Blueing the Black Sea

a GEF Regional Project,
implemented by the World Bank and executed by UNOPS

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The Black Sea in Context

Home to over 160 million people across six countries

Key economic sectors:
shipping, ports, fisheries, tourism, and energy

Facing rising pressures from urbanization and pollution

Ports, Cities, and Citizens

- Ports drive economic growth but face pollution challenges;
- Need for integrated port–city governance for sustainability;
- **Examples:** Constanța, Varna, Batumi, Istanbul as innovation hubs;
- Citizen engagement vital for wastewater management and coastal care.

The Challenge: Pollution & Eutrophication

Eutrophication is the most urgent environmental threat

80% of nitrogen and
90% of phosphorus
enter via rivers
(Danube, Dnieper, Don)

MAIN SOURCES

- Agriculture (43% N)
- Wastewater (21% N; 44% P)
- and atmospheric deposition

Data & Insights from Diagnostics (1)

Total nutrient inflows: 1,320 kilotonnes/year of Nitrogen and 117 kilotonnes/year of Phosphorus entering the Black Sea.

Primary sources:

- Agriculture contributes ~43% of nitrogen and ~60% of phosphorus.
- Urban wastewater contributes ~21% of nitrogen and ~44% of phosphorus.
- Industrial discharge and atmospheric deposition also significant.

Major pollution hotspots:

- Danube Delta (Romania & Ukraine) – high nutrient and sediment load.
- Northwestern shelf (Odessa–Constanța zone) – persistent eutrophication.
- Varna–Burgas (Bulgaria) – port-based industrial discharges.
- Batumi & Trabzon regions – municipal and stormwater outflows.

Data & Insights from Diagnostics (2)

Environmental impacts:

- Algal blooms covering up to 20% of the surface area in some summer months.
- Bottom oxygen levels dropping below 2 mg/L in coastal hypoxic zones.
- Decline in fish stock diversity — 40% loss over 20 years.

Positive trends:

- Significant improvements in wastewater treatment in Romania and Bulgaria post-EU accession.
- Strengthened monitoring and early warning systems through the Black Sea Commission.
- Ongoing pollution reduction pilots under BBSEA national projects (Georgia, Moldova, Türkiye, Ukraine).

Economic and Social Impacts

Fisheries and tourism losses: e.g., Ukraine ~$500M/year

Decline in fish biodiversity – from 26 species to 6 in 30 years

Health risks from heavy metals and microplastics

Urban-industrial growth along coasts adds stress

Blueing the Black Sea: Project Overview

PROJECT DEVELOPMENT OBJECTIVE (PDO)

Strengthen the preparedness of governments and the private sector in the Project Focus Countries to take actions to reduce pollution in the Black Sea.

BUDGET
USD 6.39 mio

TIMELINE
Dec 2024 – Sep 2028

Funded by
gef

Implemented by
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Executed by
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Eco-Innovation Challenge

Flagship initiative of Blueing the Black Sea:
a GEF Regional Project

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What is it?

The EIC is global competition for identifying ecological innovations *that can be put into practice* in BBSEA focus countries to reduce pollution in the Black Sea

\+ provides business development TA to selected eco-innovators

\+ provides significant resources to implement the eco-innovations

What do we mean by “eco-innovation”?

An eco-innovation is any **practice, technology, or service** that offers a **ΩŜЧ σŰΡΡΙΥΣΠΩ to an environmental issue, ŎŰΨμl·oŜŘ ŰŰΡŰŎlΡΡƎ l-LμlΣΠ·ōΡŜ ōŜσúμσl·ŎΥΣΠŜσ.**

New Ideas: Concepts never implemented or piloted before.

Prototypes: Developed technologies not yet implemented at scale.

Transferable Solutions: Proven successes from other regions adapted for the Black Sea.

New Models: Innovative technology or business models.

Two Ways to Participate

BBSEA FOCUS COUNTRY WINDOW

Goal: Implement solutions directly in Georgia, Moldova, or Türkiye.

Award: Grants from **$50,000 to $300,000**.

Support: Ongoing, hands-on support from a specialized accelerator.

GREATER BLACK SEA WINDOW

Goal: Develop concepts applicable anywhere in the Black Sea.

Award: $20,000 in-kind technical assistance award.

Support: Bespoke assistance to advance early-stage concepts.

Key pollution problems to solve

The EIC is focused on finding solutions for *four pollution problems*:

Eutrophication from agricultural & livestock runoff.

Eutrophication from undertreated municipal wastewater.

Chemical/Industrial Pollution.

Marine Litter (including non-hazardous war-related marine litter).

Building the Future Together

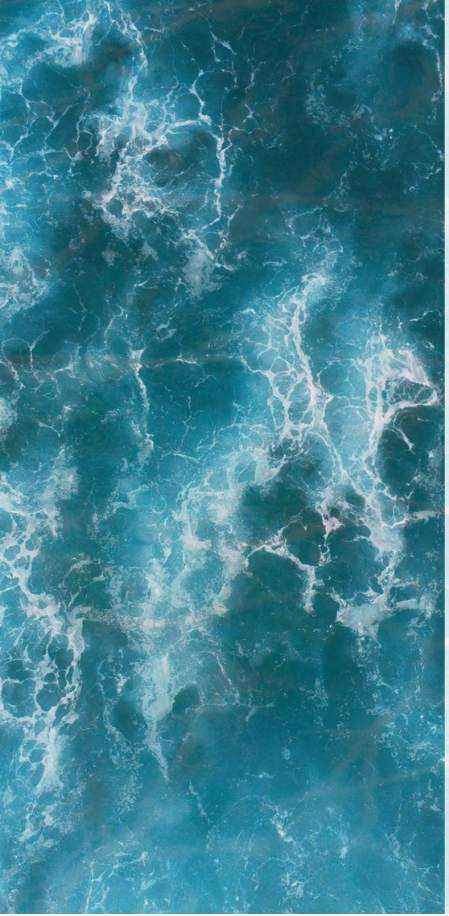
- → Blue economy = opportunity for jobs, clean growth, and innovation
- → Regional cooperation and shared data are crucial
- → Aligning port development with environmental protection

Conclusion & Call to Action

The Black Sea can be both a bridge and a model for sustainable cooperation.

Cleaner seas mean more liveable cities and healthier citizens.

‘From ports to people — turning the tide of pollution together.’



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THANK YOU!

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