

## STANDARD SUMMARY PROJECT FICHE

### 1. Basic Information

1.1 Désirée Number: BG 01.06.04

Title: Remediation programme for the Uranium Mines in Southern Bulgaria.

1.2 Sector: EN – Environment

1.3 Location: Bulgaria – South Central Region

### 2. Objectives

#### 2.1. Overall Objectives:

- Receive updated information for any pollution of air, soil and water and in order to take all necessary measures to eliminate the above mentioned pollution.
- Remediation of the environment in the areas affected by former uranium mining activities and protect the health of local population from any radioactive waste.
- Support to the Bulgaria's adoption of the EU environmental *acquis communautaire* through its implications for a wide range of EU legislation.

#### 2.2. Purpose of the project:

The purpose of the project is the development of a Remediation Programme for the uranium mines in Southern Bulgaria. The programme will describe the necessary measures in order to remediate the affected by the uranium activities environment. The programme will be approved and adopted by relevant Bulgarian authorities and will be considered as base for the future investment projects concerning remediation of the Uranium Mines. Given the fact that the Southern Bulgaria is characterized by high rate of unemployment the future investment projects will affect the welfare of the local population through the creation of temporary jobs.

#### 2.3. Accession Partnership and NPAA priority

Liquidation of the consequences of uranium mining and processing activities is a priority aim of the Bulgarian Government policy. More precisely the project is in compliance with:

##### ➤ Short Term Priorities

- continue transposition of framework legislation in the water, air and waste sectors, prepare and implement detailed directive specific approximation programmes; strengthen implementation structures, particularly at the regional level.
- develop a plan for financing investments (directive specific), based on estimations of costs of alignment and realistic sources of public and private finance year-by-year.
- complete transposition and enforce the Environmental Impact Assessment Directive.

##### ➤ Medium-term Priorities

- complete transposition and implementation of framework and sectoral legislation according to pre-defined timetable.

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

The project should be in full compliance with the following acquis: Surface Water for the Abstraction of Drinking Water Directive, Groundwater Directive, Discharge of dangerous Substances to the Aquatic Environment Directive, Drinking Water Directive, Water Framework Directive, Hazardous Waste Directive as well as the Regulation of Civil Protection Regarding Health and Safety Issues.

#### **2.4. Cross Border Impact:**

The proposed project will provide updated information to control over the radiological contamination of the environment in the cross border region, reliable fixing of all negative processes affecting pollution of the environment and protection from spreading and cross-border migration of the solid and liquid waste, including radionuclides.

### **3. Description**

#### **3.1. Background and justification:**

The PHARE Cross Border Co-operation Programme will finance a Remediation Programme for the Uranium Mines in Southern Bulgaria

On the territory of South West and Central South Bulgaria there is a high concentration of natural uranium resources and for over half century there was mined uranium ore. The mining activities were accompanied by indirect and direct damages to the soil cover, contamination of surface and underground water and high quantities of natural radionuclides and heavy metals, pollution of the air and vegetation. As a result of uranium mining works the areas of Mesta River valley, of Narechen-Smolyan and of Smilyan are characterized as areas with serious environmental contamination. The generation of considerable important volumes of solid and liquid waste, rich in natural radionuclides and products of their decomposition is the main source of radiation hazard in these areas. There are numerous places, which are covered by low radiation waste rock piles. There are more than 30 uranium deposits and occurrences where exploration for uranium ore and mining activity were carried out in that region between Stavrupolis-Smolyan and Mesta river valley. There is neither information about the environmental status of these mining areas for the last ten years nor data from completed hydrogeological and radioecological expertises. Furthermore, the outflow of uranium-contaminated waters on the earth surface is not under control and the quantity and quality of these waters is unknown. The absence of data about the conditions represents potential danger for cross-border migration of uranium contaminated solid and liquid waste towards the territory of Greece.

The project includes the following tasks:

- Feasibility study on the status of the uranium mines in southern Bulgaria;
- Identification of priority remediation measures;
- Development of monitoring and remediation programme;
- Approval and adoption of the programme by the relevant Bulgarian authorities;
- Preparation for Tendering for the first five (5) priority projects.

This project is in compliance with the priorities agreed within the Joint Programming Document (JPD) during the 1<sup>st</sup> Joint Cooperation Committee (JCC) meeting between Bulgaria and Greece (Athens, 20 Nov. 2000). Within the JPD it is described the Axis 3 – Quality of Life /Environment Measures 3.1 Improvement of quality of life 3.2 Health Protection.

### **3.2. Linked activities:**

- BG9904-03-01-03 “Regional Network for Basic Radiation Monitoring in South Bulgaria” – 0.4 MEURO: Under Tender Procedure
- BG9904-03-01-01 “Closing of Uranium Mines in Eleshnitsa and Dospat”: Under Tender Procedure
- BG9508-02-02-L002 “Complex Programme for Clean-up and Monitoring of Areas Affected by Uranium Mining and Processing Activities in Buhovo-Monitoring System”: Under Implementation
- BG9807-03 “Reconstruction of Buhovo Tailings Pond – Stage II”: Under Implementation.

### **3.3 Results:**

- Approved and adopted by the Bulgarian authorities remediation and monitoring programmes;
- A pipeline of ready investment projects

### **3.4. Activities:**

The proposed project consists of a Service contract estimated 0,6 Meuro which will include the following assignments:

#### **I. Production of a Feasibility study including:**

- Collection of available data
- Carry out of the necessary hydrogeological and radioecological exploration
- Investigations concerning the radiological status before, during and after the period of uranium mining activities.
- Investigations concerning the hydro geological status before, during and after the period of uranium mining activities.
- Purchase of portable analysers for measurement;
- Sampling of waters, soils, air and vegetation and their analysis for estimation the level of contamination.
- Analysis of the information.
- Identification of all sources of pollution of air, soil and water coming relating to the Uranium Mines
- Development of a database and relevant maps

#### **II. A comprehensive remediation programme with short, medium and long term objectives and relevant measures.**

It should cover technical, financial, environmental and social aspects. In addition a monitoring programme will be developed in order to have effective monitoring of the

sites for the different environmental parameters. The programme will be approved and adopted by the respective Bulgarian institutions.

III. The consultant will prepare all necessary Documents (Design, Tender Dossier etc.) in order to proceed with Tendering procedures for the first five (5) priority projects.

#### 4. Institutional Framework

The project should be in full compliance with the following Acquis legislation: Surface Water for the Abstraction of Drinking Water Directive, Groundwater Directive, Discharge of dangerous Substances to the Aquatic Environment Directive, Drinking Water Directive, Water Framework Directive, Hazardous Waste Directive as well as the Regulation of Civil Protection Regarding Health and Safety Issues.

The Beneficiary Institutional of the Project according to the Bulgarian National legislation will be Ecoengineering-RM" in the State Agency for Energy and Energy Resources.

##### **Project Manager:**

Angel Angelov

Head of Eco-Engineering, State Agency for Energy and Energy Resources

Address: 8, Triaditsa Str.

Tel:00359 2 986 41 07

Fax:00359 2 986 41 07

#### 5. Detailed Budget, in Meuro

| COMPONENT    | Phare support      |                      | Total Phare (=I+I B) | National co-financing * | TOTAL      |
|--------------|--------------------|----------------------|----------------------|-------------------------|------------|
|              | Investment Support | Institution Building |                      |                         |            |
| Contract 1   |                    | 0.4                  | 0.4                  | 0.2                     | 0.6        |
| <b>TOTAL</b> |                    | <b>0.4</b>           | <b>0.4</b>           | <b>0.2</b>              | <b>0.6</b> |

\*Ecoengineering –RM Ltd and state Agency of Energy and Energy Resources will provide the co-financing.

#### 6. Implementation Arrangements

##### 6.1. Implementing Agency

The Project shall be managed under the Decentralised Implementation System (DIS). 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 (approval of terms of reference, of tender documents, of evaluation criteria, of evaluation of offers, signature of contracts, authorisation and payments of invoices).

The project beneficiary institution is Ecoengineering Ltd. It is responsible towards the CBC Implementing Agency for the operational management of the project: preparation of terms of reference, of tender documents, of evaluation criteria, of evaluation of offers, of contracts and of invoices for payment.

Overall project monitoring, project co-ordination and final project evaluation will be undertaken within the framework of a Steering Committee, in which will take part authorized representatives of SAEER, MoEW, Ecoengineering –RM Ltd.

## **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 Service Contract – 0.6 MEUR

## **7. Implementation Schedule**

| <b>Start of tendering</b> | <b>Start of project activities</b> | <b>Completion</b> |
|---------------------------|------------------------------------|-------------------|
| September 2001            | January 2002                       | May 2003          |

## **8. Equal Opportunity**

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

## **9. Environment**

Not applicable.

## **10. Rates of return**

Not applicable.

## **11. Investment criteria**

### **11.1 Catalytic effect:**

The project will considerably assist the Bulgarian government to adopt and enforce the EU environmental acquis legislation relating to the water and waste sectors, civil protection and health and safety issues. This will result the reduction of existing pollution and will eliminate future serious pollution emissions. Additionally, this will lead to environmental improvement, cross-boundary fellowship and development of project financial management skills. Without Phare assistance, the project would have been delayed for several years years due to a lack of funds.

### **11.2 Co-financing:**

For the implementation of such environmental project except Phare funding also Bulgarian National Financing is being sought and utilised.

The project will be co-financed by "Ecoengineering-RM" Ltd., which will provide one third 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 preliminary studies are completed and the implementation of the project can start according to the implementation chart (Annex 2).

### **11.5. Sustainability:**

The project complies with EU norms and standards and is in line with EU sector policy acquis. "Ecoengineering-RM" will take all measures to ensure the successful implementation of the project in close co-operation with the MoEW and after completion of the project, will cover the operational and maintenance costs of the monitoring system.

### **11.6. Compliance with state aids provisions**

The project respects the state aids provisions.

## **12. Conditionality and sequencing**

- The execution of feasibility study (field works) and technical requirements will be in full compliance with the following acquis legislation: Surface Water for the Abstraction of Drinking Water Directive, Groundwater Directive, Discharge of dangerous Substances to the Aquatic Environment Directive, Drinking Water Directive, Water Framework Directive, Hazardous Waste Directive as well as the regulation of Civil Protection Regarding Health and Safety Issues.
- Ecoengineering-RM Ltd will guarantee Right of accesses to the sites.
- Special safety measures will be taken by "Ecoengineering-RM" Ltd, subject of control of the Ministry of Environment of Water and the Ministry of Health.

### **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.

|  |  |  |  |
|--|--|--|--|
| <b>Annex 1 : Logframe Matrix for project:</b><br><br><b><i>Remediation programme for the status of the Uranium Mines in Southern Bulgaria</i></b>  |  | Contracting period expires:  | Disbursement period expires :  |
|  |  | 30/11/2003   | 30/11/2004   |
|  |  | Total budget : 0.6 <i>Meuro</i>  | Phare budget : 0.4 <i>Meuro</i>  |
| <b>Overall objective</b>   | <b>Indicators of Achievement</b>   | <b>Sources of Information</b>  |  |
| <ul style="list-style-type: none"> <li>• Receive updated information for any pollution of air, soil and water and in order to take all necessary measures to eliminate the above mentioned pollution.</li> <li>• Remediation of the environment in the areas affected by former uranium mining activities and protect the health of local population from any radioactive waste.</li> <li>• Support to the Bulgaria's adoption of the EU environmental <i>acquis communautaire</i> through its implications for a wide range of EU legislation.</li> </ul> | Compliance with the legislative requirements of the environment components   | <ol style="list-style-type: none"> <li>1. All available reports for survey and exploitation of the uranium mines during the period of mining activities.</li> <li>2. Results from the analysed samples.</li> </ol> |  |
| <b>Project purpose</b>   | <b>Indicators of Achievements</b>  | <b>Sources of Information</b>  | <b>Assumptions</b>   |
| The purpose of the project is the development of a Remediation Programme for the uranium mines in Southern Bulgaria.   | <ol style="list-style-type: none"> <li>1. Up-date information about the current status of the environment within uranium mines regions</li> <li>2. Clarified extent of the radioecological risk for the environment and population.</li> <li>3. Classification of all uranium mines and areas on the base of the extent of their contamination and the priority for their closing.</li> <li>4. Remediation and monitoring programmes approved</li> <li>5. Ready investment projects</li> </ol> | <ol style="list-style-type: none"> <li>1. Reports provided</li> </ol>  | <ol style="list-style-type: none"> <li>1. Uncontrolled dumping of waste into the river.</li> <li>2. Uncontrolled erosion processes of the waste rock piles.</li> </ol> |
| <b>Results</b>   | <b>Indicators of Achievement</b>   | <b>Sources of Information</b>  | <b>Assumptions</b>   |

|  |   |   |  |
|--|---|---|--|
| <ul style="list-style-type: none"> <li>• Approved and adopted by the Bulgarian authorities remediation and monitoring programmes;</li> <li>• A pipeline of ready investment projects</li> </ul>  | <ol style="list-style-type: none"> <li>1. Approved programmes for remediation and monitoring by BG authorities</li> <li>2. Commitment to implement the investment projects</li> </ol> | <ol style="list-style-type: none"> <li>3. Reports provided</li> </ol> | <ol style="list-style-type: none"> <li>1. Support from other relevant institutions</li> <li>2. Adequate provision from state budget.</li> <li>3. Proposed measures will satisfy the immediate objectives.</li> </ol> |
| <b>Activities</b>  | <b>Means</b>  |   | <b>Assumptions</b>   |
| <ul style="list-style-type: none"> <li>• Feasibility study on the status of the uranium mines in southern Bulgaria</li> <li>• Determination of the most priority remediation measures to be taken;</li> <li>• Development of monitoring and remediation programmes;</li> <li>• Approval by the relevant Bulgarian authorities of the programme;</li> <li>• Preparation of 5 most priority projects.</li> </ul> | <ol style="list-style-type: none"> <li>1. Skilled contractors.</li> <li>2. Financial resources.</li> <li>3. Mobile staff, cars, equipped office</li> </ol>                            |   | <ol style="list-style-type: none"> <li>1. Support from municipal and state institutions.</li> <li>2. Qualified staff is available.</li> </ol>  |



**Annex 2 – Detailed implementation chart**

**REMEDIATION PROGRAMME FOR THE URANIUM MINES IN SOUTHERN BULGARIA**

| 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 |  |
| 1. Preparation of the Tender documentation<br>/ Review of tender documents.                                 |      |   |   | D | D | R | C    |   |   |   |   |   |      |   |   |   |   |   |      |   |   |   |   |   |   |   |   |   |   |   |  |
| 2. Feasibility study  |      |   |   | D | D | R | C    | I | I | 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<br>Remediation programme for the Uranium Mines in Southern Bulgaria |  |    |      |      |     |      |                        |
|--|--|----|------|------|-----|------|------------------------|
| Components   | Cumulative commitment schedule by quarter in Meuro   |    |      |      |     |      | Total Phare Allocation |
|  | 2001   |    | 2002 |      |     |      |                        |
|  | III  | IV | V    | VI   | VII | VIII |                        |
| Service Contract   |  |    | 0.4  | 0.4  | 0.4 | 0.4  | 0.4                    |
| <b>Total disbursement:</b>   |  |    | 0.4  | 0.4  | 0.4 | 0.4  | 0.4                    |
| Components   | Cumulative disbursement schedule by quarter in Meuro |    |      |      |     |      | Total Phare Allocation |
|  | 2001   |    | 2002 |      |     |      |                        |
|  | III  | IV | V    | VI   | VII | VIII |                        |
| Service Contract   |  |    | 0.14 | 0.24 | 0.3 | 0.4  | 0.4                    |
| <b>Total disbursement:</b>   |  |    | 0.14 | 0.24 | 0.3 | 0.4  | 0.4                    |