU Directive**	**The Romanian normative act ensuring the Transposition / Implementation (T / I)**
Environmental Impact Assessment (EIA) Directive	The EIA Directive (85/337/EEC) in force since 1985, has been **amended three times**, in 1997, in 2003 and in 2009: - Directive 97/11/EC brought the Directive in line with the UN ECE Espoo Convention on EIA in a Transboundary Context; - **Directive 2003/35**/EC was seeking to align the provisions on public participation with the Aarhus Convention on public participation in decision-making and access to justice in	Law no. 292/2018 on assessing the impact of certain public and private projects on the environment

	environmental matters. - **Directive 2009/31/**EC amended the Annexes I and II of the EIA Directive, by adding projects related to the transport, capture and storage of carbon dioxide (CO2).	
Strategic Environmental Assessment - SEA	**Directive 2001/42/EC on the assessment of the effects of certain plans and programs on the environment (SEA Directive)** The Protocol on Strategic Environmental Assessment augments the Espoo Convention by ensuring that individual Parties integrate environmental assessment into their plans and programmes at the earliest stages, and thus help in laying down the groundwork for sustainable development. The Protocol entered into force on 11 July 2010. The EU ratified the Protocol on Strategic Environmental Assessment on 21 November 2008. The SEA Directive (Directive 2001/42/EC) transposes the Protocol in the EU legislation.	Entirely transposed by: GD no. 1076/2004 (OJ no. 707 / 05.08.2004) regarding the establishment of the procedure for carrying out the environmental assessment for plans and programs; Ministerial Ordinance no. 117/2006 (Official Gazette no. 186 / 27.02.2006) for the approval of the Manual on the application of the procedure for carrying out the environmental assessment for plans and program; Ministerial Ordinance no. 995/2006 (Official Gazette no. 812 / 03.10.2006) for the approval of the list of plans and programs under the incidence of GD no. 1076/2004 regarding the establishment of the procedure for carrying out the environmental assessment for plans and programs.
Directive on Access to Environmental Information	**Directive 2003/4/EC of the European Parliament and of the Council on public access to environmental information and repealing**	**Entirely transposed by:** Government decision no. 878/2005 (Official Gazette no. 760 / 22.08.2005) on public access to environmental information, amended and supplemented by

	Council Directive 90/313/EEC	Emergency Ordinance no. 70/2009 (Official Gazette no. 444 / 29.06.2009) for the amendment and completion of some normative acts regarding non-fiscal taxes and tariffs, approved by Law no. 8/2010 (OG no. 22 / 12.01.2010)
Public Participation Directive	**Directive 2003/35/EC of the European Parliament** and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending, with regard to public participation and access to justice, Council Directives 97/11/EC/EEC and 96/61/EC (OJ L 156, 25.6.2003)	**Entirely transposed by:** Government decision no. 564/2006 (Official Gazette no. 406 / 10.05.2006) on the framework for achieving public participation in the elaboration of certain plans and programs related to the environment; Ministerial Order no. 1325/2000 (Official Gazette no. 580 / 20.11.2000) on public participation, through its representatives, in the preparation of plans, programs, policies and environmental legislation; Ministerial Ordinance no. 1385/2006 (Official Gazette no. 66 / 29.01.2007) on the approval of the Procedure for public participation in the elaboration, modification or revision of waste management plans, adopted or approved at national, regional and county level; Ministerial Ordinance no. 1387/2006 (Official Gazette no. 91 / 5.02.2007) on the approval of the Procedure for public participation in the elaboration, modification or revision of action programs for areas vulnerable to nitrate pollution from agricultural sources; Ministerial Ordinance no. 35/2007 (Official Gazette no. 56 / 24.01.2007) on the approval of the Methodology for elaboration and implementation of air quality management plans and programs.
Environmental Liability Directive	Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of	**Entirely transposed by**: Emergency Ordinance no. 68/2007 (Official Gazette no. 446 / 29.06.2007) on environmental liability with reference to the prevention and repair of environmental damage, approved by Law no. 19/2008

	environmental damage (OJ L 143, 30.4.2004), as amended by Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC (OJ L 102, 11.4.2006).	(OG no. 170 / 05.03.2008), amended by Emergency Ordinance no. 15/2009 (OG no. 149 / 10.03.2009) approved by Law no. 308/2009 (OG no. 680 / 09.10.2009), completed by EO no. 64/2011 (OJ no. 461 / 30.06.2011)
INSPIRE Directive	Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.04.2007)	**Entirely transposed by**: Government Ordinance no. 4/2010 (Official Gazette no. 66 / 29.01.2010) on the establishment of the National Infrastructure for spatial information in Romania, approved with amendments by **Law no. 190/2010** (OJ no. 695 / 18.10.2010), modified by Government ordinance no. 81/2011 (OG no. 704 / 05.10.2011) and GO no. 16/2012 (OG no. 314 / 10.05.2012)
MSFD	*Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy*)	**Entirely transposed by**: Government Emergency Ordinance 71/2010 on establishing the strategy for the marine environment, approved by Law 6/2011 with subsequent amendments and completions (Law 205/2013) Law 279/2018 amending Annex no. 3 to the Government Emergency Ordinance no. 71/2010 on establishing the strategy for the marine environment
MSP Directive	Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning	Government Ordinance no. 18/2016 on the arrangement of the maritime space; Law no. 88/2017 on the approval of Government Ordinance no. 18/2016 on the arrangement of the maritime space. Government Decision no. 436/2018 regarding the approval of the Methodology for elaborating the maritime space plan;

		Ordinance no. 13/2021 for the amendment of the Government Ordinance no. 18/2016 on the arrangement of the maritime space
BIRD and HABITATS	The Council Directive 79/409/EEC on the **protection of wild birds,** updated by Directive 2009/147 / EC of 30 November 2009); **Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora**	LAW no. 462 of July 18, 2001 for the approval of the Government Emergency Ordinance no. 236/2000 on the regime of protected natural areas, conservation of natural habitats, wild flora and fauna
Criminal Law	Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law	**Entirely transposed by**: Law no. 101/2011 (OJ no. 449 / 28.06.2011) for the prevention and sanctioning of certain facts regarding environmental degradation
The Reporting Directive	Council Directive 91/692/EEC standardising and rationalising reports on the implementation of certain directives relating to the environment (OJ L 377, 31.12.91)	
Regulation on European Pollutant Release and Transfer Register	Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (OJL33, 4.2.2006)	**Implemented** DECISION no. 140 of February 6, 2008 regarding the establishment of measures for the application of the provisions of Regulation (EC) No. 166/2006 of the European Parliament and of the Council establishing the European Pollutant Release and Transfer Register and amending Council Directives 91/689 / EEC and 96/61 / EC; LAW no. 112 of April 14, 2009 for the ratification of the Protocol on the Register of Polluted Emissions and Transfers, adopted in Kiev on May 21, 2003 and signed by Romania in Kiev on May 21, 2003, on the Convention on Access to Information,

		Public Participation in Decision-Making and Access to Justice environmental issues, signed at Aarhus on 25 June 1998
INTERNATIONAL CONVENTIONS		
Underwater cultural heritage	**(UNESCO) Convention Underwater cultural heritage (**Paris, 2001)	**Law No.99 / 16.04.2007 (**OJ nr.276 / 25.04.2007) for the acceptance of the Convention on the Underwater Cultural Heritage Protection
Ramsar Convention	**UN Convention** on International Importance Wetlands especially as Waterfowl Habitat (RAMSAR, 1971)	**Law no. 5 from 25.01.1991** published in the Official Journal, Part I no. 18 of 26.01.1991 Romania's accession to the Convention on Wetlands of International Importance, especially as Waterfowl habitat
CITES	**Convention on International Trade in Endangered Species of Wild Fauna and Flora**	**Law no. 69/1994** on International Trade in Endangered Species of Wild Fauna and Flora Endangered (CITES);
Espoo	Convention on Environmental Impact Assessment in a Transboundary Context (25.02.1991)	**Law Nr. 22/2001** ratifying the Convention on Environmental Impact Assessment in a Transboundary Context, adopted in Espoo on 25 February 1991
Rio Convention	**UN Convention on Biological Diversity** (CBD)	**Law no. 58 of 13 July 1994** ratifying the Convention on Biological Diversity, signed in Rio de Janeiro on 5 June 1992
Cetaceans	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area	**LAW 91/2000** ratifying the Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area, adopted in Monaco on November 24, 1996
Climate change	The Kyoto Protocol of the United Nations Framework Convention on Climate Changes (**Kyoto 1997)**	**Law no. 3/2001** ratifying the Kyoto Protocol to the United Nations Framework Convention on Climate Change, adopted on 11 December 1997

LEGAL FRAMEWORK FOR MARINE POLLUTION RESPONSE IN GEORGIA

The legal acts governing the protection of the marine environment in Georgia and the preparedness for emergency situations are summarised in Table 3.

Table 3. Legal framework for marine pollution response in Georgia

Document	Date	Type	Description
Constitution of Georgia	1995.08.24	Law	Article 29 of the Constitution of Georgia establishes the right to live in a healthy environment and the right of the public to participate in the decision-making related to the environment.
Law of Georgia on Environmental Protection	1996.12.10	Law	The Law of Georgia on Environmental Protection provides a framework for the protection of the environment, defining the principles and norms for the protection of the environment, as a constitutional right, and for the sustainable use of the resources, including protection of the marine environment. Article 54 is dedicated to the protection of the Black Sea from pollution.
Law of Georgia on Water Resources Management	2023.06.30	Law	The "Law of Georgia on Water Resources Management" adopted in 2023 supersedes the Law on Water of 1996. The law aims to provide legal bases for managing water resources, ensuring the implementation of state policy in the fields of protection and use of water resources. It also aims to develop a safe environment for human health and protect and sustainably use water resources in accordance with integrated management principles. It regulates legal relations between state authorities and individuals/legal entities in the field of protection and use of water resources. Defines water use as the use of water resources for various purposes, including drinking, domestic, industrial, power, agricultural, transport, scientific, cultural, recreational, balneological, sport, tourism, and others. The waters within the land territory, its subsoil, continental shelf, territorial sea, and exclusive economic zone of Georgia are considered by the law. This law is a significant step towards ensuring the sustainable management of water resources in Georgia, introducing river basin management principles and is the key tool in approximating Georgian legislation towards the EU's Water Framework Directive. Even before adoption of this legislation, some important River Basin Management Plans have already been

			developed. The pilot RBMP for the Chorokhi-Ajaristskali river basin,[1] includes a program of measures (PoM) to achieve good environmental status, including for coastal and transitional waters, while in March 2021 the coastal and transitional waters part of the Chorokhi-Ajaristskali RBMP was updated with the support of the European EUWI+ Project.[2]
The Environmental Assessment Code	2017.06/01	Law	The Environmental Assessment Code, adopted in 2017, introduced Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) procedures, as well as transboundary environmental impact assessment and public participation. The Code contains provisions on transboundary EIA, but it will be enacted only after the ratification of the Espoo Convention. The law is in many regards almost fully compatible with the EU's EIA and SEA Directives and was enacted to harmonise Georgian legislation with these directives.
The Law of Georgian on Industrial Emissions	2023.06.29	Law	The purpose of this Law is to prevent emissions from industrial activities into the atmosphere, water, and soil or where this is practically impossible, to reduce and control them, as well as to prevent waste generation. This Law determines the procedure and terms for issuing an integrated environmental permit for industrial activities causing pollution and for controlling the fulfilment of these terms. It also determines the rights and duties of state bodies and natural/legal persons. This is important legislation to control land-based sources.
Maritime Code	1997.05.15	Law	The Maritime Code of Georgia defines the institutional set up regarding maritime transportation, and its Chapter XVIII deals with the compensation for damage resulting from environmental pollution by ships. It also defines the liability regime and insurance obligations to be applied to maritime transportation. According to article 36 of the Code, the compliance with the standards for the protection of the marine environment, required at national and international level, is a pre-condition for vessel registration.

[1] http://blacksea-riverbasins.net/en/pilot-basins/chorokhi-adjaristskali-basin
[2] https://rec-caucasus.org/wp-content/uploads/2021/11/20210620_Chorokhi-Ajaristskali_RBMP_CTW_ENG-1.pdf

Law on Maritime Space of Georgia	1998.12.24	Law	Law on the Maritime Space of Georgia, Chapter IX (Articles 55-64) is dedicated to protection of the marine environment in Georgian maritime territory. It prohibited the pollution of the maritime space of Georgia and its atmosphere by disposing, dumping or discharging toxic or radioactive substances or any other waste or matter that is harmful to human health and to the resources and ecosystem of the Black Sea. Article 56 covers pollution prevention of the maritime space and coastline from pollution sources located on the coastline and riverbanks of Georgia. Among others, the article obliges the owner/manager of an oil terminal located in a seaport to equip the terminal with relevant equipment for the elimination of accidental oil spillage, as well as to eliminate oil spillage in the case of an accident. Other articles include liability of a ship owner for the pollution of the maritime space and coastline of Georgia; prohibition on dumping of earth into the sea and removing seabed sediments from the sea without consent of the Ministry of Environmental Protection and Agriculture (MEPA); authorises the Maritime Transport Agency to refuse releasing a ship that creates threats of pollution of the marine environment. Article 64 establishes marine protected areas, where fishing shall be prohibited and navigation allowed only in exceptional cases. The surrounding sanitary areas also enjoy a special regime as per requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL). The Law on Maritime Space inter alia determines the legal status of internal waters, the territorial sea, seabed and fossils, as well as Georgia's jurisdiction in these matters. Chapter IX, on the 'Protection of the marine environment in the maritime space of Georgia', prohibits to pollute the maritime space by discharging toxic or any radioactive substances, or waste and matter which might be harmful for human health and ecosystems of the Black Sea, and its article 64 prescribes the establishment of marine protected areas

			and marine sanitary areas. The recent amendments to the Law, in March 2018, introduced the legal base for the development of the National Marine Strategy and Action Programme for the Protection of the Black Sea (draft developed but not approved). The Ministry of Environmental Protection and Agriculture of Georgia (MEPA) is the body responsible for drafting this strategy and action programme, together with other competent institutions, to be approved by the Government of Georgia and revised every six years. This arrangement implements the provision of EU-Georgia Association Agreement, requiring harmonisation with the EU Marine Strategy Framework Directive.
Law on Maritime-Rescue Service	2000.09.29	Law	Law regulates the procedures for providing assistance to all persons, ships and/or aircraft that are in distress on the sea, and the procedures for the elimination of pollution of the sea with oil and hazardous substances spilled as a result of accidents
Law of Georgia on the Education and Certification of Seafarers	2011.12.23	Law	This law defines unified standards and rules for education, training and certification of seafarers in Georgia, the system of monitoring of maritime-educational institutions, system of recognition and monitoring of maritime-training centres, system of selection and monitoring of medical institutions, and includes a group of tasks, duties and responsibilities, necessary for ship operation, safety of life at sea or protection of the marine environment.
Law on Protected Areas System	1996.03.07	Law	The 1996 Law on Protected Areas System provides the legal base for the establishment of a protected areas network in Georgia. Coastal and marine protected areas should be part of this network, currently only Kolkheti National Park providing for the marine protected area.
Law on Establishment and Management of Kolkheti Protected Areas	`1999	Law	Kolkheti National Park was established under this legislation to protect and maintain Kolkheti wetland ecosystems of international importance and include coastal wetlands landward and Black Sea marine protected areas. KNP is the only protected area with marine part.

Law on Red List and Red Book of Georgia	2003.06.06	Law	In June 2003, Georgian Parliament adopted the Law on Red List and Red Book of Georgia. This law provides a legal basis for definitions of the Georgian 'red list' and 'red book' of critically endangered species of wild animals and plants. The Law also defines the structure of the 'red list', the procedures to determine species for inclusion into the list, and the procedures for elaboration, adoption and renewal (revision) of the draft list. The said law also regulates issues related to the 'red book' of critically endangered species, their protection and their use, and planning and financing of measures for their restoration and preservation. The Red List and Red Book is relevant for identification of endangered species in marine environment.
Law on Aquaculture	2020.06.24	Law	The Law on Aquaculture has been adopted on 24 June 2020, aiming at regulating aquaculture-related activities, promotion of responsible and sustainable aquaculture.
Spatial Planning, Architecture and Construction Code	2018.07.20	Law	The Spatial Planning, Architecture and Construction Code of Georgia (2018) regulates spatial planning matters in the country and among other plannings stipulates mandate in relation to maritime spatial planning, and linked to coastal development planning as well.
Decree of the Government of Georgia № 195 April 22, 2016, On Approval of the National Marine Oil Spill Response Plan	2016.04.22	GoG Decree	The Maritime Transport Agency (MTA) is the central authority in the field of safety and security of shipping, subordinated to the Ministry of Economy and Sustainable Development of Georgia; MTA is also the National Competent Authority and is responsible for the co-ordination of activities in accordance with the National Marine Oil Spill Response Plan for the Black Sea. The plan is activated in Tiers 1, 2 and 3 depending on the scale of the incident and is compatible with Black Sea level and global arrangements for combatting oil spills at sea.
Decree of the Government of Georgia № 423 December 31,	2013.12.31	GoG Decree	This is the main regulation (reglament) defining fisheries in Black Sea waters of Georgia. Its objective is defined as setting rules and terms of fisheries for various species and setting rules for applicable fishing gear. Defines fishing

2013, On Approval of Technical Regulation for Fishing and Preservation of Fish Stock			regulations, including specific locations and times of year, such as Black Sea rivers which are referred to as important salmon and sturgeon habitats. Bottom trawling is in general allowed outside the zones defined in Article 7, specifically in Clause 5, which defines three bottom trawling zones by indicating geographic coordinates of edges of the rectangular shaped areas.
Decree of the Government of Georgia № 672 December 31, 2019, Amending Decree of the Government of Georgia № 423 of December 31 2013 „On approval of the Technical Regulation regarding fishing and protection of fish stock	2019,12.31	GoG Decree	This is a major amendment to the Decree described above and seeks to harmonise European rules with Georgian regulations. All amendments are actually providing new rules in this regard in a new Article 16 numbered 16^{1} through 16^{11}. Before that, definitions in Article 4 are expended with definition of 'IUU' fishing, as well as, a definition of 'conservation and management measures. All these articles apply to IUU activities by Georgian flag vessels and Georgian citizens operating in other countries EEZs and Territorial Seas (TSs) and high seas, as well as defining procedures for foreign flag vessels using Georgian ports. Regulation defines the agency responsible for issuing catch certificates, that is, the National Environmental Agency (NEA). There are also new annexes added to this regulation, 5 through 13, which are concerned with defining various forms of application and certification, such as pre-landing and pre-transhipment declarations, various options for catch certificates, define technical features of required satellite-based and electronic monitoring system, that requires vessels to operate VMS monitored by NEA and AIS monitored by Maritime Transport Agency of Georgia. Vessels are also required to install amplified GMS receiver for internet connectivity and transmit via internet link uninterrupted video feed to MEPA's Department of Environmental Supervision (DES).
Order of the Government of Georgia № 1629 September 7,	2022.09.07	GoG Order	This document includes provisions for the environmental protection of the Black Sea. The protection and improvement of the Black Sea environment is considered a priority, with six tasks defined to achieve this goal. These

2022, The Fourth National Environmental Action Programme of Georgia for 2022-2026 (NEAP-4)			include preventing the spread of new alien species from ballast waters, establishing gradual marine waste management, conserving bird species at risk of extinction, developing marine aquaculture, improving marine waste management, and integrating the Black Sea Monitoring Program. Each task involves specific actions, such as setting up a ballast water laboratory, conducting awareness campaigns, developing monitoring programs, allocating zones for aquaculture, and continuously monitoring the status of the marine environment. By 2026, the number of parameters for assessing the environmental status of the Black Sea is planned to increase from 17 to 36. The marine component will be added to Georgia's Water Information System (WIS Georgia) at http://wis.mepa.gov.ge to ensure the accessibility of information about the Black Sea.
Decree of the Government of Georgia № 343 December 31, 2019, The National Biodiversity Strategy and Action Plan of Georgia 2014-2020 (NBSAP-2)	2014.05.08	GoG Decree	The National Biodiversity Strategy and Action Plan of Georgia 2014-2020 (NBSAP-2) *inter alia* is concerned with reducing eutrophication and nutrient pollution, including inland waters and notably the Black Sea. It is also suggested the marine protected areas to reach 2.5% of the marine space of Georgia (not materialised yet).
Decree of the Government of Georgia № 414 December 31, 2013, on the methodology for calculating the maximum allowed concentration of pollutants for	2013.12.31	GoG Decree	This regulation codifies the calculation of threshold limit values for the pollutants discharged in surface water bodies along with waste waters should be attached to the application. The calculations should be done based on this technical 'reglament' which regulates the emission limit values for waste water discharges into surface water bodies from industrial and non-industrial facilities.

wastewater discharged into surface waters			
Decree of the Government of Georgia № 431 August 20, 2018, The Maximum Permissible Norms for Discharge and Receipt of Waters Flowing in Sewage Systems and Polluting Substances	2018.08.20	GoG Decree	Quality of discharged water should be in compliance with the requirements of the technical 'reglament'. It sets relations between operators and users of the sewage system, wastewater discharge and receipt procedures, supervision and control mechanisms, etc.
Ministerial Order No. 297/n of the Ministry of Labor, Health and Social Affairs of Georgia, 16 August 2001, on approval of environmental quality norms	200108.16.	Order of the Minister of Labor, Health and Social Affairs	Order No. 297/2001 of the Minister of Labor, Health and Social Affairs defines, among other things, sanitary norms and rules of protection from pollution of surface water bodies used by settlements for wastewater discharge. Also, the order approves sanitary norms and rules for the protection and use of coastal waters near settlements.
2014/494/EU. Council Decision of 16 June 2014 on the signing, on behalf of the European Union, and provisional application of the Association Agreement	2014.06.16 (signed) 2016.07.01 (in force)	International agreement	The EU-Georgia Association Agreement was signed in June 16, 2014 and entered into force on July 1, 2016. This document is an important national-international agreement, that contains articles with important directions for the management of the marine environment as well. Article 234 is on trade in fish products and Article 339 is about cooperation in the spheres of fisheries, sea-related transport, environment and other policies, and in accordance with the relevant international agreements on the law of the sea based on the United Nations Convention on the Law of

between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Georgia, of the other part			the Sea. The development of cooperation between the parties on an integrated maritime policy, good governance and exchange of best practices in the use of the marine space, is part of this, as is promoting maritime spatial planning in line with the ecosystem approach. Furthermore, it includes promoting integrated coastal zone management to ensure sustainable coastal development and to enhance the resilience of coastal regions to coastal risks including the impacts of climate change. Harmonisation is requested with WFD (including for coastal waters) and MSFD by developing Marine Environment Strategy and Action Programme. This strategy and action programme should form the basis for the implementation of important reforms aimed at establishing an effective system of environmental liability and improving the Black Sea marine environment. National Marine Strategy and Action Programme for the Protection of the Black Sea was drafted, but not approved.
Proposal for a National Marine Environment Strategy and Action Programme	2020.07.18	Draft GoG Decree	In 2018, the Georgian Parliament adopted an amendment to the Law of Georgia on the Marine Space, obliging the Ministry of Environmental Protection and Agriculture of Georgia, together with other State agencies, to develop a National Marine Strategy for the Black Sea's Protection including an Action Programme for Achievement of a Good Environmental Status of the Marine Waters. Development of the draft Marine Strategy is also included in the 3rd National Environmental Action Programme 2017-2021 that was developed with the support of the EU. It is stated there that the Government of Georgia shall approve the subsequent strategic documents no later than 1 September 2022. Support to developing the Strategy was rendered as part of the EU-funded project 'Support to the implementation of the environmental provisions of the EU – Georgia Association Agreement' that started in March 2019. This support included a participative process with Georgian stakeholders, and a proposal for the text of the Marine Environment

			Strategy and its Action Programme, that endeavours to foster protection of the Black Sea at large but particularly addresses Georgia's marine territory. The aim of this draft document is to plan and implement measures to ensure the achievement and maintenance of good environmental status of Georgia's part of the Black Sea, according to the requirements of the EU MSFD. The descriptors have been determined and an analysis was conducted of their characteristics, pressures and impacts documented, comprehensive programme of measures was elaborated (approval pending).

LEGAL FRAMEWORK FOR MARINE POLLUTION RESPONSE IN UKRAINE

1. "Convention on the protection of the Black Sea against pollution," ratified by the Resolution of the Verkhovna Rada of Ukraine on February 4, 1994, No. 3939-XII (entered into force for Ukraine on April 14, 1994).

The Convention aims to protect and preserve the marine environment of the Black Sea. It was signed by Turkey, Russia, Romania, Georgia, Bulgaria, and Ukraine. It regulates cooperation among the contracting parties regarding the reduction and prevention of various types of pollution in the Black Sea.

2. "Water Code of Ukraine," brought into force by the Resolution of the Verkhovna Rada of Ukraine on June 6, 1995, No. 214/95-VR.

The document justifies the need for the development and observance of special rules for the use of water resources, their rational use, and environmental protection in the face of increasing anthropogenic pressures on the natural environment. The Water Code, along with organizational, legal, economic, and educational measures, contributes to the formation of a water-environmental legal framework and ensures the ecological safety of the population of Ukraine, as well as more efficient use of water and its protection from pollution, contamination, and depletion. The goal of water legislation is to regulate legal relations to preserve water resources, scientifically substantiate and rationally use water for the needs of the population and economic sectors, as well as to protect water from pollution, contamination, and depletion, prevent harmful effects of water, and improve the state of water bodies.

3. "Ukraine's Marine Conservation Strategy," approved by the Cabinet of Ministers of Ukraine on October 11, 2021, by Decree No. 1240-r.

The document outlines strategic measures to mitigate risks to human health and degradation of marine ecosystems, particularly by minimizing marine pollution. The primary focus is on inventorying and managing wastewater discharges, developing action plans to achieve ecological status of seas, controlling pollution from various sources, including vessels and recreational areas. The strategy also emphasizes the importance of administrative and economic mechanisms to reduce pollution, following the "polluter pays" principle. Additionally,

the document defines monitoring and reporting procedures for the implementation of the strategy.

4. "Rules for ship control to ensure maritime safety," approved by the Ministry of Transport of Ukraine on July 17, 2003, by Order No. 545.

The document appropriately defines and regulates the process of ship control to ensure maritime safety and prevent environmental pollution. It covers maritime and river vessels in Ukrainian ports, establishing requirements for their equipment and control procedures. Special attention is paid to compliance with international conventions and legislation on preventing marine environmental pollution, including pollution reports and emergency response plans. The document also sets out a list of certificates and documents subject to verification on ships to ensure compliance with international standards for preventing environmental pollution.

5. "Rules for the protection of internal waters and territorial sea from pollution and littering," approved by the Cabinet of Ministers of Ukraine on February 29, 1996, No. 269.

This document establishes requirements to prevent pollution and littering of the internal waters and territorial sea of Ukraine. The primary focus is on marine pollution, particularly the discharge of pollutants from vessels. The document sets forth prohibitions and requirements regarding the discharge and testing of water from vessels, as well as requirements for coastal facilities to prevent water pollution. Specifically, it prohibits the discharge of pollutants and water containing pollutants, and it imposes duties regarding the testing, accumulation, and use of pollutants on ships. The document also sets requirements for various activities, such as the construction of hydraulic structures or drilling operations, to prevent pollution of marine waters.

6. "Procedure for interaction between the administration of seaports, port facilities, places of basing of vessels of the fishing industry fleet and the State Environmental Inspectorate to ensure compliance with environmental legislation in case of detection of cases of discharge of pollutants by vessels (watercraft) within the port, port facilities and places of basing of vessels", approved by the Resolution of the Cabinet of Ministers of Ukraine on September 15, 2021, No. 1071

This Procedure develops the mechanism of interaction between the administration of maritime fishing ports and the State Ecological Inspection regarding the detection and elimination of marine pollution. Specifically, it defines procedures for detecting and responding to the discharge of pollutants by vessels within port waters and vessel anchorage areas. The rules entail immediate response upon detecting pollution, conducting inspections, documenting violations, and taking measures to preserve evidence and establish liability for violations of environmental legislation.

7. "Procedure for water sampling and analysis," approved by the Cabinet of Ministers of Ukraine on August 21, 2019, No. 828.

This Procedure addresses the procedures for checking and analysing water in internal maritime waters and the territorial sea to identify sources of pollution. Special attention is paid to marine pollution, particularly the detection of oil and other pollutants in maritime ports. The Procedure regulates the procedures for water sampling both in port waters and on vessels, taking into account various factors affecting water quality and the structural features of vessels. During sample collection, background indicators and analysis results aimed at determining the impact of various substances on the state of water bodies are taken into account.

8. "Methodology for calculating compensation for damage caused to the state as a result of violations of legislation on the protection and rational use of water resources," approved by the Ministry of Environmental Protection and Natural Resources of Ukraine on July 20, 2009, No. 389.

This Methodology is aimed at implementing Directive 2006/11/EC of the European Parliament and of the Council of February 15, 2006, on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community, and developed in accordance with the Water Code of Ukraine and the Law of Ukraine "On Environmental Protection." This Methodology establishes the procedure for determining the amount of compensation for damage caused to the state as a result of violations of legislation on the protection and rational use of water resources.

9. "Provision on the procedure for calculating compensation and payment of damages caused by pollution from vessels, ships, and other floating facilities in the territorial and internal waters of Ukraine," approved by Order of the Ministry of Environmental Protection and Natural Resources of Ukraine dated January 16, 2021, No. 16.

This Provision establishes the procedure for calculating compensation and payment of damages caused to the state as a result of pollution and contamination from vessels, ships, and other floating facilities located in the internal waters and territorial sea of Ukraine.

10. "Methodology for calculating damages from oil pollution," approved by the Resolution of the Cabinet of Ministers of Ukraine dated April 26, 2003, No. 631.

This Methodology sets forth the basic requirements for calculating damages incurred by the state due to pollution of the natural environment resulting from the leakage or spillage of oil from vessels, as well as to economic entities that have suffered losses due to expenses for preventive measures or measures to restore natural resources, which have been actually taken or are to be taken, or due to loss of income resulting from violations of economic activity, in accordance with the International Convention on Civil Liability for Oil Pollution Damage of 1992.

11. Resolution of the Cabinet of Ministers of Ukraine "On approval of rates for calculating the amount of compensation for damage caused by enterprises, institutions, organizations, and citizens of Ukraine, foreign legal entities, and citizens as a result of pollution from vessels, ships, and other floating facilities in the territorial and internal waters of Ukraine" dated July 3, 1995, No. 484.

This document considers the establishment of rates to determine the compensation for damage caused by pollution in the territorial and internal waters of Ukraine. This is done in accordance with the International Convention for the Protection of the Black Sea against pollution in order to restore ecological balance. The document also aims to increase accountability for the cleanliness of water resources before the Cabinet of Ministers of Ukraine, encompassing both internal and territorial waters, and taking into account the activities of Ukrainian and foreign entities that may cause pollution through vessels and other floating facilities.

12. Resolution of the Cabinet of Ministers of Ukraine "On approval of rates for calculating the amount of damage caused by violations of fisheries legislation as a result of illegal fishing,

destruction, or damage to aquatic biological resources, as well as illegal destruction or deterioration of the environment of aquatic biological resources habitat" dated September 29, 2023, No. 1042.

The document concerns the approval of rates for calculating the amount of damage that may be caused by violations of fisheries legislation in Ukraine. This damage may arise from various types of violations, such as illegal fishing, destruction, or damage to aquatic biological resources in different regions, including fishery water bodies, the continental shelf, and the exclusive economic zone. It also addresses the illegal destruction or deterioration of the environment of aquatic biological resources.

13. "Methodology for assigning a body of surface water to one of the classes of ecological and chemical status of the body of surface water, as well as assigning an artificial or significantly modified body of surface water to one of the classes of ecological potential of artificial or significantly modified bodies of surface water," approved by the Order of the Ministry of Ecology and Natural Resources of Ukraine dated January 14, 2019, No. 5.

This Methodology defines the grounds and procedure for classifying bodies of surface water according to their ecological and chemical status, as well as the grounds and procedure for classifying artificial or significantly modified bodies of surface water according to their ecological potential.

14. "Methodology for determining damages caused by pollution and/or contamination of water, unauthorized use of water resources," approved by the Order of the Ministry of Environmental Protection and Natural Resources of Ukraine dated July 21, 2022, No. 252.

This Methodology establishes the procedure for determining damages caused by pollution and/or contamination of water, unauthorized use of water resources as a result of armed aggression by the Russian Federation.

15. "Methodology for determining damage and losses inflicted on territories and objects of the nature reserve fund as a result of armed aggression by the Russian Federation," approved by the Order of the Ministry of Environmental Protection and Natural Resources of Ukraine dated October 13, 2022, No. 424.

This Methodology establishes the procedure for calculating the extent of damage and losses inflicted on the nature reserve fund of Ukraine as a result of armed aggression by the Russian Federation.

16. "Methodology for determining losses inflicted on the environment within the territorial sea, exclusive maritime (economic) zone, and internal maritime waters of Ukraine in the Azov and Black Seas," approved by the Order of the Ministry of Environmental Protection and Natural Resources of Ukraine dated August 19, 2022, No. 309.

This Methodology sets forth the procedure for determining the extent of losses inflicted on the environment within the territorial sea, exclusive maritime (economic) zone, and internal maritime waters of Ukraine in the Azov and Black Seas as a result of armed aggression by the Russian Federation, particularly in cases of pollution and/or contamination of maritime waters by vessels, ships, and other floating means, including military vessels.

4. Stakeholders' profiles

All identified stakeholders related to Black Sea marine pollution response are included in Annex 1. A total of 92 respondents from Bulgaria, Georgia, Romania and Ukraine took part in an online survey, which revealed the responsibilities of the stakeholders related to the state of the marine environment and to emergency response, as well as their level of interaction with other agencies. The questionnaire is included in Annex 2. In order achieve higher response rate the survey was conducted in English and in the national languages of the four countries.

The institutional affiliation of the respondents is presented in Figure 1.

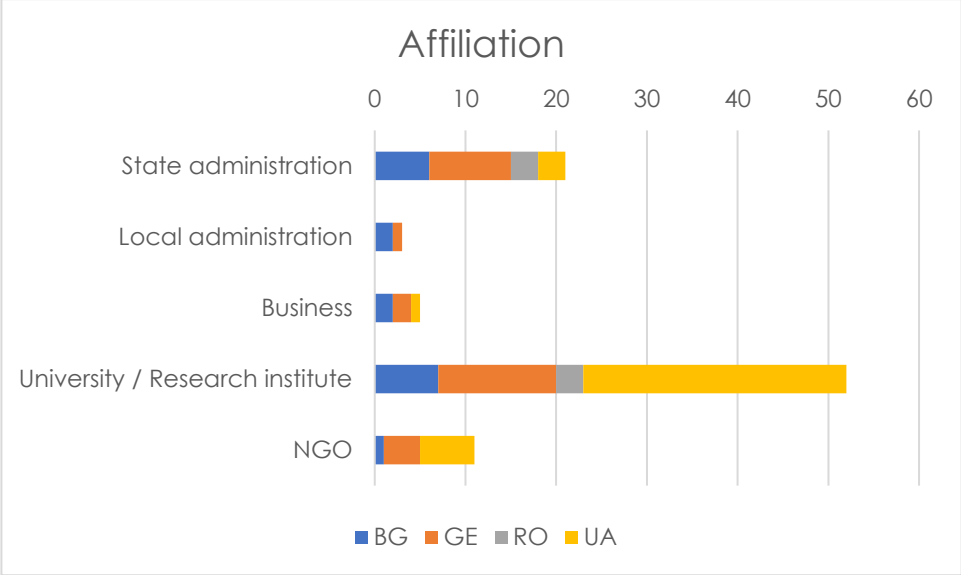

Figure 1. Institutional affiliation

The majority of the respondents were from universities or research institutes. This category is overrepresented as in some cases more than one representative from the same institution has answered the survey. Due to the different responsibilities of experts from different departments or units of the same organisation this does not necessarily lead to overlapping answers. It may actually contribute to producing a more detailed picture of the existing expertise within the institution. The second group is state administration, which in most cases bears the legal responsibility for taking action in case of emergency and coordinates the monitoring of the state of the marine environment. Next come NGOs, business representatives and the smallest category is local administration.

The responsibilities of the respondent's institutions regarding the state of the marine environment are shown on Figure 2. Several answers were possible to this question in the survey.

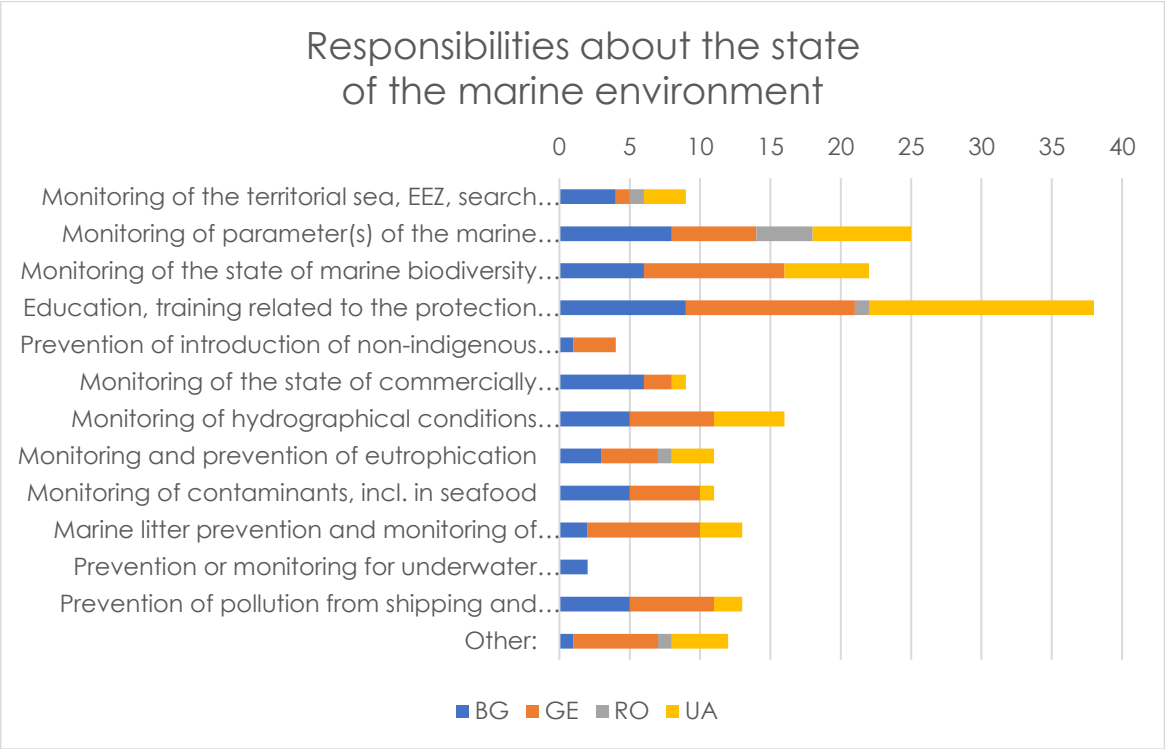

Figure 2. Institutional responsibilities regarding the state of the marine environment

The most common response was education and training related to the protection and monitoring of the marine environment. This was followed by monitoring parameters of the marine environment (e.g. physical, chemical, ecological) with 25 responses, and the state of marine biodiversity and protection of marine biodiversity with 22 responses. A similar number of organisations are involved in monitoring hydrographic conditions and the effects of climate change, as well as preventing pollution from shipping and other marine and land-based sources, throughout the basin. Monitoring and prevention of eutrophication and pollution were each selected 11 times. All other options were selected less than 10 times.

The answers to the question "Does your institution have responsibilities related to emergency response and reaction to marine pollution accidents? What is your institution's role in such circumstances?" are presented In Figure 3.

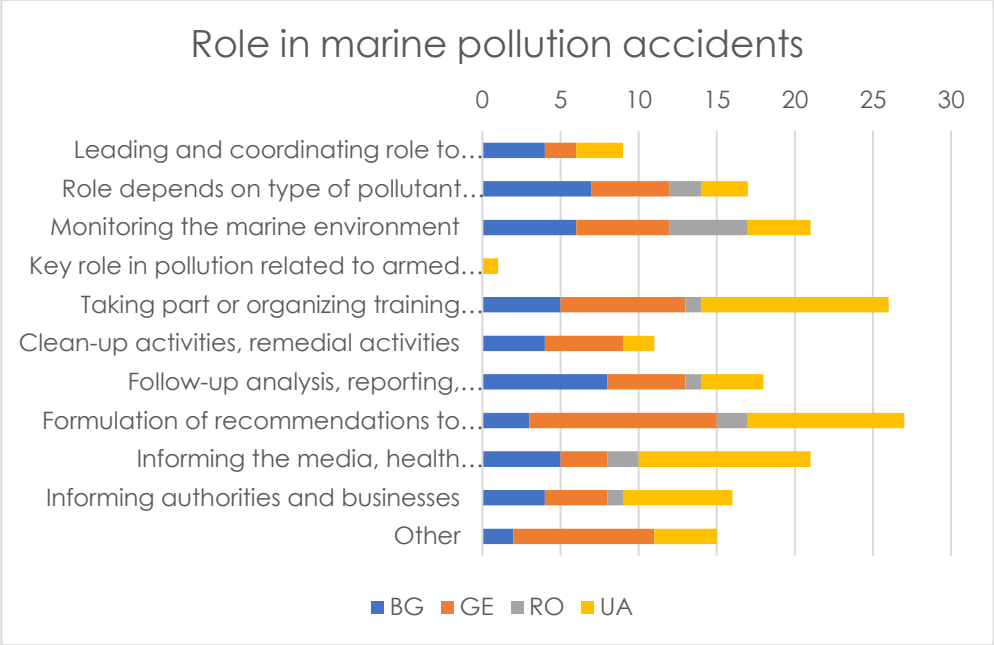

Figure 3. Responsibilities related to emergency response and reaction to marine pollution accidents

The first option on the leading and coordinating role in dealing with pollution, with 9 responses, and the single response on the key role in pollution related to armed conflict, highlight key actors with high power who bear the greatest responsibility in the event of an emergency. A number of organisations play a role, depending on the type of pollutant and the extent of the pollution (17 responses), or are involved in monitoring the marine environment during and after an accident (21 responses). The most common position seems to be to formulate recommendations to the authorities as a result of follow-up analysis. This is the typical role of the majority of research institutes. Informing the media, the general public or authorities and companies is also a common task. Participating in or organising training courses on preparedness and response to marine pollution is the second most common answer with a total of 26 responses.

The scale of involvement in the implementation of existing plans for emergency response to marine pollution accidents is shown on Figure 4.

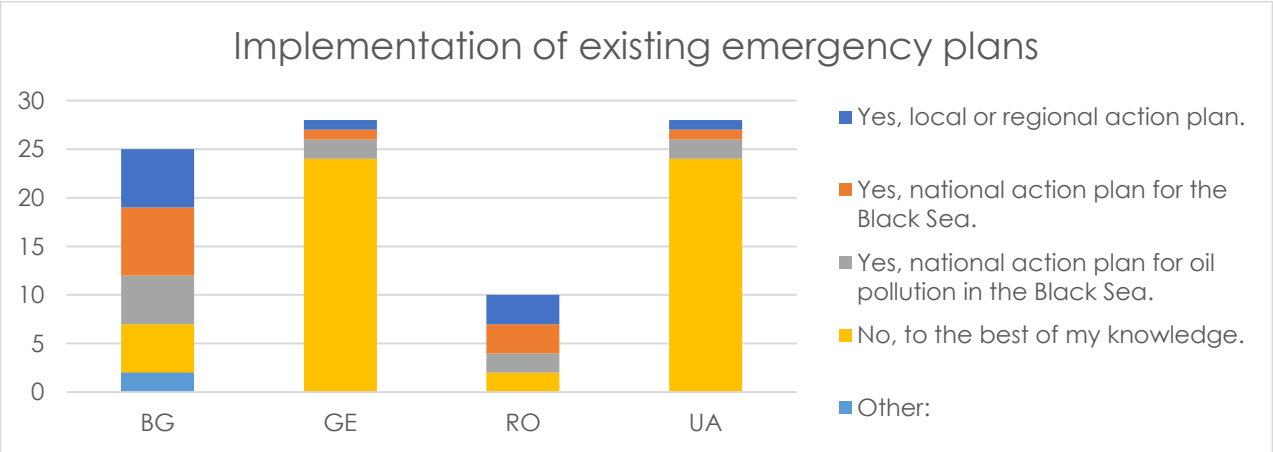

Figure 4. Role in the implementation of existing plan(s) for emergency response to marine pollution accidents

The answers to this question clearly show that the majority of respondents in Georgia and Ukraine do not belong to institutions involved in the application of emergency plans. There are only four positive responses and 24 negative responses in both countries. This may be the result of a higher concentration of authority in a small number of organisations or a biased sample of respondents who do not work for institutions responsible for emergency response. Although the total number of responses in Bulgaria and Romania is lower than in the EU candidate countries, more people with responsibility for action at local, national or transnational level are included in the survey. In both cases, we would expect these respondents to be more interested in the activities of the RESPONSE project.

Another aspect in the profile of the stakeholder organisation is their active engagement in the development of training materials and curricula (Figure 5).

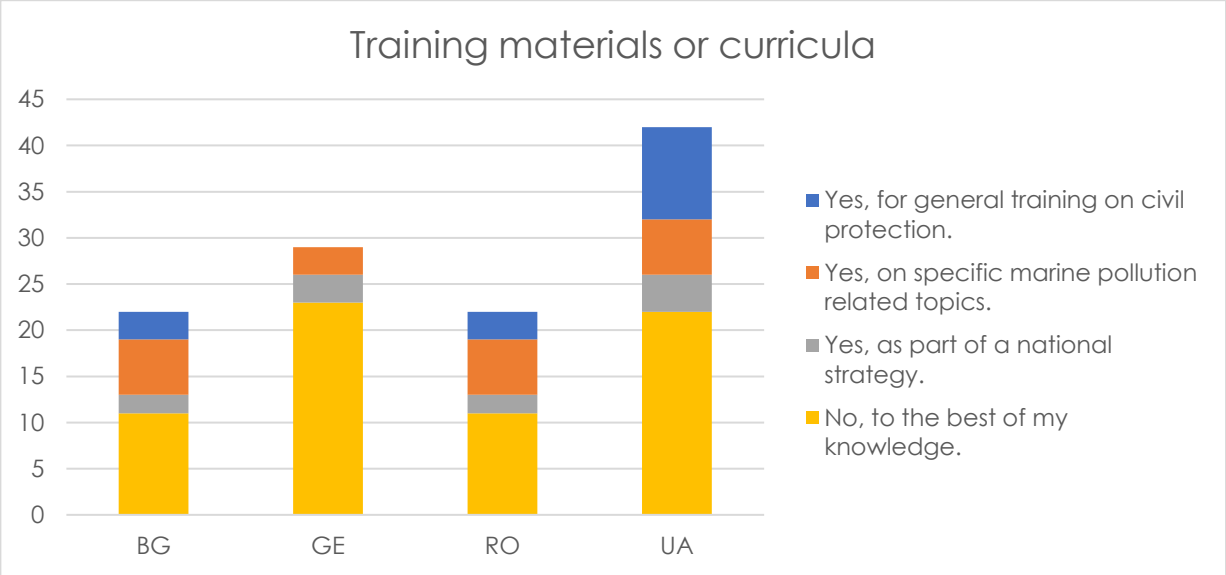

Figure 5. Developed training materials or curricula by the institution for responding to marine pollution emergencies or a national strategy for responding to marine pollution accidents

It is clear that the majority of institutions are not involved in the development of training materials. It is noteworthy that Ukrainian organisations report a higher proportion of general civil protection training, which may be related to the ongoing war and risks to the civilian population. In all four countries, there are key actors that have developed training materials on specific marine pollution topics and as part of a national strategy.

Partly as a consequence of the modest number of training materials developed by stakeholder organisations, it comes as no surprise that close to two thirds of all the respondents have not taken part personally in training on marine pollution response (Figure 6).

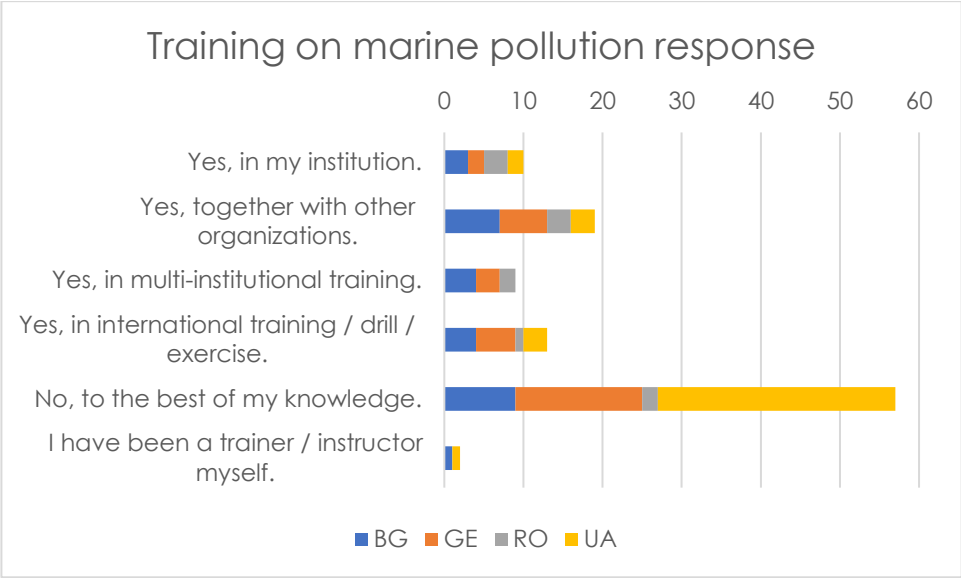

Figure 6. Participation in marine pollution response training

In both Bulgaria and Ukraine, there was one trainer among the respondents. The majority of trainees have participated in joint courses or exercises with other organisations. Somewhat surprisingly, more respondents (or staff from their organisations) have taken part in international training than in a multi-institutional event in their home country. Whilst it may be assumed that those who have been involved in some form of training would be interested in the project topic, there appears to be a need for additional effort as the majority of respondents have never been through any exercise related to marine pollution emergencies.

Training may not have reached many respondents but they most often expect that their organisations will follow written instructions or a plan in the case of marine pollution accident (Figure 7).

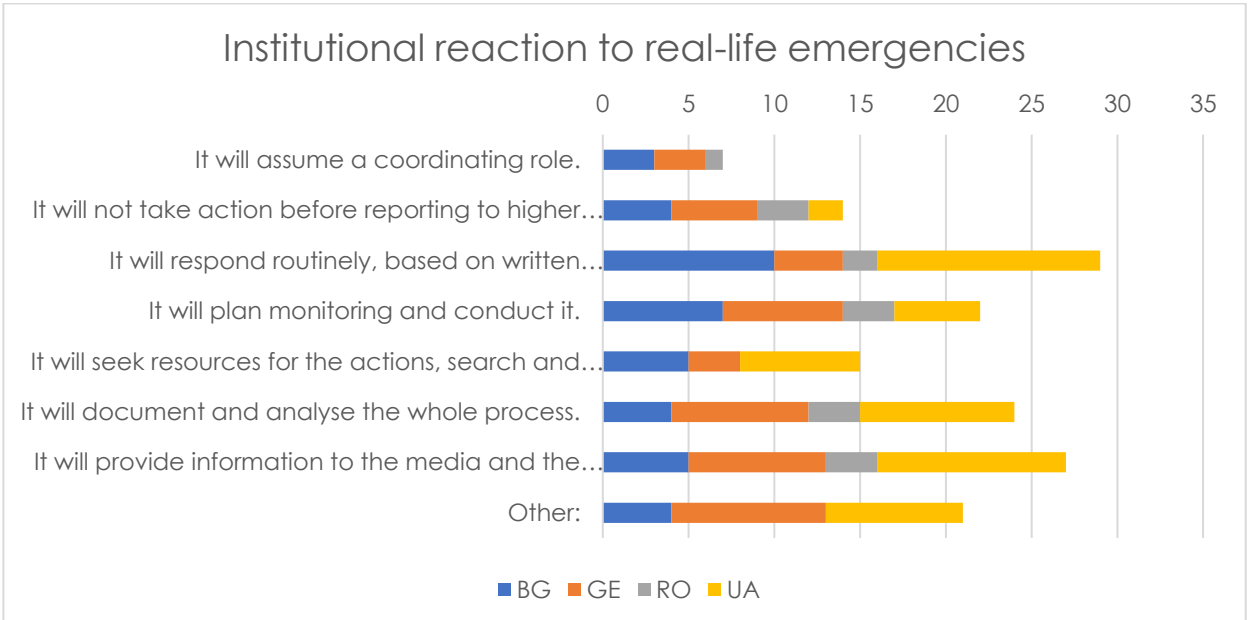

Figure 7. Expected reactions of stakeholder organisations to contamination of the marine environment in a real-life situation

The second most common position is to provide information to the public, followed by documentation and analysis of the unfolding event. In a significant number of cases, stakeholders would plan and carry out monitoring of the state of the marine environment. Two or three out of ten respondents do not know what their institution would do in the event of an emergency. (These are the 'other' responses that were left blank or explicitly stated 'don't know'). Between one and three stakeholders per country with the exception of Ukraine would assume a coordinating role in the case of a marine pollution accident.

Lessons learned from past pollution incidents provide best practices for increasing the efficiency and effectiveness of remediation efforts. Some of the most common approaches are shown in Figure 8.

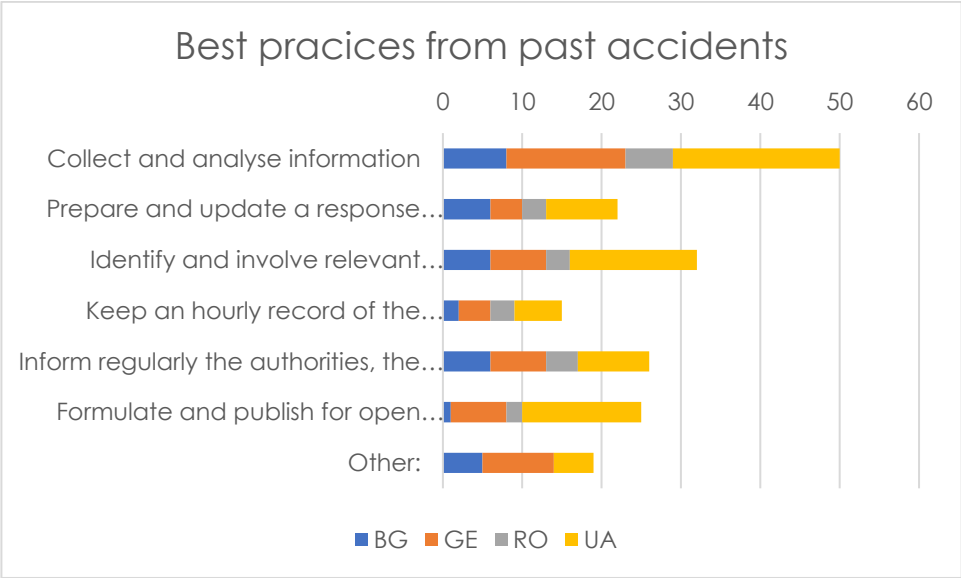

Figure 8. Best practices from involvement in previous marine pollution accidents

The most popular approach is to collect and analyse data and information during the accident. Identifying and involving experts and resources to deal with the specific situation is the next most common. Informing the authorities, the media and the public to avoid fear and panic and to de-escalate tensions is the third most mentioned option. This is followed by formulating recommendations and publishing follow-up analysis. Updating response plans and keeping detailed records of developments are the least frequently cited good practices. The bulk of the 'other' responses are either blank or 'no experience'.

The impact of the Russian aggression on Ukraine and its effect on the activities of the organisations surveyed is presented in Table 4. Ukraine has the highest number of directly affected actors. There are publicly reported cases of mine clearance in Romanian and Bulgarian waters, but the naval authorities did not respond to the survey. Visual monitoring of the sea surface and investigation of marine pollution were carried out by a small number of stakeholders in all countries.

Table. 4 Institutional involvement in the identification, monitoring and response to specific types of marine environmental pollutants from the ongoing military conflict in the Black Sea.

Activity	*BG*	*GE*	*RO*	*UA*
Clearance of mines and other military articles.				1
Visual monitoring of the sea surface.	4	1	2	8
Investigation of pollution from armed conflicts in elements of the marine environment.	3	1	2	9
No involvement	11	17	4	23

To the question 'Does your organisation engage in collaborative efforts with other official institutions, such as ministries, state agencies, involved in activities addressing marine pollution from the military conflict in the Black Sea?', two thirds of Bulgarian stakeholders answered in the affirmative. In Romania, the figure is one in six, while in Georgia only seven per cent of the organisations surveyed confirm this. In Ukraine itself, just over a quarter of respondents are working with the authorities on war-related marine pollution.

The survey was accompanied by a series of face-to-face interviews. Some of the issues discussed during the interviews were related to stakeholder responsibilities, but the main focus was on existing training programmes and the need to update and develop them. Therefore, the content of the interviews and the main findings are included in D1.2 Needs assessment report on current training plans, curricula and capacity.

KEY STAKEHOLDERS

The review of the national legal framework, combined with the survey and interviews, provides a short, though not exhaustive, list of stakeholders for each country. These organisations are characterised by a combination of attributes. Some have a coordinating role defined in a legal act, others have unique expertise in the marine environment. Smaller consultancies and NGOs are included because of their networking role, accumulated knowledge and skills in training at national and international level. Key stakeholders by country from a RESPONSE perspective may include the following organisations by country:

Bulgaria
Executive Agency Maritime Administration
Ministry of Interior, General Directorate 'Fire Safety and Civil Protection'
Black Sea Basin Directorate
District Varna
District Burgas
Institute of Oceanology - BAS
Technical University of Varna, Dept Ecology and Environmental Protection

Romania
Operational Commandment for Marine Pollution
Prefect of the County Constanta
President of County Council of Constanta and Tulcea
Inspectorate for emergency situations Constanta

Romanian Naval Authority
Romanian Waters Administration – Dobrogea-Littoral
Coast Guard
Constanta Maritime Ports Administration
Environmental national guard
Danube Delta Biosphere Reserve Administration
NIMRD

Georgia
Ministry of Environmental Protection and Agriculture of Georgia
Natural Environment Agency
Batumi State Maritime Academy
Ilia State University
Laboratory Research Center Ltd.
Georgian Rural Council (Darbazi)

Ukraine
Ministry of Environment
State Emergency Service of Ukraine
Odesa Oblast Administration
State Ecological Inspection
Ukrainian Scientific Center of Ecology of the Sea
Izmail State Humanitarian University
National Shipbuilding University "Admiral Makarov"
National Environmental Center of Ukraine
Institute of Econology
Zeleniy List CO
Afalina CO

RECOMMENDATIONS

The results of the stakeholder analysis show that there is a need for better coordination mechanisms and intersectoral dialogue. There are few in-house training programmes and a limited number of multi-institutional programmes that could promote more harmonised actions in the event of marine pollution accidents. There are developed contingency plans for dealing with oil pollution at sea. However, other pollutants remain outside the scope of current plans and training programmes, resulting in lost time and delays in decision-making when institutions face new challenges.

The following RESPONSE tasks will take steps to fill these gaps:

- T1.2. Mapping of current training plans and curricula
- T4.2 Building networks and transferability potential
- T 3.1. and T4.1 Assist in the setting-up, cocreation and operation of advanced, long term and sustainable training schemes
- T2.1 Co-creating advanced training curricula with key stakeholders
- T3.3 Co-evaluation of developed curricula (Monitoring the performance and impact

and identify areas for further improvement)

Ideas for improving the existing training plans and curricula and for networking between key stakeholders can be sought from, for example, the European Maritime Safety Agency (EMSA), the Oil Spill Preparedness Regional Initiative for the Caspian Sea - Black Sea- Central Eurasia (OSPRI) and other regional and international organisations.

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Appendix 1 – Stakeholders by country and sector

Bulgaria

Decision-makers involved in marine pollution response
Ministry of Environment and Water
Ministry of Interior, General Directorate 'Fire Safety and Civil Protection'
Ministry of Interior, Regional Directorate 'Border Police' - Burgas
Ministry of Defence
Ministry of Transport and Communications
Ministry of Regional Development and Public Works
Ministry of Agriculture and Food
Ministry of Tourism

Administrations / Agencies responsible for the state of the marine environment and training for marine pollution response
Executive Agency Maritime Administration
Black Sea Basin Directorate
Regional Inspectorate of Environment and Water - Varna
Regional Inspectorate of Environment and Water - Burgas
Executive Agency Fisheries and Aquaculture
Bulgarian Navy
Bulgarian Ports Infrastructure Company, BPI Co.
National board for aircraft, maritime and railway accident investigation
Maritime Rescue Coordinatoin Centre
Regional Health Inspectorate - Dobrich
Regional Health Inspectorate - Varna
Regional Health Inspectorate - Burgas
Dobrich District
District Varna
District Burgas

Local authorities
Shabla Municipality
Kavarna Municipality
Balchik Municipality
Aksakovo Municipality
Varna Municipality
Avren Municipality
Dolni Chiflik Municipality
Byala Municipality
Nesebar Municipality
Pomorie Municipality
Burgas Municipality
Sozopol Municipality
Primorsko Municipality
Tsarevo Municipality

Research institutes & Universities
Institute of Oceanology - BAS
Institute of Fish Resources
Rakovski National Defence College, Dept Management of emergency situations
Naval Academy
Technical University of Varna, Dept Ecology and Environmental Protection
Medical University - Varna, Dept Chemistry
Burgas University, Dept Ecology and environmental protection
Technical University of Sofia, Dept Engineering and Pedagogy - Sliven
Varna Free University, Dept Security and Safety
Training centres
Bulgarian Maritime Qualification Centre (BMQC) Ltd.

Associations of coastal and marine economic sectors
Marine cluster
Fisheries and aquaculture
Black Sea Advisory Council
FLAG Varna-Asparuhovo-Beloslav-Aksakovo
FLAG Byala-Dolni Chiflik-Avren
FLAG Nesabar Mesemvriya
FLAG Shabla-Kavarna-Balchik
FLAG Pomorie
FLAG Burgas-Kameno
BG Fish Association of Fish Products Producers
Chernomorski Izgrev Association of Fish Products Producers
Ports and coastal infrastructure
Port Varna
Port Burgas
Port Bulgaria West
Maintenance of Cleanliness of Marine Waters Ltd.

Bulgaria (continues)

Bulgarian Private Ports and Port Terminals Association
The Bulgarian Association of Ship Brokers and Agents (BASBA)
Bulgarian Chamber of Shipping
Varna Chamber of Tourism
Burgas Regional Tourist Chamber
Energy, offshore installations
Petroceltic Bulgaria Ltd
Union of the Bulgarian Black Sea Local Authorities

Georgia

Administrations / Agencies responsible for the state of the marine environment and training for marine pollution response
Ministry of Environmental Protection and Agriculture of Georgia
Ministry of Education, Science, Culture and Sports
National Environment Agency
GIS and RS Consulting Center GeoGraphic
Georgian Rural Council
Westminster Foundation in Georgia
WWF Caucasus Programme Office
Fauna & Flora International Caucasus Office (FFI-Caucasus)
EU4Environment - Water Resources and Environmental Data
Tourism Institute
National Hub of Georgia - Black Sea Assistance Mechanism
UNDP
Department of Environmental Protection and Natural Resources of the Autonomous Republic of Adjara
National Environmental Agency.
Department of Fisheries, Aquaculture and Water Biodiversity
Maritime Transport Agency of Georgia
LEPL Maritime Transport Agency of Georgia
National Statistics Office of Georgia
LEPL Spatial and Urban Development Agency
MEPA Environmental Supervision Department
Kolkheti National Park Administration
Georgian State Hydrographic Service, Ministry of Economy and Sustainable Development of Georgia
Hydrographic Service of Georgia
National Agency of Mineral Resources
National Food Agency
Rural Development Agency
Department of Tourism and Resorts of Adjara A.R.
Adjara AR Ministry of Finance and Economy
Adjara A.R. Department of Environment and Natural Resources
Regional Administration
Senior Specialist of the Municipal Policy Service
Ozurgeti Municipality City Hall
Poti City Hall
Poti City Hall Infrastructure Service
Zugdidi Municipality

Research institutes & Universities
GTU-Institute of Hydrometeorology
GTU Water Management Institute
TSU Laboratory of Oceanography and Hydromechanics
TSU Institute of Geophysics, Marine and Atmospheric Dynamics Modeling Sector
TSU Institute of Geophysics
Batumi Shota Rustaveli State University
"Laboratory Research center" LTD
4th Public School Poti
BSMA Poti Maritime Training Center
Tbilisi State University
Batumi Navigation Teaching University
Batumi State University
Ilia State University
Batumi Shota Rustaveli State University

Georgia (continues)

Ilia State University, Faculty of Natural Sciences and Medicine, Animal Behavior Ecology and Conservation Biology
Tbilisi State University, Department of Geography, Faculty of Exact and Natural Sciences, Department of Hydrology, Oceanography and Meteorology
Batumi State Maritime Academy
Batumi Shota Rustaveli State University
Batumi State University
Batumi State Maritime Academy, Ministry of Economy and Sustainable Development of Georgia

Marine / coastal environmental protection NGOs
International Centre for Social Research and Policy Analysis (ICSRPA)
The Greens Movement of Georgia / Friends of the Earth - Georgia (GMG/FoE-G)
NGO "Flora and Fauna"
Black Sea EcoAcademy
Georgian Association of Licensed Fishers
Wild Nature Conservation Society "Tchaobi"
Young Scientists Union "Intellect"
Georgian Farmers' Association
The Greens Movement of Georgia / Friends of the Earth - Georgia (GMG/FoE-G)
Fauna & Flora
Organic Aquaculture Development Association "Poreji"

Companies
United Water Supply Company of Georgia
Ltd Batumi Water
Khelvachauri Water Ltd.
Adjara AR Chamber of Commerce and Industry
Poti Free Industrial Zone (FIZ)
Anaklia Development Consortium
Georgia Global Utilities (GGU)
Petra Fish
NGO - Georgian Underwater Association
Gamma
GMT Holding LLC (Digital Village)
LTD ATLANTIDA
INB Ltd
Dolphinarium (Batumi)

Romania

National Agency for Fishing and Aquaculture, Constanta
Competent Authority for Regulation of Black Sea Offshore Oil Operations
National Company "Maritime Ports Administration"
Chamber of Commerce, Industry, Navigation and Agriculture of Constanta
Environmental National Guard, Constanta County Commission
National Agency for Natural Protected Areas
Federation of Black Sea Fishermen's Organizations
Grup Servicii Petroliere S.A.
National Agency for Mineral Resources
Public Health Directorate of Constanta County
Danube Delta Biosphere Reserve Authority
Natural Sciences Museum Complex
Veterinary Sanitary and Food Safety Directorate, Constanta
National Administration Romania Waters, Dobrogea - Litoral Water
Constanta County Police Inspectorate
Romanian Border Police, Coast Guard, "Mihail Kogalniceanu" County Gendarmerie Inspectorate, Constanta
Inspectorate for Emergency Situations "Dobrogea"
Romanian Naval Forces
"Vice Admiral Vasile Urseanu" Fleet Command
Command of the "PONTICA" Naval Logistics Base
"Mircea cel Batran" Naval Academy
The diving center
Environmental Protection Agency Constanta
National Environmental Guard - Constanta County Commission
"National Institute for Marine Research and Development "Grigore Antipa""
"Danube Delta" National Institute for Research and Development
Operational Commandment for Marine Depollution
Romanian Naval Authority
CERONAV Constanta

Ukraine

Decision-makers involved in marine pollution response
Ministry of Environment
The State Emergency Service of Ukraine
Ministry of Defence of Ukraine
Ministry for Communities, Territories and Infrastructure Development of Ukraine
Ministry of Agrarian Policy and Food of Ukraine

Administrations / Agencies responsible for the state of the marine environment and training for marine pollution response
Department on the issue of the use of the apparatus of the Odessa Regional Council
Department of Urban Management of the Odessa City Council
Department of Health of Odesa City Council
Odessa Regional Council
Department of Environment and recreational areas of the Odessa City Council
Sector of the State Agency of Water Resources of Ukraine in the Odessa region
Department of Environmental Safety of the Industrial Safety Service, Illichivsk Branch of the State Enterprise "AMPU"
State Ecological Inspection in Odessa Oblast
Kherson Fisherman Patrol
Mykolaiv Fisherman Patrol
Odessa Fisherman Patrol
Kherson Regional Council
Mykolaiv Regional Council
Basin Directorate of Water Resources of the Black Sea and the Lower Danube Rivers (BWRM of the Black Sea and the Lower Danube)
Basin Department of Water Resources of the Lower Dnipro River Basin
Danube Regional Water Resources Office
Regional office of water resources in Mykolaiv region
Management of the Main Kakhovka Main Channel
The channel management of the river Ingulets
Management of the North-Crimean channel
State Design and Research Institute "Ukrpovdendividzhdoshp"
Association of self-organization of population of Odessa
Public Council under the State Agency of Water Resources of Ukraine
The Main Directorate of the State Consumer Protection Service in the Odessa region
The main department of the DSNC Ukraine in the Odessa region
Department of Ecology and Natural Resources of the Regional State Administration
Department of Housing and Communal Services and Energy Efficiency of the State Administration
Odessa Regional State Administration
Department of Agrarian Policy of the RSA
Office of the State Agency of Fisheries in the Odessa region
Office of the Fleet Service
Department of Transport and Communication Infrastructure of the Regional State Administration
Department of Tourism, Recreation and Resorts of the RSA
Administration of seaports of Ukraine (Odessa reception)
Department of Environmental Safety of the Production Safety Service, Illichivsk branch of the State Enterprise "Administration of Seaports of Ukraine" (administration of the Illichivsk Seaport)
State Ecological Inspection of the Crimean- Black Sea District
Kherson Regional State Administration
Department of Culture, Tourism and Resorts
Mykolaiv Regional State Administration

Universities, Research Institutes, Training Centres
College of Maritime Lawyers
State enterprise " Odessa center of the south scientific research the institute the sea fishy economy and oceanography "
Life support, research institute
Institute of Marine Biology, National Academy of Sciences of Ukraine, State Enterprise
State Organization "Institute of Market and Economic-Ecological Researches of the NAS of Ukraine"

Ukraine (continues)

Research Laboratory for the Prevention of Pollution of the Environment NDPKIMF
Scientific Research Design Institute of the Marine Fleet of Ukraine
Regional Center of Occupational Pathology, Ukrainian Research Institute of Transport Medicine
Odessa Maritime Academy
Odessa State Ecological University
Odessa National Medical University
Odessa National Maritime University
Odessa National University named after. Il Mechnikov
Southern Scientific Research Institute of Marine Fisheries and Oceanography
Ukrainian Research Institute of Transport Medicine, State Enterprise
Physico-Chemical Institute of Environmental Protection and Human Rights, Research Institute
Chornomorndproekt , State Design and Research Institute of Maritime Transport
The Black Sea Department of the Ukrainian Environmental Academy of Sciences
Ukrainian Scientific Center of Ecology of Sea
Kakhovka Technical School

Associations of coastal and marine economic sectors
Administration of Sea Ports of Ukraine, State Enterprise, Illichivsky branch
Odesa branch of State Enterprise "Administration of Seaports of Ukraine"
Maritime Safety Service "Administration of Sea Ports of Ukraine"
Service of transportation and accompaniment of cargoes "Administration of Sea Ports of Ukraine"
Infoksvodokanal
Bilgorod - Dniester port
Berdyansk port
Izmail port
Chornomorsky port
Nikolaev port
Specialized sea port Olvia
Reni port
Skadovsk port
Ust-Danube port
Kherson port
Sea port "Pivdennyi"
Odessa Sea Commercial Port
Chornomorsk, state enterprise, sea commercial port
State Enterprise "Mykolaiv Maritime Agency"
State Enterprise "Southern Research and Design Institute for the Development of the Fleet of Fisheries"
State institution "Production and experimental Dnipro sturgeon fish breeding plant named after academician S.T. Artiuchik"
State institution "Novokakhovsky fish breeding farm of partial fish"
State institution "Kherson Industrial Experimental Plant for Breeding Young Partial Fish"
State Enterprise "Odessa Joint Directorate for the Construction of Water Management Facilities" (SE Odes'ka ODBVO)
KP "Uzberezhzhy Odesi"
Maritime Society
Southern Ukrainian Ecological Union
Union of Environmental Auditors of Ukraine
Ukrainian branch of the International Academy of Ecology and Human and Nature Safety
Federation of Maritime Trade Unions of Ukraine
Federation of Trade Unions of Water Transport Workers and Shipping Company of Ukraine
Black Sea Fishing Port
NVO ODESRIBGOSP, LCD
Ribolovetsko-Recreation Center "Dunay", LCD
Silskogospodarske Virobniche PidpriyumshstvO NIKAGROSTAR, LCD
Terraport, LCD (LCDARISTV Z OBSERVED VIDPOVIDALN_STU "TERRAPORT")

Marine / coastal environmental protection NGOs
NGO " Agricola "
GO Metz im. VI Vernadsky
GO Center for Regional Studies
NGO EKOBALANS PRO
Hajibei estuary, fishing association
Black Sea
Black Sea Maritime Professional Union
Association of Ukrainian Seafarers

Ukraine (continues)

Trade union workers the sea transport Ukraine
Union of sailors of long voyage
Water-motor sports and health club of amateur anglers
Odessa Regional Organization of the Ukrainian Society of Hunters and Fishermen
Black Sea City Consumer Society
Black Sea Women's Club

Appendix 2 – Online survey

RESPONSE: Building response frameworks under existing & new marine pollution challenges in the Black Sea

* Indicates required question

Select your language *

Mark only one oval.

- ◯ English — *Skip to question 2*
- ◯ български — *Skip to question 22*
- ◯ ქართული — *Skip to question 42*
- ◯ română — *Skip to question 62*
- ◯ українська — *Skip to question 82*

The project RESPONSE - 'Building Response Frameworks under existing and new Marine Pollution Challenges in the Black Sea', supported by EMFAF 2023-PIA-FLAGSHIP-2-BLACK, focuses on the improvement of systems for preparedness and response to marine pollution from current and emerging sources. It involves partners from Greece, Bulgaria, Georgia, Romania and Ukraine. RESPONSE aims to develop and test new training schemes and curricula for the monitoring, reporting, management and mitigation of marine pollution, with particular attention to pollution caused by armed conflicts.

The regional stakeholders' needs and requirements will drive the co-creation of the framework for the establishment and operation of an advanced training system. RESPONSE partners will identify all types and impacts of marine pollution, that should be tackled, and prioritize the potential environmental risks (including hazardous substances, eutrophication, litter, noise, microplastics) and the threats to marine and coastal biodiversity of the Black Sea. The partners will work on this issue with key stakeholders, engaging them to co-create an effective, advanced and applicable training scheme.

This online survey is part of the efforts to assess current training scheme and curricula and propose improved operating models for key authorities, agencies and institutions that are in charge of the marine environmental pollution response at national and regional scale. Towards this objective, the project teams will explore and address their challenges, resources,

needs and structure aiming to provide tailored training schemes which will be performed, but also updated, on a regular basis over a long period of time.

EU GDPR Disclaimer

This online survey is conducted by RESPONSE researchers and the personal information obtained in the process will be stored securely at a digital repository and handled in accordance with the provisions of the General Data Protection Regulation (GDPR). Data collected as part of this study can be used by authorized individuals from the RESPONSE research team only. Confidentiality will be maintained, and it will not be possible to identify respondents from any project publication.

Questions and comments

The survey takes no more than 10 minutes to fill in.

For any questions, comments, or concerns, please be so kind as to send an email to bsnn@bsnn.org.

1.1. Name of organization / agency / institution / independent expert *

1.2. Name and surname (family name) *

1.3. Job position

1.4. Contact email address *

1.5. Contact phone number

2.1. What is your institution's affiliation?

Mark only one oval.

State administration
Local administration
Business
University / Research institute
Non-governmental organization
Other: _____

2.2. What are your institution's responsibilities regarding the state of the marine environment? *(Several answers are possible.)*

Tick all that apply.

☐ Monitoring of the territorial sea, EEZ, search and rescue area, including the marine environment by surveillance of maritime traffic, accidents and the effects of armed conflicts.
☐ Monitoring of parameter(s) of the marine environment (e.g. physical, chemical, ecological)
☐ Monitoring of the state of marine biodiversity and protection of marine biodiversity
☐ Education, training related to the protection and monitoring of the marine environment
☐ Prevention of introduction of non-indigenous species
☐ Monitoring of the state of commercially exploited fish and shellfish
☐ Monitoring of hydrographical conditions and effects of climate change
☐ Monitoring and prevention of eutrophication
☐ Monitoring of contaminants, incl. in seafood
☐ Marine litter prevention and monitoring of marine litter, incl. war conflict military items
☐ Prevention or monitoring for underwater noise and other energy inputs (heat, electricity, artificial light, electromagnetic radiation, radio waves or vibrations, etc.)
☐ Prevention of pollution from shipping and other sea and land-based sources
Other: ☐ _____

2.3. Does your institution have responsibilities related to emergency response and reaction to marine pollution accidents? What is your institution's role in such circumstances? *(Several answers are possible.)*

Tick all that apply.

- ☐ Leading and coordinating role to handle pollution
- ☐ Role depends on type of pollutant and scope of pollution
- ☐ Monitoring the marine environment
- ☐ Key role in pollution related to armed conflicts (mines, explosive devices, military items etc.)
- ☐ Taking part or organizing training courses on preparedness and response to marine pollution
- ☐ Clean-up activities, remedial activities
- ☐ Follow-up analysis, reporting, identification of failures and good practices/successes
- ☐ Formulation of recommendations to the authorities
- ☐ Informing the media, health authorities and the general public throughout the process
- ☐ Informing authorities and businesses

Other: ☐ _____

2.4. Is your institution involved in the implementation of existing plan(s) for emergency response to marine pollution accidents? *(Several answers are possible.)*

Tick all that apply.

- ☐ Yes, local or regional action plan.
- ☐ Yes, national action plan for the Black Sea.
- ☐ Yes, national action plan for oil pollution in the Black Sea.
- ☐ No, to the best of my knowledge.

Other: ☐ _____

2.5. Has your institution developed training materials or curricula for responding to marine pollution emergencies or a national strategy for responding to marine pollution accidents? *(Several answers are possible.)*

Tick all that apply.

- ☐ Yes, for general training on civil protection.
- ☐ Yes, on specific marine pollution related topics.
- ☐ Yes, as part of a national strategy.
- ☐ No, to the best of my knowledge.

2.6. Have you personally, or another representative of your organization, received training in responding to marine pollution accidents? *(Several answers are possible.)*

Tick all that apply.

- ☐ Yes, in my institution.
- ☐ Yes, together with other organizations.
- ☐ Yes, in multi-institutional training.
- ☐ Yes, in international training / drill / exercise.
- ☐ No, to the best of my knowledge.
- ☐ I have been a trainer / instructor myself.

2.7. How do you envisage possible reactions of your institution to contamination of the marine environment in a real-life situation? *(Several answers are possible.)*

Tick all that apply.

- ☐ It will assume a coordinating role.
- ☐ It will not take action before reporting to higher institutions.
- ☐ It will respond routinely, based on written instructions or a plan, for cases of marine pollution accidents.
- ☐ It will plan monitoring and conduct it.
- ☐ It will seek resources for the actions, search and rescue, pollution prevention, remedial activities.
- ☐ It will document and analyse the whole process.
- ☐ It will provide information to the media and the public on a regular basis.

Other: ☐ _____

2.8. Can you identify best practices from involvement in previous marine pollution accidents? *(Several answers are possible.)*

Tick all that apply.

☐ Collect and analyse information

☐ Prepare and update a response plan for the specific situation

☐ Identify and involve relevant experts and resources to address the specific situation

☐ Keep an hourly record of the development of the situation

☐ Inform regularly the authorities, the media, the public to avoid anxiety, panic or escalation of tensions

☐ Formulate and publish for open public access recommendations and analysis of the accident and its follow up.

Other: ☐ _____

2.8.1. Please provide references to resources on good practice or identify issues that have made it difficult to respond appropriately, if available.

_____

2.9. Has your institution been involved in identification, monitoring and addressing of specific types of pollution to the marine environment from the ongoing military conflict in the Black Sea? *(Several answers are possible.)*

Tick all that apply.

☐ Yes, in the clearance of mines and other military articles.

☐ Yes, in visual monitoring of the sea surface.

☐ Yes, in the investigation of pollution from armed conflicts in elements of the marine environment.

☐ No, to the best of my knowledge.

2.10. Does your organization engage in collaborative efforts with other official

institutions, such as ministries, state agencies, involved in activities addressing marine pollution from the military conflict in the Black Sea?

Mark only one oval.

Yes No

2.10.1 If yes, please indicate which institutions are involved.

2.11. Please add any other information you feel is important about your organization's role in preventing marine pollution.

3.1. Do you agree to be interviewed face-to face for the project or would you recommend a colleague? *

Mark only one oval.

Yes No

3.1.1. Please provide the name and contacts of the colleague you recommend.

Thank you for taking the survey