

STANDARD SUMMARY PROJECT FICHE

1. Basic information

Desiree Number: **RO0103.03**

Title: **Protection of wetlands of the Danube - a pilot project for Cama Dinu islet area**

Sector: **Environment (EN)**

Location: **Romania- Danube River - Cama Dinu islet.**

2. Objectives

2.1. Overall Objective

- Implementation of policy framework on the environmental management of the Danube River.
- As a pilot project, preservation of Cama Dinu islet area.

2.2. Purposes of the project

- To make an inventory of local flora and fauna with scientific assistance from an accredited institute.
- To initiate a study on the influence of the environment factors quality upon flora and fauna in Cama Dinu area.
- Adoption and conservation of ecosystem protection measures.
- Thanks to the pilot project, creation of a database to be used further within a wider project.
- To provide high equipment for the laboratory of Giurgiu EPI in order to operate efficiently and to strengthen regional capacity to deliver information for decision -making purposes.
- To inform and improve awareness of the population about the local bio-diversity.
- To create conditions for developing eco-tourism in the area and scientific studies too.

2.3. Accession Partnership and NPAA priority

AP (medium-term priority):

- Develop the monitoring and enforcement capacity in particular through decentralisation to environmental protection agencies.

NPAA (short-term priority):

- Rehabilitation of ecologically damaged sites and protection of environmentally vulnerable sites with economic potential, including natural sites and areas with tourism potential.

2.4. Cross Border Impact

The project intends to provide relevant data in order to improve the capacity of supervising water, air and soil quality, also flora and fauna of the ecosystem. The results will be shared with Bulgarian authorities. Both countries will benefit of the database for protecting their own lands.

On the Bulgarian side, a mirror project will be prepared thanks to the technical assistance provided in the framework of the proposed project “Preparation of Future Environmental Projects” – Phare CBC 2001.

The results of the pilot project are necessary to assess the possibility to extend such initiative to a much longer section of the Danube. Future monitoring could therefore be undertaken by all the agencies on both sides of the river. It would strengthen the co-operation of the local environmental institutions. It would also influence the water, air and soil quality of the border area, and both Romania and Bulgaria will benefit from a cleaner Danube.

It should be noted that since 1986, Giurgiu EPA has a very good collaboration with RIOSV Russe (the Bulgarian Environmental Agency) on air and water monitoring. Monthly, an exchange of data on air and water quality takes place. Since the beginning of 1999 the two agencies from Romania and Bulgaria have strengthened their co-operation on issues related to bio-diversity protection.

3. Description

3.1. Background and Justification

Background

The Danube marks the border between Bulgaria and Romania. There are many islands and floodplains along the Lower Danube, some of them being unspoiled, but others are deeply affected by human activity, such as Cama Dinu Islet.

There was an intense excavation activity here, damaging the ecosystem of the islet. The forest was populated with new Canadian species of poplar (*Populus euramericana*) in order to increase the wood production.

These islands are important for the environmental condition of the Danube, since they play a role in self-purification of water. Moreover, their bio-diversity is valuable.

Justification

The project aims at monitoring Cama Dinu flora and fauna and at studying the influence of the environmental factors quality upon them. Such a study and pilot project are necessary in order to assess the possibility to extend such initiative to a longer section of the Danube.

Bulgaria is interested with the output of this project, and could even undertake a similar approach for the islet of Liuliak.

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 in particular in the Danube river.”

At present our precarious equipment is unable to develop such a necessary integrated monitoring at level required by EC Regulation.

3.2. Linked activities

There are no directly linked activities. However, this project aims at developing an integrated monitoring system, including bio monitoring for the Danube. Two related on-going projects have a similar objective:

- Projects RO9911.02.01 and BG9916.02.01 – Joint Air Quality Monitoring System on the Romanian/Bulgarian Boundary Towns on Lower Danube (CBC BG/RO 1999 – Phare contribution: 1.2 MEUR for each border region)
- Project RO0002.02.01 -Ecologisation of the Danube River and transport facility (CBC BG/RO 2000 – Phare contribution: 2.8 MEUR)

3.3. Results

- An inventory of flora and fauna in Cama Dinu area.
- A database on the environmental situation of the islet area to be used to further monitor the wetlands areas of the Danube.
- An upgraded laboratory, able to provide a higher environmental information.
- A better informed and more responsible population about the local bio-diversity.

3.4. Activities

This project includes 5 components.

Component 1 - Preparation of the tender documents (0.15 Meuro)

Under this component, the needs assessment will be reviewed, the Technical Specifications and the Tender Dossiers will be prepared.

Component 2- Assistance for the realisation of the database, the monitoring and to make an inventory of the flora and fauna in Cama Dinu area (0.85 Meuo)

Scientific support from experts of a research institute accepted by the Ministry of Water, and Environment Protection will be sought to perform the following tasks:

- Development of a proper database that could also be used for other further activities or studies and have a correct picture of the state of environment in the area. The data to be monitored will be carefully analysed in order to assess precisely the influence of the environmental agents upon the Cama Dinu ecosystem. The monitoring will be performed by Romanian staff, and the actual

activity of data processing and analysis will be performed by Romanian experts as long as the project lasts and supervising of area will be continued further.

- In order to study the evolution of flora and fauna in the area, an inventory of the flora and fauna of the islet area will be performed.
- In order to ensure a successful activity within the project, Romanian staff will be trained.

Component 3 – Purchase of equipment (0.9 Meuro)

Under this component, some equipment necessary for the monitoring and for the laboratory of Giurgiu EPI will be purchased.

The immediate need is as follows:

- Automatic analysers for H_2S , NO_2 , Cl_2 , HC , SO_2 , H_2S , C_6H_5OH , CH_2O , aromatic hydrocarbons, O_3 , CO_2 , CO , NH_3 , etc.
- Air automatic sampler (24 hours)
- Gas Analyser (CO , CO_2 , NO_x , SO_2 , Pb-lead)
- Air automatic sampler (for instant tests)

Other apparatus may be added, according to the advice of the consultant:

- Gas drawing pump for aerosol (15-40 l / min)
- SPEKOL Spectrophotometer for visual field
- Equipment for distilling of cyanides
- Atomic absorption spectrophotometer lamps for Zinc (Zn), Iron (Fe), Sodium (Na), Copper (Cu)
- PH-meter
- conductimeter
- incubator
- cabinet dryer
- gas chromatograph
- digester
- KHELDAHL equipment
- SOXHLET apparatus
- distillation apparatus
- magnetic bar stirrer
- calcining kiln (incinerator)
- Automatic fixed system for integrated monitoring of Danube water (pH, temperature, Dissolved Oxygen, turbulence, ion specific, oil products detecting, radiation detecting)
- Laboratory tools and glassware
- exhaust hood

In addition, following the recommendations of the consultant, the following equipment may be purchased:

- Automatic monitoring equipment that will be settled by experts of both countries together with the independent consultant.
- Materials and tools for abatement of accidental pollution.
- Bio-monitoring equipment that will be also settled by experts and consultant
- A study boat (crew of 4 people) may be necessary for sampling, for study trips or simply for a rapid inspection of the area. It also could be used for school study trips.

Component 4 – Building of Cama Dinu environment supervising centre (0.66 Meuro)

Under this component, an environment supervising centre will be built on Cama Dinu islet. The supervising centre in Cama Dinu area is going to be a watching station, a shelter for high quality sampling and monitoring equipment. So, it needs to be a very solid construction in order to be used during a long time and to be adapted to any specific requirement in the field of bio-diversity and general environment.

The centre house will have a large room in order to install promotional panels and stuffed birds and animals, (a little biological museum for the area), two rooms for monitoring equipment (laboratories), two small rooms for storing materials and tools and a bathroom. Technical assistants, the consultant with Romanian specialists will precise the requirement for this building.

Component 5 – Awareness campaign (0.1 Meuro)

The intention is to inform local population about bio-diversity in the area and making them aware of the need to be protected.

- A big panel to be installed in the centre of Giurgiu town with various maps containing tourist routs along Danube. Thus, people could visit those interesting places by boat.
- Leaflets, booklets, articles for mass-media will be developed
- Workshops for interested people will be organised

4. Institutional Framework

The project beneficiary is the Ministry of Waters and Environment Protection. The following units will be concerned:

- the Directorate for Ecological Control and Monitoring
- the Directorate for Protection and Conservation of Bio-Diversity, Protected Areas and Monuments of Nature
- the General Directorate for Waters Management
- Giurgiu EPI (Environmental Protection Inspectorate). This later will operate most of the equipment that will be procured, and actually implement the project.

“Romanian Waters” National Company through its branch in Giurgiu, will maintain and use the study boat (component 3).

The project will run on a background of collaboration with other local authorities and decentralised institutions such as: Giurgiu Prefecture, Giurgiu Municipality, Directorate of Public Health, “Romanian Waters” National Company, Directorate of Agriculture, Inspectorate of Border Police, Veterinary Directorate, Forestry Enclosure, etc.

5. Detailed Budget

In MEUR	Phare Support					
Components	Investment Support	Institution Building	Total PHARE	National Co-financing (*)	IFI	Total
1 - Preparation of the tender documents		0.15	0.15			0.15
2 – Scientific Assistance for the realisation of the database, the monitoring and the inventory		0.85	0.85			0.85
3 – Purchase of equipment	0.9		0.9			0.9
4 – Building of Cama Dinu environment supervising centre				0.66		0.66
5 – Awareness campaign		0.1	0.1			0.1
TOTAL	0.9	1.1	2.00	0.66	0	2.66

(*) co-financing provided by MoWEP

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, authorisation of invoices. The payments of invoices will be made by the Payments Directorate within the same ministry.

The CBC Directorate also includes a unit for the National Co-ordination of CBC programmes nominated as CBC Programme Co-ordination Unit (CBC - PCU). This unit will liaise with the beneficiary institutions and with the line Ministries to prepare Terms of Reference, tender documents, evaluation criteria, evaluation of offers, negotiation of contracts, invoices for payment etc..

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

Five contracts are expected, 1 for Technical assistance, 1 for scientific assistance and 3 for works. The expected amount of each contract is indicated in the table under point 5.

7. Implementation schedule

Start of tendering	Start of project activities	Completion
October 2001	January 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 Cama Dinu Islet. The Danube Environment Program provided an initial environmental survey by producing a comprehensive protection document entitled “ Strategic Action Plan for Danube River Basin”.

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 MoWEP which will provide 0.66 MEUR, 25% of the total cost of the project.

11.3. Additionally

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

11.4. Project readiness and size

The preliminary studies are not completed but 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 equipment will be operated in accordance with EU standard and procedures. MoWEP will bear the running costs and will ensure maintenance of the financed equipment.

11.6. Compliance with state aids provisions

The project respects the state aids provision.

12. Conditionality and sequencing

- MoWEP will bear the operating costs and the maintenance costs for the equipment.
- MoWEP will undertake to finance any additional costs which may arise in order to ensure timely completion of the project.
- All the results of the pilot project will be shared freely with the relevant Bulgarian 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 <i>Protection of wetlands of the Danube - a pilot project for Cama Dinu islet area</i>			Contracting period ends: 30/11/2003	Disbursement period expires: 30/11/2004
			Total Budget 2.66 MEUR	PHARE contribution 2.00 MEUR
Overall Objective	Indicators of Achievement	Sources of Information	Assumptions	
<ul style="list-style-type: none"> Implementation of policy framework on the environmental management of the Danube River. As a pilot project, preservation of Cama Dinu islet area. 	<ul style="list-style-type: none"> increase the supervising capacity of EPAs by implementing an integrated monitoring system 	Local EPAs in the efforts to meet the previsions of the Convention on the Protection of Danube and the Declaration on the Co-operation for the Creation of a Lower Danube Green Corridor signed in Bucharest , on the 05.06.2000	Provide efficient exchange data procedures within the integrated monitoring systems of both sides.	
Project purpose	Indicators of Achievement	Sources of Information	Assumptions	
<ul style="list-style-type: none"> To make an inventory of local flora and fauna with scientific assistance from an accredited institute. To initiate a study on the influence of the environment factors quality upon flora and fauna in Cama Dinu area. Adoption and conservation of ecosystem protection measures. Thanks to the pilot project, creation of a database to be used further within a wider project. To provide high equipment for the laboratory of Giurgiu EPI in order to operate efficiently and to strengthen regional capacity to deliver information for decision -making purposes. To inform and improve awareness of the population about the local bio-diversity. To create conditions for developing eco-tourism in the area and scientific studies too. 	<ul style="list-style-type: none"> Inventory of flora and fauna in Cama Dinu area Study overview of the environmental state of the Cama-Dinu area A sustainable developing forestry plan aiming an eventual declaring of Cama Dinu islet as a protected area Data base on the environmental state in Cama Dinu area Efficient environmental protection measures An upgraded laboratory able to provide A better informed and more responsible population 	Giurgiu EPA with scientific assistance	The co-operation between Romania and Bulgaria in terms of environment protection and bio-diversity conservation	
Results	Indicators of Achievement	Sources of Information	Assumptions	
<ul style="list-style-type: none"> An inventory of flora and fauna in Cama Dinu area. A database on the environmental situation of the islet area to be used to further monitor the wetlands areas of the Danube. An upgraded laboratory able to provide a higher 	<ul style="list-style-type: none"> Proper development of local EPAs monitoring capacity No damage occurs in the area without knowing them much earlier and adopting saving measures proper laboratory management 	Giurgiu EPA with technical and scientific assistance	The proper assessment of the necessary information Collaboration between Giurgiu EPA and RIOSV Ruse	

environmental information. • A better informed and more responsible population about the local bio-diversity.	• The data basis provided by the scientific study and monitoring activity		
Activities	Means		Assumptions
• Component 1 - Preparation of the tender documents • Component 2 - Assistance for the realisation of the database, the monitoring and to make an inventory of the flora and fauna in Cama Dinu area • Component 3 – Purchase of equipment • Component 4 – Building of Cama Dinu environment supervising centre (we have deleted “and Extension of the existing laboratory”) • Component 5 – Awareness campaign	• technical assistance •Scientific assistance • purchase of monitoring equipment contract and equipment for laboratory • purchase of study boat • construction of an environmental supervising centre • basic monitoring sampling skills • leaflets, booklets, warning panels, posters, and maps.		- The required funds for co-financing -The existing trained personnel -Communication between Giurgiu EPA and RIOSV Ruse.

ANNEX 2 - Detailed implementation chart

Protection of wetlands of the Danube - a pilot project for Cama Dinu islet area

Components	2001	2002	2003	2004
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R = Review/evaluation

ANNEX 3 - Contracting and disbursement schedule by quarter

Protection of wetlands of the Danube - a pilot project for Cama Dinu islet area

Components	Cumulative contracting schedule by quarter in MEUR (planed)														
	2001		2002				2003				2004				Total Phare Allocation
	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	
1 - Preparation of the tender documents		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
2 - Assistance for the realisation of the database, the monitoring and the inventory				0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
3 – Purchase of equipment				0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 – Building of Cama Dinu environment supervising centre and Extension of the existing laboratory															
5 – Awareness campaign							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total contracting:		0.15	0.15	1.9	1.9	1.9	2	2	2	2	2	2	2	2	2.00

Components	Cumulative disbursement schedule by quarter in MEUR (planed)														
	2001		2002				2003				2004				Total Phare Allocation
	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	
1 - Preparation of the tender documents			0.1	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
2 - Assistance for the realisation of the database, the monitoring and the inventory				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.85	0.85	0.85	0.85	
3 – Purchase of equipment				0.1	0.3	0.6	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
4 – Building of Cama Dinu environment supervising centre and Extension of the existing laboratory															
5 – Awareness campaign							0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	
Total disbursement:			0.1	0.35	0.65	1.05	1.50	1.60	1.70	1.85	2	2	2	2	

ANNEX 4 Reference to feasibility /pre-feasibility studies

Protection of wetlands of the Danube - a pilot project for Cama Dinu islet area

Giurgiu EPI has made a preliminary study for the present project, entitled:

~ Study upon opportunities provided by the pilot project "Protection of wetlands of the Danube" ~

The project aims at monitoring Cama Dinu flora and fauna and at studying the influence of the environmental factors quality upon them. Such a study and pilot project are necessary in order to assess the possibility to extend such initiative to a longer section of the Danube.

The Danube marks the border between Bulgaria and Romania. There are many islands and floodplains along the Lower Danube, some of them being unspoiled, but others are deeply affected by human activity, such as Cama Dinu Islet.

The territory of the islet is public property and National Forests Company manages it.

Every ten years I.C.A.S. (Research and Arrangement of Forests Institute) makes **a study** upon the evolution of forest flora and also on exploitation of forests known as "forest arrangements".

According to that study combination of poplar and willow tree is most extended in the considered area.

Among black poplars (*populus nigra*) a new Canadian specie of poplar (*Populus euramericana*) was introduced in order to increase the wood production thanks to its special characteristics (35 meters high and 30-40 cm thick).

The study also provides data on:

- geo-morphological processes in the area
- multi-annual average flow
- average flow of suspended alluvial soil
- depth of underground water
- overflow in the area and its influence upon forest vegetation
- average annual temperature
- dominant winds
- evolution of areas
- potential annual evapo-transpiration

These islands are important for the environmental condition of the Danube, since they play a role in self-purification of water. Moreover, their bio-diversity is valuable.

Regarding the evolution of areas, a severe decrease of islet area was noticed so that, between 1985-1997, the islet has lost 18.1 ha. There was an intense excavation activity around Cama Dinu islet, damaging its ecosystem.

Between 1992-1997 the islet was divided into two distinct parts. Main causes of this phenomena are the natural dynamic of the river and also the amplification of erosion process because of anthropic activities

We need to develop of a **proper database** in order to be used for other further activities or studies and have a correct picture of the state of environment in the area. The data to be monitored will be assessed. Thus, we could obtain as complete as possible information in order to come to correct conclusions on the influence of the environmental agents upon the Cama Dinu ecosystem.

Romanian experts will perform the actual activity of data processing and analysis as long as the project lasts and supervising of area will be continued further.

In order to study the evolution of flora and fauna in the area, an inventory of the flora and fauna of the islet area will be performed.

Proper **equipment for monitoring** of air, soil and water quality and for bio-diversity as well is going to be necessary.

The immediate need of Giurgiu EPI is as follows:

- Automatic analysers for H_2S , NO_2 , Cl_2 , HC , SO_2 , H_2S , C_6H_5OH , CH_2O , aromatic hydrocarbons, O_3 , CO_2 , CO , NH_3 , etc.
- Air automatic sampler (24 hours)
- Gas Analyser (CO , CO_2 , NO_x , SO_2 , Pb-lead)
- Air automatic sampler (for instant tests)
- Automatic fixed system for integrated monitoring of Danube water (pH, temperature, Dissolved Oxygen, turbulence, ion specific, oil products detecting, radiation detecting)
- automatic monitoring equipment that will be settled by experts of both countries together with the independent consultant to be provided.

Other apparatus will be added, according to the Consultant's advice

- Bio-monitoring equipment that will be also settled by experts and consultant
- Laboratory equipment** for Giurgiu EPI is needed in order to make all the necessary analysis and measurements.
- Gas drawing pump for aerosol (15-40 l / min)
- SPEKOL Spectrophotometer for visual field
- equipment for distilling of cyanides
- Atomic absorption spectrophotometer lamps for Zinc (Zn), Iron (Fe), Sodium (Na), Copper (Cu)
- PH-meter
- conductimeter
- incubator;
- cabinet dryer;
- gas chromatograph;
- digester;
- KHELDAHL equipment;
- SOXHLET apparatus;
- distillation apparatus;
- magnetic bar stirrer
- calcining kiln (incinerator);
- Laboratory tools and glassware
- exhaust hood
- Materials and tools for abatement of accidental pollution
- Bio-monitoring equipment that will be also settled by experts and consultant

-A **study boat** will be necessary for sampling, for study trips or simply for a rapid inspection of the area. It also could be used for school study trips.

We assessed the crew of the boat to be 4 men sized.

The boat will have

- one protocol room (12-15 square meters)
- four twin-bed rooms
- one kitchen
- one dining square
- two engines of 150 CP (as consultant and designer require)
- one auxiliary engine
- radar

- laboratory
- ultrasonic sounding system
- ECOLOT sounding system
- G.P.S.

-maximum draught:1.3 m

Designer will keep in touch with beneficiary and independent consultant.

The supervising centre in Cama Dinu area is going to be a watching station, a shelter for high quality sampling and monitoring equipment. So, it needs to be a very solid, and secure construction, in order to be used long time further and to be adapted to any other specific requirement in the field of bio-diversity and generally environment. Local authorities will settle the location of the centre.

The centre house will have:

- a large entering room in order to install promotional panels and stuffed birds and animals, (a little biological museum of the area)- 11m/5m
- two lateral rooms for monitoring equipment (laboratories)- 6m/8m
- two small rooms for storing materials and tools, behind the museum - 6m/3m and 2.5m/6m
- water-closets room 2.5m/4m

Next floor, upstairs:

- one protocol meeting room (above museum) -11m/5m
- two bedrooms for scientist-researchers- 3m/3m and 3m/3m (above storeroom 1)
- one bedroom for watchman - 6m/3m and 2.5m/ 3m (above storeroom 2)
- one bath-room 2.5 m /3m (above water-closets)

Last floor:

- one watching room for birds supervision, above stairway.

Technical assistants and the Consultant from UE together with Romanian specialists will decide if more rooms are needed for installing equipment.

Awareness campaign aims at informing local population about bio-diversity in the area and making them sensitive regarding to its need to be protected.

- A big panel to be installed in the centre of Giurgiu town with various maps containing tourist routs along Danube. Thus, people could visit those interesting places by boat.
- Leaflets, booklets, articles for mass-media will be developed
- Workshops for interested people will be organised

The project will run on a background of collaboration with other local authorities and decentralised institutions such as: Giurgiu Prefecture, Giurgiu Municipality, Directorate of Public Health, “Romanian Waters” National Company, Directorate of Agriculture, Inspectorate of Border Police, Veterinary Directorate, Forestry Enclosure, etc.