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Annex I: Description of the Action

**Improving Environmental Monitoring in the Black Sea–
Selected Measures (EMBLAS-Plus)**

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1 BACKGROUND

1.1 Environmental contextⁱ

The Black Sea Basin environment is of paramount importance both in terms of regional development and of quality of life for its inhabitants. The Black Sea ecosystem is known to be rich and diverse but is also considered to be vulnerable as it experiences notably significant pressure from land-based pollution, through its large catchment area including the Azov Sea and three main river basins, the Danube, the Dnieper and the Don. The Black Sea is one of the most vulnerable regional seas in the world given its limited exchange of water with the open oceans and the large area from which it receives the drainage. Oxygen free hydrogen sulphide layer fills out ca. 87% of the total volume of the Black Sea, which makes it the largest anoxic water basin in the world. These features influence the condition of the Black Sea marine environment and the diversity of organisms depending on it.

Inflows make the Black Sea very prone to eutrophication, a phenomenon made worse by the urban (sewage) and mostly agricultural discharges carried by the rivers and by direct discharges from numerable coastal ports, industrial zones and urban areas. In the coming years nutrient pollution is likely to continue to decrease in the Danube Basin due to the implementation of EU environmental policy, but the Don and Dnieper may continue to carry heavy nutrient loads into the southwestern part of the coast, leading to the whole Black Sea ecosystem being further endangered if necessary efforts and cooperation are not undertaken at the level of the Black Sea Basin overallⁱ.

Other high priority transboundary ecological problems include the decline in living resources (mostly fish stocks), chemical pollution, biodiversity change, habitat destruction, invasion by alien species, climate-change impacts, and mesoscale variability in the circulation system. Oil pollution enters the sea as a result of operational discharges by vessels and due to accidents as well as through land-based sources, and appears to be an ongoing concern in particular along major shipping routes and ports. Discharge of insufficiently treated sewage introduced microbiological contaminants into the Black Sea and posed a threat to human health, development of sustainable tourism and aquaculture.

The Black Sea is also particularly vulnerable to solid wastes dumped into the sea from ships and coastal towns, which are eventually washed ashore. Significant amounts of floating riverine litter are being brought into the sea by the rivers and both the floating marine litter and litter accumulated on the beaches have already been recognised as a risk to marine animals and humansⁱⁱ

1.2 Current state of affairs in the relevant sector

1.2.1 Bucharest Convention on the Protection of the Black Sea against Pollution

The seriousness of environmental issues has been recognised by the countries of the region and they have responded with national and regional strategies and actions to tackle these issues. The Convention on the Protection of the Black Sea against Pollution (Bucharest Convention) addresses these problems through enhanced cooperation among its signatories². Its Contracting Parties adopted and have been implementing the 2009 Black Sea Strategic Action Plan. The development/improvement of monitoring programmes (national and regional) is considered to be a management target of high priority.

Further coordination in policies and legislation is a common interest to all the Black Sea countries. This is particularly true for the riparian Member States of the European Union³: being Contracting Parties to the Bucharest Convention and members of the Black Sea Commission (BSC), they also value such

¹ http://emblasproject.org/wp-content/uploads/2017/04/Joint-Black-Sea-Surveys-2016_16.pdf

² Acting on mandate of the Black Sea countries (Bulgaria, Georgia, Romania, Russian Federation, Turkey and Ukraine) which on 21 April 1992 signed and shortly thereafter ratified the Convention on the Protection of the Black Sea Against Pollution, the Commission on the Protection of the Black Sea Against Pollution (the Black Sea Commission - BSC) implements the provisions of the Convention and the Black Sea Strategic Action Plan.

³Bulgaria and Romania.

coordination as a factor that influences their own ability to comply with the EU legislation, notably the EU Water Framework Directive (WFD) and the EU Marine Strategy Framework Directive (MSFD).

1.2.2 Relations to EU strategies and programmes

The EU supports cooperation between riparian countries in the region through the **Black Sea Synergy**. The Synergy offers a forum for tackling common problems while enabling political and economic reform. An important goal is to bring added value to the citizens of the region while ensuring environmental sustainability. The Black Sea Synergy remains a bottom-up initiative geared towards strengthening regional cooperation via concrete projects making the best possible use of the wide range of tools at the EU's disposal.

Since 2011, the European Commission has stepped up efforts to advocate the sustainable use of the Black Sea. A set of studies was commissioned and areas for enhanced cooperation have been identified. The potential for maritime clusters has been explored, while a series of projects have facilitated cooperation between research institutes and encouraged a number of public-private partnerships. Cooperation with non-EU countries has intensified. The annual cycle of high-level stakeholder events has helped inform participants about EU policies and funding opportunities, as well as gathering political support for further action by the coastal countries. A Ministerial Declaration "Towards a Common Maritime Agenda for the Black Sea" was endorsed by the participating countries on 31 May 2018 during the European Maritime Day. The Declaration identifies the need for using marine resources in a sustainable manner. This includes restoring and maintaining a good environmental status so that resilience of ecosystems, communities, and economies in the region is enhanced.

In the frame of the Black Sea Synergy, on-going activities focus on environmental cooperation, enhancing biodiversity and protection of the Black Sea ecosystems, collecting and exchange of environmental data on marine and coastal areas, as well as the nascent cooperation on maritime affairs. Activities implemented in the framework of the **Black Sea Synergy Environmental Partnership** (such as two phases of the regional project "Improving Environmental Monitoring in the Black Sea") were synergetic to a similar initiative involving EU Member States and Turkey - "MSFD Guiding Improvements in the Black Sea Integrated Monitoring System" project (MISIS; 2012 - 2014). Coordination with regional organisations such the Black Sea Commission and Black Sea Economic Cooperation Organisation remains relevant in particular for disseminating information to the relevant experts in the Black Sea region and for raising awareness about the added value of collective action.

These efforts are also pertinent for the **European Neighbourhood Policy** (ENP), which aims at bringing the EU and its neighbours closer, to their mutual benefit and interest. Launched in 2004, the ENP was reviewed in 2015 to adjust it to emerging challenges. Funding for the European Neighbourhood Policy comes from the European Neighbourhood Instrument (ENI). The Eastern Partnership, representing the Eastern dimension of the European Neighbourhood Policy, was launched at the Prague summit in 2009. It aims to deepen and strengthen relations between the European Union and its six Eastern neighbours, Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine.

Association Agreements were signed with Georgia, the Republic of Moldova, and Ukraine. Water legislation, including the MSFD is addressed in these Agreements that set clear deadlines for legislative changes along the EU environmental law. During the last three years, the countries made an effort to prepare revised monitoring programmes according to the MSFD and WFD.

In the new round of **Cross-Border Cooperation** (CBC) programmes 2014-2020 environment is one of the priority thematic objectives. The Black Sea Cross-Border Cooperation programme has been supporting a constantly growing number of projects, technical assistance needs and management costs for municipalities and small-scale stakeholders in areas such as environment, SME-development, tourism, research and innovation. The European Union also cooperates with Russia on environmental and climate change issues in the framework of numerous international organisations, conventions and United Nations bodies and agencies.

1.3 Related programmes, projects and other donor activities

The present project is built on the results and conclusions of previous and current projects in the Black Sea and will ensure complementarities and synergy with activities under relevant actions in the region, in particular those funded by the European Union. The key programmes and projects are presented below.

Improving Environmental Monitoring in the Black Sea, phase 2, EMBLAS-II (2014-2018) was designed to tackle deficiencies and limitations in availability of accurate reliable and comparable marine data, as well as to build capacities of the involved countries to perform integrated environmental monitoring and assessment of the Black Sea according to the MSFD, WFD and the needs of the Black Sea Strategic Action Plan adopted by Black Sea countries in 2009. The specific objectives were to: i) Improve availability and quality of Black Sea environmental data in line with the MSFD and Black Sea Strategic Action Plan (2009) needs; and ii) Improve partner countries' ability to perform marine environmental monitoring along MSFD principles, taking into account the Black Sea Diagnostic Report II recommendations on capacity building. EMBLAS-II gained strong national ownership. The project was among major drivers at the revision of the national monitoring programmes in the participating countries. It facilitated signing of the Memorandum of Understanding between the MENRP Georgia and MENR Ukraine on cooperation in the field of environmental protection of the Black Sea and its catchment (Batumi, 15 September 2017). First assessments were made⁴ on the environmental status of the investigated region. Using the state-of-the-art methods during the EMBLAS Joint Black Sea Surveys in 2016 and 2017 a critical amount of data was generated allowing for development and testing of harmonised environmental status classification schemes. An on-line Black Sea Water Quality Database has been developed to host all obtained data. A cooperation was established with other EU institutions, experts and projects (e.g., EC JRC, EEA, University of Athens (Greece), Masaryk University Brno (RECETOX, Czech Republic), Romanian National Institute for Marine Research and Development “Grigore Antipa”, GeoEcoMar (Romania), University of Florence (Italy), BENTHOX project (Belgium) etc.), which can be further promoted in the proposed EMBLAS-Plus Project. Strong links were built with the civil society organisations in the region and internationally resulting e.g. in a new tradition of Black Sea Clean Beach Day and signing Memorandum of Understanding with Cousteau Society.

EU Water Initiative Plus - EUWI+ (2016-2020) supports Armenia, Azerbaijan, Belarus, **Georgia**, Moldova, and **Ukraine** to bring their legislation closer to EU policy in the field of water management, with a main focus on the management of trans-boundary river basins. EUWI+ supports the development and implementation of pilot river basin management plans, building on the improved policy framework and ensuring a strong participation of local stakeholders. The main objective of the project is to improve the management of water resources, in particular trans-boundary rivers, developing tools to improve the quality of water in the long term, and its availability for all.

The EU-funded project **APENA (2015-2018)** “Support to Ukraine in approximation of the EU environmental *acquis*” is focusing on support to the MENR and other institutions responsible for implementation of environmental requirements under the Association Agreement’s Chapter 6 “Environment”. Particularly the Project is focusing on three areas — horizontal, water and nature management. Besides legal assistance to the MENR in drafting laws and bylaws, the project will work on raising MENR’s and other stakeholder’s capacity and public awareness.

Several projects and initiatives address the data management aspects, including:

- **Implementation of the Shared Environmental Information System (SEIS) principles and practices in the ENP East region (2016-2020)**, which is a regional programme implemented by the European Environment Agency (EEA) to improve the knowledge base for environmental policy;

⁴ http://emblasproject.org/wp-content/uploads/2017/04/Joint-Black-Sea-Surveys-2016_16.pdf

- Initiatives such as the European Marine Observation and Data Network (**EMODnet**), **SeaDataNet**, **WISE-Marine** (EEA), and Information Platform for Chemical Monitoring (**IPChEM**);
- The already mentioned **MSFD Guiding Improvements in the Black Sea Integrated System (MISIS) project (2012-2014)**, in relation to which discussions were held with the participating countries to include resulting data in the Black Sea Water Quality Database.

It is important to further cooperate with the Black Sea Commission and its Secretariat, to link the project activities with the ***Black Sea Integrated Monitoring and Assessment Programme (BSIMAP)***, aimed at reaching consensus on common principles for regional monitoring and assessments produced through: i) establishment of an initial affordable programme to harmonize assessment methodologies, analytical techniques, reporting formats; ii) elaboration of environmental quality criteria/objectives; iii) development and establishment of mechanisms of integration scientific results into the assessment process; and iv) elaboration of procedures for Quality Assurance/Quality Control. A new draft of BSIMAP, 2015-2020, that includes terminology and conceptual frame of MSFD monitoring and assessments, gives an opportunity for further cohesion between MSFD and regional environmental agreements. Also, cooperation with the ***International Commission for the Protection of the Danube River*** will continue. Cooperation should also be planned with the forthcoming projects implemented under the Eastern Partnership, the **Cross-Border Cooperation Programme** and the **Black Sea Synergy Environment Partnership**, as well as with projects supporting the **Black Sea NGO Forum network**.

An important partner will be the **Facility for Blue Growth in the Black Sea** launched the by the European Commission in October 2017. The immediate objective of the Facility is to ensure that integrated maritime policy (IMP) and planning are mainstreamed into national policies and regional actions. In the medium term, the efforts aim to lay the foundations of a common maritime agenda for the sea basin by 2019, with concrete actions carried out in partnership among the coastal states by 2020. The Facility provides technical support by a team of national and international experts to help countries make best use of the IMP approach and prepare the foundations of a common maritime agenda for the Black Sea. The Facility seeks to identify and address various thematic areas and priorities at national and regional level⁵.

2 OBJECTIVES AND EXPECTED RESULTS

2.1 Overall and specific objectives

2.1.1 Overall objective

The overall objective of the project is to help improve protection of the Black Sea environment. This objective will be pursued through further technical assistance focused on marine data collection and local small-scale actions targeted at public awareness raising and education. The key involved actors are research / scientific and educational institutions and civil society organizations community.

2.1.2 Specific Objectives

The specific objectives are as follows:

- Improve availability and sharing of marine environmental data from the national and joint regional monitoring programmes aligned with the MSFD and WFD principles and the Black Sea Integrated Monitoring and Assessment Programme (BSIMAP);
- Support joint actions to reduce river and marine litter in the Black Sea basin;
- Raise awareness on the key environmental issues and increase public involvement in the protection of the Black Sea.

⁵ This include governance and cooperation, marine environment, research and innovation, coastal tourism, fisheries and aquaculture, maritime education, and possibly maritime transport, cross-sectoral themes such as climate change adaptation, etc.

2.1.3 Results and key outputs

In order to achieve the specific objectives of the project, the following results and outputs are foreseen:

Result 1: National and joint regional monitoring programmes implemented

Outcomes:

- Refined cost-efficient national monitoring programmes, designed in line with the EU legislation (MSFD / WFD principles) will be further tested and endorsed at least in Georgia and Ukraine by end of Project;
- At least Georgia and Ukraine will be systematically applying commonly agreed chemical and biological Standard Operation Procedures (SOPs) for sampling and analytical work;
- Proposal of the Black Sea regional monitoring network, compliant with BSIMAP - further tested through another Joint Black Sea Surveys (JBSS), including further testing of SOPs for novel monitoring parameters such as marine litter, microplastics, underwater noise, large volume and passive sampling, non-target screening, environmental DNA (eDNA);
- At least three additional national surveys organised, in full coordination with other relevant projects;
- Proposal of a common protocol on the use of on-line (satellite) monitoring approaches agreed;
- Shared and publicly accessible information on the Black Sea environment, through use of the upgraded on-line Black Sea Water Quality Database (BS WQD) with added functionalities allowing interpretation of data and assessing trends; inclusion of all quality controlled data generated within EMBLAS, MISIS and selected historical data; sharing data at the BSC level by providing input to the BSIMAP; establishment of automated data sharing protocols for sharing data at the European level via EMODnet, and IPCHEM, in line with SEIS principles;
- At least 30 national experts trained by end of programme, taking account of gender balance, thus capacities of the national institutions / project partners in the field of environmental monitoring strengthened on the use of novel monitoring methodologies;
- Project beneficiary countries supported in the activities related to compliance with obligations under Bucharest Convention, EU Association Agreements and other international conventions; identification of the Black Sea Significant Water Management Issues (SWMIs); preparation of the list of Black Sea Specific Pollutants (BSSPs); preparation of relevant parts of the MSFD Initial Assessment Reports.

Result 2: Joint monitoring and reduction of river and marine litter facilitated

Outcomes:

- Increased availability of information related to the marine litter and microplastics achieved;
- Increased availability of information on beach litter obtained during up to six Black Sea Clean Beach Days (organisation facilitated by the project) and related national events using EEA methodology and its on-line database;
- Targeted campaigns on marine litter reduction and related good waste management practices involving at least 5 schools per country implemented;
- Assistance provided to at least 5 local authorities per country to implement actions for the marine litter reduction, including local legislative measures and small-scale pilot activities.

Result 3: Environmental public awareness and education campaigns conducted

Outcomes:

- Further increase of public awareness on environmental issues related to the Black Sea, its biodiversity and ecological values, through organizing public events, educational campaigns, promotional videos/presentations, clean-up and restoration activities for the Black Sea and selected nature reserves/protected areas, as outlined in the Communication and Visibility Plan and in line with targets indicated in the LogFrame;

- Strengthened involvement of the national civil society organizations, NGOs, academic and scientific institutions to ensure sustainability of public awareness activities and events;
- Further development of the mobile phone application of the Black Sea SaveBook for involving general public into environmental monitoring with at least 1000 users.

Result 4: Management and coordination of the project ensured

Outcomes:

- An effective approach and specific guidelines defined for Calls for Proposals in consultation with the European Commission, to ensure consistency and complementarity with other calls managed directly by EC;
- Successful implementation of two series of Calls for Proposals, in full synergy with CBC activities in the Black Sea – with at least 20 contracts awarded and activities implemented;
- Smooth implementation of the project, financial accountability, production of quality deliverables, timely prepared progress reports and strong cooperation among the partners, with relevant international institutions and initiatives ensured.

The project's Logframe Matrix (see Section 9) summarises the above-mentioned outcomes. During the inception phase, the Logframe will be fine-tuned in consultation with the partner countries.

3 SCOPE OF THE WORK – PROJECT ACTIVITIES

3.1 General

3.1.1 Relevance of the proposed project

The project will be implemented in the context of the ENI Regional East Strategy Paper (2014-2020)⁶; Regional East Multiannual Indicative Programme (2017-2020)⁷ and the Joint Operational Programme for the Black Sea Basin 2014-2020⁸. The project is part of the ENI East Regional Action Programme 2017, Part 2: Support to the Implementation of the Eastern Partnership Multilateral Dimension and the Implementation of the Northern Dimension and the Black Sea Synergy.

3.1.2 Budget of the action

Detailed information about the budget of the Action is contained in the Annex III Budget.

Annex III contains detailed information on:

- The budget of the action (worksheet 1), for the total duration of the action and for its first 12 months;
- Justification on the budget (worksheet 2), for the total duration of the action; and
- Amount requested from the Contracting Authority and other expected sources of funding for the action for the total duration (worksheet 3).

3.1.3 Duration and indicative time frame

The duration of the action will be **30 months** and the start of the implementation period is **5 March 2018**. The start date of the implementation period is defined in Art. 2.2 of Special Conditions.

⁶ http://eeas.europa.eu/archives/docs/enp/pdf/financing-the-enp/regional_east_strategy_paper_2014_2020_and_multiannual_indicative_programme_2014_2017_en_.pdf

⁷ http://eeas.europa.eu/archives/docs/enp/pdf/financing-the-enp/regional_east_summary_of_the_strategy_paper_2014_2020_and_multiannual_indicative_programme_2014_2017_en.pdf

⁸ <http://blacksea-cbc.net/wp-content/uploads/2015/12/ENI-CBC-Black-Sea-Basin-JOP-final.docx>

The activities stated in the project work plan (see Chapter 8 below) correspond to the activities described in detail in Section 3. The organisation responsible for the implementation of the action will be UNDP in cooperation with its partners, associates or subcontractors.

The inception period is foreseen for 3 months, it will be used for the detailed planning of the project activities. The workplan for the first 12 months will be elaborated in more details and agreed with the beneficiary countries. The work plan for each of the subsequent year will be elaborated in due course.

A series of Calls for Proposals, through which the majority of the project activities will be implemented, is planned to be organised in two rounds. The first round is planned within the first 12 months of the project duration (including the contract awarding). The second round shall be launched after the 18th month of the project implementation and it will take into account the interim results from the first call and take into consideration the needs of the project beneficiary countries.

3.1.4 Geographical area to be covered

The beneficiary countries to be covered are the members of the Black Sea Synergy⁹, with a primary focus on the Black Sea coast countries Georgia, the Russian Federation¹⁰ and Ukraine. Turkey, Bulgaria and Romania will be associated to the extent possible (e.g. observers at Steering Committee meetings, participating in coordination meetings with the European Commission, exchange of information, participating in the technical working groups, trainings with their own funds) through other ongoing projects in which they participate, as well as through the activities of the Black Sea Commission, when deemed appropriate.

3.1.5 Target groups

Main stakeholders are central and local authorities and administrations of EU Member States and Black Sea Synergy countries as well as small civil society organisations. End beneficiaries are citizens of the BSS partner countries overall, which will benefit from the improvement of the environmental quality of the Black Sea. The ultimate beneficiaries of the project in the long-term run, will be the populations of the Black Sea countries, being able to sustainably use the sea's resources and enjoy a healthy environment.

The target groups are:

- Institutions responsible for water management and protection of the marine environment in the beneficiary countries (relevant environmental ministries);
- Scientific agencies / institutes / research centres/ universities, responsible for performing the environmental monitoring and other data providers;
- Municipalities, local/regional authorities, nature parks and protected areas administrations, port authorities, waste management and control services;
- Civil Society Organizations, environmental NGOs, associations for fisheries, shipping, tourism, local private sector companies, industries;
- Educational institutions, centres and schools;
- National and international bodies and committees involved in environmental issues of the Black Sea, such as Black Sea Commission, EEA, UNEP, EC JRC, DG Environment, DG Maritime Affairs and Fisheries, DG Research & Innovation, BSEC, ACCOBAMS, Espoo Convention, etc.;
- General public.

⁹ Countries participating in the Black Sea Synergy: Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Greece, the Republic of Moldova, Turkey, Ukraine, Romania and the Russian Federation

¹⁰ As recognised by international law.

3.2 Specification of the project activities

3.2.1 Result 1: National and joint regional monitoring programmes implemented

Under Result 1, the aim is to improve availability and sharing of cross-border compatible and MSFD / WFD aligned environmental monitoring data and information within the Black Sea Basin and at the European level. Implementation of harmonised monitoring programmes, compliant with the MSFD and WFD is a pre-requisite for collection of high quality environmental data, which can be further shared at the regional level (Black Sea countries), as well as at the European level (e.g. EEA, DG ENV).

Important steps were already made in the frame of the EMBLAS-II project. Proposals for the national and regional monitoring programmes for the beneficiary countries were drafted and monitoring cruises were organized – National Pilot Monitoring Studies (NPMS) in all three countries and Joint Open Sea Surveys (JOSS) in 2016 and 2017. State-of-the-art chemical analyses required by the EU water legislation were performed with the assistance of leading EU laboratories involving also the EC JRC laboratory. Next to the detailed study on the occurrence of the WFD priority substances in water, sediment and biota (fish and mussels) samples a first attempt has been made to identify the Black Sea Specific Pollutants. A holistic analysis of all relevant chemical pollutants, biological parameters (water fauna and flora) together with supporting general physico-chemical and hydrological parameters took place using sampling and analysis methodologies harmonised among the countries. **Eight out of 11 descriptors required by the MSFD were addressed**, including eutrophication aspects and pollution by marine litter. An **indicative chemical status** compliant with the requirements of the WFD (45 priority substances) has been established for the first time in the region. Also for the first time, a coordinated effort has been made to assess the **indicative ecological and environmental status** based on the **commonly agreed classification schemes**. A map of the Black Sea was created with areas highlighted indicatively as not being in 'good environmental status' and thus deserving further attention of environmental authorities in Georgia (GE), Russian Federation (RF) and Ukraine (UA).

Building on these achievements, the following activities are planned:

Activity 1.1 Implementation of the national monitoring programmes in accordance with reporting obligations under the MSFD, WFD and BSIMAP

- Further testing and revision of draft proposed monitoring programmes in each country, based on the results from the National Pilot Monitoring Surveys (NPMS) carried out in EMBLAS-II and support at their implementation with an extended coverage, sampling and analytical programmes;
- Application of commonly agreed SOPs and QA/QC procedures for sampling and analysis of chemical and biological parameters, as well as further development of SOPs for novel techniques, such as marine litter, large volume and passive sampling, non-target screening, eDNA, microplastics, ecotoxicological and underwater noise analyses;
- Preparation of a list of the Black Sea Specific Pollutants (BSSPs; based on the data obtained from the surveys 2016/2017 and 2019).

Specific monitoring programmes will target the Black Sea protected areas with focus on the Zernov's Phyllophora Field in Ukrainian territorial waters. The extended programmes will include full scale systematic monitoring of biological parameters (phytoplankton, zooplankton, benthic invertebrates, macrophytes), marine mammals and bacterioplankton. The monitored parameters will include also marine litter and microplastics, presence of invasive non-indigenous species (assessed through eDNA analyses), under-water noise, eutrophication (with use of satellite monitoring) and hypoxia. The programme will include extensive ecotoxicological monitoring of selected samples with a battery of bioassays to reveal the overall toxicity of samples, with focus on genotoxicity. Additional data will be obtained from samples stored from the JBSS 2017. The schemes of tested and optimised MSFD- and WFD-compliant monitoring networks will be submitted for consideration to relevant environmental authorities in Georgia and Ukraine. A proposal for BSIMAP-compliant monitoring network will be shared with the relevant environmental authorities in the Russian Federation.

The following deliverables will be obtained:

- Manuals for National Pilot Monitoring Studies (NPMS) will be updated and NPMS will be organized;
- Data Collection Templates - DCTs (results of surveys) ready for uploads to the WQ Database.

Activity 1.2 Implementation of regional monitoring programmes compliant with BSIMAP - Joint Black Sea Survey

- Implementation of a regional monitoring programme – Joint Black Sea Survey (JBSS), based on the results from the regional monitoring programme tested in EMBLAS-II with extended sampling and analytical programme;
- Considering the results of the Joint Open Sea Surveys (2016/2017) a proposal of the BS regional monitoring network, compliant with BSIMAP will be prepared.

JBSS will be organised in May/June 2019; combining results from two parallel surveys carried out by Georgia-Ukraine and Russian Federation, respectively. These surveys will be guided in their scope and working methods by the EU legislation, in particular EU MSFD and WFD. Similarly, to the NPMSs, data on new parameters will be collected, including full set of chemical and biological parameters, investigations on the adverse effects of presence of invasive species, marine mammals and marine litter. Ichthyological observations will be performed using the novel eDNA methodology and the results will be compared to the classic (observation) methods, while eDNA analyses of samples collected during the cruises 2017 will be carried out as well for comparison purposes.

For the national and regional surveys, it is planned to closely cooperate with EC Joint Research Centre in monitoring programmes involving marine litter, WFD priority substances and performing additional target and suspect pollutants and screening of non-target pollutants in water samples. Target and suspect screening of the BSSPs will be carried out together with chemical non-target screening and (bacterial) metagenomics analysis to reveal pollution cycling/degradation under the specific Black Sea conditions, Investigations on the oxygen conditions and CTD/HPLC chlorophyll-a profiles will be performed in cooperation with ARGO floats in the Black Sea. Possibilities to include monitoring techniques routinely used in the Baltic and North Sea (e.g. ferry box technology) will be explored.

First drafts of water quality / good environmental status (WQ/GES) classification schemes developed for Georgia, Russian Federation and Ukraine will be fine-tuned and tested prior to use in MSFD- WFD-compliant monitoring schemes in the investigated BS region. Methodologies and expert judgment assessments developed for the first time for the studies region in EMBLAS-II will be tested and fine-tuned with a critical mass of data, including (to be collected) historical records; involvement of experts from BG, RO, TK is foreseen.

The following deliverables will be obtained:

- JBSS Manual updated to include novel methodologies and JBSS organized in line with the relevant requirements of EU legislation;
- Historical data collected and made available for analysis;
- Results of JBSS analysed and duly reported, including to shared databases;
- Improved good environmental status (WQ/GES) classification schemes.

Activity 1.3 Facilitate sharing of environmental monitoring data at the regional and European level

- Upgrade of the BS WQD with new modules and related manuals for archiving raw data on zooplankton, ichthyoplankton, benthic habitats, macrophytobenthos, chemicals non-target screening and passive sampling data, marine litter and marine mammals monitoring data;
- Further population of the BS WQD through gathering of new data from the surveys organized during the project, and historical data (from PERSEUS and MISIS project);
- Adding functionalities to the BS WQD allowing interpretation of results, assessing trends and providing input to the BSIMAP;

- Sharing data with the other European marine data platforms incl. EMODNet, IPCHEM, SeaDataNet, WISE-Marine (EEA), ICPDR's Water Quality Database, EEA (beach litter data), EC JRC (marine and riverine litter data) taking into consideration requirements SEIS;
- Linking the Joint Black Sea Surveys (BSC, EMBLAS) and Joint Danube Survey 2019 (ICPDR) scheduled to take place at the same time (May - June 2019). Exchange of the monitoring data and cooperation at their assessment with specific focus on observations at the Ukrainian shelf will take place based on detailed discussion with Ukrainian counterparts.

The following deliverables will be obtained:

- Black Sea WQD upgraded (new modules) and data from the Surveys 2016/2017 and 2019 uploaded together with historical data in the EMBLAS DCTs format and available on-line;
- Data provided to other marine data sharing platforms and available on-line.

Activity 1.4 Capacity building on novel monitoring methods, quality assurance/quality control and use of the Black Sea Water Quality Database (*novel methodologies include: large volume and passive sampling, non-target screening, marine litter monitoring, microplastics, ecotoxicological analyses, underwater noise, e-DNA, hypoxia, satellite on-line monitoring, marine mammals*)

- Building up and further strengthening capacities of the project partners in the field of environmental monitoring, in line with the EU legislation, through implementation of a set of trainings for the national experts, organized directly in the relevant national laboratories, in the partner laboratories of the EU countries and participation of the individual experts at relevant scientific events.
- The focus will be on MSFD, WFD and BSIMAP relevant parameters, novel methodologies (large volume and passive sampling, marine litter, microplastics, underwater noise, e-DNA, hypoxia, marine mammals, ecotoxicology (genotoxicity), satellite monitoring) and implementation of the environmental and ecological status classification schemes. Part of the training shall be devoted to statistical analysis of the historical and newly obtained data from the EMBLAS-II/III surveys, with the goal of fine-tuning of the regional environmental and ecological status classification schemes. In addition, training sessions for experts on the online BS WQD will be organized, with focus on practical use of the database and its functionalities. Special attention to be given to involvement of women and junior experts.

The following deliverables will be obtained:

- A new set of Standard Operational Procedures (SOPs) for novel methodologies;
- Training materials;
- Trainings organized on novel methodologies, sampling and data interpretation involving a critical mass of experts able to apply routinely these methodologies from at least Georgia and Ukraine.

Activity 1.5 Support countries to comply with obligations under the Bucharest Convention and EU Association Agreements

- Support at drafting of parts of the Initial Assessment in Georgia and Ukraine according to the MSFD methodology, based on the data collected within EMBLAS-II and EMBLAS-Plus – in coordination with the partner governments and relevant donor projects;
- Initiating process of the Black Sea region-wide compilation of latest information allowing for assessment of the environmental status (MSFD; territorial waters) and ecological and chemical status (WFD; coastal water bodies) and related identification of impacts (Significant Water Management Issues; SWMIs) and pressures of both national and Black Sea-wide importance.

The following deliverables will be obtained:

- Proposals of the MSFD/WFD and BSIMAP compliant national and regional monitoring networks and other contributions, as needed, to the development of national MSFD strategies;
- List of Black Sea Specific Pollutants and List of Significant Water Management Issues;
- Parts of Initial Assessment documents for Georgia and Ukraine.

3.2.2 Result 2: Joint monitoring and reduction of marine litter facilitated

Under Result 2, joint actions will be initiated to reduce the input of marine litter to the Black Sea and support national and local authorities in the implementation of the marine litter reduction measures, including introduction of related good waste management practices (with focus on plastics). Special attention will be given to the involvement of women and young people.

During the EMBLAS-II the first steps were already made, to investigate the quality and quantity of marine litter, as well as some actions were done. In cooperation with EC JRC marine litter has been included in the monitoring programme during the surveys in 2016 and 2017 and accepted international formats of marine litter data reporting were used. Monitoring of litter from bridges on rivers entering the Black Sea were initiated in 2016 and 2017 in all three countries. Marine/riverine litter and beach litter monitoring strategies have been thoroughly tested in EMBLAS-II in close cooperation with EC JRC and EEA, respectively and it has been concluded that they are ready to be implemented in the region. There are also good options to include novel state-of-the-art approaches (e.g. on microplastics) in cooperation with other European seas (e.g., a potential cooperation with NIVA, Norway and EC JRC are foreseen). The Black Sea Commission “Guidelines for the marine litter monitoring in the Black Sea environment (drafted in 2017, but not yet approved), shall be taken into account where relevant.

The Black Sea SaveBook mobile application resulted in over 30 self-managed marine litter clean-ups by its users; beach litter collection became a part of the Black Sea Clean Beach Days. In 2016 ca. 200 m³ of marine litter was removed from a pilot site (protected area) in Ukraine with the support of the project using special equipment. Beach litter experts usually removed all collected litter after its EEA methodology-compliant monitoring. More than 40 schools participated in organising educational activities; majority of them was from the Russian Federation. There were more than 3,000 school children informed and involved into the project.

The following activities are planned:

Activity 2.1 Collecting marine/river/beach litter and microplastics pollution data on regular basis

- Carry out regular monitoring of the floating litter input from the main rivers discharging to the Black Sea using the EC JRC methodology and related mobile application (RIMMEL);
- Organise regular collection of the data on floating marine litter using the EC JRC methodology and related mobile application (RIMMEL);
- Establish regular monitoring scheme for beach litter with the use of EEA Marine LitterWatch approach, store the data in on-line EEA database and analyse the type and amount of waste;
- Develop and test monitoring scheme for microplastics in the Black Sea.

The following deliverables will be obtained:

- BS WQD module for data from the river and marine litter monitoring and from monitoring of microplastics pollution;
- Data on beach litter monitoring provided to the existing online database of EEA (Marine LitterWatch);
- Analysis of collected data and assess trends in marine litter and microplastics pollution.

Activity 2.2 Organizing targeted campaigns on marine litter reduction and good waste management practices

- Produce educational materials on importance of the marine litter / microplastics issue and related good waste management practices;
- Provide trainings to schools / civil society organizations, etc.;
- Organize clean-up activities (e.g. in the frame of the Black Sea Clean Beach Day).

The following deliverables will be obtained:

- Educational, awareness raising and “good waste management practices” materials;

- Targeted campaigns and trainings to schools/CSOs organized together with beach clean-up activities.

Activity 2.3 Providing assistance to the local communities and municipalities to implement measures aimed at reduction of the marine litter, considering the EU Plastics Strategy¹¹

- Based on the analyses from the collected data, propose relevant measures to decrease the marine litter pollution at the national and BSC level (links with the recently approved EU Plastics Strategy);
- Involve municipalities and local companies (e.g. local bottlers) and support pilot small scale projects for plastic waste collection-separation-recycling-reuse;
- Promote drafting/introducing national legal acts aiming at, e.g. bans or reduction of use of plastic bags, plastic packaging (in supermarkets) and other litter items frequently found in large amounts on Black Sea beaches (e.g., plastic forks, straws, ear cleaner tips, etc.).

The following deliverables will be obtained:

- Proposed measures for reduction of the marine litter pollution;
- Small scale pilot actions implemented;
- Support at the development of a national / local legal acts aiming at the ban or reduction of Black Sea priority litter items.

3.2.3 Result 3: Environmental public awareness and educational campaigns conducted

Under Result 3, public awareness on environmental issues related to the Black Sea will be further increased through organizing public events, educational campaigns with focus on biodiversity, clean-up and restoration activities for the Black Sea. It is foreseen to strongly involve the national civil society organizations, academic and scientific institutions to ensure the sustainability and replicability of the public awareness activities and events. Special attention will be given to involvement of women and young people.

Previously, in order to involve public into environmental monitoring of the Black Sea and support practical actions to the reduction of marine litter, a mobile phone application “Black Sea Savebook” was successfully launched and applied. The application stimulates the user in an interactive way to look for and make photos of so called “Environmental sentinels” – shells of specific molluscs and algae, which are the indicators of good environmental status of the Black Sea coastal zone; to identify and mark presence of dolphins in sight and to get additional points and awards for collected beach litter (<http://emblasproject.org/archives/2112>). In summer and autumn 2017 more than 1200 protocols were received, whereas more than 50 collective marine litter clean-ups were self-arranged and a large scale educational process using 'chat' with environmental monitoring professionals has been initiated.

The EMBLAS-II project also launched the tradition of the “Black Sea Clean Beach Day” (linked with the Black Sea Day - 31st October, when the Bucharest Convention has been signed), during which monitoring of the beach litter using methodology of EEA was performed in all three countries, together with related trainings and educational activities, as well as cleaning of monitored beaches. In total, more than 700 children and their supervising teachers were involved in these activities during 2016-2017.

¹¹ <http://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy.pdf>

The following activities are planned:

Activity 3.1 Organizing educational / public awareness events, linked to Joint Black Sea Surveys and “Black Sea SaveBook” application and strengthen the role of women in the environmental protection

- Public events at the occasion of monitoring Joint Black Sea Surveys in 2019, with side events (e.g. lectures on environmental sentinels monitoring, marine litter waste management and good practices);
- Re-launch of the Black Sea Savebook application – for use by general public, with new functionalities aimed at improving input into on-line database, visualisation of collected results, quality check on the provided information and response to questions posed by the application users by the team of project experts;
- Assess the current involvement of women in the protection of the Black Sea, prepare and implement a set of recommendation to strengthen the role of women.

The following deliverables will be obtained:

- Educational and public awareness events / campaigns linked with the Joint Black Sea Surveys;
- Re-launch of the BSSB application;
- Visualisation of the collected results;
- Situation analysis – the role of women in the protection of the Black Sea;
- As set of recommendations implemented to strengthen the role of women.

Activity 3.2 Organizing of the “Black Sea Clean Beach Day”

- Organizing Black Sea Clean Beach Day in each project country, linked with the river bank/ beach /protected areas clean-up activities;
- Involving Civil Society Organizations and NGOs active in the field of environmental protection, as well as local authorities and associations.

The following deliverables will be obtained:

- “Black Sea Clean Beach Day“ organized in all beneficiary countries.

Activity 3.3 Further dissemination of the project results and visibility

- Follow-up publication on “Revealing secrets of the Black Sea” - a public version of the Scientific Report from the Joint Black Sea Surveys;
- A series of publications /brochures and short video productions translating the scientific results into messages understandable by general public;
- Set of promo items for the monitoring cruises (t-shirts, caps, bags, etc).
- Project website and Facebook page “Fans of the Black Sea” regularly updated with new events;
- Press conferences and media information / press announcements, releases.

The following deliverables will be obtained:

- Press conferences organized;
- Updates at the project website and Facebook.
- Short movies;
- Publications;
- Promo items for the Joint Black Sea Surveys.

3.2.4 Result 4: Management and coordination of the project ensured

Under Result 4, smooth implementation of the project will be ensured, including financial accountability, production of quality deliverables, reports prepared according to the donor requirements

and submitted in due time, strong cooperation in between the partners and with relevant international institutions and relevant initiatives. The implementation of this Result is under primary responsibility of the Project Team, which will be supported by the relevant units (Human resources, Travel, Procurement and Finance) of the UNDP Istanbul Regional Hub and UNDP Country Offices in Ukraine and Georgia).

The following activities are planned:

Activity 4.1 Organizing the project coordination meetings and maintenance of the project Intranet

- Organize the Inception Workshop, Final Meeting, Steering Committee Meetings and ad-hoc technical meetings with the project partners (including logistic arrangements and invitations sent to SC members at least 1 month prior to the event);
- Prepare relevant background documentation (progress or scientific papers), to be distributed at least two weeks before the event;
- Maintain the project Intranet and use it for sharing the information for the coordination meetings and scientific work.

The following deliverables will be obtained:

- Inception workshop and Final project meeting back to back with the Steering Committee;
- Two ad-hoc technical meetings.

Activity 4.2 Organizing two rounds of Calls for Proposals

This activity will ensure that financial support to third parties (FSTP) identified through two Calls for Proposals, which should be managed in the most effective programmatic way. As part of the project, approximately 20 agreements for an indicative average amount ranging from 25 thousand Euros to 50 thousand Euros will be implemented. The FTSP may be channelled only to non-profit activities. Eligible recipients may be NGOs/CSOs and state institutions (e.g. educational, research and scientific organizations) from the Black Sea Synergy countries. The technical specification of the calls and eligibility criteria will be outlined during the project inception phase in consultation with European Commission. Procedurally, the Calls will be in line with UNDP Programme and Operations Policies and Procedures (POPPs).

The UNDP will assume the responsibility of the Management Authority (MA) and will be responsible for designing, launching and evaluating two calls for proposals according to its internal procedures. It will also act as Contracting Authority concluding and managing agreements, making payments, recovering sums dues and carrying out and other relevant tasks. UNDP shall consult the specification of the calls and the final selection of the projects with EC Programme Manager/EU Delegation to avoid double funding and duplication of activities.

The table below provides a general overview of the financial support to third parties (FTSP).

Objectives of FSTP	The overall objective of the FSTP is to provide technical assistance to the relevant institutions and CSOs in protecting of the Black Sea environment
Expected results of the FSTP	
Budget Indicative number and size of FSTP grants	The total indicative budget allocated for FSTP: up to EUR 700,000 Approximately 20 agreements, average allocation EUR 30,000, range EUR 15,000 – 50,000
Fixed list of the types of activity that may receive FSTP	The action will consist primarily of support to Civil Society Organizations, NGOs, local authorities and agencies, the research, scientific and educational institutions. In line with the demand driven methodology, the support will cover a mixture of the start-up, core funding and prizes for activities within the scope of the proposed project.
Definition of the persons/categories of persons which may benefit from the FSTP	The recipients of FSTP do not need to be registered at PADOR, they should be based in the project beneficiary countries. The recipients are encouraged to create regional consortia to strengthen the cross-border cooperation.
Description of the internal procedure to grant funding including emergency procedure and beneficiary protection procedure	The essential award criteria are relevance of the proposed action to the objectives of the call and the project; design, effectiveness, feasibility, sustainability and cost-effectiveness. UNDP Programme and Operations Policies and Procedures are applicable for contractual arrangements with the FSTP beneficiaries.
Accepted Costs for in-kind contribution (if applicable)	5% in-kind/co-financing by the FSTP beneficiaries

The following deliverables will be obtained:

- Technical documentation for the 1st and 2nd round of call for proposals, including guidelines for applicants, developed in consultation with the European Commission (to ensure consistency and avoid overlaps with other Calls for proposals implemented by EC in the region);
- Terms of Reference for short-term technical experts.
- 1st and 2nd round of calls for proposal launched and conducted in a fully transparent and accountable manner, in consultation with the European Commission;
- Indicatively 20 contracts awarded and successfully implemented based on clear, result-oriented proposals that would quantify the targeted and achieved environmental or other types of results;
- Reports on grant implementation under the Calls for Proposals and a summary of results achieved – as a part of the Progress and Final Reports.

Activity 4.3 Organizing procurement, recruitment and calls for proposals

- Prepare the Terms of Reference for recruitment of individual consultants, provision of service and calls for proposal, based on the Description of the Action, Inception Workshop report and agreed Workplan;
- Advertising, evaluation and contract awarding in line with the UNDP Rules and Procedures;
- Follow-up on the delivered results and ensuring the required quality.

The first round of grants will be launched no later than during **month 12** and the second Call for Proposals will be organised no later than during **month 18** of Project implementation.

Activity 4.4 Coordination activities with other relevant projects and institutions

Coordination of the project activities **with other relevant projects and initiatives** will be one of the key elements crosscutting with all project activities. It will be the primary responsibility of the Project Management Team, involvement of the potential project partners is expected where relevant. Well established contacts with the on-going or newly set up projects and initiatives (APENA; EUWI+, EC

JRC commitment to participate in the activities of EMBLAS-Plus in 2018, UNDP-GEF Dniester Project, etc.) will help to avoid possible overlaps and fully use the potential synergies for effective and successful project implemented. The project in general, and efforts on interpretation of obtained results in particular, will benefit from the parallel implementation of the Joint Danube Survey 4 to be carried out by the ICPDR countries in summer 2019.

The following deliverables will be obtained:

- Project presentations at relevant international events;
- Coordination with the relevant projects

Activity 4.5 Preparation of the regular donor reports

- Prepare relevant reporting in line with the donor requirements and to the Steering Committee members (i.e., preparation of the, Inception Report, Annual Progress Reports and Final Report, and an independent UNDP Terminal Evaluation – to be carried out at the end of the project);

The following deliverables will be obtained:

- Inception Report, Annual and Final Reports (reflecting both regional and country-specific activities and achievements and updated Logframe with impact, outcome and output indicators);
- Quarterly updates of up to two pages;
- Provision of information upon request, including as part of eventual Result Oriented Monitoring of the Project;
- Summary progress reports for the Steering Committee.

All reporting requirements would be accommodated in accordance with article 3 of the Annex II to the EU-UNDP agreement (General Conditions).

4 METHODOLOGY

4.1 General approach

The approach employed will ensure cost-effective and professional implementation of the action and value-added based on the careful planning of activities, selection of partners among the most distinguished organizations in the region, wide participation of scientists, policy makers, Civil Society Organizations and others, uniting efficiently the competence and efforts of all.

All activities of the project will be based on extensive consultations, seeking for best practices, optimal solutions and taking into consideration the precise needs in the Black Sea region. A key focus of the work will be on ensuring that the gains made through the project continue once the funding ends. This will be achieved through development of strong ownership at different levels, and in all activities planned by stimulating development of concepts for new projects / initiatives amongst project participants and other relevant organisations.

Implementation will follow the principles below:

- Coordination of the activities with those of other initiatives in the region, primarily with those operating under other on-going, in particular MSFD related EU projects and in the framework of both BSC and UNDP actions. This principle was already adopted during the first and second phase of EMBLAS and will be pursued further;
- Close cooperation with EU institutions and agencies, such as EC Joint Research Centre, European Environment Agency, other scientific institutions, EC MSFD Task Groups, etc.;
- Utilization of achievements of past projects and considering lessons learnt;
- Close cooperation and support to the Black Sea Commission and its institutional structure supporting the implementation of the Work Plan of the BSC. In return, it is expected that the BSC will facilitate the promotion of the project outcomes so that they could contribute to the

improvement of environmental management and adoption of policy documents at national and regional level where necessary;

- Formalization of data sharing at regional level based on a network wider than the existing BSC one, with the aim to improve the official data/information flow to the BSIS and provide for quality assessments;
- Capacity building of relevant key institutions in the beneficiary countries;
- Involvement of other national stakeholders and Civil Society Organizations.

The project approach aims at ensuring a smooth implementation where activities are mutually reinforcing and sustainable. This implies that, whenever practical, links have been established between different components of the project, timing was accurately planned to make sure that the deliverables fuelling and driving following activities are safely provided.

Building trust and social capital between different actors will be achieved through transparency, face-to-face discussions, and equity promotion, thus recognising that this can lead to a powerful stimulation of cooperation and confidence that such cooperation will pay in the long run for the money and effort spent during the project.

Significant effort will be invested in capacity building through trainings, hands-on exercises and strengthening capacities of laboratories to be involved in the monitoring.

The project will prepare lessons learned and a sustainability plan, which will include a set of recommendations on possible future actions in the region, as well as specify the role of the key project stakeholder. The lessons learned and sustainability plan will be included in the Final Report as an “Exit Strategy and recommendations for follow-up activities”.

The action is based on the needs of some of the beneficiary countries to streamline their environmental protection management according to MSFD and WFD principles as emerged during the EMBLAS-II and before. In parallel, the obligations to implement the Bucharest Convention and its four Protocols will also be taken into account.

4.2 Monitoring of progress and project evaluation

Continuous monitoring of the project will be ensured through adopted indicators such as quality of deliverables, expenditures versus performance, observance of timing, etc. Output indicators are specified to support monitoring of the project success. Monitoring will be based on the results of the previous phase of EMBLAS and will draw on the lessons learned therein.

Project implementation plan, quality of outputs/deliverables, identification of controversial points or deviations from the initial planning, analysis of options for correcting deviations (if any) will be dealt with by the Project Manager, Project Management Team and presented to the European Commission and when relevant – to the Steering Committee for feedback.

The Project Manager will be directly reporting to the UNDP Regional Technical Advisor (RTA), who will have the overall supervision role from the UNDP side. Internal evaluation will be conducted periodically taking into consideration intermediate results, delays, and budget overruns. Adjustments for next stages will be proposed and duly justified. The Project Manager will carefully monitor all expenditures, including travels outside the countries specified in this Description of the Action (there might be additional justified travels to conferences and events related to the objectives of the Project).

For the project planning and progress monitoring the following reports will be prepared:

- Inception report;
- Progress report on an annual basis and short internal updates if needed;
- Final report including lessons learned and recommendations for future.

EC Monitoring missions to evaluate the project interim performance will be planned by the EC Programme Manager as needed.

4.3 Cooperation with international institutions and projects

Experience from the previous phase of the project confirms the importance of cooperation with other initiatives, projects and institutions at international level to achieve high quality results, reinforce the impact of the project and increase efficiency in use of the project resources.

The project will continue with active networking and cooperation with other relevant EU funded projects, in particular APENA and EUWI+ (see abbreviations for further information on the project/s). Cooperation with Belgian project BENTHOX project has been established, the experts participated in the NPMS Ukraine survey 2016 and contributed with results on hypoxia and they were involved also in surveys organised in 2017 <http://labos.ulg.ac.be/mast/projects/benthox/cruises/>.

Cooperation with EC JRC has been established already in 2016 regarding the marine litter monitoring and special chemicals analyses of samples collected during the surveys and continued also in 2017. Given the importance of the marine litter topic, it is foreseen to continue with this cooperation, including the direct involvement of the national institutions in the marine litter monitoring. It needs to be noted that EC JRC provided analyses and trainings free of charge for the project and it is committed to continue with the in-kind support of these activities also in 2018.

The project has cooperated also with other European laboratories – National University of Athens (Greece), RECETOX (Masaryk University – Brno, Czech Republic), NIMRD and GeoEcoMar (Romania) for implementation of the Black Sea Surveys and provision of specific types of analyses. Since the proposed project is planning another round of monitoring cruises, it is foreseen to continue with the cooperation that will ensure the quality standards of results.

EMBLAS-II was offered to be included as a special case study in the EU DG RESEARCH Framework Programme 7 SOLUTIONS (<http://www.solutions-project.eu/>) bringing together the pollution aspects of the Danube river and the Black Sea. The harmonisation of activities between the new UNDP/GEF Dniester Project and EMBLAS-II was discussed.

First contacts were established with the US EPA regarding ecotoxicological analysis of the Black Sea samples. Two Turkish research organisations (TÜBİTAK Marmara Research Center Environment and Cleaner Production Institute; Department of Laboratory, Measurement and Monitoring, Ministry of Environment and Urbanization in Turkey) participated in the chemistry intercomparison studies. A Memorandum of Understanding between UNDP and Cousteau Society facilitated by EMBLAS was signed in 2017 and options for further cooperation are being explored.

Cooperation is planned also with the International Commission for the Protection of the Danube River (ICPDR), which will be organizing the Joint Danube Survey 4 in 2019. The proposed project will try to coordinate the planned Joint Black Sea Survey with the Joint Danube Survey in summer 2019 and thus obtain unique data for assessing the impact of the Danube on the environmental status of the Black Sea, as well as strengthen the cooperation between the ICPDR and the Black Sea Commission.

The proposed project is also planning the cooperation on data sharing with the other EU funded projects and initiatives, such as EMODnet, SeaDataNet, WISE-Marine, IPChEM (as listed in the chapter 1.4.).

5 IMPLEMENTATION ARRANGEMENTS

5.1 Organisational structure

Directorate-General for European Neighbourhood Policy and Enlargement Negotiations (DG NEAR) is responsible for managing this action on behalf of the European Commission. DG NEAR will work in close cooperation with DG Environment, DG Maritime Affairs and Fisheries, DG Climate Action, the European External Action Service, the European Environment Agency as well as the relevant EU Delegations in the ENP East region.

The project will be implemented by UNDP through its Istanbul Regional Hub. The overall responsibility for the project oversight will be with UNDP Regional Technical Advisor (RTA) for International Waters (dedicating approximately 10% of his time to the project). UNDP will hire a Project Management Advisor/Team Leader who will provide technical input to the project activities, liaise directly with the national representatives appointed by the Ministries and Black Sea Commissioners during the project implementation, as well as coordinate with other projects, international partners and initiatives. Besides the Team Leader, the core Project Management Team will consist of UNDP Water Program Analyst (dedicating 80% time for the project reporting, monitoring, expert recruitment, procurement, calls for proposal and contractual arrangements), Project Assistant (dedicating 50% of time to this project for all administrative and logistic arrangements) and Public Relations Expert (leading the PR and visibility activities). In addition, the project will recruit short-term international key technical experts for chemistry, biology, economy and EU policies, as well as some national experts, according to the project needs. Assistance will be provided also by the UNDP Country Offices of Ukraine and Georgia for locally implemented actions as needed.

The Project Coordination Office (PCO) established in Odessa (Ukraine) during the two preceding project phases (EMBLAS-I and EMBLAS-II) is not expected to be relocated and it is provided with no rental costs. The costs for the operation of the project office will include general expenses categories, such as stationery, communications, postal expenses and costs for premises at the Istanbul Regional Hub of UNDP (IRH) for one member of the Project Management Team. The necessary furniture and equipment for the office is to be transferred to the proposed project from the previous phase of EMBLAS-I and II and only some minor costs are foreseen.

A Steering Committee (SC) composed of representatives of the eligible Beneficiary Countries at appropriate level, the European Commission and UNDP will provide overall guidance and coordination functions. Such functions include: a) review of project progress and relevant reports; b) suggesting alteration and amendment of the project within the existing strategy and endorsement of the work plan for the following executing period; c) support to the Project Management Team in the project implementation; d) evaluation of project results and advice for improvements; e) other functions as deemed necessary. The representatives of the Black Sea Commission Permanent Secretariat, other national and international agencies and projects, shall be invited as observers to the SC meetings. Representatives of other countries and relevant national and international organisations may also be invited to attend as observers to ensure coordination with other EU-funded regional projects, in particular with EUWI+, APENA, etc. to avoid overlapping of activities.

The meetings of the Steering Committee will be jointly chaired by UNDP and European Commission. EU Delegations will be informed and consulted on project implementation in specific countries. The PCO and the Project Manager will be responsible for the organisation of the meetings, including meetings' documentation.

The SC will meet at project start, to review inception findings; at least once a year to be briefed on project progress and provide guidelines on how to address substantial project implementation issues; at the end of the project to review conclusions of draft final report, and whenever it may be deemed necessary. Its views and conclusions will be taken into account in further project implementation. While

meetings in person are preferred, cost-implications may warrant that some of the SC meetings will take place virtually.

5.2 Means proposed for the implementation of the action

The Beneficiaries will provide assistance to UNDP as necessary to arrange visas for expatriate personnel and customs clearance and inland transport for imported equipment where needed. The Beneficiaries should provide all possible assistance with unforeseen problems that UNDP may face. No monitoring or analytical equipment is to be purchased on behalf of the Contracting Authority / beneficiary country as part of this contract or transferred to the Contracting Authority / beneficiary country at its end. Any equipment related to this contract which is to be acquired by the beneficiary country and must be purchased by means of a separate supply tender procedure. Office space for the PCO will be provided by UNDP or one of its partner organisations for the whole duration of this action.

5.2.1 Implementation mechanisms in place

In the proposed project UNDP has the technical and administrative capacity to assume the responsibility for mobilizing and applying effectively the required inputs in order to reach the expected outputs. UNDP assumes overall management responsibility and accountability for project implementation. Accordingly, UNDP must follow all policies and procedures established for its own operations. The UNDP Programme and Operations Policies and Procedures (POPPs) are publicly available at <https://popp.undp.org/SitePages/POPPRoot.aspx>. To implement the project UNDP will cooperate with a number of entities, which will have a role of a Responsible Party¹². All Responsible Parties will comply with the Joint Visibility Guidelines for EC-UN Actions in the Field¹³. The legal instruments to be used for the different types of the Responsible Parties are defined in UNDP POPPs^{14, 15}.

Depending on specific eligibility criteria, it is planned to engage the following type of organizations as the responsible parties:

- Civil society organizations (including NGOs, local associations, non-state academic institutions);
- Private firms (including semi-governmental institutions, which have a commercial arm allowing to participate in bidding process);
- Government agencies (including state funded research institutions, academic and education institutions, local authorities).

The eligible costs should follow the additionality principle.

Call for proposals and procurement processes in place

The identification and selection of entities, which can act as the Responsible Parties and providers of specialised services necessary for successful project implementation, will be based on the project calls for proposals and use of the UNDP procurement mechanisms.

¹² A Responsible Party is defined as an entity that has been selected to act on behalf of the UNDP on the basis of a written agreement or contract to purchase goods or provide services using the project budget. The Responsible Party may manage the use of these goods and services to carry out project activities and produce outputs. All Responsible Parties are directly accountable to UNDP in accordance with the terms of their agreement or contract with UNDP. Under the UNDP Financial Rules and Regulations (FRR) 16.05, the Responsible Party may follow its own procedures only to the extent that they do not contravene the FRR principles. Where the financial governance of the responsible party, does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, shall apply (as per https://popp.undp.org/UNDP_POPP_DOCUMENT_LIBRARY/Public/FRM_Financial%20Management%20and%20Implementation%20Modality_Direct%20Implementation%20Modality.docx?web=1)

¹³ https://ec.europa.eu/europeaid/sites/devco/files/guidelines-joint-visibility-eu-un_en.pdf

¹⁴ https://popp.undp.org/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Defining.docx?web=1

¹⁵ https://popp.undp.org/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Innovation%20E-tendering%20and%20CSO%20Engagement_Engaging%20CSO%20NGO%20as%20a%20Responsible%20Party.docx?web=1

Calls for proposals

The calls for proposals will be used within the activities related to the implementation of national monitoring programs and public awareness raising activities linked to reduction of the marine litter pollution. The preparation of the two rounds of calls for proposals will require detailed planning of activities. The first round will be specified in more details during the inception period and outlined in the Inception Report and the themes of the call will be linked to the planned activities. The second round will be based on the lessons learned from the first round, obtained results and the feedback from the public and the key stakeholders. The call announcements will be published on the project website, UNDP websites in the partner countries, and relevant EU channels, such as websites and Facebook accounts of EU Delegations.

Besides the preparation of the technical specification of calls, launching, evaluation, selection of the projects and agreements preparation, UNDP will allocate necessary resources for managing the agreements. It will include financial planning on quarterly basis, close monitoring of the effectiveness of spent resources, evaluation of the interim and final delivered results. It is important, that UNDP will not passively wait for the results that will come out from the calls, but will actively interact with the selected entities and ensure coordination also with other projects and initiatives to achieve the required results.

As part of two rounds of Calls for Proposals, grant recipients will be required to contribute to the implementation – such contributions will be quantified at the end of the project. Given that environmental monitoring is subject to several projects, for example under the umbrella of the Cross-Border Cooperation Programme, special attention will be devoted to avoiding double funding.

Procurement

For delivery of specific type of professional services, UNDP will apply relevant procurement methods as per UNDP POPPs¹⁶, which includes micro-purchasing, request for quotations, request for proposals, invitation to bid and direct contracting. Procurement involves acquiring goods, works and services. Although UNDP takes a decentralized approach to procurement by different business units, organization-wide policies and procedures apply. The procurement process encompasses planning, requisitions, sourcing of suppliers, solicitation and evaluation of offers, contract review, contract award, and the management of contracts and assets.

5.2.2 Involvement of the national institutions.

The Project will involve a wide range of the national stakeholders in the implementation in order to further strengthen the national ownership and to achieve real participation of institutions and general public in the protection of the Black Sea environment.

In line with the Commission Implementing Decision on the ENI East Regional Action Programme 2017, Part 2: Support to the Implementation of the Eastern Partnership Multilateral Dimension and the Implementation of the Northern Dimension and the Black Sea Synergy, the Project will be implemented through a call for proposals on environmental protection and marine environmental monitoring under the Black Sea Synergy. The Project reflects also on the “**Joint Operational Programme Black Sea Basin 2014-2020**”.

Participation of the national scientific and research institutions, which are in charge of the Black Sea monitoring is the basic pre-requisition of the successful implementation of the activities in the field of the environmental protection and marine monitoring aligned with the MSFD and WFD (Result 1 and Result 2). These entities are mandated and have necessary expertise to perform the marine environmental monitoring and provide officially the data to the Black Sea Water Quality Database, which is the part of the Black Sea Information Management and Assessment Program of the Black Sea

¹⁶

https://popp.undp.org/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Procurement%20Overview_Procurement%20Overview%20and%20Principles.docx?web=1

Commission. Participation of these institutions will ensure that the obtained data will meet the required quality assurance standards and will be compatible and accepted in the various environmental data collection structures at the EU level.

The following institutions are identified as leading organizations in the Black Sea monitoring and assessments, having also experience with the research, education and capacity building, as well as, public involvement activities:

- Ukrainian Scientific Centre of Ecology of the Sea (UkrSCES, Odessa, Ukraine);
- Institute of Marine Biology, National Academy of Sciences of Ukraine (IMB, Odessa, Ukraine);
- Odessa National University I.I.Mechnikov (Odessa, Ukraine);
- National Environmental Agency” – NEA (Tbilisi and Batumi Black Sea Monitoring Center, Georgia);
- Iv.Javakhishvili Tbilisi State University – TSU (Tbilisi, Georgia);
- State Oceanographic Institute – SOI (Moscow, Russian Federation);
- P.P.Shirshov Institute of Oceanology Russian Academy of Sciences – SIO-RAS (Moscow and Southern Branch in Gelendzhik, Russian Federation);

Involvement of specific institutions in project activities will be decided as part of the project inception phase.

The involvement of the CSOs / NGOs, local administrations, associations and educational institutions active in the field of environmental protection is important for the work with general public. The role of these institutions is foreseen in the activities related to the public awareness campaigns on marine litter reduction and environmental protection (Result 2 and Result 3), as well as concreted actions and measures focused on the marine litter clean-up and nature protection. These institutions are expected to achieve sufficient outreach towards local population and communities. Partnerships with private sector companies may be considered where relevant.

It is expected to establish also close cooperation between the CSOs/NGOs with the above listed research institutions in order to ensure scientifically sound and sustainable actions on the ground, as well as efficient use of resources. This will be in particular important for implementation of activities in Russian Federation, where the financing of the CSOs/NGOs is regulated by legislation¹⁷.

5.2.3 Indicative overview of implementation arrangements per activity

Activity	Implementation arrangements
Result 1: National and joint regional monitoring programmes implemented	
Activity 1.1 Implementation of the national monitoring programmes in accordance with reporting obligations under the MSFD, WFD and BSIMAP	Call for proposal / eligible applicants: national and international scientific or academic institutions qualified to perform marine monitoring
Activity 1.2 Implementation of regional monitoring programmes compliant with BSIMAP - Joint Black Sea Survey	Procurement of specialised services (laboratory analyses, vessel rent, consumables, etc.)/ eligible applicants: qualified national/international scientific institutions, private companies
Activity 1.3 Facilitate sharing of environmental data at the regional and European level	Individual consultants
Activity 1.4 Capacity building on novel monitoring methods, quality assurance/quality control and use of the Black Sea Water Quality Database	Individual consultants
Activity 1.5 Support countries to comply with obligations under the Bucharest Convention and EU Association Agreements	Individual consultants

¹⁷ http://www.consultant.ru/document/cons_doc_LAW_132900/3d0cac60971a511280cbbba229d9b6329c07731f7/
<http://www.consultant.ru/law/hotdocs/19861.html/>

Activity	Implementation arrangements
Result 2: Joint monitoring and reduction of marine litter facilitated	
Activity 2.1 Collecting marine/river/beach litter and microplastics pollution monitoring data on regular basis	Call for proposal / eligible applicants: national and international scientific institutions qualified to perform marine monitoring Procurement of specialised services (laboratory analyses, vessel rent, consumables, etc.)/ eligible applicants: qualified national/international scientific institutions, private companies
Activity 2.2 Organizing targeted campaigns on marine litter reduction and good waste management practices	Call for proposals / eligible applicants: CSOs, NGOs, local communities, associations
Activity 2.3 Providing assistance to the local communities & municipalities to implement measures aimed at reduction of the marine litter, considering the EU Plastics Strategy	
Result 3: Environmental public awareness and educational campaigns conducted	
Activity 3.1 Organizing of educational / public awareness events, linked to Joint Black Sea Surveys and “Black Sea SaveBook” application and strengthening the role of women in environmental protection	Call for proposals / eligible applicants: CSOs, NGOs, local communities, associations, scientific, academic and education institutions
Activity 3.2 Organizing of “Black Sea Clean Beach Day”	Project team
Activity 3.3 Further dissemination of the project results and visibility	Project team, individual consultants Procurement of specialised services (audio-visual productions, printing, visibility items)
Result 4: Management and coordination of the project ensured	
Activity 4.1 Organizing the project coordination meetings, project intranet maintenance	Project team, UNDP
Activity 4.2 Organizing two rounds of Calls for Proposals	
Activity 4.3 Organizing procurement, recruitment and preparation for calls for proposals	
Activity 4.4 Coordination activities with other relevant projects and institutions	
Activity 4.5 Preparation of regular donor reports	

6 SUSTAINABILITY OF THE ACTION

6.1 Sustainability plans

The key words of the project strategy are *involvement, promotion, awareness and sustainability*. A key focus of the work will be on ensuring that the gains made through the project continue once the funding ends. This will be achieved through development of strong ownership at different levels, and in all activities planned by stimulating development of concepts for new projects amongst project participants and other relevant organisations.

Financial sustainability

Financing of follow-up activities can be sorted out by drafting of new projects or through participation of the national project partners in other relevant projects. But the priority would be to achieve changes in governmental budgets to support the revised monitoring programmes. It will be pursued by the present project through negotiations with relevant authorities. It is expected that Georgia and Ukraine will need to invest into regular monitoring in order to comply with the obligations of the EU water legislation, whereas in case of the Russian Federation there is a need to promote compliance with the Bucharest Convention.

Institutional sustainability

The project will not deal with creating new networks but rather with extending the activities and utilisation of the capacities of the existing networks in the Black Sea region, such as the BSC and NGO networks. A special attention will be paid to development of ‘ownership’ of project outcomes.

Policy level sustainability

Policy level sustainability is something which does not depend only on the intentions of the project partners. The use of internationally approved policy frameworks (WFD, MSFD and Bucharest Convention) in the project activities will contribute to policy level sustainability. The project will support the partner countries through providing consultancy services for preparation of specific documents within the scope of the project, according to the needs identified by the countries in the context of relevant provisions of Association Agreements.

6.2 Assumptions and Risks

Assumptions

Political support from the partner countries' ministries, authorities and agencies at national as well as at regional level is needed to reach the specific objectives of the Project. This support has been ensured during the two previous phases (EMBLAS-I and EMBLAS-II) in which all three countries participated and is expected to continue in phase III, when planned pilot activities will be further implemented.

The Project takes into account Georgia and Ukraine needs in transposition of EU environment-related legislation into national laws and policies, in particular the MSFD and WFD, and their consequent implementation. Signing and enforcement of EU Association Agreements by Georgia and Ukraine serve as a further impetus to this project and will ensure sustainability of its actions in the long-term run. The project takes also into account the interest of Russian Federation towards the MSFD principles and the general harmonization process in the region taking place under the Bucharest Convention and other agreements related to the Black Sea environment protection.

It is also expected that governments will allocate the necessary resources to sustain the improved capacity for the environmental monitoring and assessment of the Black Sea, built-up as part of this action. Although it is not assumed that three governments will adopt elements and principles of the MSFD in their plans, it is envisaged that they are ready and interested in learning and practicing its implementation on fully or as a pilot activity. This readiness was confirmed during implementation of EMBLAS-I, as well as EMBLAS-II.

Risks

The main risks which may impact on a successful implementation are:

	Risk	Response /Mitigation measures
	Continued administrative and structural difficulties and unstable political situation in the countries. Recently, both Ukraine and Georgia have faced administrative reforms which affected the field of environmental protection.	The internal reorganizations of relevant ministries were expected to create certain difficulties; however, this risk was mitigated by the work done during the preparatory action, which allowed identifying credible interlocutors in the relevant ministries in each country. The situation in both countries has stabilised; however, it is recommended to permanently monitor the situation in the countries for possible future changes in the governance framework of environmental protection.
	Political relationships of Russian Federation with Ukraine and Georgia may have some implications on the project implementation, in particular for the organization of Joint Black Sea Surveys.	The project will monitor the political situation among these countries, relevant authorities will be informed well in advance about the organisation of the joint surveys and all necessary steps will be taken or alternative approaches will be considered.
	The situation of EU-Russian Federation relations will be kept under review. It may have an impact on the activities of the BSC in which the Russian Federation could be involved.	The main activities focus on confidence building measures and people to people initiatives; in particular support to Civil Society Organisations and cross-border cooperation will continue.
	Environment protection often is not among the priorities of partner countries' policies due to financial and economic reasons and cannot rely on abundant financial resources.	Financing of the (part of) environmental monitoring of the Black Sea ensured by EMBLAS-Plus from external sources.

	Risk	Response /Mitigation measures
	Non-involvement or loss of interest of parties. Experience from EMBLAS-I and EMBLAS-II shows that this risk may be limited if project activities and expected results are agreed in advance.	It is important and the countries' wishes/needs are duly taken into account also in the course of the project implementation (adaptive management approach) and deliverables of a project meet the expectations of policy makers and other stakeholders.
	Lack of sustainability of regional awareness and regional stakeholders' involvement. The Bucharest Convention and other Conventions and agreements are the platform for a long-term regional cooperation.	The Black Sea Commission has a key role to play in enhancing such cooperation. The project will closely cooperate with the Black Sea Commission.
	Poor coordination with the Black Sea countries that are not covered by this project may lead to a patchy progress towards a more extended common use of the MSFD and WFD principles in the basin.	The key role in facilitation of the project interaction with other Black Sea countries (Bulgaria, Romania and Turkey) will be with the Black Sea Commission and its Advisory Groups.
	Overlapping initiatives and vested interests of actors, countries, organisations and donors.	The Project will build on and inform existing agreements and take steps to ensure complementarity.
	Unfavourable EUR/USD exchange rate development may create a significant pressure on the project budget and make impact on the overall availability of funds for planned activities.	The currency exchange rate needs to be monitored and the planning of the project activities needed to be done in step-by step approach. If needed, the scope and implementation strategy of some activities could be reconsidered upon endorsement by the Steering Committee and agreement by the European Commission.

7 GENERAL OVERVIEW ON VISIBILITY AND COMMUNICATION

The project will work towards an increase of the public awareness, wide public participation in the environment protection actions, as well as involvement of Civil Society Organizations and academic / scientific institutions. Relevant communication tools will be developed and implemented in the framework of the project in order to keep stakeholders regularly informed, ensure the visibility of the project activities and promote the project results and environmental protection initiatives. The Project visibility activities shall be carried out following the Joint Visibility Guidelines for EC-UN Actions in the Field¹⁸. All communication and visibility activities carried out within the proposed project will be coordinated with DG NEAR, respective EU Delegations and other relevant communication initiatives funded by the EC, as well as with the UNDP Country Offices.

The overall communication objective of the proposed project is to increase public awareness on the key Black Sea environmental problems and their solutions and promote the achievements of the project among the target groups in the beneficiary countries.

A Detailed Communication and Visibility Plan is presented in Annex VI. This Plan will be regularly monitored and updated, to reflect the feedback from the target groups on public events and the Black Sea protection actions. It is very important to stay flexible and react to the stakeholders' requests and to adjust to other events to create synergies.

¹⁸ https://ec.europa.eu/europeaid/sites/devco/files/guidelines-joint-visibility-eu-un_en.pdf

8 DETAILED WORK PLAN

Action Plan	2018				2019				2020				key milestones
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Y1				Y2				Y3				
Activity/ Month	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30			
Result 1: National and joint regional monitoring programmes implemented													
Activity 1.1 Implementation of the national monitoring programmes in accordance with reporting obligations under the MSFD, WFD and BSIMAP						x			x				NPMS Sept2019; DCTs completed; Technical/scientific reports
Activity 1.2 Implementation of regional monitoring programmes compliant with BSIMAP - Joint Black Sea Survey					x				x				JBSS: May/June 2019; DCTs completed; Technical/scientific reports
Activity 1.3 Facilitate sharing of environmental data at the regional and European level			x			x				x			Providing data from BS Surveys; further development of the WQDB
Activity 1.4 Capacity building on novel monitoring methods, quality assurance/quality control and use of the Black Sea Water Quality Database					x	x	x						Novel SOPs; Trainings
Activity 1.5 Support countries to comply with obligations under the Bucharest Convention and EU Association Agreements				x					x				Draft national & regional monitoring programs
Result 2: Joint monitoring and reduction of marine litter facilitated													
Activity 2.1 Collecting marine/river/beach litter and microplastics pollution monitoring data on regular basis													
Activity 2.2 Organizing targeted campaigns on marine litter reduction and good waste management practices					x	x	x						Educational presentations/ campaigns (linked with PA3)
Activity 2.3 Providing assistance to the local communities & municipalities to implement measures aimed at reduction of the marine litter, considering the EU Plastics Strategy													Pilot actions (to be planned)
Result 3: Environmental public awareness and educational campaigns conducted													
Activity 3.1 Organizing of educational / public awareness events, linked also to Joint Black Sea Surveys and “Black Sea SaveBook” application				x									Black Sea SaveBook re-launch
Activity 3.2 Organizing of “Black Sea Clean Beach Day”						x	x						BS Clean Beach Day (link with PA2)
Activity 3.3 Further dissemination of the project results and visibility				x		x		x		x			Press conferences
				x	x			x		x			Promo items (link with Surveys PA1), movies
Result 4: Management and coordination of the project ensured													
Activity 4.1 Organizing the project coordination meetings, project intranet maintenance		x			x						x		Inception Workshop, coordination wshp for surveys, Final meeting
Activity 4.2 Organizing two rounds of Calls for Proposals			x			x							1 st and 2 nd round of calls for proposals
Activity 4.3 Organizing procurement, recruitment and preparation for calls for proposals													
Activity 4.4 Coordination activities with other relevant projects and institutions													
Activity 4.5 Preparation of regular donor reports			x					x		x			Annual progress report, Final report

9 LOGFRAME MATRIX OF THE PROJECT

The logframe matrix should evolve during the project lifetime: new lines can be added for listing new activities as well as new columns for intermediary targets (milestones) when it is relevant and values will be regularly updated in the column foreseen for reporting purpose (see “current value”).

	Results chain	Indicators	Baseline (incl. ref.)	Current value Reference date	Targets (incl. reference year)	Sources and means of verification	Assumptions
Overall objective: Impact	Overall objective: Improved protection of the Black Sea environment.	Harmonised (MSFD / WFD BSC) monitoring programs in place in UA/GE/RF Joint actions /measures for marine litter (ML) reduction implemented in UA/GE/RF Events organized to increase awareness and involvement of public, stakeholders in the Black Sea protection	2014: Monitoring programs not aligned, not harmonized; BS Day celebration organized in all BS countries	2017: Draft national monitoring programs available for each country; Joint Black Sea Surveys 2016 data available; ML monitored with the EEA & JRC methodology; Public campaigns (3 BS Clean Beach day 2017)	2019: National monitoring programs adopted in UA/GE/RF; 30 national experts trained / 50% women 2019 /2020: 3 natl. and 1 joint monitoring surveys organized, Data uploaded in the BS WQD, BSIMAP, intl. marine data platforms 2019/2020: 6 Campaigns/actions for ML reduction (2 per country), min. 50 pers., 3 institutions per country; BS Clean Beach day organized UA/GE/RF (one per country at least), 100 people per country involved	Revised national and regional programs Data (including marine litter) in intl. marine data platforms and BSIMAP Campaigns and actions / measures documented Statistics on participation (individuals/institutions)	Interest of the countries in joint protection of the Black Sea, confirmed at the governmental level Involvement of relevant / mandated scientific natl. institutions in the monitoring to ensure data quality
Specific objective(s): Outcome(s)	Specific objective 1: Improved availability & sharing of marine env. data from the natl. and joint reg. monit. programmes aligned with the MSFD, WFD, BSIMAP Result 1. Natl. and joint reg. monitoring programs implemented	1. Harmonized monitoring programs (compliant with EU MSFD, WFD, Bucharest Convention) endorsed, data collected by the project for 2017-2018-2019 uploaded to the BS WQD, BSIMAP	2014: Monitoring programs not aligned and not harmonized	2017: Natl. monitoring programs drafted for each country, monitoring surveys 2016/2017 (EU MSFD, WFD, BSIMAP aligned)	2018/2019: Natl. & reg. monitoring programs endorsed UA/GE/RF; 30 natl. experts trained / 50% women 2019/2020: 3 natl., 1 reg. monit. surveys implemented, data uploaded in the BS WQD, BSIMAP, intl. marine data sharing platforms	Revised natl. & reg. monitoring programs Data available (including ML) under international marine data sharing platforms and BSIMAP	Involvement of education, scientific CSOs, NGOs in awareness raising activities
	Specific Objective 2: Introduced joint actions to support reduction of the river and marine litter Result 2. Joint monitoring and reduction of marine litter facilitated	2. Data on ML collected and joint actions /measures for marine litter reduction proposed and implemented in each country	2014: No specific ML monitoring program in the Black Sea	2017: ML monitoring in line with the EEA and EC JRC methodology introduced; no specific action on ML reduction	2018/2019: Data on ML collected and analysed in 3 countries; 6 Targeted campaigns / actions for marine litter reduction organized (two per country)	Data on microplastics ML/ available, shared Campaigns/actions/ measures documented; Grants awarded	Interaction with other BS countries through BSC and its Advisory groups Intl. organizations
	Specific Objective 3: Increased public involvement in the protection of the Black Sea and raised awareness on the key environmental issues; Result 3. Environmental public awareness and education campaigns conducted	3. Events organized to increase awareness and involvement of public, stakeholders in the Black Sea protection	2014: Black Sea Day organized by BSC on annual basis	2017: Campaigns organized (BS Clean Beach day); 6 Project partners (4 scientific, 2 academic) / No CSO / 1 intl. NGO; Project website / facebook	2019 / 2020: 3 BS Clean Beach Day events (one per country); Project products: 1 infographics, 1 movie, 1 presentation on marine litter; 1 concept for touring presentation, 1 brochure on scientific results of the surveys	Campaigns documented Grants awarded Statistics	/and donors to supporting activities in the Black Sea region

	Results chain	Indicators	Baseline (incl. ref.)	Current value Reference date	Targets (incl. reference year)	Sources and means of verification	Assumptions
Outputs	1.1/1.2 Revised national and regional monitoring programmes prepared / implemented	1.1.1/1.2.1 Nr. of manuals/SOPs available 1.1.2/1.2.2 Nr. of natl./reg. surveys 1.1.3 /1.2.3 Nr. of participating institutions in surveys 1.1.4/1.2.4 Nr. of experts participating in the surveys, manuals, DCTs work (men/women)	2014: 1 st drafts of monit. prog. & concepts (EMBLAS-I) No common format for the data collection, no statistics on women participation	2017: 3 Manuals for the 1 st NPMS and 1 st JOSS prepared, to be revised First set of SOPs available (chemistry & biology), missing SOPs for novel methodologies/ 7natl., 2 intl. institutions, 20 experts (10 women)	2019: NPMS Manual, incl. novel method, 3 new SOPs, DCTs 2019: 3 natl., 1 reg. monit. surveys 2019/2020: DCTs, Survey Reports, 7natl., 2 intl. institutions, 20 experts (10 women)	Manuals and Reports from the monitoring cruises, DCTs completed Proposals for WFD-MSFD compliant national and regional monitoring	
	1.3 Data and information shared on the Black Sea environment	1.3.1 Nr. of institutions cooperating in data sharing & info exchanges 1.3.2 Nr. of marine data platforms provided with the Black Sea data 1.3.3 Nr. institutions, experts using BS WQD (men/women)	2014: Draft BSIMAP developed by the BSC Advisory Groups Outdated BS WQD (chemistry only)	2017: BSIMAP (2017-2020) adopted by the BSC; WQD update prepared; EMBLAS-II data in RIMMEL database, cooperation with EEA 7 natl., 2 intl. institutions, 14 experts using WQD (7 women)	2018: Data in BSIMAP - BSWQD, BSIS, EEA 2019/2020: Data in 3 int. marine platforms; 7 natl., 2 intl. institutions, 28 experts (14 women)	BSIMAP document Minutes of the BSC AG meetings Functional BS WQD Black Sea data in other marine data platforms (e.g. EMOdnet, SeaDataNetm, WISE-Marine, IPCHEM)	
	1.4 Strengthened capacities of the natl. institutions in the field of environmental monitoring (incl. ISO 17025 standard & use of the BS WQD)	1.4.1 Nr. of training topics covered 1.4.2 Nr. of experts trained (men/women) 1.4.3 Nr. of experts participating in exchanges / visits of laboratories / scientific events (men/women)	2014: National experts / institutions trained in conventional methods of monitoring	2017: Trainings in EMBLAS-II -4 topics (chemistry, biology, ichthyology, ML), Training in novel methodologies missing / 40 experts trained (20 women), 5 experts (3 women) in exchanges	2019 /2020: Trainings – 3 topics (novel methodologies, BS WQD use, classification schemes) 70 experts trained (35 women), 10 experts (5 women) in exchanges	Trainings materials / agenda / List of participants Participation of experts in the surveys, individual study visits, intl. events BS WQD Manual available	
	1.5 Countries supported in the activities related to compliance with obligations under intl. legislation and conventions	1.5.1 Nr. of topics/issues covered 1.5.2 Nr. of documents accepted by the countries, (with project support)	2014: GE and UA signed EU Assoc. Agreement Black Sea Specific Pollutants (BSSPs), Significant Water Management Issues (SWMI) not identified	2017: Delineation of coastal zones water bodies available from EMBLAS-II Part of background information / data for IAs available from EMBLAS-II	2019: Parts of Initial Assessment for GE, UA 2019 / 2020: List of BSSPs, List of SWMI	Draft documents of selected parts of Initial Assessment Organized workshop - agreed list of BS SWMIs, BS relevant pressures and inclusion of BSSPs into BSIMAP	
	2.1 Data and information on marine litter available	2.1.1 ML / microplastics data available in BS WQD and other marine data platforms 2.1.2 Analytical reports available	2014: No data available	2017: ML monitored, data in JRC RIMMEL database, EEA Marine LitterWatch software used	2019: DB module (ML/microplastics) 2019/2020 Data in the BS WQD, analysed	Data module for marine and riverine litter in the BS WQD, Analytical report on ML and microplastics	
	2.2 Awareness on ML / microplastics issues,	2.2.1 Nr. and topics of campaigns 2.2.2 Nr.of participants targeted by	2014: No targeted campaigns	2017: no targeted campaigns	2019/2020: 2 topics on ML covered, 1000 persons targeted	Campaigns documented Statistics	

	Results chain	Indicators	Baseline (incl. ref.)	Current value Reference date	Targets (incl. reference year)	Sources and means of verification	Assumptions
	good waste management practices introduced	the campaigns /men, women, young			(500 women)		
	2.3 Local authorities assisted with marine litter reduction measures	2.3.1 Nr. of organizations/institutions involved in the proposed measures 2.3.2 Nr. of small scale pilot activities organized	2014: No targeted assistance provided	2017: Beach clean-up organized in each country during the Black Sea Clean Beach day 2016/17)	2019: 6 Proposals for pilots/ assisting the local municipalities (5 per country estimated), 9 instit. involved (3 per country 2019 / 2020: 6 Small pilots for ML reduction (2 per country)	Pilot activities documented Beach clean-up statistics	
	3.1 Increase public awareness on the Black Sea environmental issues, public participation in environm. monitoring (EMBLAS mobile phone application "Black Sea SaveBook")	3.1.1 Nr. of institutions promoting / trained in Sentinels monitoring and use of the BSSB 3.1.2 Nr. of users (men/women) 3.1.3 Nr. of collected data inputs (protocols) 3.1.4 Nr. of actions addressing participation of women in env. protection	2014	2017: 7 Scientific institutions involved in the Environmental Sentinels monitoring trainings Mobile application "Black Sea Savebook" developed, launched and trainings organized, 1000 protocols	2019/2020: 9 institutions involved / 1000 users of BS Save Book application (500 women), additional 1000 data protocols / 3 actions/events for women's participation	Website posts on events Promo items available Education / campaign materials Media overview, Press releases and media invites Educational publications available Concrete measures introduced	
	3.2 Involving CSO / NGOs and scientific / education institutions in the awareness campaigns – the BS Clean Beach Day, etc.	3.2.1 Nr. of public events (BS Day, with surveys, etc.), 3.2.2 Nr. of topics dealt by campaigns, nr. of campaigns 3.2.3 Nr. of institutions active 3.2.4 Nr. of participants (men, women)	2014: Black Sea Day organized by BSC	2017: BS Clean Beach Day UA/GE/RF 7 Scientific institutions involved in the BS Clean Beach Day / beach clean-up	2019/2020: 3 Black Sea Clean Beach Day event, one per country /2 topics covered by enviro campaigns (good waste management – focus on plastics), 6 campaigns (2 per country) / 9 institutions involved (3 per country),	Audio-visual productions Brochures / Public summaries on the project results Statistics	
	3.3 Information on the project results disseminated, project visibility enhanced	3.3.1 Nr. of publications, audio-visual products 3.3.2 Nr. of posts at the project website and BS fans facebook page, number of subscribers of facebook page 3.3.3 Nr. of press conferences	2014: Brochure on EMBLAS	2016/2017: 1 educational brochure (sentinels monitoring) Brochure: 12 facts about the BS Summary on the JBSS 2016 3 movies on the Black Sea, 45 posts on web, 4000 website visitors, 340 facebook subscribers / 6 press conferences with surveys and project results dissemination	2019/2020: 1 Short movie, 1 Touring and 1 Holographic presentation on ML, 2Infographics on the Black Sea; 1 Brochure on MSFD, additional 60 posts on website, 1000 website visitors, 150 subscribers/ 3 press conferences with surveys, results dissemination		

	Activities	Means and Costs	<i>External factors</i>
	Result 1: National and joint regional monitoring programmes implemented	Staffing:	<i>Fluctuation of EUR/USD exchange rate</i>
	Activity 1.1 Implementation of the national monitoring programmes in accordance with reporting obligations under the MSFD, WFD and BSIMAP Activity 1.2 Implementation of regional monitoring programmes compliant with BSIMAP - Joint Black Sea Survey Activity 1.3 Facilitate sharing of environmental data at the regional and European level Activity 1.4 Capacity building on novel monitoring methods, quality assurance/quality control and use of the Black Sea Water Quality Database Activity 1.5 Support countries to comply with obligations under the Bucharest Convention and EU Association Agreements	UNDP Regional Technical Advisor (overall oversight on the project) Project team leader (Management advisory role) UNDP Water Program Analyst (Reporting, HR, Procurement) Project assistant (admin support, logistic) International experts in the field: chemistry, biology, policy, databases, economy (national experts – according to the needs)	
	Result 2: Joint monitoring and reduction of marine litter		
	Activity 2.1 Collecting marine/river/beach litter and microplastics pollution monitoring data on regular basis Activity 2.2 Organizing targeted campaigns on marine litter reduction and good waste management practices Activity 2.3 Providing assistance to the local communities & municipalities to implement measures aimed at reduction of the marine litter, considering the EU Plastics Strategy	3 large workshops and series of trainings 3 national and 1 regional monitoring cruise (foreseen costs for ship rental, consumables) Public events/campaigns	
	Result 3: Environmental public awareness and educational campaigns conducted		
	Activity 3.1 Organizing of educational / public awareness events, linked to Joint Black Sea Surveys and “Black Sea SaveBook” application and strengthen the role of women in environmental protection Activity 3.2 Organizing of “Black Sea Clean Beach Day” Activity 3.3 Further dissemination of the project results and visibility	Budget – see Annex III – Budget of the Action for details.	
	Result 4: Management and coordination of the project ensured		
	Activity 4.1 Organizing Project Coordination meetings (Inception, SC meetings, ad-hoc technical), intranet maintenance Activity 4.2 Organizing two rounds of Calls for Proposals Activity 4.3 Organizing procurement, recruitment and preparation for calls for proposals Activity 4.4 Coordination activities with other relevant projects and institutions Activity 4.5 Preparation of regular donor reports		

Definitions:

“Impact” means the primary and secondary, long term effects produced by the Action.

“Outcome” means the likely or achieved short-term and medium-term effects of an Action’s outputs.

“Output” means the products, capital goods and services which result from an Action’s activities.

“Indicator” is the quantitative and/or qualitative factor or variable that provides a simple and reliable means to measure the achievement of the Results of an Action.

“Baseline” means the starting point or current value of the indicators.

“Target” (or results Goal) means the quantitatively or qualitatively measurable level of expected output, outcome or impact of an Action.

A “logical framework matrix” (or “logframe matrix”) is a matrix in which results, assumptions, indicators, targets, baselines, and sources of verification related to an action are presented. The intervention logic tells how, in a given context, the activities will lead to the outputs, the outputs to the outcome(s) and the outcome(s) to the expected impact. The most significant assumptions developed in this thinking process are to be included in the logframe matrix.

10 ACRONYMS AND ABBREVIATIONS

ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
APENA	EU funded project “Support to Ukraine in approximation of the EU environmental <i>acquis</i> ”
BS	Black Sea
BS WQD	Black Sea Water Quality Database
BSC	Black Sea Commission (Commission on the Protection of the Black Sea Against Pollution)
BSC AG	Black Sea Commission Advisory Group
BSCBD	Black Sea Clean Beach Day
BSEC	Organization of the Black Sea Economic Cooperation
BSIS	The Black Sea Information System
BSIMAP	Black Sea Integrated Monitoring and Assessment Programme
BSS	Black Sea Synergy
BSSPs	Black Sea Specific Pollutants
CBC	Cross-border cooperation
DCT	Data Collection Template
DG ENV	Directorate-General for Environment
DG NEAR	Directorate-General for European Neighbourhood Policy and Enlargement Negotiations
EaP	Eastern Partnership
EC	European Commission
eDNA	Environmental DNA
EEA	European Environment Agency
EMODNet	project
ENP	European Neighbourhood Policy
ENPI	European Neighbourhood and Partnership Instrument
EU	European Union
EUWI	European Union Water Initiative
FAFA	Financial and Administrative Framework Agreement
FP	Framework Programme
FSTP	Financial support to third parties
GE	Georgia
GEF	Global Environment Facility
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
HELCOM	Helsinki Commission
ICES	International Council for the Exploration of the Sea
ICPDR	International Commission for Protection of Danube River
IP	Indicative programme (EU)
IPCHEM	Information Platform for Chemical Monitoring
IWRM	Integrated Water Resources Management
JBSS	Joint Black Sea Survey
JOSS	Joint Open Sea Survey
JRC	EC Joint Research Centre
MENR	Ministry of Ecology and Natural Resources of Ukraine
MEPA (MENRP)	Ministry of Environmental Protection and Agriculture of Georgia (former Ministry of Environment and Natural Resources Protection)
MISIS	MSFD Guiding Improvements in the Black Sea Integrated Monitoring System project
ML	Marine Litter
MSFD	EU Marine Strategy Framework Directive
NGO	Non-governmental organisation
QA/QC	Quality Assurance / Quality Control
PA	Project Activity
PCO	Project Coordination Office
PERSEUS	Protecting European Seas and Borders through the Intelligent Use of Surveillance (EU FP)
PMA	Pollution Monitoring and Assessment
RF	Russian Federation

RIMMEL	EC JRC Research Project “RIverine and Marine floating macro litter Monitoring and Modelling of Environmental Loading”
RTA	Regional Technical Advisor
SAP	Strategic Action Plan (UN)
SC	Steering Committee
SeaDataNet	Pan-European Infrastructure for Ocean and Marine Data Management
SEIS	Towards a Shared Environmental Information System (EEA regional programme)
SOP	Standard Operating Procedure
SWMI	Significant Water Management Issues
UA	Ukraine
UNDP	United Nations Development Programme
UNDP IRH	UNDP Istanbul Regional Hub
UNECE	United Nations European Economic Commission
UNEP	United Nations Environment Programme
WISE	EEA Water Information System for Europe
WFD	EU Water Framework Directive
WQ	Water Quality

ⁱ Source: Black Sea Commission – *State of the Environment Report 2001-2007*; UNEP/GIWA *Eutrophication in the Black Sea Region, Impact assessment and causal chain analysis, 2005*

ⁱⁱ Source: Black Sea Commission, *State of the Environment Report 2001-2007*