

Blue Horizon:

Ref. Ares(2026)2777650 - 14/03/2026

Empowering Youth for a Plastic-Free Black Sea



D2.1 E-Brochure

Water Protection, Pollution Prevention and Legal Frameworks
in the Black Sea Region

Project No: 101185728

Programme: Erasmus+

Key Action; Partnerships for Cooperation and Exchanges of Practices

Action Type: Capacity Building in the field of Youth



Co-funded by the European Union
Erasmus+ Programme



Contents



About the Project



Why Youth Participation Matters



Why the Black Sea Needs Action



Main Environmental Pressures



River Basins and the Transboundary Dimension



International and Regional Legal Framework



EU Legal Framework



EU Policy Agenda



UN SDGs



National Legislation Profiles



Key Takeaways for Stakeholders



Sources and References



Erasmus+



About the Project

Project title: Blue Horizon: Empowering Youth for a Plastic-Free Black Sea

Programme: Erasmus+ Capacity Building in the field of Youth

Duration: 24 months

Main goal: Empowering young people to participate in environmental decision-making related to plastic pollution and Black Sea protection

Main outputs: Capacity building
Awareness raising
Policy dialogue
Blue Horizon: BLACKSEA Guide

Why this matters

The project connects youth participation with *environmental governance and practical policy engagement*.

What Erasmus+ Capacity Building in Youth Means



Youth work outside
formal education



Skills, cooperation
and participation



Linking policy, practice
& decision-making

Youth organisations work mainly outside formal education

Capacity Building strengthens youth work, cooperation, skills and participation

It links policy and practice

In Blue Horizon, this means helping youth actors understand pollution governance and engage in public decision-making.



Why Youth Participation Matters in Environmental Governance



Young people are among the groups most affected by the long-term consequences of environmental degradation and pollution.



Meaningful youth participation strengthens public awareness, local engagement and the social legitimacy of environmental action.



Youth involvement is not merely **symbolic**, it contributes to **accountability**, more inclusive governance and more effective policy outcomes.



Preventing plastic pollution requires behavioural change, civic participation and structured dialogue between communities, institutions and decision-makers.

Meaningful youth participation strengthens both environmental protection and democratic decision-making.

Why the **Black Sea** Needs Action

The **Black Sea** is subject to **significant environmental pressure** from both land-based and sea-based sources of pollution.

- A substantial share of this pollution **reaches the marine environment** through river systems, insufficiently treated wastewater, agricultural runoff, urban stormwater and inadequate waste management.
- Because pollution is **transboundary** in nature, its impacts extend beyond national borders and cannot be effectively addressed through isolated action by individual states.
- Effective protection of the **Black Sea** requires coordinated regional **cooperation**, **integrated water governance** and stronger implementation of pollution-control measures.

**What happens *inland* does not stay inland;
it is carried through river basins into the **Black Sea**.**



Main Environmental Pressures Affecting Black Sea Waters

A. Plastic and Marine Litter

Single-use plastics, packaging waste and inadequately managed municipal waste enter rivers, coastal zones and marine environments through leakage, littering and weak waste-management systems.

Marine litter is not only an environmental problem; it is also a governance challenge linked to consumption patterns, waste prevention, collection systems, enforcement and public awareness.

Because much marine plastic originates on land, effective prevention depends on upstream action in municipalities, river basins and local waste-management systems.



B. Untreated or Insufficiently Treated Wastewater

Untreated or insufficiently treated municipal wastewater remains a major source of nutrient loading, organic pollution and hazardous substances entering aquatic environments.

Wastewater pollution contributes to eutrophication, declining water quality and wider ecosystem stress in connected river and coastal systems.

This pressure is closely linked to public infrastructure, service coverage, investment needs and legal obligations concerning wastewater collection, treatment and discharge control.



Land-Based and Diffuse Sources of Pollution



Agricultural Runoff

Agricultural runoff is a major diffuse source of water pollution associated with fertilizers, manure, herbicides and pesticides.

Excess nutrient inputs, particularly nitrogen and phosphorus, contribute to eutrophication, algal blooms and oxygen depletion in connected aquatic ecosystems.

Agrochemicals and poorly managed livestock waste can also lead to diffuse contamination of surface waters and groundwater, with downstream effects on river basins and the Black Sea.

Poor Waste Management and Weak Recycling Systems



Inadequate waste collection, sorting, recycling and disposal systems increase the risk of litter leakage from inland settlements into rivers, drainage networks and coastal environments.

Where waste governance is weak, inland municipal waste becomes a direct upstream source of marine litter.



Industrial Discharges and Contaminated Runoff

Industrial activities and contaminated runoff may release hazardous substances, heavy metals and other chemical pollutants into water bodies.

These pressures can have long-term impacts on aquatic ecosystems, sediment quality and public health, particularly where monitoring and enforcement are insufficient.

Over-Abstraction of Water and Weak Basin Management



Excessive abstraction of water for agriculture, industry or public supply can reduce ecological flows and weaken the resilience of aquatic ecosystems.

Water quantity and water quality are closely interlinked: reduced flows may increase pollutant concentrations, intensify ecosystem stress and undermine effective river basin management.

Why this matters

Diffuse pollution is often more difficult to identify, monitor and control than point-source pollution, yet it plays a major role in the long-term degradation of Black Sea waters.

Main River Basins and Why They Matter

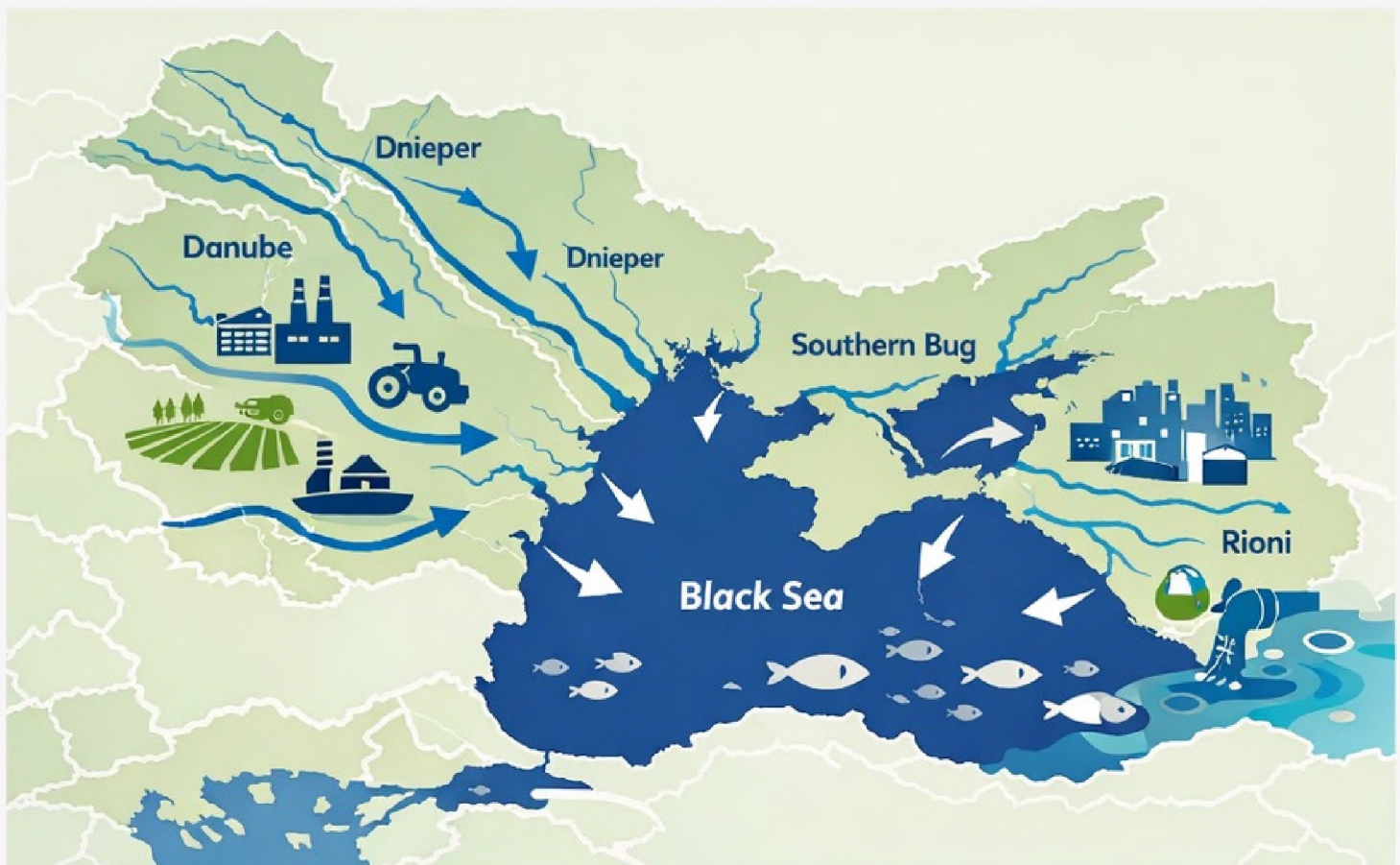
The **Black Sea** is influenced by a vast transboundary drainage basin that connects inland catchments, urban areas, agricultural land and industrial zones to the marine environment.

Pollution entering rivers upstream is transported across borders and ultimately reaches the **Black Sea**, making **river-basin** governance central to marine protection.

The **Danube** has historically been recognised as the single most significant contributor to nutrient loads entering the Black Sea.

Other major river systems relevant to Black Sea protection include the **Dnieper**, **Dniester**, **Southern Bug**, **Rioni**, **Kodori**, **Inguri/Enguri**, **Chorokh**, **Kizilirmak**, **Yesjilirmak** and **Sakarya**.

River basins form the critical link between inland activities and marine degradation in the Black Sea.



The Transboundary Dimension of Black Sea Pollution

Black Sea pollution is inherently transboundary, as pollutants move across borders through river systems, coastal currents and interconnected marine processes.

Activities taking place upstream, including wastewater discharge, agricultural runoff, industrial pollution and weak waste management, can generate significant downstream environmental impacts.

Municipal authorities, agricultural producers, industrial operators, river-basin institutions and coastal stakeholders are therefore part of the same interconnected environmental system.

Effective legal and policy responses require cross-border coordination, shared monitoring efforts and coherent implementation across jurisdictions.



The Black Sea is a shared ecosystem, and its protection depends on shared responsibility and coordinated action.

International and Regional Legal Framework

KEY REGIONAL AGREEMENTS



Bucharest Convention (1992)

The Convention on the **Protection** of the **Black Sea** Against Pollution, signed in Bucharest in 1992, constitutes the core regional legal framework for the prevention, reduction and control of pollution in the Black Sea.

- Covers **land-based** sources, vessels, dumping, offshore activities, and airborne pollution.
- Establishes cooperation among Black Sea states to tackle transboundary environmental threats.

Black Sea Strategic Action Plan

The **Black Sea Strategic Action Plan** supports coordinated regional policy action and helps translate common environmental objectives into practical priorities:

- **Pollution prevention**
- **Ecosystem protection**
- **Sustainable management**

Regional marine protection in the **Black Sea** depends on both binding legal commitments and **coordinated policy implementation**.



EU Legal Framework Relevant to Water Protection



Water Framework Directive

The **Water Framework Directive** establishes the overarching EU framework for integrated river basin management and the protection of inland surface waters, transitional waters, coastal waters and groundwater.

It aims to achieve good ecological and chemical status, reduce pollution and promote the long-term protection of aquatic ecosystems.



Groundwater Directive

The **Groundwater Directive** complements the Water Framework Directive by setting specific measures to prevent and control groundwater pollution and deterioration.

It is particularly relevant for protecting groundwater-dependent ecosystems and long-term water quality.



Bathing Water Directive

The **Bathing Water Directive** supports the protection of bathing waters through monitoring, classification, public information and measures to safeguard public health.

It is relevant to coastal water quality, environmental transparency and public access to water-quality information.



Urban Wastewater Treatment Directive

The **Urban Wastewater Treatment Directive** establishes obligations for the collection, treatment and discharge control of urban wastewater.

It plays a central role in reducing nutrient pollution, organic pollution and related pressures on aquatic and coastal environments.

The revised directive entered into force on 1 January 2025.

“

These directives form the cornerstone of the EU's commitment to safeguarding water resources and aquatic environments.

”

EU Legal Framework Relevant to Agriculture, Waste and Marine Litter



Nitrates Directive

The **Nitrates Directive** addresses water pollution caused by nitrates from agricultural sources and is a central instrument for reducing diffuse nutrient pollution.

It requires monitoring, the *designation of nitrate-vulnerable zones* and the implementation of action programmes aimed at preventing and reducing agricultural pressures on water quality.



Marine Strategy Framework Directive

The **Marine Strategy Framework Directive** establishes a framework for the protection of the marine environment and for achieving good environmental status in EU marine waters.

It also promotes regional cooperation in shared sea basins, including action relevant to **marine litter** and ecosystem-based management.



Single-Use Plastics Directive

The **Single-Use Plastics Directive** aims to reduce the environmental impact of certain plastic products, particularly these most frequently found in the marine environment.

It supports prevention, consumption reduction, product regulation and broader efforts to limit **plastic leakage** into rivers and seas.



Waste and Circular Economy Framework

EU waste and circular economy legislation provides the broader regulatory framework for waste prevention, **separate collection**, recycling and improved resource efficiency.

This framework is essential for reducing **litter leakage** from land-based waste systems and for supporting more sustainable consumption and production patterns.

Water protection, waste law and marine policy are closely interconnected and must be implemented in a coherent manner.



European Green Deal and Related EU Policy Agenda



European Green Deal

The **European Green Deal** provides the overarching EU policy framework for a climate-neutral, resource-efficient and environmentally sustainable transition.

It places water protection, circular economy, biodiversity and pollution prevention within a broader agenda of systemic transformation.



Zero Pollution Action Plan

The **Zero Pollution Action Plan** strengthens the EU's policy ambition to reduce pollution affecting air, water and soil.

It supports an integrated approach to environmental quality, public health and ecosystem protection.



EU Biodiversity Strategy for 2030

The **EU Biodiversity Strategy for 2030** promotes the protection and restoration of ecosystems, including freshwater, coastal and marine environments.

It is relevant to Black Sea protection because ecological recovery depends not only on pollution control, but also on the resilience and restoration of natural systems.



Water Resilience Strategy

The **Water Resilience Strategy** can be presented as an emerging EU policy direction focused on water efficiency, infrastructure resilience, preparedness and long-term water security.

It reflects growing recognition that water management must address not only pollution, but also scarcity, climate pressures and governance capacity.



These policy instruments do not only support compliance; they also promote ecological recovery, resilience, integrated governance and long-term environmental sustainability.



UN Sustainable Development Goals

6 SDG 6



Clean Water and Sanitation

Promotes access to safe water, **sanitation**, wastewater treatment and the sustainable management of water resources.

12 SDG 12



SDG 12 – Responsible Consumption and Production

Supports resource efficiency, waste prevention, circular economy approaches and more sustainable consumption patterns.

13 SDG 13



SDG 13 – Climate Action

Recognises the need for **climate resilience** and **adaptive governance** in the face of growing environmental pressures.

14 SDG 14



SDG 14 – Life Below Water

Calls for the conservation and sustainable use of oceans, seas and marine resources, including action against marine pollution.

15 SDG 15



SDG 15 – Life on Land

Highlights the importance of protecting terrestrial **ecosystems**, catchments and biodiversity that directly influence water quality and river-basin health.



The brochure **connects legal obligations**, environmental governance and regional policy frameworks with the broader **global sustainability** agenda, particularly in relation to water, waste, ecosystems and marine protection.



National Legislation Profiles:

Moldova and Romania



Moldova



Law No. 272/2011 on Water provides the core legal framework for the management, protection and sustainable use of surface water and groundwater resources.



Environmental Protection framework establishes the general legal basis for environmental governance, pollution prevention and the protection of natural resources.



Relevance to the Black Sea basin: Moldova is environmentally significant because the Prut and Dniester river systems connect its inland water governance to the wider Black Sea basin and to downstream transboundary water-quality outcomes.

Relevance to the Black Sea basin:



Moldova is environmentally significant because the Prut and Dniester river systems connect its inland water governance to the wider Black Sea basin and to downstream transboundary water-quality outcomes.



Romania



Water Law No. 107/1996 forms the central legal basis for water management, water protection and the regulation of water use in Romania.



Environmental protection framework supports the broader system of pollution control, ecosystem protection and environmental administration.



Emergency Ordinance No. 92/2021 on the waste regime is a key instrument for waste governance, circular-economy implementation and the prevention of litter leakage into aquatic environments.

Relevance to the Black Sea basin:



Romania occupies a strategically important position because the **Danube Delta** functions as one of the final major ecological filters before pollution reaches the Black Sea.



National Legislation Profiles: Bulgaria and Ukraine



Bulgaria



Environmental Protection Act

provides the overarching legal basis for environmental governance, pollution prevention and the protection of natural resources.

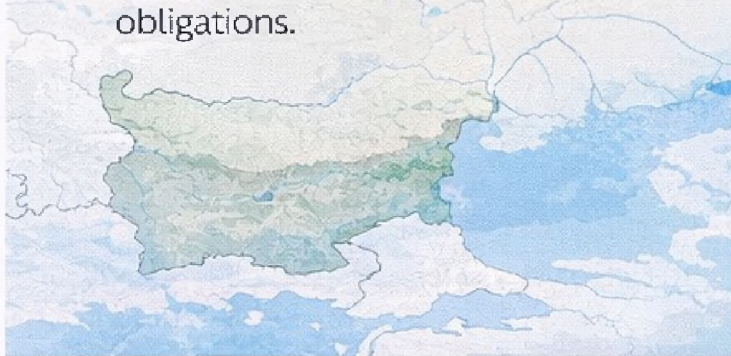


Waste Management Act

regulates waste prevention, collection, treatment, recycling, and disposal, and is relevant to reducing land based leakage into aquatic environments.



Water Act forms the central legal framework for water management, water use, protection of water bodies and implementation of water-policy obligations.



Relevance to the Black Sea basin:



Bulgaria is particularly significant as both a Black Sea coastal state and an EU Member State responsible for implementing EU water, waste and marine-environment legislation.



Ukraine



Law on Environmental Protection

establishes the general framework for environmental policy, pollution control and the regeneration of natural resources.



Law on Environmental Impact

Assessment supports preventive environmental governance, by requiring the assessment of certain activities likely to affect the environment.



Water code framework

provides the legal basis for water management, protection of water resources and regulation of water use.



Relevance to the Black Sea basin:



Ukraine is highly significant because major river systems, including the Dnieper, Dniester Danube and Southern Bug, connect inland environmental pressures to the Black Sea.



National Legislation Profiles:

Türkiye and Georgia



Türkiye



Environmental Law No. 2872

provides the overarching legal framework for environmental protection, pollution control and the regulation of environmental responsibilities.



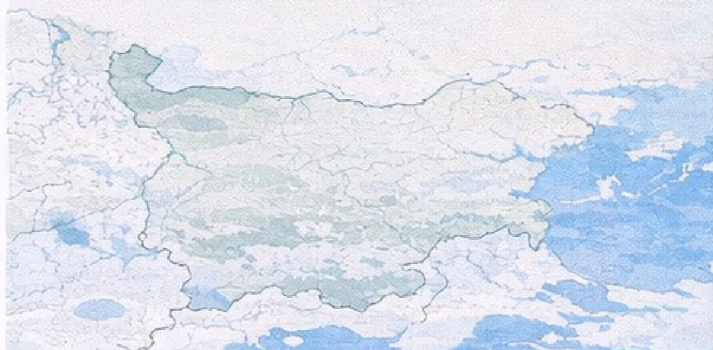
Water Pollution Control Regulation

establishes the regulatory basis for controlling water pollution, setting discharge standards, and protecting receiving water bodies.



Relevance to the Black Sea basin:

Türkiye is highly significant because several major river systems, including the Kizilirmak, Yesilirmak and Sakarya, discharge into the Black Sea and connect inland activities to coastal and marine environmental pressures.



Relevance to the Black Sea basin:



Türkiye is highly significant because several major river systems, including the Kizilirmak, Yesilirmak and Sakarya, discharge into the Black Sea and connect inland activities to coastal and marine environment.



Georgia



Law of Georgia on Water

provides the legal framework for water resource management, protection and use.



Waste Management Code

regulates waste prevention, collection, recovery, and disposal, and is relevant to reducing land-based leakage into aquatic environments.



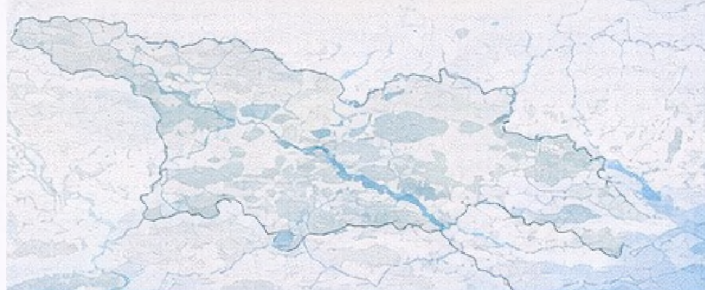
Law on Environmental Protection

establishes the general framework for environmental governance.



Environmental Assessment Code

supports preventive environmental governance by requiring the content of plans, programmes, and projects likely to affect the environment.



Relevance to the Black Sea basin:



Georgia is important for Black Sea protection due to its coastal position and the inflow of river systems such as the Rioni, Kodori and Inguri/Enguri, which connect inland catchments to the marine environment.

International Legal Instruments



United Nations Convention on the Law of the Sea (UNCLOS, 1982)

The United Nations Convention on the Law of the Sea provides the overarching global legal framework for the protection and sustainable use of the marine environment.

It includes obligations for states to prevent, reduce and control marine pollution from land-based sources, vessels and offshore activities.

In the context of the Black Sea, UNCLOS offers a foundational legal framework for marine protection, pollution control and international cooperation.



International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)

MARPOL is the principal international treaty addressing pollution from ships. It regulates the prevention of marine pollution caused by oil, noxious liquid substances, sewage, garbage and operational discharges from vessels.

The convention is particularly relevant to Black Sea because **upstream freshwater** cooperation directly affects downstream marine environmental quality.



UNECE Water Convention (1992)

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes promotes cooperation among states sharing transboundary water resources.

It supports integrated water-resource management, pollution prevention and coordinated river-basin governance between neighbouring states.

This is particularly relevant to the Black Sea region where infrastructure, industrial and water-management decisions may have transboundary consequences.



Aarhus Convention (1998)

The Aarhus Convention guarantees access to environmental information, public participation in environmental decision-making and access to justice in environmental matters.

International environmental governance in the Black Sea region depends not only on regional agreements, but also on broader global and transboundary legal instruments.

Additional European Union Policy and Legal Instruments



Waste Framework Directive (2008/98/EC)

- Establishes the fundamental principles of EU waste management policy
- Includes waste prevention, recycling targets and the waste hierarchy
- Promotes improved waste governance and reduces leakage into rivers and seas.



EU Circular Economy Action Plan (2020)

- Central component of the European Green Deal
- Promotes sustainable product design, waste reduction and recycling
- Reduces plastic waste and protects aquatic and marine ecosystems



Polluter Pays Principle

- Requires responsible actors to cover the costs of pollution
- Strengthens accountability and **environmental** remediation
- Encourages economic incentives for pollution reduction



River Basin Management Plans (Water Framework Directive)

- Strategic planning for integrated water governance
- Coordinates policies on water quality and pollution reduction
- Addresses upstream pressures affecting the Black Sea



Effective environmental governance in the Black Sea region. depends not only on marine policies but also on integrated waste: management, circular economy strategies and river-basin planning.

Regional Environmental Cooperation Frameworks



Black Sea Strategic Action Plan (1996)

The Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea established the first coordinated regional policy framework addressing marine pollution, ecosystem degradation and unsustainable resource use in the Black Sea region.

It provided a foundation for regional cooperation among Black Sea countries and set out strategic priorities for pollution reduction, environmental monitoring and ecosystem protection.



Updated Black Sea Strategic Action Plan (2009)

The updated Strategic Action Plan reinforced regional environmental governance and strengthened cooperation among Black Sea states.

It introduced enhanced policy coordination on pollution prevention, ecosystem protection, biodiversity conservation and the sustainable management of marine resources.

The updated framework reflects a stronger emphasis on **integrated coastal and marine management**, environmental monitoring and regional policy alignment.



Regional cooperation remains essential for addressing transboundary environmental challenges in the Black Sea basin.



Key Takeaways for Stakeholders

Key Takeaways



Black Sea pollution is driven to a significant extent by land-based and diffuse sources, including wastewater, agricultural runoff, waste leakage and contaminated runoff.



Water law, waste law and marine policy should be understood and implemented as part of an interconnected **governance framework** rather than as separate regulatory fields.



River basin governance is central to effective **marine protection** because upstream activities directly shape downstream environmental outcomes.



Youth participation should be meaningfully **integrated** into environmental decision-making, awareness-raising and local governance processes.



Effective local implementation is as important as national legislation, particularly in areas such as **monitoring, enforcement, infrastructure** and community engagement.

Stakeholder Checklist

- ☒ Are **wastewater discharges** adequately monitored and controlled?
- ☒ Is **agricultural runoff** addressed through legal measures, action programmes or basin-level planning?
- ☒ Are plastics, litter prevention and waste systems covered by effective local measures?
- ☒ Are **young people** meaningfully involved in consultation, participation and awareness processes?
- ☒ Are **river-basin** obligations and coastal protection measures linked in policy and practice?

Sources, Legal References and Closing Note



International conventions and regional action documents relevant to Black Sea protection, marine pollution control and transboundary environmental cooperation



EU directives and policy documents related to water protection, wastewater, agriculture, waste, plastics, marine litter and environmental governance



National legal references by country covering key legislation in Moldova, Romania, Bulgaria, Ukraine, Türkiye and Georgia



Closing note

Protecting the Black Sea requires coordinated legal and policy action, stronger implementation, and meaningful youth participation.

Blue Horizon seeks to strengthen the connection between *environmental* responsibility, informed governance and public engagement across the region.

Project Partners

- Pan European Alliance Georgia (Georgia)
- Misto Aktyvnyh Gromadian (Ukraine)
- Public Association Republican Center "Gutta-Club" (Moldova)
- Level Up Time (Romania)
- Institute for Development of Training and Mobility (Bulgaria)
- e-genclik Association (Türkiye)

Funding Acknowledgment



Co-funded by the European Union.

Key Action: Partnerships for cooperation and exchanges of practices

Action Type: Capacity Building in the field of Youth

Project Number: 101185728

Funding Acknowledgement