Summary paper

Black Sea CMA Stakeholder Conference 2024

Co-creation workshops

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Common Maritime Agenda for the Black Sea

Supported by the European Commission

Policy context and background

The Black Sea is a very diverse region, in terms of natural resources, economic and geopolitical interests and culture. In this diversity, the common sea (basin) has been a unifying factor. The Common Maritime Agenda for the Black Sea was established in May 2019, through a ministerial conference, by Bulgaria, Georgia, the Republic of Moldova, Romania, Russia[1], Türkiye and Ukraine. The agenda is focused on the Black Sea sea-basin and promotes **voluntary and sectoral cooperation** between participating countries, around three main goals: **I. Healthy marine and coastal ecosystems; II. A competitive, innovative and sustainable blue economy for the Black Sea, and III. Investment in the Black Sea blue economy.**

This summary paper collects the main outcomes of three co-creation sessions organised during the last Black Sea Common Maritime Agenda (CMA) Stakeholder Conference, on 11 September 2024, in Chisinau, Moldova. The paper was drafted after collecting all contributions during the workshops, with the aim of being published onto the CMA website and widely circulated among Black Sea stakeholders, as a foundation for further work in the sea basin. The workshop topics were chosen based on priority sectors identified by CMA countries and stakeholders during previous meetings and events. The objective of this paper is to:

- offer expert insights into existing and emerging trends and challenges
- identify key research priorities and funding needs
- suggest a possible course of action to EU, national and regional policymakers

Methodology and concept of co-creation workshops

The co-creation workshops engaged stakeholders and experts in highly interactive sessions. These sessions were moderated by the National Hubs of the Black Sea Assistance Mechanism, with the support of some of the CMA observers with relevant expertise in the workshop topics:

1. Decarbonisation and energy transition of the Black Sea maritime and riverine transport and ports
2. Blue economy skills and ocean literacy for existing and emerging Black Sea jobs
3. Black Sea ecosystem conservation, plastic pollution management and circularity opportunities in a land-sea perspective

The National Hubs presented each of the workshop objectives and structure to participants, followed by a brief presentation of the topic. Each observer linked the topic with existing initiatives and projects implemented at the EU and Black Sea level. Each group's facilitator guided the 45-minute discussion around some key points:

- priorities and innovative ideas,
- obstacles and bottlenecks,

[1] In response to Russia's military aggression against Ukraine, the participation of the Russian Federation in the CMA has been suspended, as well as all forms of cooperation at regional and national level with Russian stakeholders.

- opportunities and next steps.

At the end of the sessions, each facilitator summed up and highlighted the main outcomes.

The workshops' overall goal was to outline regional blue economy trends and challenges and link them with possible research priorities and funding needs. All inputs were integrated into this summary paper to inform future cooperation opportunities among the scientific community, civil society, private sector and policymakers in the region towards a more sustainable blue economy in the Black Sea.

Summary of workshop discussions

Decarbonization and Energy Transition of Black Sea Maritime and Riverine Transport and Ports: Participants highlighted the need for collaborative projects and innovative approaches to drive the green transition in the Black Sea region. A key proposal involves a pilot project using a single type of green fuel, requiring cooperation between vessel operators and ports to address fleet and infrastructure needs. Financial challenges in the region demand cross-country ministerial collaboration to secure international funding from entities like the European Bank for Regional Development. A "Network of Ports in the Black Sea" was proposed, focusing initially on leisure vessels due to the high cost of building full fleets. Priorities include reducing bureaucracy, offering incentives, and attracting global stakeholders. Challenges concern selecting an adaptable green fuel type, motivating private-sector involvement, improving digitalization, and addressing high investment costs. Opportunities lie in digitalization, offshore electrification, wastewater management, and creating a coordinated port network starting with Batumi and Burgas. To achieve the desired outcomes and overcome the identified challenges, stakeholders discussed how successful examples and models from other EU initiatives, particularly in the Mediterranean, should be adapted and transferred to the Black Sea Context. One example was resorting to the S3 platform for the supply chain of ports towards green transition and transformation. A one-stop-shop platform for vessel operators was also proposed to facilitate dialogue, streamline permitting procedures, and support sustainable initiatives.

Blue economy skills and ocean literacy for existing and emerging Black Sea jobs: The discussion highlighted several barriers to advancing blue skills development and promoting the blue economy in the region. Key issues include poor information sharing about market opportunities and funding, limited public understanding of "blue skills" and challenges such as brain drain, cultural differences, and low interest in maritime activities. Priority growth areas include biotechnologies, renewable energy, energy transition, and pollution management, which demand skills in technology, engineering, and software. Emerging priorities involve promoting macro-algae cultivation, improving farming systems, strengthening university programs, and fostering a shift from land to sea-based energy. Major obstacles identified include a top-down approach to skills promotion, reluctance to train new personnel, weak communication between businesses, academic institutions and communities, and low awareness of existing and emerging opportunities and jobs. Proposed solutions include early youth engagement through gamification and marathons, fostering public-private collaboration for reskilling, better communication of EU funding opportunities, enhancing business mobility, and leveraging existing networks. Promoting successful blue economy models was also seen as key to raising awareness and engagement.

Black Sea Ecosystem Conservation, Plastic Pollution Management and Circularity Opportunities in a Land-Sea Perspective: Experts emphasized advancing marine ecosystem conservation, enhancing food security, managing invasive species, and addressing climate change impacts, particularly in aquaculture. Immediate priorities include knowledge exchange and implementing existing solutions, while medium-term goals involve leveraging technologies like AI and nanotechnology to accelerate capacity-building. Effective data management and harmonized monitoring efforts using tools like DNA tracing and satellite imagery are crucial. Key challenges include border and food security, water scarcity, river ecosystem restoration, and policy harmonization, alongside resilience, real-time monitoring, and emergency response needs. To address these issues, enhanced training, public awareness, ocean literacy, and cross-border collaboration are essential. Having a cohesive and effective conservation strategy requires that stakeholders take a multi-realm approach on invasive species. This would further mean to comprehend and tackle the impacts of plastic waste and shipping on invasive species, through impact monitoring techniques that align across the Black Sea. Inclusive decision-making processes involving all stakeholders are crucial for success.

Recommendations: innovative ideas and solutions

Decarbonisation and energy transition of the Black Sea maritime and riverine transport and ports

Launch a pilot green fuel program focused on a single green fuel type to simplify adoption across the Black Sea region. This pilot should be supported by incentives for both ports and fleet operators to promote infrastructure and fleet upgrades. Facilitating public-private partnerships between ports, vessel operators, and governmental bodies would address both the technical and operational requirements for green fuel infrastructure.

Strengthen regional financial and policy collaboration by establishing a Black Sea Regional Maritime Decarbonization Fund, in collaboration also with international financial institutions like the European Bank for Regional Development. This fund could provide grants, low-interest loans, or subsidies to support green infrastructure in ports and decarbonization efforts among vessel operators.

Encourage incentives and regulatory support for decarbonization like tax reductions and other incentives, (tax breaks and subsidies), for green projects in ports and shipping, focusing on clean energy, offshore electrification, and waste management. Introduce an emissions-reduction or emissions-free zone policy for specific port areas to lower emissions and stimulate green economic activity, with incentives for vessels utilizing green technologies in these zones.

Develop a Black Sea network of ports for green transition to encourage cooperation on decarbonization strategies, starting with leisure vessels (e.g., ferries and cruises) to minimize costs. This network could also foster partnerships between Black Sea and Mediterranean ports to transfer successful sustainability projects and innovations, such as through the S3 platform, adapted for Black Sea needs.

Blue economy skills and ocean literacy for existing and emerging Black Sea jobs

Enhance information sharing and economic opportunities through a centralized information hub, training resources, and funding options to raise awareness among Black Sea stakeholders. This hub should offer up-to-date information on EU funding and cross-border programs tailored to blue economy needs.

Promote blue economy skill development at the grassroots level by introducing concepts early in education and incorporating ocean literacy and marine science into primary and secondary curricula to inspire young interest in maritime careers. Gamified educational approaches, such as blue economy-themed games and marathons, can foster engagement and early familiarity with the sector.

Support re/up-skilling through public-private and business-community partnerships for existing workers and attract new talent to blue economy careers. This could include targeted training in emerging fields like marine biotechnologies, engineering, and software development for renewable energy and marine technology. This would be further supported by **promoting mobility programs for business and academia** within the Black Sea region to foster cross-border skills exchange. Similarly, alignment between skills offer and demand would be further achieved by **business-community partnerships**: establishing local and regional forums where businesses, educational institutions, and communities can communicate on skill requirements, funding access, and job opportunities.

Encourage innovative models for blue economy workforce development to be adapted from other regions, particularly from the Mediterranean, to suit the Black Sea context. Policies could incentivize adopting proven educational frameworks, gamification techniques, and practical training methods that engage youth and new entrants in the maritime sector.

Improve funding accessibility for blue economy initiatives by simplifying application processes and increasing the visibility of financial support options, especially for vocational education, academic institutions and SMEs. The CMA should be further enhanced in its efforts to support Black Sea stakeholders in navigating funding channels and forming consortiums for larger, cross-border projects.

Black Sea ecosystem conservation, plastic pollution management and circularity opportunities in a land-sea perspective

Enhance data integration and monitoring systems in a centralized data platform across Black Sea countries. This platform could incorporate advanced technologies like AI, remote sensing, and DNA tracing to enable real-time decision-making and early detection of emerging threats (e.g., invasive species, pollution levels). Focus should also be placed on standardizing monitoring protocols to ensure data consistency and comparability, with a focus on tracking cross-cutting issues like climate change impacts, invasive species, and pollution.

Develop comprehensive invasive species and pollution management plans at regional level for invasive species that includes monitoring, mitigation, and control measures. The use of technology should be further promoted, like AI and satellite imagery to assess risks and track the spread of invasive species. Experts also proposed to adopt a circular economy approach to reduce plastic waste, involving stakeholders from fisheries, local communities, and public sectors. The region should also implement measures to intercept plastic waste at key points, particularly in watersheds and river inputs, to minimize entry into the Black Sea.

Invest in climate-resilient aquaculture and sustainable food security practices: Support climate-adaptive aquaculture techniques that minimize environmental impact and enhance food security while addressing

climate change vulnerabilities. The introduction of guidelines for sustainable fish farming that reduce dependency on wild populations and support biodiversity could be considered. Experts also proposed to conduct research and develop models on watershed management to improve resilience and ensure that land-based practices support marine health.

Cross-cutting recommendations

Strengthen cross-border collaboration and policy harmonization among countries in the sea basin, with support under the Common Maritime Agenda (CMA) for joint decision-making on key issues like marine and riverine ecosystem restoration and plastic waste management. Enhance regional and cultural cohesion through exchange programs and joint education initiatives in partnership with the Mediterranean and other EU stakeholders, aligning skill-building efforts and developing shared resources for research and data collection These could include blue skills manuals and guidelines, shared list of competences and blue skills roadmaps, pools of experts that could consult on the matter and improve mobilisation, toolboxes for ocean literacy, mobility schemes and more. Improve investment efficiency by coordinating funding schemes and engaging with international investors. Foster multi-stakeholder dialogue through regular forums that bring together scientists, policymakers, industry, and communities to align goals, share innovative ideas, and collaboratively address CMA priorities.

Boost stakeholder awareness and capacity building to promote sustainability in the Black Sea targeting public and private stakeholders to emphasize decarbonization needs, sustainable maritime practices, and the potential of blue economy jobs. Invest in training and capacity-building programs for port authorities, vessel operators, and policymakers on green fuel, digitalization, and resource efficiency. Strengthen water literacy, conservation training, and community engagement to foster ecosystem responsibility and highlight the link between land and marine health. Provide specialized training in real-time monitoring, ecosystem management, and emergency response to enhance preparedness for environmental and anthropogenic challenges.

Promote digitalisation and resource efficiency in maritime operations by establishing platforms for efficient communication and data sharing among ports, vessel operators, and regulators, including one-stop-shop solutions to streamline permitting procedures and regulatory processes. Support the adoption of real-time monitoring technologies to track emissions, water quality, and fuel efficiency, optimizing resource use and minimizing environmental impacts.

Next steps

This summary paper will be presented and discussed at the next CMA Steering Group meeting on 6 December 2024 (online). Based on the countries' reaction, the Steering Group is expected to endorse its main recommendations. These will be considered for the design of future research priorities, funding opportunities and cooperation actions at the EU, national and regional level, under the CMA and other initiatives active in the European sea basins.