STANDARD SUMMARY PROJECT FICHE

1. Basic Information

Number:	**2002/00-625-03**
Title:	**Development of a control system for air emissions from traffic and stationary sources in the boundary Bulgarian – Romanian region**
Sector:	**EN**
Location:	**Romanian – Bulgarian joint border**

2. Objectives

2.1 Overall Objective

- to improve and foster the co-operation of the border regions of both countries and thus to help the border regions to overcome the specific development problems which may arise, inter-alia, from their position within the national economies, in the interest of the local population and in a manner compatible with the protection of the environment.
- to promote the creation and the development of co-operation networks on either side of the border, and the establishment of links between these networks and wider community networks for exchange of experience.
- to contribute at the improvement of the co-operation between both countries in terms of reducing the air pollution and conformity with the requirements of the EU Legislation.

2.2 Purpose of the project

- Development of a System for controlling the air pollution in the border region between both countries in order to allow them to conform with the requirements of the following EU legislation: Framework Directive 96/62/EC on ambient air assessment and management, Directive 88/609/EC amended by 94/66/EC of pollution discharged from large combustion plants, Directive 94/63/EC on the control of VOC emissions, IPPC Directive 96/61/EC, Directive 99/13/EC on the control of VOCs due to the use of organic solvents in certain activities and installations, as well as other related EC legislation
- The project intends to supply equipments for Romanian Environmental Protection Inspectorates (*Dolj, Olt, Teleorman, Giurgiu, Calarasi*) in order to be able to control the air emissions from all stationary and traffic sources located on the region from Romanian – Bulgarian boundary. Moreover, these equipment will be used for the control of air quality;
- Control of air emissions from pollution sources based on specific dispersion of the pollutants on the both Danube borders.

2.3 Accession Partnership and NPAA priority

AP (medium-term priority):

- This project aim to:
  - strengthen EPIs capacity to control effectively air emissions from traffic and stationary sources;
  - to enforce the relevant EU Directives;
- The gathered information and data can be used for setting up of pollution reduction plans.

NPAA (short-term priority):

- By the end of 2002, the criteria, methodologies and procedures regarding air quality assessment will be established as well as the reference pollutants which is need to be evaluated, the limit values, alert threshold, margin of tolerance and deadline for complying with these limit values;
- The project will supply competitive equipment for controlling the emissions from the stationary sources and traffic.

2.4 Cross Border Impact

This system will produce information and specific data in order to solve the disputes between both countries for the origin of the pollutants and based on these data and information in the form of daily, quarterly and annual reports the Romanian and Bulgarian Environmental Inspectorates (*Dolj, Olt, Teleorman, Giurgiu, Calarasi* – Romanian side and the corresponding ones on the Bulgarian side) and the Municipalities together with both Ministries of Environment will elaborate programmes for air quality evaluation, control and reduction of the air pollution in order to improve the air quality.

3. Description

3.1 Background and justification

Background

In Romania, the protection of atmosphere shall aim at preventing, mitigating of deterioration and improving its quality in order to avoid the occurrence of some negative effects on the environment, human health and welfare. The central environmental protection authority (Ministry of Waters and Environmental Protection) promotes the regional and global policies by substantiating the specific principles and actions, at both national and local level, with regard to the atmosphere protection.

The transboundary pollution and related environmental problems along the Danube River border have been repeatedly expressed in the last decade. On the 27 December 1993 a Memorandum of Understanding was signed by the Romanian and Bulgarian Ministers of Environment, stating their willingness to co-operate on the issue of monitoring of the transboundary pollution Romania - Bulgaria.

The purpose of the project is to have a correct data about the emissions concentrations at all stationary and traffic sources located on the region from Romanian – Bulgarian boundary. The main objective is to increase the capacity of exchanging information in the cross border context, to create the possibility to determine the fluxes of pollutants (import and export of pollution) at regional level. National policy regarding the emission control includes provisions for the improvement of emission control at the national level by increasing the capacity of Environmental Protection Inspectorates in order to provide accurate data on pollutants concentrations emission.

The main polluting plants, in the border region, on the Romanian side, are the following:

- combustion plants (Dolj, Olt, Teleorman, Giurgiu, Calarasi), responsible for emissions of SO2, NOx, CO, total suspended particulates, etc
- siderurgical plants (Calarasi), responsible for emissions of SO2, NOx, CO, total suspended particulates, heavy metals, etc;
- chemical plants (Teleorman, Olt, Giugiu) responsible for emissions of SO2, NOx, CO, total suspended particulates, VOCs, NH3, other organically compounds, etc;

- paper production plants (Calarasi) responsible for emissions of SO2, NOx, CO, total suspended particulates, H2S, CS2, etc
- storage and distribution of petrol stations (Calarasi) responsible for emissions of VOCs and heavy metals;
- food production plants (Dolj, Olt) responsible for emissions of SO2, NOx, CO, total suspended particulates, organical compounds, etc
- live stock farms (Teleorman) responsible for emissions of NH3.

Also, in this area there is an intensive traffic, especially due to the road and railway bridge between Giurgiu – Ruse, responsible for emissions of SO2, NOx, CO, total suspended particulates, heavy metals, VOCs, etc.

In the future, between Calafat (on Romanian side) and Vidin (on Bulgarian side) will be built a road and railway bridge and for this reason, it is assume that the air pollution from traffic will increase.

Justification
At this moment competitive equipment to be used for air emissions control is not available. Is very important to complete the air monitoring system started in 1999 with the Phare CBC project: "Joint Air Quality Monitoring System in the Boundary Romanian-Bulgarian Towns on Lower Danube". The system will provide an overall image of the air quality state and the possibility of establishing pollution reduction plans. This project will intend to establish of an air emission control system in order to improve air quality in this area and to create a monitoring capacity of long-range transport of pollutants.

The Phare CBC 1999 project was the first step in order to solve the disputes regarding air pollution on the Romanian – Bulgarian borders.
Through this project the EPIs (Giurgiu, Calarasi, Teleorman) will be endowed with air quality monitoring system (automatic analysers and DOAS system) – that are fixed stations. This air quality monitoring system will not produce information about the origin of pollution.

- In this regard, through Phare CBC 2002, we intend to increase the capacity of 5 Environmental Protection Inspectorates to control air emissions from pollution sources.

3.2 Linked activities

RO9911.02.01 Phare CBC project: "Joint Air Quality Monitoring System in the Boundary Romanian-Bulgarian Towns on Lower Danube". This project covers four twin town regions along the Danube River where four automatic air-monitoring systems shall be established. The four areas have one Bulgarian and one Romanian town on each side of the Danube River. The four regions on both sides of the border are suffering from air pollution caused by industrial activities although pollution has decreased in the last decade because the major part of the industrial activities has been closed.

The project is a multipurpose Joint Air Monitoring System (JAMS) to fulfill a number of requirements on characterization of the general air quality in the project area and to explain actual disputes on sources for cross border transport of air pollution.

General objectives are to:

- Provide "on-line " data on air quality for a public information system and to promote public awareness.
- All data from one side of the border river shall be available "on-line" for the air quality departments and the population on the other side of the border.

The objectives of the established network:

- Air pollution and meteorological data measured at the monitoring sites shall be transmitted to the local Cross Border Site (CBS), the central station in each of the twin towns.
- Automatically verified data from both twin towns shall be presented to the general public in one Display Unit (DU) in a central place in each town.
- Data shall automatically be sent to the three Environmental Protection Inspectorates (EPAs) in Romania and to the three Regional Inspectorates (RIs) in Bulgaria.
- The Executive Environmental Agency in Sofia shall be the Regional Data Center (RDC) for Bulgaria and the Environmental Protection Inspectorate in Giurgiu shall be the Regional Data Center for Romania.

The Regional Data Center (RDC) shall regularly transmit the monitored data to the Bulgarian and Romanian ministries of the environment.

RO0107.15 Phare project: "Assistance for the Implementation of Environmental Policies in Romania". The sub-project 4 (Assistance for the implementation of the IPPC Directive) foresees the procurement of air monitoring equipment for several EPIs. The IPPC Directive (Industrial pollution control and risk management) is expected to be transposed by Governmental Decision by the end of 2001. This sub-project will support the implementation of the IPPC Directive in 10 selected EPIs (out of 42 EPIs), where inspection and the control of the activities of economical agents having major impact will be introduced, in accordance with the IPPC procedure (Classification of the economical agents having major impact was set by the Ministerial Order 541/2000, being in accordance with Annex I of the IPPC Directive).

The 10 EPIs where this sub-project will be implemented were selected considering the serious environmental problems due to the economic activities performed on their territories. There are: Baia Mare, Constanta, Craiova, Ploiesti, Timisoara, Cluj, Brasov, Buzau, Iasi and Bucharest EPIs. The activities foreseen are as follows:

- Technical assistance to review the technical specifications of the equipment and to prepare the tender documentation for both the investment and IB components.
- Technical assistance for institutional building.
- Purchase of equipment for each of the 10 selected EPIs to support the integrated control activity:

– automatic analysers for measuring the concentrations of emissions (combustion gases etc.); the analysers will help each Ecological Control Service within the 10 selected EPIs, to develop test-measurements at emission.
– equipment for immediate tests (pH-meters, oxigen meter, etc.) and some protection equipment, for the Service for Ecological Control within the EPIs;
– portable kits for investigation and sampling according to IPPC (2 for each of 10 EPIs).

3.3 Results

An improvement of the air quality in this area can only be obtained by emission reductions from the existing pollution sources on both sides of the border. Emission control is an important tool for solving the problems on air quality. The results projected are:

- Preparation of technical specifications and tender dossiers for the Bulgarian and Romanian tenders in order to procure the proper equipment for emissions control represents the output of the Technical Assistance provided for both countries through a Framework Contract under the funded CBC Project BG0107.04.01 "Preparation of Future Environmental Projects".
- Development of Emission Control System for Bulgaria and Romania and the set up of a joint information exchange system on emission data, between the counterparts.
- Setting up of the emission monitoring structures in the Regional Inspectorates and EEA in Bulgaria and Environmental Protection Inspectorates in Romania and fitting them with the supplied equipment.
- Elaboration of the daily, quarterly and annual reports.
- Establishment of an effective communication mechanism between the counterparts, to be set up during project Joint Working Group meetings.
- Accomplishment the possibility for preparing of air quality evaluation, control and reduction programmes for the air pollution, in order to improve the overall air quality.

3.4 Activities:

This project includes two components.

Component 1 - Equipment procurement

The following equipments are needed to be procured:

- 5 automatic flue gases analysers for the EPIs: Dolj, Olt, Teleorman, Giurgiu, Calarasi;
- 2 gas chromatographs with detectors and thermal desorbtion for the EPIs: Giurgiu and Olt
- 3 atomic absorption spectrophotometers for the EPIs: Olt, Teleorman, Calarasi;
- 3 samplers for total suspended particulates with isokynetic probe for the EPIs: Olt, Dolj, Giurgiu;
- 4 automatic analysers for the control of the VOCs emissions for the EPIs: Dolj, Olt, Calarasi, Teleorman;
- 1 automatic analyser for the control of NH3 emissions for EPI Teleorman;
- 2 DOAS (Differential Optical Analysis System) for traffic emission measurements for the EPIs Giurgiu and Dolj (for the road and railway bridges Giurgiu – Ruse and Calafat –Vidin);
- 5 mobile labs for EPIs: Dolj, Olt, Teleorman, Giurgiu, Calarasi, necessary for the automatic analysers handle and also for rapid intervention in the case of occurrence of accidental pollution;
- Data acquisition, processing and transmission hardware and software;
- Air conditioning for ensuring proper ambient conditions in EPIs laboratories;
- 6 room's arrangement for the equipment installation purpose.

Also, in order to assure the quality assurance and quality control (QA/QC), it will be necessary to endow the Air Quality National Reference Laboratory with proper equipment for air emissions control. The following equipment is needed:

- 1 automatic analyser for control of VOCs emission;
- 1 automatic analyser for the control of NH3 emissions,
- 1 automatic analysers for the control of flue gases;
- 1 sampler for total suspended particulates with isokynetic probe.

The tender dossier, including the technical specifications, for the equipments procurement will be provided by the technical assistance through a FWC, contracted under the BG0107.04.01 project "Preparation of Future Environmental Projects".
The total budget foreseen for this component is 2.41 MEUR, out of which 1.9 MEUR Phare funds.
The equipments will be procured under a supply contract, concluded following the Phare procedures for international open tender.
The supplier will provide appropriate training for the staff uncharged with the using of these equipments.

Component 2 - The elaboration of a study as regard the location of the DOAS systems for measuring traffic emissions

The project covers more than 400 km of the Danube shore. For maximizing the DOAS equipment abilities, a study must be carried out. The location of DOAS systems will have to be established, so to measure the highest effect of pollutant emissions from traffic. Thus, a specialized environmental research institute will be contracted, under this component, to perform this study in the project area.
In subsidiary, bilateral joint meetings with Bulgarian counterparts will be organized in order to allow the differences occurred, to exchange information and data and to assure the proper implementation of the project.

The budget foreseen for this component is 0.12 MEUR, assured by the Ministry of Waters and Environmental Protection as the project co-financing.

4. Institutional framework

The project beneficiary is the Ministry of Waters and Environmental Protection, through Environmental Protection Inspectorates in Dolj, Olt, Teleorman, Giurgiu and Calarasi counties.

Environmental Protection Inspectorates in Dolj, Olt, Teleorman, Giurgiu and Calarasi counties will ensure the operation costs and the maintenance costs of the equipment.

5. Detailed budget, in MEUR

Components	Phare Support		Total Phare (= I + IB)	National Co-financing (*)	IFI	Total
	Investment Support	Institution Building				
1- Procurement of equipment	1.9	0	**1.9**	0.51	0	**2.41**
2- Location study elaboration	0	0	**0**	0.12	0	**0.12**
Total	**1.9**	**0**	**1.9**	**0.63**	**0**	**2.53**

**The national co-financing will be ensured by the Ministry of Waters and Environmental Protection, under its annual budget.*

6. Implementation Arrangements

6.1 Implementing Agency

The Implementing Agency will be the Ministry of Development and Prognosis, through its Cross Border Co-operation Directorate, which will retain overall responsibility for the implementation of the programme, including: approval of tender documents, evaluation criteria, evaluation of offers, signature of contracts, authorization of invoices. The Payments Directorate within the same ministry will make the payments of invoices.

The CBC Directorate also includes a unit for the National Co-ordination of CBC programmes nominated as CBC Programme Co-ordination Unit (CBC - PCU) which will support the beneficiary in their activities concerning the preparation of tender dossiers and related documents.

The beneficiary of the project is the Ministry of Waters and Environmental Protection.

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 supply contract is foreseen referring to the purchase of the equipment. The respective value of the contract is 2.41 MEUR, out of which 1.9 MEUR Phare funds.

7. Implementation schedule

Start of tendering	Start of project activity	Project completion
April 2003	November 2003	November 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 is an environmental project aiming to control the pollutant emissions in air and to assess the needs for further actions in order to eliminate the air pollution in the area.

10. Rates of return

N/A

11. Investment criteria

11.1. Catalytic effect

Without Phare assistance, the project would have never taken place due to a lack of funds.

11.2. Co-financing:

The project is co-financed by 0.63 MEUR, assured by the Ministry of Waters and Environmental Protection, which will provide *25*% of the total cost of the project. The co-financing will be provided as follows:
- 0.51 MEUR for the component 1 *Procurement of equipment*
- 0.12 MEUR for the component 2 *Location study elaboration*

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 utility of this project have been repeatedly stressed during the Romanian-Bulgarian Joint Working Group for the implementation of the project RO 9911.02.01: "Joint Air Quality Monitoring System in the Boundary Romanian-Bulgarian Towns on Lower Danube". Based on the information exchange a draft of this project has been elaborated by the experts in the both countries. The project can start according to the implementation chart (Annex 2). If it is included also the

value of the TA component for preparation the Tender Dossier, component within the Bulgarian project BG0107.04.01 "Preparation of Future Environmental Projects", the project complies with the 2 MEUR minimum Phare allocation requirement.

11.5. Sustainability:

The beneficiary will bear the running costs for this project.

11.6. Compliance with state aids provisions

The project respects the state aids provisions.

12. Conditionality and sequencing

- Ministry of Waters and Environmental Protection will assure the co-financing of the project, accordingly to the table from chapter 5
- For the adequate preparation of the Technical Specifications, Technical Criteria and the Tender Dossier for the supply of the a.m. equipment for both countries, Technical Assistance will be provided through a FWC financed under the Project BG0107.04.01 "Preparation of Future Environmental Projects".
- The beneficiary of the project will pay the operating costs for the management of the facilities provided through this project.
- The beneficiary also undertakes to finance any additional costs, which may arise in order to ensure timely completion and implementation of this project.

ANNEXES TO PROJECT FICHE

1. Logical framework matrix

2. Detailed implementation chart

3. Contracting and disbursement schedule by quarter

4. Indicative list of necessary equipment

ANNEX 1 - LOGFRAME PLANNING MATRIX Development of a control system for emissions from traffic and stationary sources in the boundary Bulgarian – Romanian region		**Contracting period expires: 30/11/2004** Total budget 2.53 M€	**Disbursement period expires: 30/11/2005** PHARE contribution 1.9 M€
Overall objective	**Indicators of achievement**	**Sources of information**	
• to improve and foster the co-operation of the border regions of both countries and thus to help the border regions to overcome the specific development problems which may arise, *inter alia*, from their position within the national economies, in the interest of the local population and in a manner compatible with the protection of the environment. • to promote the creation and the development of co-operation networks on either side of the border, and the establishment of links between these networks and wider community networks for exchange of experience. • to contribute at the improvement of the co-operation between both countries in terms of reducing the air pollution and conformity with the requirements of the EU Legislation.	• Continuous improvement of Romanian-Bulgarian relations, especially in the field of environment. • Visible improvements in the quality of the life for inhabitants and a more attractive economic environment for the further development of the area.	• independent reports from civic organizations. • the findings of the Environment State Reports issued each year by the Ministry of Waters and Environmental Protection	
Project purpose	**Indicators of achievements**	**Sources of information**	**Assumptions**

• The project intends to supply equipments for Romanian Environmental Protection Inspectorates (*Mehedinti, Dolj, Olt, Teleorman, Giurgiu, Calarasi, Constanta*) in order to be able to control the emissions from all stationary and traffic sources located on the region from Romanian – Bulgarian boundary. Moreover, this equipment will be used for the control of air quality. • The project will intend to establish of an automatic emission monitoring system in order to improve air quality in this area and to create a monitoring capacity of long-range transport of pollutants.	• The overall improvement of air quality in the entire length of the Romanian-Bulgarian border	• The reports made by the Environmental Protection Inspectorates on monthly and yearly basis	• Set up of a mechanism for good co-operation in the implementation of the project by both parties • Ability of the polluters to observe the adopted Directives • Fulfillment of the commitments taken by both parties the time schedule of implementation of the project

Results	**Indicators of Achievements**	**Sources of information**	**Assumptions**

• Development of Emission Control System for Bulgaria and Romania and the set up of a joint information exchange system on emission data, between the counterparts. • Setting up of the emission monitoring structures in the Regional Inspectorates and EEA in Bulgaria and Environmental Protection Inspectorates in Romania and fitting them with the supplied equipment. • Elaboration of the daily, quarterly and annual reports. • Establishment of an effective communication mechanism between the counterparts, to be set up during project Joint Working Group meetings. • Accomplishment the possibility for preparing of air quality evaluation, control and reduction programmes for the air pollution, in order to improve the overall air quality.	• an improved endowment with equipment of the EPIs subject of the present project • available data from the system; • an established mechanism of data exchange between the two countries; • enforcement of pollution reduction plans drawn up on the data gathered by the system.	• The final report of the Supplier. • Reports from the Environmental Protection Inspectorates, as beneficiaries of the equipment and training	• Timely provision of accreditation • Timely implementation of the time schedule of the project by both parties and the External Consultant

Activities	**Means**		**Assumptions**
• Purchase of equipment • The elaboration of a study as regard the location of the DOAS systems for measuring traffic emissions.	• The Phare amount disbursed, as a result of the achievement of all the activities		• Proper use of the equipment in order to get correct data, reflecting the reality in the field. • Good trained stuff in EPIs • Good cooperation between the Environmental Protection Inspectorates and the companies in the project area

Annex 2 – Detailed implementation chart

Project Title: **Development of a control system for emissions from traffic and stationary sources in the boundary Bulgarian – Romanian region**

Components	**2002**						**2003**												**2004**												**2005**											
	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
Supply Contract										T	T	T	T	T	T	T	C																									
																	I	I	I	I	I	I	I	I	I	I	I	I															
D = Design/Tender preparation C = Contracting I = Implementation/works R = Review/evaluation																																									

Annex 3 – Contracting and disbursement schedule by quarter

Project Title: **Development of a control system for emissions from traffic and stationary sources in the boundary Bulgarian – Romanian region**

Components	**Cumulative contracting schedule by quarter in MEUR (planned)**																	Total Phare Allocation
	2002		**2003**				**2004**				**2005**				**2006**			
	Q3	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	
Supplies procurement						1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9					**1.9**
Total contracting:						**1.9**	**1.9**	**1.9**	**1.9**	**1.9**	**1.9**	**1.9**	**1.9**	**1.9**					**1.9**

Components	**Cumulative disbursement schedule by quarter in MEUR (planned)**																	Total Phare Allocation
	2002		**2003**				**2004**				**2005**				**2006**			
	Q3	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	
Supplies procurement						1.2	1.2	1.6	1.6	1.6	1.6	1.9	1.9	1.9					**1.9**
Total disbursement:						**1.2**	**1.2**	**1.6**	**1.6**	**1.6**	**1.6**	**1.9**	**1.9**	**1.9**					**1.9**

ANNEX 4 Indicative list of necessary equipment

EUR

No	Type of equipment	No of pieces	Unit price	Total price
1.	Automatic flue gases analysers	5+1(NRL)	30 000	180.000
2.	Gas chromatographs with detectors and thermal desorbtion	2	120.000	240.000
3.	Thermal desorbtion unit	1(NRL)	30.000	30.000
4.	Sample preparation equipment including standards and certified reference materials for GC	2+1(NRL)	25.000	75.000
5.	Atomic absorption spectrophotometers (AAS)	3+1(NRL)	60.000	240.000
6.	Sample preparation equipment including standards and certified reference materials for AAS	3+1(NRL)	15.000	60.000
7.	Samplers for total suspended particulates with isokynetic probe	3+1(NRL)	17.000	68.000
8.	Automatic analysers for the control of the VOCs emissions	4+1(NRL)	59.000	295.000
9.	Automatic analyzer for the control of NH3 emissions	1+1(NRL)	30.000	60.000
10.	DOAS (Differential Optical Analysis System) for traffic emission measurements	2	140.000	280.000
11.	Mobile labs	5	45.000	225.000
12.	Micro-meteorological station	5	14.000	70.000
13.	Pollutants dispersion software	2	150.000	300.000
14.	Data acquisition, processing and transmission hardware and software	5	20.000	100.000
15.	Glassware, small lab equipment, consumables for 1 year operation	5+1(NRL) sets	30.000	180.000
16.	Air conditioning	6	1.000	6.000
	TOTAL			**2.409.000**

NOTE: NRL – National Reference Laboratory