STANDARD SUMMARY PROJECT FICHE

1. Basic information

Désirée number:	**BG0107.03**
Title:	**Integrated monitoring of the Bulgarian Black Sea Coast between Durankulak and Rezovo**
Sector:	**Environment (EN)**
Geographical Location:	**Bulgaria – the Black Sea coast between Durankulak and Rezovo, the internal and territorial marine waters**

2. Objectives

2.1. Overall Objectives

- Protection of the Black Sea littoral patrimony through the prevention and control of the marine water pollution.
- Initiate a cross-border co-operation for the preservation of the Black Sea littoral.

2.2. Purpose of the project

- Improvement of the monitoring of the Black Sea coast.
- Enhance and strengthening of the capacities of the institutions to implement a marine monitoring.
- Strengthening of the co-operation between the relevant Romanian and Bulgarian institutions.

2.3. Accession Partnership and NPAA priority

AP (medium-term priority):

- Integrate sustainable development principles into the definition and implementation of all other sectoral policies.

NPAA (short-term priority):

- Elaboration of a National Programme on protection of Black Sea from Pollution.

NPAA (medium-term priority):

- Promotion of cross-border co-operation.

2.4. Cross Border Impact:

This project mirrored the Romanian project “Integrated monitoring of the Romanian Black Sea Coast between Midia – Vama - Veche” which is expected to be financed through the Phare CBC 2001 Romanian allocation.

The objective of this project is to ensure the prevention and a warning in time of the accidental pollution in the seacoast, and to establish the vulnerable points all along the seaside. This Phare CBC project will provide the instruments for the integrated monitoring of the Black Sea both for Romanian and Bulgarian sectors, and will have the following cross-border impact:

- Control of the cross-border contamination,
- Implementation of an integrated monitoring system between Bulgaria and Romania,
- Implementation of an early warning system between Bulgaria and Romania in case of an accidental maritime pollution,
- Exchange of monitoring data between Bulgaria and Romania,
- Implementation of the Bucharest Convention for the protection of the Black Sea and the Black Sea Strategic Action Plan.

3. Description

3.1. Background and justification:

Background

At present, the Bulgarian National Monitoring System covers a limited list of pollutant parameters in insufficient number of sampling stations located in the marine waters. There are not any working relationships and information exchange between Bulgaria and Romania regarding the marine environment.

Bulgaria is part of the Danube Convention. In that respect, it is committed to improve the environmental situation of the Danube, which constitutes the first source of nutrients of the Black Sea

Bulgaria is now in the process of approximation of its national legislation on the field of water environment to the legislation of EU in water sector. According to the new Water Act, adopted in July 1999, a Strategy for the Integrated Water Management will be implemented. It is connected to the adoption of a series of regulations related to the existing water and sediment quality, emission standards, etc. which will be in line with the relevant EU Directives: Bathing water directive (76/160/EEC); Directive on pollution by nitrates (91/676/EEC); Directive on shellfish waters (79/923/EEC); Urban waste water treatment directive (91/271/EEC); Fish water directive (78/659/EEC); Surface water directive (75/440/EEC and 79/869/EEC); Dangerous substances directive (76/464/EEC), Information exchange decision (77/795/EEC).

This process requires a new state policy connected to the monitoring activities implemented in the Bulgarian part of the Black Sea. The new marine monitoring policy will take into consideration:

- The obligation of the country to maintain regular monitoring activities under the Bucharest Convention, 1992 as well as the Strategic Action Plan for the rehabilitation and Protection of the Black Sea.
- The Environmental Quality Objective and Standards approach agreed in the region.
- The major sources and inflows of pollutants along the Bulgarian seaside to be identified.

- Methods, standards and facilities for sampling and analytical works that will ensure quality assurance compatible with those used by the EU countries to be implemented.

Justification

The upgrading of the marine monitoring system under this CBC project is expected to contribute to the improvement of the co-ordination between the institutional bodies involved as well to make the system more sustainable.

This project is fully in line with the priorities that are indicated in the Joint Programming Document (JPD). The JPD constitutes the general framework for the co-operation between the two countries and was agreed between the Romanian and Bulgarian authorities in early 2000. Under the priority 2 "Environmental Protection", the JPD stress the importance of "the protection for the natural resources of the areas (…)"

3.2. Linked activities

Some previous projects aimed at enhancing the capacities of the national institutions to monitor pollution of the air, land, rivers and lakes:

- UNDP Bul/91/001 "Ecological monitoring of the Black Sea" (USD 240000).
- RER 93/ G32 and RER/97/G32 "Developing the Implementation of the Black Sea Strategic Action Plan".
- Project No.ZZ9613.02.02, Multi-country, Phare Framework Contract "Black Sea Chemical Monitoring", implemented by Carl Bro Group – Denmark (ECU 50000).
- Phare ZZ9211.02.01 "Black Sea, Laboratory Equipment for Bulgaria and Romania" (ECU 151650.57).
- ENVREG97/98-0278 "Tacis 1996/1997 Funds for the Black Sea Environmental Programme – Phase 2".

Global Environment Facilities (GEF), an United Nations Organisation Environmental Protection Program supported the Black Sea Environmental Programme (RER/92/G31/B/G1/31 – "Environmental Management and Protection of the Black Sea") which was directed especially to the marine environment. The staff of the national responsible institutions was trained to perform appropriate chemical and biological analyses under these projects. Mainly small equipment and laboratory consumables were purchased.

In addition, some projects related to water management are under preparation under the National Phare programme. Although they do not concern marine waters, close co-ordination will be ensure to take advantage of the experience that can exists in similar sectors.

3.3. Results

- Sustainable institutions equipped for implementation of the monitoring programme.
- Reliable monitoring data for the marine environment and land-based sources.
- Improved systems for data management and data exchange on national and international level.

- Improved system for information services for decision-makers and NGOs.

3.4. Activities

Close co-ordination will be ensured with the activities that are currently taking place in the framework of the Danube Convention, and with the other projects related to (fresh) water monitoring that are financed under the national Phare programmes. In particular, a start up co-ordination meeting and a wrap up meeting at the end of the project will be organised with the relevant potentially interested institutions and organisations.

The project includes three components:

Component 1 – Assessment of the monitoring laboratories - design - preparation of tender documentation

Under this component, all the necessary preparatory activities for the implementation of the project will be undertaken. A joint expert working group with representatives from Bulgaria and Romania will be established to monitor the activities:

- An inventory will be undertaken by a team of experts under the leading role of the Activity Centre on the Environmental and Safety Aspects of Shipping (ACESAS), based in the town of Varna. It will be a short study in order to make an inventory of the existing monitoring laboratories, to identify the gaps and deficiencies in the existing institutions implementing the marine monitoring programme, and to prepare lists of the necessary equipment and consumables for sustainable monitoring work according to the national monitoring programme.

- The design of the monitoring system will be established. The team of experts will take into account the requirements and recommendations of the Bulgarian Ministry of Environment and Waters and the obligations taken by Bulgaria and Romania according to the pollution prevention of the Black Sea that are settled in the Bucharest Convention 1992 and in the Black Sea Strategic Action Plan, 1996. This activity will include:
  - Identification of a list of priority substances to be monitored at sea considering the national priorities of both countries and taking into account the trans-boundary effects of the pollutants.
  - Design of a monitoring network.
  - Establishment of a proper way for exchanging data between Bulgaria and Romania.
  - Proposal for real time information exchange between the responsible authorities of both countries in case of accidental oil pollution, including satellite images and forecasting of the movement of oil slick.
  - Participation of the monitoring laboratories in Bulgaria and Romania in inter-comparison exercises which consist of procedures for Quality Assurance and Quality Control of the Laboratory Activities, organised by the Marine Environment Laboratory within the International Atomic Energy Agency in Monaco.

- On the basis of the inventory and of the proposed design for the monitoring system, the team of expert will prepare the technical specification and the tender

documentation for the actual procurement of the equipment (component 2). This will be established in close relationship with the Romanian counterparts.

- The team of experts will prepare clear guidelines for each Bulgarian institution involved in the marine monitoring. The guidelines will include all responsibilities and obligations of the institutions, sampling stations, period of sampling, list of parameters and substances to be monitored, format of the information that will be included in the database, etc. It will also detail the practical co-operation that should be envisaged between the Romanian and Bulgarian authorities during the monitoring and in emergency situations.

Component 2 - Procurement of the necessary equipment for the integrated monitoring system

Under this component the whole necessary equipment and respective consumables will be purchased after tender procedures according to the "Practical Guide to Phare, Ispa and Sapard contract procedures". The tender documents will include several lots, as indicated bellow (indicative):

- Laboratory equipment and consumables (expected amount: 0.9 MEUR). The list of equipment will be specified after the inventory of the laboratories. Generally it will include – gas chromatographs, mass selective detectors, combined apparatuses for nutrient analyses, TOC (total organic carbon) analysers, etc. The owners of the equipment will be the monitoring laboratories, specialised in different type of monitoring activities and authorised by the Ministry of Environment and Waters. The respective equipment will be based in laboratories in the following institutions: Activity Centre for Environmental and Safety Aspects of Shipping (ACESAS), Varna; Regional Environmental Inspectorates (REI) in Varna and Burgas and Institute of Oceanology (IO).
- Satellite receiving station with hardware and software for image processing for oil slick monitoring on the sea surface (expected amount: 0.6 MEUR); The equipment will be owned and based in the ACESAS. The training will be provided as a requirement for the purchase.
- Hardware and software for three Geographic Information System (GIS) stations and one Internet site for data exchange between Bulgaria and Romania. (expected amount: 0.18 MEUR). The equipment will be owned and based in ACESAS, REI-Varna and REI-Burgas.
- A vessel with sampling equipment and laboratory equipment for on-board analyses in the sea (expected amount: 0.38 MEUR. The vessel will be owned by ACESAS and will be based in port of Varna. The analyses will include – general physico-chemical parameters as temperature, salinity, chlorophyll "A", nutrients, etc. The vessel will be corrosion-resistant, length about 10 m, weight about 3-4 tons. The type of the vessel does not require permanent crew. The vessel will need one person crew. There will be a working space on the board for 3-4 persons for sampling and analyses.
- A mobile laboratory for offshore marine sampling and on-site analyses (expected amount: 0.09 MEUR) The mobile laboratory will be used for sampling and on-site analyses from the coastal monitoring stations. The mobile laboratory will be owned and based in the ACESAS.

The respective owners will bear the maintenance and operating costs of the equipment.

Component 3 – Approbation of the new standard operation procedures for laboratory analyses, accreditation of the monitoring laboratories and implementation of routine marine monitoring

This component will actually implement the new standard operation procedures for laboratory analyses in case the respective laboratory is equipped with new apparatus. The analysts will be trained for operating of the new apparatuses. Methods should be validated by performing certain number of analyses to demonstrate the ability of the laboratories to produce analytical results with acceptable uncertainty (expected amount: 0.09 MEUR).

The accreditation of monitoring laboratories for all ecological analyses will be undertaken as follows:

- Activity Centre for Environmental and Safety Aspects of Shipping (ACESAS), Varna for chemical analyses in sea stations;
- Regional Environmental Inspectorates (REI) in Varna for chemical analyses of land-based sources of pollutant in the North Bulgarian seaside;
- Regional Environmental Inspectorates (REI) in Burgas for chemical analyses of land-based sources of pollutant in the South Bulgarian seaside and
- Institute of Oceanology (IO) for biological analyses.

The laboratories will have to meet the requirements of the respective accreditation body, to make operational all the laboratory equipment, trained staff, and then pass the accreditation procedure of national and/or international accreditation bodies (expected amount: 0.04 MEUR).

Regular monitoring of the marine environment according to the programme, adopted by the Ministry of Environment will be implemented. The ability to produce reliable data should be tested by inter-comparison exercises. Bulgarian and Romanian laboratories will have to demonstrate the comparability of their results by split samples tests (expected amount: 0.33 MEUR).

Monitoring data will be managed and exchanged with the National database and the Romanian monitoring institutions, using appropriate format. For this purpose, a database will be created, together with a proper system and format for data management and data exchange (expected amount: 0.12 MEUR).

4. Institutional framework

The Ministry of Environment and Waters, represented by the regional inspectorates in Varna and Bourgas and Marine Shipping Agency – Varna will be the main beneficiary of the project. The national marine monitoring institutions will be beneficiaries and owners of the equipment, which will be specified after the inventory of the laboratories, as follows:

- Activity Centre for Environmental and Safety Aspects of Shipping (ACESAS), Varna for chemical marine monitoring, remote sensing monitoring and data management; ACESAS is a governmental institution under the Ministry of Transport. The centre is authorised by the Bulgarian Ministry of Environment

and Waters to provide the sea monitoring activities in the Bulgarian Black Sea territorial waters.

- Regional Environmental Inspectorate in Varna for monitoring of the land-based sources of pollution for the North Bulgarian Black Sea coast and data management;
- Regional Environmental Inspectorate in Burgas (REI) for monitoring of the land-based sources of pollution for the South Bulgarian Black Sea coast and data management;
- Institute of Oceanology (IO) for biological marine monitoring and data management. The IO is a public institution under the Bulgarian Academy of Science.

The preparation of the ToR and the overall implementation of the project will be managed by ACESAS. The detailed responsibilities of the other monitoring institutions will be determined after the completion of component 1.

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5. Detailed Budget in MEUR

COMPONENTS	**Phare support**		**Total** **Phare** (=I+IB)	National co-financing*	IFI	**TOTAL**
	Investment Support	Institution Building				
1 – Assessment of the monitoring laboratories – design - preparation of tender documentation				0.18		0.18
2 - Procurement of the necessary equipment for the integrated monitoring system	2.15		2.15			2.15
3 – New procedures for laboratory analyses, accreditation of laboratories and implementation of routine marine monitoring				0.58		0.58
TOTAL	**2.15**		**2.15**	**0.76**		**2.91**

(*) The Ministry of Environment and Water will provide the national co-financing.

6. Implementation Arrangements

6.1. Implementing Agency

The Bulgaria CBC Implementing Agency is the Ministry of Regional Development and Public Works (MRDPW), which retains overall responsibility for the implementation of the project. This includes approval of terms of reference, of tender documents, of evaluation criteria, of evaluation of offers, signature of contracts, authorisation and payments of invoices.

The "Strategy, Accession Programmes and Projects" Department within the Ministry of Environment and Waters will be responsible towards the CBC Implementing Agency for the operational and technical management of the project: studies, preparation of Terms of reference, Tender Documents, preparation and proceeding of the Tender procedures, evaluation criteria, evaluation of Tenders, award of contracts, invoices for payment, Commissioning and Handing over of the implemented projects. The Department reports monthly to the CBC Implementing Agency (with direct copies to the EC Delegation) with monthly disbursement and commitment schedules and with sufficient detail to allow assessment of progress made and remaining work to be accomplished. It leases directly with the EC Delegation for all issues related to the operational management of the project. The Department shall be adequately staffed with at least 3 qualified full-time experts for the needs of the project.

The project main beneficiary is the Ministry of Environment and Waters, and the beneficiary institutions are the Activity Centre for Environmental and Safety Aspects of Shipping (ACESAS), Varna, Regional Environmental Inspectorates (Varna and Burgas) and the Institute of Oceanology, Varna.

6.2. Non-standard aspects

There are no "non-standards aspects". The "Practical Guide to Phare, Ispa and Sapard contract procedures" will strictly be followed.

6.3. Contracts

One Phare contract for purchase of equipment. The expected amount of this contract is 2.15 MEUR, as indicated in the table under point 5.

7. Implementation schedule

Start of tendering	Start of project activities	Completion
October 2001	March 2002	March 2004

8. Equal opportunity

Equal opportunity for men and women to participate in all the components of the project will be ensured.

9. Environment

This project aims at improving the environmental situation of Black Sea.

10.Rates of return

N/A

11.Investment Criteria

11.1. Catalytic effect:

Without Phare assistance, the project would have been delayed up to 10 years, any investment being dependent on the Romanian economic situation.

11.2. Co-financing:

The project is co-financed by Ministry of Environment and Waters, which will provide 25% of the total cost of the project.

11.3. Additionality:

No other financing sources from the private sector or from IFIs were available for financing this project.

11.4. Project readiness and Size:

The implementation of the project can start according to the implementation chart (Annex 2). The project complies with the 2 MEUR minimum Phare allocation requirement.

11.5. Sustainability:

The sustainability of the project is secured by the facts that the monitoring institutions implement the national monitoring programme, which is guaranteed by the Ministry of Environment and Waters.

11.6. Compliance with state aids provisions

The project respects the state aids provisions.

12.Conditionality and sequencing

- The operating costs and the maintenance costs for the equipment will be ensured by the respective owners, namely:
  1. Activity Centre for Environmental and Safety Aspects of Shipping (ACESAS), Varna with a budget of the Ministry of Transport,
  2. Regional Environmental Inspectorate in Varna with the budget of the Ministry of Environment and Waters,
  3. Regional Environmental Inspectorate in Burgas with the budget of the Ministry of Environment and Waters,,
  4. Institute of Oceanology (IO) with the budget of the Bulgarian Academy of Science.
- The Ministry of Environment and Waters undertakes to finance any additional costs which may arise in order to ensure timely completion of the project.
- The Romanian authorities and the Bulgarian authorities will ensure a close co-ordination for the preparation and the implementation of the two mirror projects.
- All the results will be shared freely with the relevant Romanian authorities.

ANNEXES TO PROJECT FICHE

1. Logical framework matrix
2. Detailed implementation chart
3. Contracting and disbursement schedule by quarter
4. Reference to feasibility / pre-feasibility studies.

Annex 1 : Logframe Matrix for project: *Integrated monitoring of the Bulgarian Black Sea Coast between Durankulak and Rezovo*		Contracting period expires: **30/11/2003** Total budget : **2.91 MEUR**	Disbursement period expires: **30/11/2004** Phare budget : **2.15 MEUR**
Overall objective	**Indicators of Achievement**	**Sources of Information**	
• Protection of the Black Sea littoral patrimony trough the prevention and control of the marine water pollution • Initiate a cross-border co-operation for the preservation of the Black sea littoral	• Compliance of the actual marine environment with the quality standards set in the related acquis, • Implementation of the NPAA in the area of marine water quality, • Operational systems for QC/QA for chemical and biological analyses, • Developed databases and systems for data exchange and information services	• Official report to the government • Certificate of accreditation • Published reports.	• The activities for all institutions are financially supported by the government
Project purpose	**Indicators of Achievements**	**Sources of Information**	**Assumptions**
• Improvement of the monitoring of the Black Sea coast. • Enhance and strengthening of the capacities of the institutions to implement a marine monitoring, • Strengthening of the co-operation between the relevant Romanian and Bulgarian institutions.	**ACESAS:** • Laboratories fully equipped for marine sampling and chemical analyses, • Provision of software and hardware for data management and information services **REI:** • Laboratories fully equipped for sampling and chemical analyses from land-based sources, • Provision of software and hardware for data management and information services **IO:** • Laboratories fully equipped for marine sampling and biological analyses • Provision of software and hardware for data management and information services	• Official report to the government • Protocols for information exchange.	• The activities for all institutions are financially supported by the government

Results	Indicators of Achievement	Sources of Information	Assumptions
• Sustainable institutions, equipped for implementation of the monitoring programme, • Reliable monitoring data for the marine environment and land-based sources, • Improved systems for data management and data exchange on national and international level, • Improved system for information services for decision-makers and NGOs	**ACESAS:** • Government and/or international accreditation of the laboratories for marine sampling and chemical analyses, • Reports on the actual condition of the marine environment, • On-line data exchange on national and international level, • **REI:** • Government and/or international accreditation of the laboratories for sampling and chemical analyses from land-based sources, • Reports on the actual loads from land-based sources, • On-line data exchange on national level. **IO:** • Government and/or international accreditation of laboratories for marine sampling and biological analyses, • Reports on the actual condition of the biomarkers in the marine environment, • On-line data exchange on national level	• Regular reports to the responsible authorities • Certificate of accreditation • Reports for the inventories and provision of the equipment, • Published reports • Protocols for data exchange.	• Support from other relevant institutions • Adequate provision from state budget • Implementation of standard analytical procedures • All laboratories take part in relevant national and international intercomparison exercises
Activities	**Means**		**Assumptions**
• Assessment of the monitoring laboratories – design - preparation of tender documentation • Procurement of the necessary equipment for the integrated monitoring system • Approbation of the new standard operation	**ACESAS:** • Provision of a fully equipped sampling vessel, a mobile laboratory and renew and/or replacement of the stationary laboratory equipment, consumables for laboratory analyses, • Provision of the necessary software		• All institutions recruit and retain adequate staff • All staff is well trained for the respective activities

procedures for laboratory analyses, accreditation of the monitoring laboratories and implementation of routine marine monitoring	and hardware for data management and information services (GIS, Internet communications, Electronic expert systems) **REI:** • Renew and/or replacement of the mobile and stationary laboratory equipment, consumables for laboratory analyses, • Provision of the necessary software and hardware for data management and information services (GIS, Internet communications) **IO:** • Renew and/or replacement of the mobile and stationary laboratory equipment, consumables for laboratory analyses, • Provision of the necessary software and hardware for data management and information services (GIS, Internet communications).		

Annex 2 – Detailed implementation chart

Integrated monitoring of the Bulgarian Black Sea Coast between Durankulak and Rezovo

Components	2001						2002												2003												2004											
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1 – Assessment of the monitoring laboratories – design - preparation of tender documentation			D	D	C	I	I	I	R																																	
2 - Procurement of the necessary equipment for the integrated monitoring system									C	C	I	I	I	I	I	I	I	I	R																							
3 – New procedures for laboratory analyses, accreditation of laboratories and implementation of routine marine monitoring							I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I/R	I/R	I/R

D = Design/Tender preparation C = Contracting I = Implementation/works R = Review/evaluation

Annex 3 – Contracting and disbursement schedule by quarter

Integrated monitoring of the Bulgarian Black Sea Coast between Durankulak and Rezovo

Components	Cumulative contracting schedule by quarter in MEUR (planned)														Total Phare Allocation
	2001		2002				2003				2004				
	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	
2 - Procurement of the necessary equipment for the integrated monitoring system	0	0	0	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Total contracting:	**0**	**0**	**0**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**

Components	Cumulative disbursement schedule by quarter in MEUR (planned)														Total Phare Allocation
	2001		2002				2003				2004				
	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	
2 - Procurement of the necessary equipment for the integrated monitoring system	0	0	0	0.5	1	1.5	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Total disbursement:	**0**	**0**	**0**	**0.5**	**1**	**1.5**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**	**2.15**

Annex 4 – Reference to feasibility /pre-feasibility studies

Integrated monitoring of the Bulgarian Black Sea Coast between Durankulak and Rezovo

The following completed projects are related to the Bulgarian marine monitoring:

- Monitoring, Laboratory Analysis and Information Management Requirements of the Black Sea Riparian Countries - 1994. Phare &Tacis Programme.
- Black Sea Chemical Monitoring -1998. BSEP. Multi-Country Project.
- Ecological Monitoring of the Bulgarian Black Sea Coast -1999.
- Ecological Monitoring of the Bulgarian Black Sea Coast -1999/2000.