EUROPEAN UNION CONTRIBUTION AGREEMENT

ENI / 2020/417-573

Annex I: Description of the Action

European Union for Improving Environmental Monitoring in the Black Sea– EU4EMBLAS

TABLE OF CONTENT

1 1.1	Back Envi	ground ronmental context	3
1.2	Curr	ent state of affairs in the relevant sector	3
	1.2.1	Bucharest Convention on the Protection of the Black Sea against Pollution	3
	1.2.2	Relations to EU strategies and programmes	4
1.3	Relat	ted programmes, projects and other donor activities	5
2	Obie	ctives and expected results	8
2.1	Over	all and specific objectives	8
	2.1.1	Overall objective	8
	2.1.2	Specific Objectives	8
	2.1.3	Results and key outputs	8
3	Scop	e of the work – project activities1	10
3.1	2 1 1	Palayanaa of the proposed project	10
	3.1.1	Budget of the action	10
	313	Duration and indicative time frame	10
	314	Geographical area to be covered	10
	3.1.5	Target groups	11
3.2	Spec	fication of the project activities	11
	3.2.1	Result 1: Modern systems and facilities established to support marine environmental monitoring in Georgia and Ukraine	11
	3.2.2	Result 2: National capacities strengthened for application of modern analytical methods, data management and assessment related to marine environmental monitoring	, 12
	3.2.3	Result 3: Awareness of general public on the Black Sea environmental issues further increased and education of young generation supported	13
	3.2.4	Result 4: Management and coordination of the project ensured	15
4	Meth	odology	16
4.1	Gene	ral approach1	16
4.2	Mon	itoring of progress and project evaluation1	17
4.3	Coop	eration with international institutions and projects1	18
5	Impl	ementation arrangements1	18
5.1	Orga	inisational structure	10
5.2		Is proposed for the implementation of the action	20
	5.2.1	Implementation mechanisms in place	20
	5.2.2		21
6 6 1	Susta	inability of the action	21
6.2	Accu	mations and Bisks	21 77
0.2 7	Conc	rel overview on visibility and communication	
/ 0	D	a at over view on visionity and communication	43 75
ð	Deta		43
9	Logf	rame matrix of the project	26
10	Acro	nyms and abbreviations	33

1 BACKGROUND

1.1 Environmental context¹

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.

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 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 is continuously introducing ever increasing number of chemical contaminants into the Black Sea, some of them giving rise to antibacterial resistance bacteria and genes, which might pose 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 the floating marine litter, litter accumulated on the beaches and omnipresent microplastics have already been recognised as a risk to marine animals and humansⁱⁱ

Unique terrestrial and aquatic habitats of the Black Sea are under threat, though during the last 10 years certain signs of improvement of the Black Sea state were observed. Yet, the Black Sea remains fragile, with low potential to withstand anthropogenic pressures, especially if they increase compared to today due to recovery of the region's economy.

The framework of the regional cooperation in the Black Sea environmental protection is provided by the 'Convention on the Protection of the Black Sea Against Pollution' (Bucharest Convention), which entered into force in 1994. It is expected, that the political commitment of the Black Sea countries to comply with the EU legislation will increase over the next years and there will be a need for building capacities and sharing the information and knowledge.

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

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

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

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 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).

On every appropriate occasion the EU officially expresses through technical and diplomatic dialogue its high interest to become a Party to the *Convention on the Protection of the Black Sea against Pollution* (**Bucharest Convention**) and to its body – the Black Sea Commission. The 7th EU Environmental Action Programme⁴ sets the EU's obligation to engage for the accession to the Black Sea Commission⁵. Membership to the Bucharest Convention would bring the institutional status of the EU in line with its substantial contribution to the protection of the Black Sea marine and costal environment, while providing grounds for further support to the environmental protection activities of this marine region.

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.

The third review of the implementation (2015-2018) of the **Black Sea Synergy**, through a **European Commission/EEAS Joint Staff Working Document**⁶ issued in March 2019, underlines that promoting cooperative and practical region-wide solutions is essential to address regional and global challenges. This document made an overview of recent developments in the areas of maritime policy, marine research and innovation, fisheries, environmental protection and civil society engagement and put forward the concept of three concentric circles streamlining the various fields of cooperation. Their design of is flexible and dynamic; topics could 'move' from one circle to another, based on the region's interest and progress made. The document also highlighted the links with other relevant EU strategies, as well as the cooperation with regional and international organisations active in the Black Sea region.

Two important regional agendas were developed under the Black Sea Synergy umbrella in the **blue growth area**, namely the Strategic Research and Innovation Agenda and the Common Maritime Agenda for the Black Sea. The implementation of these common agendas will produce impact and concrete results for the citizens and communities of the Black Sea, with important visibility for EU guiding role. Both agendas equally tackle marine environmental challenges.

The regional cooperation framework set up by the **Common Maritime Agenda for the Black Sea** (**CMA**) was endorsed in May 2019 by the 6 coastal countries and Moldova⁷. The overarching objective is to support a medium-long term integrated ecosystem-based approach to maritime affairs and blue economy, through a structured collaboration among involved countries and different stakeholders. Blue economy activities and challenges are jointly addressed to ensure their environmental sustainability while fostering growth. The CMA sets 3 goals - **1. Healthy marine ecosystems;** 2. Innovative blue

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.

⁴ The 2013 Decision of the European Parliament and of the Council

⁵ / <u>http://ec.europa.eu/environment/action-programme</u>

⁶ https://eeas.europa.eu/sites/eeas/files/swd 2019 100 f1 joint staff working paper en v3 p1 1013788-1.pdf

⁷ https://ec.europa.eu/maritimeaffairs/press/black-sea-ministers-endorse-common-maritime-agenda_en

economy; 3. Investment – and 10 priorities further declined into actions. The CMA implementation was launched in February 2020. European Commission is part of the governance, as Steering Committee member.

The **Strategic Research and Innovation Agenda for the Black Sea** was launched in May 2019 by the European Commission together with the 7 countries that endorsed the Common Maritime Agenda and as its scientific pillar. The Strategic Research and Innovation Agenda for the Black Sea focuses on four key areas: address fundamental Black Sea research challenges; boost the Black Sea Blue Economy; develop innovative infrastructures and to enhance blue workforce through education for new marine and maritime jobs and engaging citizens.

The region has significant potential for interconnectivity both within the EU and between continents, considering the **Black Sea bridging role**, as mentioned by the Europe-Asia Connectivity Strategy⁸.

The Marine Strategy Framework Directive (MSFD) is the key EU legal instrument for the protection of the marine environment. Through their Association Agreements with the European Union, Georgia and Ukraine have committed to implement it.

Efforts to protect the Black Sea are also part of 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 main 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 current 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 EU will continue to selectively engage with Russia in areas of common interest in the Black Sea region, while stressing that such cooperation does not in any way contradict any relevant United Nations General Assembly resolutions, is pursued in due respect of Ukraine's independence, territorial integrity and sovereignty, and is in line with the EU non-recognition policy and the EU's five guiding principles.

1.3 Related programmes, projects and other donor activities

The present technical assistance project will built on the results and conclusions of previous and current projects in the Black Sea region. It 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

⁸ <u>https://eeas.europa.eu/sites/eeas/files/joint_communication_connecting_europe_and_asia_building_blocks_for_an_eu_strategy_2018-09-19.pdf</u>

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 project 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 made⁹ 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. 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.). 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.

EMBLAS-Plus (2018-2020) continued building 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. EMBLAS-Plus had extended focus on environmental protection, the marine litter monitoring and reduction through local small-scale actions targeted at pollution by marine litter, public awareness raising and education.

EU Water Initiative Plus for Eastern Partnership - EUWI+ (2016-2021) 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 project involves the rehabilitation of water monitoring networks and support for the renovation of laboratories by providing modern equipment and training for personnel. EUWI+ also facilitated an upgrade of the water laboratory at the Georgian National Environmental Agency, to be able to conducts state-of-the-art water analysis. The new devices are able to detect a much wider range of industrial chemicals and pesticides, many of which are cancerogenic, neurotoxic, or bioaccumulating. With this expansion of the laboratory, more pollutants can now be monitored and subsequently managed with greater precision. In Ukraine, equipment has been provided to the State Agency of Water Resources and Ukrainian Hydrometeorological Service of State Service of Emergency Situations to reinforce laboratory capacities and strengthen reforms in water sector.

CeNoBS¹⁰ supports the EU Marine Strategy Framework Directive implementation in the Black Sea through establishing a regional monitoring system of cetaceans and noise monitoring for achieving "Good Environmental Status" (GES).

The EU Black Sea Basin Cross-Border Cooperation Programme provides significant support for building local economies and improving the environment. For the 2014-2020 period, \notin 54 million was made available by this programme and more than 56 key projects were selected for funding in areas such as business development, environmental protection, action against climate change, and encouraging contacts between people. Improved joint monitoring and environmental quality are pursued, for example through awareness and education actions on marine and riparian pollution issues

⁹ http://emblasproject.org/wp-content/uploads/2017/04/Joint-Black-Sea-Surveys-2016_16.pdf

¹⁰ www.cenobs.eu

and cross-border clean-up campaigns of rivers in the Black Sea basin. The following CBC projects are particularly relevant: the Waste Free Rivers for a Clean Black Sea, MARLITER, and ANEMONE.

It will be 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) and the *International Commission for the Protection of the Danube River*. 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.

Several other initiatives are relevant:

- European Marine Observation and Data Network (EMODnet),
- SeaDataNet,
- WISE-Marine (EEA), and
- Information Platform for Chemical Monitoring (IPCheM).

An important partner is the **Common Maritime Agenda for the Black Sea** (**CMA**) whose implementation is supported by the **Virtual Knowledge Centre for the Black Sea** and by the specific **assistance mechanism including National Hubs**. The Virtual Knowledge Centre, activated in early September 2020, functions as a stakeholders' platform.

The **World Bank is preparing** a new programme focusing on **the Black Sea**. It is planned the the programme cover four countries (Georgia, Moldova, Turkey and Ukraine). It will be important to stay in touch with the World Bank team working to develop this initiative.

The project should actively seek contact with the Common Implementation Strategy of the MSFD, as appropriate and according to its activities, for example, with the CIS Technical Group on marine litter and the MSFD Expert Network on Marine Contaminants.

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 establishing modern systems and facilities for environmental monitoring (in Georgia and Ukraine), capacity building, assessment of environmental status in line with EU MSFD/WFD and public awareness raising on the Black Sea environmental issues. The key involved actors are the relevant national authorities, as well as research / scientific and educational institutions involved in the Black Sea monitoring.

2.1.2 Specific Objectives

The specific objectives are as follows:

- i) Upgrade of the technical facilities of key environmental organisations and laboratories involved in the monitoring of the Black Sea by procurement of modern analytical techniques and enabling their long term operation;
- Building national capacities and skills in use of the up-to-date monitoring and analytical techniques aligned with the MSFD and WFD principles and methodologies and the Black Sea Integrated Monitoring and Assessment Programme (BSIMAP), including environmental data sharing and assessment;

iii) Raise awareness on the key environmental issues and increase public involvement in the protection of the Black Sea.

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: Modern systems and facilities established to support marine environmental monitoring in Georgia and Ukraine

Outcomes:

- Situation analysis carried out in Georgia and Ukraine, to identify the existing infrastructure/ equipment/facilities and define equipment/facilities necessary for applying commonly agreed chemical and biological Standard Operation Procedures (SOPs) for sampling and analytical work in line with MSFD and WFD monitoring methodologies and protocols;
- The most suitable options for supplies of equipment identified;
- At least one laboratory in Georgia and one in Ukraine in the national institutions responsible for marine environmental monitoring equipped for analytical work, including sampling, sample processing and analysis of general physico-chemical, chemical and biological parameters, marine litter and other MSFD required parameters.

Result 2: National capacities strengthened for application of modern analytical methods, data management and assessment related to marine environmental monitoring in line with MSFD methodologies and protocols

Outcomes:

- Overall needs for training defined and joint training programme specified;
- At least 6 training sessions organized, with participation of experts from Georgia, Russian Federation and Ukraine;
- At least 30 experts trained 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;
- Laboratory twinning to increase the sustainability of training.

Result 3: Awareness of general public on the Black Sea environmental issues further increased and education of young generation supported

Outcomes:

- Further increase of public awareness on environmental issues related to the Black Sea, its biodiversity and ecological values, through organizing public events, educational activities, promotional videos/presentations;
- Further development and maintenance 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:

- Technical specifications for laboratory equipment and upgrade of relevant facilities; including a maintenance plan and a provision for the supply of consumables for the use of the instruments;
- Relevant procurement procedures performed;
- 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 may be fine-tuned as needed 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)¹¹; Regional East Multiannual Indicative Programme (2017-2020)¹², and the Joint Operational Programme for the Black Sea Basin 2014-2020¹³. The project is part of the ENI East Regional Action Programme 2019, Part 2: Support to the Implementation of the Eastern Partnership Multilateral Dimension and the Implementation of the Northern Dimension and the Black Sea Synergy, including some actions to be carried out in 2020, to be financed from the general budget of the European Union. The project is also related to the implementation of the European Green Deal and the 2030 Agenda for Sustainable Development and the Sustainable Development Goal 14.

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).

Duration and indicative time frame 3.1.3

The initial duration of the action will be 36 months. The start date of the implementation period is defined in Art. 2.2 of Special Conditions.

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 2 months, it will be used for the detailed planning of the project activities, including set-up of the time frame for the situation analysis and needs assessment, procurement and supplies of analytical equipment, as well as training programme. The workplan for the first 12 months will be elaborated in more details and agreed with the beneficiary countries. An Inception Workshop is planned (virtual or in person), with participation of the Steering Committee and key project partners to discuss the project work plan and suggest modification if relevant. An Inception Report will be prepared to confirm the project planning.

The work plan for each of the subsequent year will be fine-tuned in due course.

¹¹ 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

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

3.1.4 Geographical area to be covered

The primary beneficiary countries of this project are Georgia and Ukraine as the recipients of the technical support in the form of equipment/facilities development. The Russian Federation will participate in the capacity building and awareness raising activities.

The Republic of Moldova, Turkey, Bulgaria and Romania and the Black Sea Commission 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

The main target groups include organisations responsible for water management and protection of the marine environment in the beneficiary countries:

- Georgia: Ministry of Environmental Protection and Agriculture;
- Russian Federation: Ministry of Natural Resources and Environment;
- Ukraine: Ministry of Ecology and Natural Resources.

Relevant national agencies/scientific organizations dealing with monitoring and water resources management and protection of the marine environment shall be recipient institutions of the technical and capacity building assistance. The results from monitoring would be acknowledged and submitted to data repositories by the responsible organisations, thus taking responsibilities and starting to link with the envisaged preparation of measures.

In addition, educational institutions, school, relevant Civil Society Organisations (CSOs), as well as general public shall be involved in the awareness raising activities planned in the project.

The main stakeholders are authorities and administrations of Black Sea Synergy countries, EU Member States and Eastern Partnership, as well as civil society organisations.

The end beneficiaries are citizens of the Black Sea Synergies partner countries overall.

3.2 Specification of the project activities

3.2.1 Result 1: Modern systems and facilities established to support marine environmental monitoring in Georgia and Ukraine

Under Result 1, the aim is to equip relevant national institutions with facilities and suitable analytical equipment to be able to perform analysis of environmental marine monitoring samples to obtain data that are required for environmental and ecological status assessment of the Black Sea harmonised with the EU MSFD and WFD requirements.

Important steps were already made in the previous project phases – EMBLAS-II and EMBLAS-Plus, where the national/regional monitoring programmes were designed and the experts of the relevant national institutions, responsible for the marine environmental monitoring were trained for on-site measurement of general physico-chemical parameters, floating marine litter, beach litter and collection of the samples of water, sediments and biota (Joint Black Sea Surveys in 2016, 2017 and 2018). The samples for more complex chemical and marine litter (e.g. ultra trace organic contaminants, microplastics) analyses have been sent to external laboratories. There is a need to build-up national capacities, so the national institutions will be able not only to collect the environmental samples, but also to perform the analyses and interpret the results of analyses.

In order to achieve this aim, necessary analytical equipment needs to be provided to the relevant institutions, which are currently able to perform only basic analyses, which are not sufficient to respond

to the requirements for environmental and ecological status assessment. This holds in particular for analysis of newly identified Black Sea Specific Contaminants, monitoring of sea floor marine litter and underwater noise. Also, there is a need for continuous upgrade of the Black Sea Water Quality Database to ensure interoperability of data from the Black Sea with the database platforms operated by the European Commission (EMODNet, SeaDataNet, IPCheM).

Considering the current situation, the following activities are planned:

Activity 1.1 Situation analysis in GE UA – review of the existing facilities and instrumentation, definition of the national needs

For this activity, the project will liaise with GE UA National Hubs of the Common Maritime Agenda for the Black in order to coordinate contribution, as part of the dedicated CMA Priority 4: Supporting innovative marine research infrastructures in the Black Sea, under Goal 1, Healthy marine ecosystems.

- Review and assess the current national capacities to perform analyses of Black Sea Specific Contaminants in marine samples, in terms of analytical equipment;
- Identify needs for new equipment parameters to be identified;
- Assess the availability of relevant SOPs and QA/QC procedures for the available equipment and equipment to be potentially provided.

The following deliverables will be obtained:

- Situation analysis and needs assessment for analytical equipment, SOPs and QA/QC framework.

Activity 1.2 Specification for technical equipment and facilities

- Based on situation analysis and identified needs for parameters to be analysed, specify the suitable equipment and perform market research on the available devices.

The following deliverables will be obtained

- Technical specifications of the equipment, which will be used for the procurement process in each country (including the evaluation of on-site technical assistance, maintenance plans and an estimate on the required consumables, such as analytical columns, solvents, standards, gases, etc.

Activity 1.3 Purchasing and installation of equipment

- Based on the technical specifications prepared, the procurement procedure shall be launched in line with the UNDP rules; the currently used process is e-procurement;
- Evaluation of the offers and selection of the supplier;
- Supporting delivery of equipment to the relevant institutions.

The following deliverables will be obtained:

- Procurement procedure launched and evaluated;
- Contracts awarded;
- Delivery of equipment organized and its installation supervised.

3.2.2 Result 2: National capacities strengthened for application of modern analytical methods, data management and assessment related to marine environmental monitoring

Under Result 2, the aim is to increase the practical knowledge of the national experts in use of modern analytical methods and equipment, as well as in use of methodologies for environmental and ecological status assessment based on the data obtained from monitoring. Particular attention will be given to the training of national experts and training of the trainers. Measures linking the monitoring results with needed measures and their implementation will be identified and pursued to the extent feasible.

During the EMBLAS-II and EMBLAS-Plus the capacity building activities for the national institutions were implemented. They included development of the SOPs for sampling (biology, chemistry), as well as hands-on training for the national experts on sampling during the Joint Black Sea Surveys (water,

biota, sediments, marine-riverine-beach litter, microplastics), use of the analytical equipment available in the national laboratories. EMBLAS also supported visits of national experts to external laboratories and seminars. International institutions were involved, such as EC Joint Research Centre, NIVA – Norway, Nanjing University – China, NIMRD – Romania. The project will examine how MSFDknowledgeable experts from Member States, in particular from Bulgaria and Romania, could be involved in knowledge sharing activities.

The project shall continue further in capacity building activities for the national experts, providing trainings on application of modern analytical methods and use of the newly purchased analytical equipment. Further development of the Black Sea Water Quality Database and training of experts on its use, application of assessment methodologies based on the available data, shall be part of the further strengthening of national capacities.

The following activities are planned:

Activity 2.1 Capacity building programme – training schedule

- Review the qualification and practical knowledge of the staff of the institutions to operate the available equipment and equipment to be potentially provided.
- Define needs and prepare the training programme.

The following deliverables will be obtained:

- Training programme and training materials.

Activity 2.2 Trainings – on data assessment and assessment schemes

- Review status assessment schemes developed within EMBLAS-II and EMBLAS-Plus and their application on the available datasets stored in the Black Sea Water Quality Database using newly delineated Marine Assessment/Reporting Units.
- Workshops/trainings organizes to refine the assessment schemes

The following deliverables will be obtained:

- Refined ecological and environmental status assessment of each Marine Assessment/Reporting Unit for each country, linking the results to potential measures for improvement, if needed.

Activity 2.3 Trainings – use of new equipment

- Development of methodologies for sampling, sample processing and analysis of parameters required by MSFD, WFD and BSIMAP using newly procured equipment;
- Trainings organized on use of the new equipment

The following deliverables will be obtained:

- Methodologies for sampling, sample processing and analysis of chemical and biological parameters using newly procured equipment used for analysis of a maximum feasible number of real world samples;
- Methodologies for sea floor marine litter monitoring and underwater noise monitoring applied in at least 10 and 2 sites, respectively.
- Collaboration in the set-up of QA/QC schemes for the analytical procedures and successful participation to proficiency testing (as e.g. provided by the IAEA)

Activity 2.4 Further development of the BS WQD

- Continuous improvement of the Black Sea common data sharing formats (Data Collection Templates (DCTs)) and development and testing of DCTs for new monitoring parameters not yet included in the BS WQD (e.g. non-target screening chemical contaminants, passive sampling chemical contaminants, fish stocks, marine litter, microplastics, environmental DNA, antibiotic resistance bacteria/genes, effect-based monitoring results);
- Cross-checking of all data collected so-far to make sure that all data generated by EMBLAS-II and EMBLAS-Plus are properly stored in the BS WQD in proper agreed formats.

The following deliverables will be obtained:

- New DCTs developed for the parameters not yet included in the BS WQD
- All data generated in EMBLAS-II and EMBLAS-Plus stored in the BS WQD in commonly agreed formats, including new monitoring parameters such as non-target screening chemical contaminants, passive sampling chemical contaminants, fish stocks, marine litter, microplastics, environmental DNA and antibiotic resistance bacteria/genes and effect-based monitoring results.

3.2.3 Result 3: Awareness of general public on the Black Sea environmental issues further increased and education of young generation supported

Under Result 3, public awareness on environmental issues related to the Black Sea will be further increased through organizing public events – the Black Sea Clean Beach Days, accompanied with educational activities with focus on biodiversity, clean-up and restoration activities for the Black Sea. It is foreseen to invite for participation also 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 school kids and young people, as well as women.

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 within the EMBLAS-Plus Project. 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 game was further updated with the lists of species indicating bad state of the Sea and the most wide spread species during EMBLAS-Plus project, however, because of the Coronavirus pandemic outbreak in early 2020 the trainings on use of application were postponed. It is expected that trainings on the use of the application will be included in the current project.

The EMBLAS-II project 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. During EMBLAS-Plus the main focus was put on marine litter prevention through supporting plastic sorting and upscaling (e.g. through tiles from recycled plastic). It is expected that both approaches: beach cleaning and reinforcement of the proper waste management practices will be supported by the current project.

For the activities planned under this result, the project will liaise with the National Hubs of the Common Maritime Agenda for the Black Sea in order to coordinate contribution, as part of the dedicated CMA action on Ocean literacy and related to the support of ocean aware citizens and policy makers committed to contribute to a clean, plastic free, healthy and productive Black Sea.

The following activities are planned:

Activity 3.1 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;
- Produce educational materials on importance of the Black Sea Protection and the relevant environmental issues (marine litter / biodiversity conservation, organic pollution), targeting schools and general public;

The following deliverables will be obtained:

- "Black Sea Clean Beach Day" organized in all beneficiary countries in 2021 and 2022.
- Set of educational materials for schools and for general public

Activity 3.2 Organizing educational / public awareness campaigns, linked to "Black Sea SaveBook" application and strengthen the role of women in the environmental protection

- Continue with maintenance of the Black Sea Savebook (BSSB) application, support its 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;
- Support further 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:

- BSSB application fully functional;
- Visualisation of the collected results;
- Targeted events organized to support involvement of women in the protection of the Black Sea.

Activity 3.3 Further dissemination of the project results and visibility

- Project website and Facebook page "Fans of the Black Sea" regularly updated with new events;
- Press conferences or events with media presence / press announcements to promote importance of the increased capacities of the national laboratories;
- Publications /brochures and short video productions translating the scientific knowledge on the Black Sea into messages understandable by general public.

The following deliverables will be obtained:

- Updates at the project website and Facebook;
- Media information / press releases / press conferences;
- Publications and short movies.

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

The following activities are planned:

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

- Organize the Inception Workshop, Steering Committee Meetings and ad-hoc technical meetings with the project partners / trainings (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.
- Hold roadshow events, including with involvement of EU institutions.

The following deliverables will be obtained:

- Inception workshop and Final project meeting back to back with the Steering Committee;
- 6 trainings and ad-hoc technical meetings organized as needed.

Activity 4.2 Organizing of recruitment and procurement

- Prepare the Terms of Reference for recruitment of individual consultants, provision of services and goods, based on the Description of the Action, Inception Workshop report and needs assessment related to the procurement of analytical equipment;
- 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 following deliverables will be obtained:

- Terms of Reference for short-term technical experts.
- Bidding documents related to the provision of services and goods;
- Recruitment and procurement procedures launched, evaluated, contracts awarded;
- Oversight on the quality of services and goods/equipment ensured, including proper delivery and installation of equipment.

Activity 4.3 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 international institutions, including, as appropriate, the MSFD Common Implementation Strategy (CIS MSFD) as well as with the on-going or newly set up projects and initiatives (Common Maritime Agenda for the Black Sea, EC JRC commitment to participate in the activities of EMBLAS-Plus and beyond 2018, EUWI+, UNDP-GEF Dniester project, ANEMONE, etc.) will help to avoid possible overlaps and fully use the potential synergies for effective and successful project implemented. The project in general, will benefit from cooperation with the ICPDR on interpretation of obtained results from the Joint Danube Surveys 4, that has been carried out by ICPDR in summer 2019, back to back with the Joint Black Sea Surveys organized by EMBLAS-Plus.

The following deliverables will be obtained:

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

Activity 4.4 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);

The following deliverables will be obtained:

- Inception Report, Progress 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 as needed;
- Provision of information upon request, including as part of eventual Result Oriented Monitoring of the Project;
- Summary progress reports for the Steering Committee.

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, 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;Coordination with the Common Maritime Agenda for the Black Sea and the priorities under Goal I: Healthy marine and coastal ecosystems;
- Close cooperation with EU institutions and agencies, such as EC Joint Research Centre, European Environment Agency, other scientific institutions, EC MSFD Technical 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, possible participation of institutions from other BS countries (with own resources);
- Involvement of other national stakeholders and Civil Society Organizations if relevant.

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, faceto-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. Therefore the use of elements of collaborative sampling and analysis will be explored, besides workshops and meetings, e.g. by exchange of samples, lab twinning, etc.

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 EMBLAS-Plus. 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:

- Progress reports;
- Final report including lessons learned and recommendations for future.

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

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 phases 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 EUWI+ (see abbreviations for further information on the project/s).

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 and 2019. Given the importance of the marine litter topic, it is foreseen to continue with this cooperation, if feasible for JRC, 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.

During the previous phases of the project, cooperation was established 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 trainings using results provided by these laboratories, it is foreseen to continue with the cooperation that will ensure the high quality standards of the follow up assessments and activities.

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 to continue with the International Commission for the Protection of the Danube River (ICPDR), which organized the Joint Danube Survey 4 in parallel with the Joint Black Sea 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.

ANEMONE is one of the projects, where cooperation with EMBLAS is critical for facilitation of assessment of the status of all the Black Sea coastal countries in harmonized way, as well as supporting preparation of the Regional Monitoring Network (BSIMAP compliant) for all BS countries. The new project shall continue in the cooperation with ANEMONE and its partners and utilize the results from ANEMONE monitoring surveys (Bulgaria, Romania, Turkey) as agreed, in further development and population of the Black Sea Water Quality Database.

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 1.3.). EMODnet is collecting data (litter and other) from EU countries for baseline and trend assessments. The project team will strive to ensure that EMBLAS data are of a similar quality level and are regarded by the countries as their official data. This will enable a closer and better collaboration across the basis.

5 IMPLEMENTATION ARRANGEMENTS

5.1 Organisational structure and project office costs

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 (IRH). The overall responsibility for the project oversight will be with the Manager of UNDP IRH. Regional Technical Advisor (RTA) for International Waters shall be responsible for technical clearance of the project activities (dedicating approximately 10% of his time to the project). UNDP will hire a Project Management Advisor/Team Leader (individual consultant) who will provide specific 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 75% 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 – individual consultant (leading the PR and visibility activities). In addition, the project will recruit short-term international key technical experts to support preparation of procurement and organising trainings for chemistry, biology, marine litter and other relevant topics, according to the project needs.

The Project Coordination Office (PCO) has been established in Odessa (Ukraine) and during the three preceding phases it has been hosted by the Institute of Marine Biology. It is planned to keep the office

in Odessa, Ukraine and hosted by one of the project partner institutions, preferably the one which will be the recipient of the laboratory equipment. 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 PCO shall use the available office equipment from the previous phase of the project, however, some upgrade may be needed, therefore some minor costs for office furniture & equipment can be foreseen.

A Steering Committee (SC) composed of representatives of the eligible Beneficiary Countries at appropriate level, the EU 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 shall have observer status to the Steering Committee. Representatives of other countries and relevant national and international organisations / agencies and projects may also be invited to attend the Steering Committee as observers to ensure coordination with other initiatives and EU-funded regional projects to avoid overlapping of activities.

The meetings of the SC 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

UNDP shall provide technical assistance and procurement of laboratory equipment related to environmental protection and marine environmental monitoring with a focus on Georgia and Ukraine¹⁴. It will include support for the establishment/upgrade of laboratories at relevant institutions and procurement of analytical equipment. At the end of the project the equipment shall be transferred to the beneficiary countries, i.e. end-user recipient institution.

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. UNDP shall use its tax exemption status for procurement of the equipment for the two primary target countries – Georgia and Ukraine. The Beneficiaries should provide all possible assistance with unforeseen problems that UNDP may face.

The office space for the PCO in Odessa is proposed to be provided by one of the project partner institutions, preferably the one which will be the recipient of the laboratory equipment. UNDP IRH office shall also host one member of the Project Management Team.

¹⁴ EC Implementing Decision on the ENI East Regional Action Programme for 2019, Part 2, including some actions to be carried out in 2020, to be financed from the general budget of the European Union

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 <u>https://popp.undp.org/SitePages/POPPRoot.aspx</u>. To implement the project UNDP may need to cooperate with a number of entities, which will have a role of a Responsible Party¹⁵. All Responsible Parties will comply with the Joint Visibility Guidelines for EC-UN Actions in the Field¹⁶. The legal instruments to be used for the different types of the Responsible Parties are defined in UNDP POPPs¹⁷, ¹⁸.

Procurement

For delivery of specific type of professional services, UNDP will apply relevant procurement methods as per UNDP POPPs¹⁹, 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. The National Hubs of the Common Maritime Agenda for the Black can be mobilized accordingly.

Cooperation with 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. 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 Commission.

It is foreseen that the key institutions will be the recipients of the planned technical assistance in terms of analytical equipment. Further capacity building / trainings are expected to involve all institutions, to make sure that capacities are built at the national level for collecting and evaluation of the environmental data, assuring standards compatible at the EU level.

¹⁵ 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)

¹⁶ https://ec.europa.eu/europeaid/sites/devco/files/guidelines-joint-visibility-eu-un_en.pdf

¹⁷ https://popp.undp.org/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Defining.docx?web=1

¹⁸ 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

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

The following institutions are identified by UNDP 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:

- 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);
- 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);

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

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 EMBLAS programme since 2013 and the current follow-up project shall continue once the funding ends. This will be achieved through further strengthening of ownership of the programme results at different levels by stimulating development of new follow-up projects, and encouraging the concerned national institutions in participating in relevant projects.

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. The priority would be to achieve changes in governmental budgets, which should support operation of the analytical laboratories, which are linked with the national 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. Further, for the 3 countries, contributing to enhanced Black Sea regional cooperation is also pursued.

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 and cooperation platforms in the Black Sea region, such as the Black Sea Commission and NGO networks. A special attention will be paid to further strengthening of already established cooperation among the project partners / research institutions at the national and regional level, as well as exchange of knowledge and experience.

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 three previous phases (EMBLAS-I, EMBLAS-II and EMBLAS-Plus) in which all three countries participated and is expected to continue in the current follow-up phase, when further technical assistance and capacity building shall be provided to the countries.

From the wider perspective, the EMBLAS Programme (all phases of EMBLAS) 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. The current project - technical assistance that includes provision of analytical equipment and building capacities of the national institutions in all beneficiary countries is further contributing to the overall and long-term sustainability of the EMBLAS results. Further, enhanced Black Sea regional cooperation is also pursued.

It is expected that governments will allocate the necessary resources to sustain the improved capacity for the environmental monitoring and assessment of the Black Sea, including supporting operation of the related analytical laboratories. 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.

Risk	Response /Mitigation measures
Continued administrative and structural difficulties and unstable political situation in the countries. Recently, both Ukraine and Coorrig have found administrative/political	The internal reorganizations of relevant ministries were expected to create certain difficulties; however, this risk can be mitigated through keeping contact with the relevant patient institutions reasonable for the anyironmental
reforms which affected the field of environmental protection.	monitoring, which can help in 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.
The EU-Russian Federation relations, The EU will continue to selectively engage with Russia in areas of common interest in the Black Sea region, while stressing that such cooperation does not in any way contradict any relevant United Nations General Assembly resolutions, is pursued in due respect of Ukraine's independence, territorial integrity and sovereignty, and is in line with the EU non-recognition policy and the EU's five guiding principles.	The main activities focus on confidence building measures and people to people initiatives. The experience from the previous phases of the project shows that at intervention- level the working-relations are professional and good at the technical and people-to-people levels. The project is seen as a neutral platform of cooperation and the focus is on concrete and sector-oriented developments.
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.	Provision of the analytical equipment complementing implementation of the national monitoring programmes shall be an important step to help the countries in keeping the environmental protection among the top items of the national policy agenda. Communication with relevant authorities shall be important to make sure that the technical assistance by the project is recognized and utilized within

Risks

The	main	risks	which	may	impa	ct on	a suc	cessful	im	olementa	tion a	ire:
				~								

Risk	Response /Mitigation measures
	the national monitoring programmes.
Non-involvement or loss of interest of parties	It is important and the countries' needs are duly taken into
in the project activities.	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.
	Situation Analysis and needs assessment in the context of
	planned procurement of analytical equipment and training
	will be a key element for successful project implementation.
Lack of political will and low level of	The Bucharest Convention and other Conventions and
commitment of the partners to engage in	agreements are the platform for a long-term regional
regional cooperation programmes;	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 and its Advisory
	Groups. Participation of experts from relevant national
	institutions of other Black Sea countries in the capacity
	building activities and knowledge sharing is foreseen.
Unfavourable EUR/USD exchange rate	The currency exchange rate needs to be monitored and the
development may create a significant pressure	planning of the project activities needed to be done in step-
on the project budget and make impact on the	by step approach. If needed, the scope and implementation
overall availability of funds for planned	strategy of some activities could be reconsidered upon
activities.	endorsement by the Project Board and agreement by the
	European Commission. However, this should not have
	impact on the overall project results.

7 GENERAL OVERVIEW ON VISIBILITY AND COMMUNICATION

Similarly, as in the previous project phases EMBLAS-II and EMBLAS-Plus, the current project will work towards an increase of the public awareness and participation in the environment protection actions and education, with particular focus on youth, involving academic / educational / scientific institutions where relevant.

Necessary 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 Field²⁰. 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.

²⁰ <u>https://ec.europa.eu/europeaid/sites/devco/files/guidelines-joint-visibility-eu-un_en.pdf</u>

8 DETAILED WORK PLAN

										Key milestone*
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-26	
Result 1: Modern systems and facilities established to support marine er	vironme	ental mo	onitoring i	in GE and	AUA					
Activity 1.1 Situation analysis in GE UA – review of the existing facilities and		Х								Situation Analysis – GE and UA
instrumentation, definition of the national needs										
Activity 1.2 Specifications for technical equipment and facilities		Х	Х							Technical specifications – GE and UA
Activity 1.3 Purchasing and installation of equipment				Х		Х				Equipment purchased and installed
Result 2: National capacities strengthened for application of modern ana	lytical m	ethods,	data ma	nagemen	t and ass	essmer	nt related	to marin	e	
environmental monitoring										
Activity 2.1 Capacity building programme – training schedule		Х								Training plan
Activity 2.2 Trainings – data assessment and assessment schemes			Х							Training on data assessment / schemes
Activity 2.3 Trainings – use of new equipment							Х			Hands-on training – new equipment use
Activity 2.4 Further development of the BS WQD										
Result 3: Awareness of general public on the Black Sea environmental is	sues fur	ther inc	reased a	nd educa	tion of yo	oung ge	neration	supporte	d	
Activity 3.1 Organizing of "Black Sea Clean Beach Day" 2021/2022				Х				Х		BS Clean Beach Day events
Activity 3.2 Organizing of various education campaigns, BS Savebook			Х				Х			Educational events / campaigns
Activity 3.3 Further dissemination of the project results and visibility								Х		Events with media presence
Result 4: Management and coordination of the project ensured										
Activity 4.1 Organizing the project coordination meetings, project intranet		х			Х				Х	Inception Workshop / SC meetings /
										Final Meeting
Activity 4.2 Organizing of recruitment and procurement			Х	Х						Procurement of equipment launched /
										contract awarded
Activity 4.3 Coordination activities with other relevant projects and institutions										
Activity 4.4 Preparation of regular donor reports			Х			Х			Х	Inception Report, Progress report, Final
										report

													Key milestone*
	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-26	27-29	30-32	33-36	
Result 1: Modern systems and facilities established to support mar	ine er	nviron	mental	monito	ring in (GE and	UA						
Activity 1.1 Situation analysis in GE UA – review of the existing		Х											Situation Analysis – GE and UA
facilities and instrumentation, definition of the national needs													
Activity 1.2 Specifications for technical equipment and facilities		Х	Х										Technical specifications – GE and UA
Activity 1.3 Purchasing and installation of equipment				Х		Х							Equipment purchased and installed
Result 2: National capacities strengthened for application of moder	n ana	lytica	l metho	ds, data	a manag	gement	and as	sessme	nt relat	ed to m	arine er	nvironm	ental monitoring
Activity 2.1 Capacity building programme – training schedule		Х											Training plan
Activity 2.2 Trainings – data assessment and assessment schemes			Х										Training on data assessment / schemes
Activity 2.3 Trainings – use of new equipment							Х						Hands-on training – new equipment use
Activity 2.4 Further development of the BS WQD													
Result 3: Awareness of general public on the Black Sea environment	ntal is	sues	further	increas	ed and	educati	on of y	oung ge	eneratio	on supp	orted		
Activity 3.1 Organizing of "Black Sea Clean Beach Day" 2021/2022				Х				Х					BS Clean Beach Day events
Activity 3.2 Organizing of various education campaigns, BS Savebook			Х				Х						Educational events / campaigns
Activity 3.3 Further dissemination of the project results and visibility								Х					Events with media presence
Result 4: Management and coordination of the project ensured													
Activity 4.1 Organizing the project coordination meetings, project		Х			Х				Х			х	Inception Workshop / SC meetings / Final
intranet maintenance													Meeting
Activity 4.2 Organizing of recruitment and procurement			Х	Х									Procurement of equipment launched /
													contract awarded
Activity 4.3 Coordination activities with other relevant projects and													
institutions													
Activity 4.4 Preparation of regular donor reports			Х			Х			Х			Х	Inception Report, Progress report, Final
													report

*The listed milestones ("X") are indicative; they shall be elaborated in more detail during the inception period and discussed during the Inception Workshop.

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"). The presented logframe shall be discussed during the Inception Workshop and fine-tuned as needed.

Results	Indicators	Baseline (2014) and	Target values	Source of	Assumptions
		current value (2020)		verification	
Impact: To improve the level of pro	otection of the Black Sea environm	ent			
Impact 1 Modern systems and facilities established to support marine environmental monitoring in GE and UA	Upgraded laboratories in GE and UA, able to perform analyses of RB specific pollutants (WFD) and Black Sea Specific Contaminants (MSFD)	Baseline: 0 (2014) 2020: 0 GE laboratories of NEA upgraded within EUWI+, still no major upgrade on methodologies for analysis of River Basin Specific Pollutants (WFD) and Black Sea Specific Contaminants (MSFD). UA no upgrade of marine laboratories, support only to the implementation of the WFD (rivers).	2023: At least one laboratory per country (GE, UA) equipped with instrumentation allowing for sampling, sample processing and analysis of relevant parameters according to the MSFD and WFD for coastal waters	Protocols from the delivery and installation of equipment in Georgia and Ukraine List of training participants, programme of the trainings Manuals/SOPs	Interest of the countries in joint protection of the Black Sea, confirmed at the governmental level – political support from the relevant ministries and authorities Interest and commitment of the project countries in the application of the MSFD principles in monitoring and general harmonization of monitoring approaches under
Impact 2 National capacities strengthened for application of modern analytical methods, data management and assessment related to marine environmental monitoring	Scientific teams from relevant national institutions trained (at least 1 institution per country) in application of modern analytical methods, data management and assessments related to marine environmental monitoring	Baseline: 0 (2014) 2018-2019: Training of experts organized during the previous phases of EMBLAS, and specifically during the Joint Black Sea Surveys	2023: Newly installed instrumentation with newly installed methodologies operated by national experts producing results (100 real world samples) stored in the BS WQD for assessment of the Black Sea environmental and ecological status.	for new analytical methods Campaigns and actions documented Statistics on	the Bucharest Convention Involvement of relevant / mandated scientific natl. institutions in the monitoring to ensure data quality Interaction with other BS countries through BSC and its
Impact 3 Awareness of general public on the Black Sea environmental issues further increased and education of young generation supported	Awareness of general public increased on the environmental issues of the Black Sea, documented through participation at the public events	Baseline: 0 (2014) 2020: BS Clean Beach day / BS day organized in each country 2016- 2020	2021/2022: BS Clean Beach day organized UA/GE/RF (one per country at least), 100 people per country involved	participation (individuals /institutions)	Intl. organizations /and donors to supporting activities in the Black Sea region

Results	Indicators	Baseline / current value	Target	Source of verification
Outcome 1	1 / Result 1. Modern systems and facilities estab	plished to support marine environmental monitoring in	n GE and UA	
	 Relevant national institutions equipped with facilities and suitable analytical equipment (at least 1 lab in GE, 1 lab in UA) 	2014 baseline: institutions have some equipment for analysis of basic parameters 2020: 0	Protocols from equipment installations	
Output 1.1	Situation analysis in GE UA carried out- review	of the existing facilities and instrumentation, definition	n of the national needs	Procurement process
	1.1.1 Facilities and instrumentation reviewed in relevant institutions (at least 1 in GE and 1 in UA)	2014 / 2020: no review of facilities & instrumentation available	Year1: Review of facilities and instrumentation per country Year2/3: Set of recommendations per	documented Protocols from equipment installation
	1.1.2 Set of recommendations prepared for each reviewed institution		country	
Output 1.2	Specifications for technical equipment and facili	ties prepared		
	1.2.1 Equipment specification for equipment to be purchased in each country – GE and UA	2014 / 2020: no specification available	Year1: Specifications per country Year2/3: Further needs identified	
Output 1.3	Purchasing and installation of equipment complete	eted		
	1.3.1 Procurement procedure launched for equipment to be supplied in each country (GE+UA)	2014/2020: 0	Year1: Procurement initiated for equipment and facilities improvement in each country (GE, UA)	
	1.3.2 New instrumentation installed in each country		Year2/3: Facilities prepared and equipment delivered in each country (GE, UA)	

Results	Indicators	Baseline / current value	Target	Source of verification
Outcome	2 / Result 2: National capacities strengthened for app	lication of modern analytical methods, data manag	ement and assessment related to marine environmer	tal monitoring
	2. Practical knowledge of the national experts increased on use of modern analytical methods and equipment, as well as in use of methodologies for environmental and ecological status assessment based on the data obtained from monitoring	2014: 0 2020: 0	Year1: Capacities of relevant national institutions reviewed in 3 countries and training programme prepared Year2/3: 30 experts trained; new set of SOPs prepared Test analyses performed	Training programme, agenda of trainings, list of participants Results of test analyses SOPs for new methodologies
Output 2.	1: Capacity building programme – training schedule pre	epared		Assessment of capacities
	2.1.1 Review of capacities in the relevant national institutions (at least 1 in GE, RF, UA)	2014: 0 2020: 0	Year1: Capacities of relevant national institutions reviewed in 3 countries	document Agenda of training
	2.1.2 Training programme prepared, covering specific themes		Year1: Training programme	
Output 2.2	2: Trainings on data assessment and assessment sche	emes organized		Training certificates
	2.2.1 Review of the status assessment schemes which are applied for marine regions for each country (GE / RF/UA)	2014: harmonised status assessment schemes not applied2020: status assessment schemes developed	Year1: Assessment schemes reviewed in 3 countries	SOPs for new methodologies
	2.2.2 Experts from natl. institutions trained in the ecological and environmental status assessment from each country (GE/RF/UA)	within EMBLAS-Plus	Year1/2: 18 experts trained in the use of assessment schemes (6 from each country)	
Output 2.3	3: Trainings on use of new equipment organized		•	
	2.3.1 Methodologies / SOPs for sampling/sample processing and analyses of parameters using new equipment	2014: no SOPs available 2020: SOPs developed within EMBLAS-II and EMBLAS-Plus for available processes and	Year1: Existing SOPs reviewed Year2/3: Set of new SOPs developed	
	2.3.2. Experts trained on use of new equipment	equipment	Year2/3: 12 experts trained in the use of assessment schemes (4 from each country)	
	2.3.3 New methodologies tested		Year2/3: Test analyses of samples performed on new equipment	
Output 2.4	4: The Black Sea Water Quality Database further deve	loped]
	2.4.1 New DCTs developed for the new monitoring parameters to be included in the BS WQD (non-target screening and passive sampling contaminants, fish stock, marine litter, etc)	2014: DCTs not available 2020: DCTs developed within EMBLAS-II and EMBLAS-Plus for some parameters, additional to be developed	Year1/Year2/3: Additional DCTs developed	

Results	Indicators	Baseline / current value	Target	Source of verification
Outcome	3 / Result 3. Awareness of general public on the E	Black Sea environmental issues further increased and	d education of young generation supported	
	 Events /pilot actions organized to increase awareness and involvement of public, stakeholders in the Black Sea protection 	2014: the Black Sea Day celebrated – organized by BSC2020: BS Day / Black Sea Clean Beach Day	Year1*/Year2: The BS Clean Beach Day events organized in each country(GE, RF, UA), with participation 50 persons in each	Programme of events, videos, media information Publications produced
		celebrated in each country 2016-2020, educational campaigns & clean up activities included, BS Savebook mobile application designed and successfully introduced	country Educational materials produced in 4 languages (EN, GE, RU, UA) BS Savebook application operational	BS Savebook application available for download
Output 3.	1: "Black Sea Clean Beach Day" organized in 2021	/2022		Website posts on events
	3.1.1 Black Sea Clean Beach Day organized in each country (GE/RF/UA) in 2021/2022, with expected nr. of participants	2014: 0 2020: public events organized within EMBLAS-II and EMBLAS-Plus 2016-2020); educational	Year1*//Year2/3: BS Clean beach day organized in each country (GE, RF, UA), at least 50 persons participating in each	Promo items available Education / campaign materials
	3.1.2 Relevant educational materials produced on environmental issues (marine litter/ biodiversity conservation, organic pollution) for each country (GE/RF/UA)	materials: 8 infographics, 1 publication: Sentinels; 2 cartoons – marine litter prevention	Year1/Year2/3: 2 materials produced in each language (EN, GE,RU,UA)	Media overview, Press releases, media invites, videos from events, information in media
Output 3.2	2: Education campaigns organized with use of the E	3S Savebook application		Educational publications
	3.2.1 new release of BS Savebook in 4 languages – EN/GE/RU/UA	2014: no mobile phone application for public 2020: BS Savebook further developed, initial	Year1: new BS Savebook release	available BS Savebook release
	3.2.2 number of users registered in each country / % of women	trainings in the use of application; campaign organized on biodiversity (sentinels), marine litter prevention, beach clean-up	Year1: increase of users of BS Savebook by 50 Year2: increase of users of BS Savebook by 50 Year3: increase of users of BS Savebook by 50	Programe of the event, videos and facebook posts from events
	3.2.3 Education campaigns organized in each county (GE/RF/UA), at least 1		Year1*/Year2/3: 1 education event organized in each country (GE,RF,UA), each year	Facebook posts, websiste posts,
Output 3.3	3: Project results disseminated and visibility ensure	d		Statistics on the nr. of
	3.3.1 number of posts on the facebook page "Fans of the Black Sea" and on the project website	2014: no facebook profile 2020: Facebook page "Fans of the Black Sea" established and operated (2016-2020), nr. of member: 1008; nr. of viewers of the project	Year1: 50 new members of the "Fans of the Black Sea", 1000 viewers of the website Year2/3: 50 new members of the "Fans of the Black Sea", 1000 viewers of the website	users
	3.3.2. number of public events with media presence	website: 13,374; media events organized with the Joint BS Surveys 2016/2017/2018; 8	Year1* / Year2/3: 1 public event in each country (GE/RF/UA), each year	
	3.3.3 number of audio-visual products and publications	infographics, 4 publications for general public and 4 movies & cartoons prepared	Year1/Year2/3: 2 products in each language (EN, GE, RU, UA)	1

* Public events in year 1 (2021) may be limited, considering epidemiological situation in individual countries

Results	Indicators	Baseline / current value	Target	Source of verification		
Outcome 4	utcome 4: Result 4. Management and coordination of the project ensured					
	4.1 Project coordination meetings organized		Year1: Inception Workshop and 1 st Steering Committee meeting Year3: Final workshop/Steering Committee	Meeting minutes, Agenda, List of participants		
	4.2 Organizing of recruitment and procurement		Year1 / Year2: Procurement for equipment to be delivered to each country, Short-term experts and trainers recruited	Specifications of equipment, TORs, contracts awarded		
	4.3 Coordination activities with other relevant projects and institutions – nr. of cooperating projects and institutions			Joint events, actions documented		
	4.4 Regular reporting to SC and Donor		Year1: Short quarterly updates (2 pagers), Inception Report, Progress Report for the donor / Summary for the Steering Committee	reports		
			Year2/3: Short quarterly updates: Final Report / Summary for the Steering Committee			

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	FU funded project "Support to Ukraine in approximation of the FU environmental
	acquis"
BS	Rlack Sea
BS WOD	Black Sea Water Quality Database
BSC	Black Sea Commission (Commission on the Protection of the Black Sea Against Pollution)
BSC AG	Black Sea Commission (Commission on the Frotection of the Black Sea Figures Fondton)
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
CSOs	Civil Society Organisations
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 Counsel 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
MICIC	Environment and Natural Resources Protection)
MI	Marine Litter
MSED	FIL Marine Stratagy Framework Directive
NGO	Non governmental organisation
	Quality Assurance / Quality Control
PA	Project Activity
PCO	Project Coordination Office
PERSEUS	Protecting European Seas and Borders through the Intelligent Use of Surveillance (FU 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