

# EEA Financial Mechanism 2009 - 2014

*“Biodiversity conservation in restoration and management of the Amiantos Asbestos Mine in Troodos National Forest Park”*

## Project Application



Nicosia, November 2012

I certify that I am duly authorised by the applicant organisation to sign this application and that I have thoroughly reviewed all statements and information provided in this application and that they are correct and accurate.

I confirm that this project will be carried out as described in this application and that the grant requested reflects correctly what is reasonably needed as a minimum for the project to proceed and to be completed.

I accept that the Financial Mechanisms Office may publish a summary of this application on its website and that the application may be subject to Freedom of Information Acts of the EFTA states.

Name:

Takis Tsintides

Signature:

Position:

Acting Director Department of Forests (as of 16.07.2012)

Date:

Day

Month

Year

2012

## 1. Project Summary

**1.1 Project title:** Biodiversity conservation in restoration and management of the Amiantos Asbestos mine in Troodos National Forest Park.

**1.2 Programme Area:** Biodiversity and Ecosystem Services.

**1.3 Name of Project Promoter (PP):** Department of Forests (DF) - Ministry of Agriculture, Natural Resources & Environment.

### 1.4 Short description of the Project:

**(i) Objective: Halt loss of biodiversity**

The overall objective of the project is to contribute to halting loss of biodiversity through improvement of restoration and management practices in the Amiantos asbestos mine, taking into account that the area is part of a National Forest Park, of a Natura 2000 site and a major part of the most valuable mountain landscape of Cyprus. The ultimate aim is to improve restoration practices, in terms of efficiency and conformity to European Directives and to broaden their scope to sufficiently address biodiversity conservation and landscape improvement considerations.

**(ii) Main activities:**

- (a) Preparatory actions and acquisition of equipment: The project will commence with the appointment of the project management team, the preparation of tender documents for the activities to be implemented first and the acquisition of necessary equipment items;
- (b) Evaluation and improvement of current mine restoration techniques & capacity building: Two experts, one in hydro-seeding and a second in mine restoration, will evaluate current restoration techniques, train personnel and submit technical reports. A senior official from the Department of Labour Inspection will deliver lectures to the staff on basic personal safety measures. An expert on the control of woody invasive species will prepare a guide on the removal of invasive species. A biodiversity workshop will be organized in the 2<sup>nd</sup> year during which experts from different fields, including two Norwegian experts will present practical ways for integrating wildlife conservation actions in mine restoration. A team of three (3) foresters will have a 5-day study visit to Norway to see restoration works of degraded sites and other project-related activities. Finally, all recommendations and conclusions that will accrue from the above actions will be incorporated into a Mine Restoration Manual to be compiled by the main restoration expert;
- (c) Landscaping of the mine core: The creation of an artificial pond with a capacity of 30-40.000 m<sup>3</sup> is foreseen, to meet irrigation, aesthetic and wildlife needs. On the pond edges, planting of hygrophilous vegetation will be carried out while on the perimeter a circular walkway will be constructed with basic visitor facilities; finally a section of the nearby raw – surface road will be paved;
- (d) Wildlife conservation: In addition to measures provided in other activities, some direct measures to favour wildlife are envisaged, such as installation of artificial bird nests, provision of water and feeding points (planting of fruit trees and sowing of herbaceous plants), improvement of bat refuges and construction of stonewalls;
- (e) Mine restoration: The restoration of an area of 14ha around the mine core is planned, using the new methods that will be adopted after discussions with, and detailed review of used methods by, the experts mentioned in (b) above. Restoration includes stabilization/reshaping of wastes, transport and covering with natural topsoil, ground preparation, planting and sowing, hydroseeding or thatching and tending. Propagation material will be confined to indigenous species and restoration will aim to restore habitat types (92/43/EEC – Annex I) present in Troodos;
- (f) Publicity: Organization of three information events, preparation of a 15-minute documentary about the mine (past and present), operation of a dedicated project website, erection of two billboards and a commemorative plaque, publication of articles about the project and production and distribution of information material (4 posters and 2 leaflets);

(g) **Project Operation and Management:** Recruitment of two employees on a contract basis, university graduates - forester & biologist- to help in project operation and implementation, the operation of a Steering Committee and the appointment of a Project Manager and other supporting staff (secretary, accountant etc.).

(iii) **Budget:** €1.350.000 (€1.138.167 EEA Grants - €211.833 national contribution).

(iv) **Partners (if any):** No partners.

It is noted however, that efforts were exerted for the identification of a project partner and in this respect the DF contacted the Norwegian Directorate for Nature Management seeking for such assistance. The Directorate recommended the Norwegian Institute for Nature Research (NINA), whom the Project Promoter contacted to clarify tasks and terms for a possible cooperation. Common topics of interest were identified and the Institute provided the Project Promoter with an indicative quotation of the cost involved on behalf of the partner.

According to the national legislation for public procurement however, such a partnership with NINA is not feasible since the cost quoted exceeds the set threshold for a direct award to this Organisation.

It is noted that in this respect, that NINA will be included in the list of prospective tenderers for activities under the project as well as for future activities to be implemented under the bilateral fund at programme level and the Institute could submit its tender proposal for evaluation, in case the tender is of interest to them.

(v) **Duration of the Project and Timeframe for its implementation:** 36 months, from 1.01.2013 to 31.12.2015.

## 2. Project Promoter Information

### 2.1 Name and Contact Details

**Full Legal Name:** Department of Forests - Ministry of Agriculture, Natural Resources and Environment

**Address:** 26 Loukis Akritas Avenue, 1414 Nicosia

**Contact Person:** Takis Tsintides

**Job Title:** Chief Conservator of Forests (Acting Director as of 16 July 2012)

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### 2.2 Description of the PP

The Department of Forests (DF) comes under the Ministry of Agriculture, Natural Resources and Environment. It is the Forest Authority of the country and the Managing Authority of state forests. As the Forest Authority, it implements the state's Forest Policy and Forest Legislation all over the country. As the manager of the state forest estate (18% of the country's area) it is responsible for the protection, management, proper use and development of all state forest areas. Its main activities comprise forest fire protection, biodiversity conservation, forest education, applied forest research, management of forest protected areas including Natura 2000 sites, reforestation, restoration of degraded sites, landscaping and forest recreation.

The DF is extensively involved into the systematic study of Cyprus flora and fauna and is officially the managing authority of all state forests which are part of the Natura 2000 network. It manages three Botanical Gardens, has its own national Herbarium and three Visitor Centres used, among others, for environmental education in cooperation with the Ministry of Education & Culture. It employs 35 professional foresters with degrees in forestry and related fields (i.e. forest research and planning, landscape architecture, management of forests, parks and nature conservation, protection and preservation of wildlife, forest botany, etc.), about 270 forest technicians and 950 labourers, both regular and casual.

The DF is/has been, actively involved in several biodiversity conservation projects, including LIFE Projects and other research and European projects, some of which are:

- (i) LIFE – Nature project “Special areas of conservation (Directive 92/43/EEC) in Cyprus” Life Third Countries - Contract No. B4 - 0000/98/000) - completed.
- (ii) LIFE – Nature project “Conservation management in NATURA 2000 sites of Cyprus”, LIFE04NAT\_CY\_000013) – completed.
- (iii) Research project titled “The Red Data Book of the Flora of Cyprus” (2003-2007) - completed
- (iv) LIFE+ project: “Establishment of a Plant Micro-reserve Network in Cyprus for the Conservation of Priority Species and Habitats” – running.
- (v) LIFE+ project “Improving the conservation status of fauna species in Cyprus: From microhabitat restoration to landscape connectivity” (started 1.10.2011) – running.
- (vi) Project funded by the EEA Grants 2004-2009 entitled CY0012 - “Preparation of an Integrated Management Plan for the Pafos Forest” – completed.
- (vii) Four (4) projects funded by the European Regional Development Fund (2011-2013) – running at present (improvement of nature trails, creation of a Geopark, re-introduction of vultures and improvement of a Visitor Centre).

The average annual budget of the DF during the past three years is in the order of €40.000.000.

### 2.3 Project Partners

There are no project partners for this project.

## 3. Relevance

### 3.1 Contribution of the project to the reduction of economic and social disparities in the European Economic Area

The project will enhance capital investment efficiency of the state of Cyprus, in mine restoration, primarily in the Amiantos Asbestos Mine, but also in other mines and the more numerous quarries on the island through capacity building, adoption of more effective and suitable techniques and the production of a mine restoration guide, which will be available to all agents involved in mine/quarry restoration in Cyprus. The restoration effort of the Amiantos Asbestos Mine began in 1996 and is expected to cost about 30 million euro in current prices. The whole process will take at least 15-20 years more to conclude. The adoption of more effective and efficient methods will result in saving resources and producing a more environmentally friendly result. Considering the effect of the outcomes of the project on the restoration of a large number of abandoned mines (mainly copper), as well as quarries, one can appreciate the beneficial effect of the project on the economy and social conditions of Cyprus, which will in turn have a favourable effect in reducing economic disparities in the EEA.

In addition to economic benefits, the project is expected to contribute towards integrating biodiversity conservation considerations in restoration procedures and improved human health safety measures of the personnel involved in restoration works. Finally, the project will have a significant effect on upgrading the landscaping and attractiveness of the mine area, thus contributing to improved preparedness of the site to receive visitors and tourists, who will have the opportunity to enjoy the various infrastructures being currently developed in the mine through other projects and activities in conjunction with those that will be established by the present project, i.e., pond, landscape of the mine core, visitor facilities etc.

### 3.2 Contribution of the project to strengthening bilateral relations between Cyprus and the Donor States (DS)

The project will contribute towards strengthening bilateral relations between Norway and Cyprus through the realization of a 5-day study visit to Norway by a team of three (3) Cypriot foresters to see on-going restoration projects and other relevant activities. A detailed program of the visit will be elaborated before project commencement (Activity 2). The proposed study visit is expected to establish a long-term communication and cooperation between professionals from Cyprus and experts and entrepreneurs from Norway and open ways of economic exchanges, since restoration material and equipment produced in Norway will be made known to Cyprus. The participation of two Norwegian experts in the biodiversity workshop is expected to help establishing exchange information channels and co-operation between experts from the two countries. The project is expected to improve the image of the donor

states among the Cyprus society through implementation of publicity actions aiming at making the project visible to all stakeholders and the people of Cyprus in general.

### **3.3 Contribution of the Project to sustainable environmental and social development and conformity to the development strategies of the country.**

The proposed project is in line with, and will greatly assist in the implementation of, the national strategy for sustainable development, through improved management and conservation of natural resources.

The project is expected to contribute to two priorities of the Strategic Development Plan of 2007- 2013 of the Republic of Cyprus. More specifically:

- It falls under the measures provided by Axis 4: "Upgrading Environmental Protection" through improved and accelerated mine restoration works in an extremely fragile and important area, in terms of nature conservation, landscape and water resources. The mine is part of a Natura 2000 site - the Troodos National Forest Park - and the envisaged project activities are in line with the approved management plan of the site and the requirements of the Habitats and Bird Directives, since it will introduce innovative biodiversity conservation measures in a seriously degraded part of state forest land.
- It will also contribute towards implementing measures envisaged in Axis 8: "Balanced Spatial and Rural Development" aiming at preserving and promoting environmental resources with a view to enhance attractiveness of rural areas, thus helping in reversing adverse demographic developments faced by these areas.

The project is also in line and complements the priorities of the National Strategic Reference Framework (NSRF) for Cohesion Policy 2007–2013 as regards "Protection of Nature (Biodiversity)", as it includes measures to enhance the recreational and ecotourism features of the area. Additionally, it is consistent with the Priority Axe "Revitalisation of Urban and Rural Areas" of the Operational Programme "Sustainable Development and Competitiveness", which aims at the sustainable improvement of the life quality in rural areas and the implementation of projects that stem from the management plans of Natura 2000 areas.

It will, in addition, contribute towards better achievement of the objectives of the National Forest Action Plan and Forest Policy for enhanced biodiversity conservation, mitigation of climate change effects on natural resources as well as for supporting communities neighboring forest areas. It will also assist greatly in the implementation of the approved National Strategy for Environmental Education of the Ministry of Education and Culture, since it will enrich environmental education opportunities in an area of vast environmental interest.

## **4. Project Content**

### **4.1 Overall objective**

The overall objective of the project is to halt loss of biodiversity by improving and standardising current restoration techniques and approaches in the Amiantos Asbestos Mine, with the aim to make them more effective and efficient and broaden their scope to address a wider spectrum of needs, including biodiversity conservation, landscape and social parameters.

### **4.2 Expected outcomes and results of the project**

#### **(i) Expected Project Outcomes:**

1. Increased capacity to manage and monitor Natura 2000 sites effectively;
2. Increased awareness of and education in biodiversity and ecosystem services, including awareness of and education in the linkage between biodiversity and climate change, and economic valuation of ecosystems.

In order to attain the above mentioned outcomes, the following actions will be promoted:

- (a) Reduction of ecosystem fragmentation through biodiversity conservation and restoration of the Amiantos Asbestos Mine;
- (b) Increased awareness and capacity building in relation to biodiversity conservation.
- (c) Bilateral Relations with Institutions in the Donor States Established and Strengthened.

**(ii) Expected Project Outputs:**

In detail, the following outputs will be produced:

**1. Outcome: Increased capacity to manage and monitor Natura 2000 sites effectively**

This will be achieved by the reduction of ecosystems fragmentation through biodiversity conservation and restoration of the Amiantos Asbestos Mine.

**1.1 Output:** Wildlife conservation actions:

- 1.1.1: Establishment of artificial bird nests;
- 1.1.2: Provision of water points for wildlife;
- 1.1.3: Planting of fruit trees;
- 1.1.4: Sowing of legumes and other herbaceous plants;
- 1.1.5: Improvement of bat habitat;
- 1.1.6: Construction of stonewalls.

**1.2 Output:** Creation of water pond:

- 1.2.1: Creation of the pond;
- 1.2.2: Planting of hygrophilous plants;
- 1.2.3: Creation of an artificial islet in the centre of the pond.

**1.3 Output:** Mine Restoration:

- 1.3.1: Reshaping of mine wastes;
- 1.3.2: Covering with topsoil;
- 1.3.3: Planting of native trees and shrubs;
- 1.3.4: Sowing of native plants;
- 1.3.5: Removal of alien plant species;
- 1.3.6: Application of hydro-seeding.

**2. Outcome: Increased awareness of and education in biodiversity and ecosystem services including awareness of and education in the linkage between biodiversity and climate change, and economic valuation of ecosystems**

This will be achieved by increased awareness and capacity building in relation to biodiversity conservation.

**2.1 Output:** Realisation of training events:

- 2.1.1: Training on hydro-seeding;
- 2.1.2: Training on safety measures;
- 2.1.3: Biodiversity workshop;
- 2.1.4: Training on restoration.

**2.2 Output:** Publication of guides:

- 2.2.1: Publication of mine restoration guide;
- 2.2.2: Production of guide on removal of alien woody species;
- 2.2.3: Production of a report on hydro-seeding;
- 2.2.4: Study visit to Norway.

**2.3 Output:** Improved visitor access and information:

- 2.3.1: Construction of circular walkway;
- 2.3.2: Paving of road;
- 2.3.3: Production of a documentary on the mine and project.

**3. Outcome: Bilateral Relations with Institutions in the Donor States Established and Strengthened.**

**3.1 Output:** Study – visit of Cypriot Foresters to Norway;

**3.2 Output:** Participation of two Norwegian experts in the biodiversity workshop.

### 4.3 Project activities and means

The project is organised into the following seven (7) activities:

(a) Activity 1: Preparatory actions and equipment acquisition:

This Activity will be implemented at the beginning of the project and will include all initial actions that are necessary for a smooth start of the project, and more particularly the following:

- (i) Appointment of the Project Manager by the Director of the DF;
- (ii) Assignment of responsibilities to the forest staff to work in the project – forest officer to supervise and co-ordinate all field works, secretary of the project (one of the two university graduates (see v below)) and accountant;
- (iii) Organization of a first meeting of the Steering Committee which will have the responsibility to monitor project progress (Project Manager, Representative of the Director of the DF, Geological Survey Department, Water Development Department and Planning Bureau); it will meet every six months and have extra meetings in case urgent issues are raised;
- (iv) Preparation of tender documents for the activities to be implemented first (equipment, experts for restoration, hydro-seeding, removal of invasive species, recruitment of two university graduates and consultants for landscaping the mine core);
- (v) Recruitment of two university graduates (one forester and a biologist) for the needs of the project; they are expected to work for 33-34 months each;
- (vi) Purchase of equipment (two D-Cabin-4WD light trucks, one 1-ton FIRE VEHICLE / water sprayer, one digital photo camera, two portable (field) mechanical seed collection equipment, two Global Positioning System Units – GPS, Electronic hardware: Laptops (2), Desktop PCs (2) and one Plotter, size A0.)

The two 4WD light trucks are necessary for the needs of the project implementation and operation (transport of experts, labourers working in mine restoration, other staff, materials etc.) and for the needs of restoration management afterwards for at least 10 years. The available vehicles (one D-cabin light truck permanently and another during work peak) in the mine, are too old to satisfy the needs of the project. The small fire vehicle will be permanently stationed on site and will be used for spraying of earth roads during summer for safety reasons and also as a first-intervention fire suppression means in case of a fire beyond the lifetime of the present project. It should be noted, that the DF has under its management other fire vehicles, but none of them is stationed close enough to the mine to ensure sufficiently quick intervention in case of a fire incidence. Other items of equipment will be used also for the needs of the mine area management and for the project. More specifically, the two seed collection units will be used for the more effective and lower-cost collection of seeds from wild plants to be used in seeding. Presently, the work is done manually, which is laborious, time consuming and too costly. The portable GPS will be used for mapping of restored sites and of other elements in the mine. The camera will help in building a photograph archive of the mine restoration works, monitoring progress and publicity etc. The electronic hardware will serve the project needs, presentations (laptops), production of maps of the restored sites (plotter) and for meeting the needs of the mine area management after the project. All equipment elements will be insured as provided by the Regulations.

The estimated budget for Activity 1 is €92.000.

(b) Activity 2: Evaluation and improvement of current mine restoration techniques/methods and staff capacity building through:

- (i) Appointment of a consultant on mine restoration to design the data collection methodology and, after the evaluation of the data, to prepare a report with suggestions to improve current practices. The expert will design a sampling scheme (e.g. plots or strips) to facilitate sound data collection on species success taking into account ground inclination, methods used etc. A map will be provided by the DF showing the year of restoration and all other relevant details for the area restored to date. The expert will prepare a *field record form* to be used by forest staff to collect/record specified data under his/her guidance. The data collected by the staff that will be recruited for the project [see 4.3. a (v) above] will be evaluated by the expert, placing main emphasis on (i) species success (ii) other species with potential to be used in restoration (iii) unsuitable species e.g. invasive, exotics or unsuccessful (iv) depth of topsoil used etc. The expert will have extensive consultations with the forest staff engaged in restoration and will carry out a survey of perennial indigenous plant species growing on adjacent sites to propose other species potentially useful in restoration. The expert will prepare preliminary initial guidelines during the first year to be used in re-vegetation. These guidelines, together with the guidelines to be prepared by other experts (see below) will be compiled into a Mine Restoration Guide in the second year of the project. The Restoration Guide will be used by the forest staff during the third year of the project but also, and mainly, for the



remaining restoration period which is estimated at about 10-15 years. It will also be used in other mine and quarry restoration efforts in Cyprus ;

- (ii) Appointment of a hydro-seeding expert: the local forest division is using a hydro-seeder and an aero-mulcher, but their efficiency of use can be substantially improved. The expert will evaluate the methods used (materials, quantities in the mixture, application timing, methods of application etc.), train the personnel for a 5-day period and suggest improved alternatives. This expert will also prepare a report about the key points to be observed by the staff during hydro-seeding application. The preparation of the report and staff training will take place during the first year and the report will be made available to the main restoration expert, to enable incorporation of essential hydro-seeding guidelines in the restoration guide;
- (iii) Training of staff in personal occupational safety measures by a government official. A specialist from the Ministry of Labor will visit the mine and give an one-day lecture to the staff (both supervising staff and laborers) about essential safety measures during restoration works. This expert will also produce a safety report with basic guidelines, to be incorporated in the restoration guide;
- (iv) Two – day biodiversity workshop: It will include 2 – day training seminar during which several selected wildlife/restoration experts from Cyprus and Norway (2 – preferably experts on wildlife and mine restoration) will be invited to present practical ways of integrating wildlife conservation in mine restoration - birds (Cyprus Ornithological Society), bats (expert), reptiles (expert), insects (expert), other mammals (Game Fund of Cyprus). During the second day, the workshop will focus on discussions to consolidate conclusions and practical prescriptions for application / adoption in Amiantos Asbestos Mine restoration process. The conclusions of this workshop will be incorporated in the Mine Restoration Guide.
- (v) Publication of restoration manual/guide (1.000 copies EN & 1000 copies GR);
- (vi) Appointment of a specialist on woody invasive plants removal to prepare a guide for the removal of these species; the guide will be used for the removal of invasive species in Activity 5 and in similar post-project activities, i.e., continuation of the effort to gradually remove all alien species in the mine area, but also by other staff of the Department of Forests and of the Department of Environment for the removal of alien species in other protected sites.
- (vii) Visit of 3 Cypriot foresters in Norway (5-day) to see restoration and other ongoing activities relevant to the project.

The estimated budget for Activity 2 is €49.000.

(c) Activity 3: Landscaping of the mine core:

- (i) Preparation of architectural / construction plans and supervision of works of pond construction and landscaping (consultant services through tender awards, Architect & Civil Engineer);
- (ii) Drying out of pond from water in late summer using suction pumps etc. to enable operation of machinery to reshape /excavate the pond area;
- (iii) Levelling / shaping / transport of excavated material to achieve desirable depth;
- (iv) Purchase and laying down of the HDPE membrane (about 15.000 - 20.000 m<sup>2</sup>);
- (v) Installation of pump station, aeration system and water pipeline to convey water to existing water tanks;
- (vi) Construction and installation of visitor facilities along the pond perimeter (kiosks, benches, litter bins, sign boards, bars, information points etc.);
- (vii) Construction of a walkway on the perimeter of the pond (about 600 m long);
- (viii) Paving of existing road (500 m long) and construction of small bridges, edges, trenches etc. for landscaping and for reducing release of asbestos fibres in the air;

(ix) Planting of hygrophilous vegetation around the pond (500 trees & shrubs).

Most of the construction works under this activity will be performed by contractors from the private sector selected through the public procurement procedure.

More details of how the works will be carried out and their aims are given below:

The planned artificial pond, which naturally collects water through surface runoff during winter and covers an area of approximately 15.000 m<sup>2</sup>, will occupy the existing central crater of the mine created by excavation during mine operation. The pond dries out during late summer. At normal water level, the maximum depth of water in the centre does not exceed 3 m. As the intention is to achieve maintenance of a constant amount of storage water throughout the year, it is necessary to render the pond watertight. This will be achieved by lining the pond with a 2 mm thick HDPE (High Density Polyethylene) membrane. Prior to the installation of the membrane the entire pond area will be reshaped to achieve the desirable water depth and inclination of the pond banks. A well- defined boundary will be formed along its perimeter to accommodate a circular walkway. With the aim to enhance the pond's conservation function, planting of hygrophilous vegetation will be carried out and an artificial islet in the centre of the pond will be designed to provide refuge to birds and other animal species.

The proposed pond will serve the following needs/objectives: (i) Landscaping/recreational purposes (ii) Wildlife conservation (birds and other water organisms like frogs, water crab, insects etc.) and (b) Irrigation needs of re-vegetation / reforestation works. The capacity of the pond will be in the range of 30.000 m<sup>3</sup> and 45.000m<sup>3</sup>. The minimum quantity of water that will be reserved for wildlife needs and landscape purposes at the end of the dry season will be 15.000 m<sup>3</sup>.

The work will be supervised by the project's Steering Committee, in which the Water Development Dept. will be represented and approve all proposals relating to water works.

Along the perimeter of the pond a walkway will be designed and constructed and basic visitor facilities will be developed along its route. Finally, a section (500-600m) of the existing raw-surface road in front of the pond will be paved for aesthetic and health reasons.

The estimated budget of Activity 3 is about € 332.000.

(d) Activity 4: Wildlife conservation:

This Activity includes the following sub-actions:

- (i) Installation of artificial nests for various birds visiting the mine;
- (ii) Provision of water points (5 points) for wildlife in general;
- (iii) Planting of fruit-producing trees (10 points/sites – 3000 m<sup>2</sup> total area);
- (iv) Sowing of various legumes & cereals (3 years – 4 points/sites, 2.000-2.500 m<sup>2</sup>);
- (v) Improvement of roosting sites for bats in a selected abandoned house in the mine;
- (vi) Construction of dry stonewalls (150 m long).

Wildlife conservation actions will aim to improve nesting, feeding and water conditions for wildlife species in the mine area and will include the following actions:

- Fabrication and installation of about 100 artificial nests of different types for various bird species such as *Oenanthe cyprica*, *Parus ater cyprites*, *Certhia brachydactyla dorotheae* (ANNEX I – Birds Directive) and the ANNEX IV bird species: *Parus major*, *Otus scops cyprius*, *Troglodytes troglodytes* etc. The purpose of this action is to improve nesting conditions for birds in the mine, which are poor because of lack of mature trees and rock faces;
- Provision of water points at five (5) selected points in order to improve water availability distribution in the mine, especially for low-mobility animal species. This measure will include the purchase of prefabricated water tanks/stores (about 500 liters capacity) and watering points, as well as minor equipment/accessories. Water tanks will be filled with water at the beginning of the dry season every year;
- Planting of suitable trees & shrubs at 10 points, aiming at the improvement of feeding conditions primarily, and also of refuge for small birds and other animals, by planting species which are not normally used in restoration works such as *Morus* sp., *Ficus carica*, *Eriobotria japonica*, *Vitis vinifera*, *Prunus* spp., *Pyrus* spp., etc. These

species produce fruits during summer, autumn and early winter months. Trees and shrubs will be planted into small groups and may be combined with watering points and placing of nests. The trees will be arranged into small groups to cover a large area of the mine and will occupy the best sites (flat areas) in terms of ground condition, since fruit producing trees are more demanding than usual forest trees. Trees will be planted in 10 groups of 10-15 trees / shrubs each; tree guards for protection and support will be provided;

- Sowing of perennial herbs suitable to provide food for wild life species at four sites 500-600 m<sup>2</sup> each, including Ripping and stone removal, laying of topsoil & manure 400 m<sup>3</sup>, cultivation & sowing.
- Improving habitat for bats by selecting one house of the 50 existing in the mine and carrying out improvement works to favor bats;
- Construction of about 150 m stone walls of suitable height made of dry local stones. About 70 m of the walls will be built and 80 m will be constructed using a DIGGER and loader (truck) to arrange large stones into walls with appropriate openings between stones.

Most of the construction works will be performed by contractors from the private sector, selected through the public procurement procedure.

The estimated budget of Activity 4 is about €39.000.

(e) Activity 5: Mine restoration works

This Activity aims at restoring an area of about 14 ha around the mine core / pond. The area has distinct boundaries from other nearby restored areas (see map on Annex IV) using improved restoration methods (4 ha in 1<sup>st</sup> year, 5 ha in 2<sup>nd</sup>, and 5 ha in 3<sup>rd</sup>).

The works involved in the restoration are given below in summary:

- (i) Reshaping / ground preparation: the sites to be reforested were stabilized some years ago but there is need to correct some damages, improve inclination etc. This will be done mainly using a bulldozer (D 6) of the DF;
- (ii) Transport of 14 x 5.000 m<sup>3</sup> topsoil=70.000 m<sup>3</sup>: the soil will be transported from neighbouring villages taking advantage of routine excavation works carried out (average distance 15 km);
- (iii) Opening of planting pits & trenches (with digger & mini digger);
- (iv) Covering planting areas with topsoil: with a D 6 bulldozer, DIGGER and MINI DIGGER;
- (v) Collection of seeds & extraction: from about 15 different perennial herbs, subshrubs and shrubs growing on areas adjacent to the mine (by labourers);
- (vi) Supply of 14.000 plants: plants will be raised at Platania forest nursery of the Department of Forests, 10 km from the mine;
- (vii) Purchase of various hydro-seeding materials: adequate quantities of the various hydro-seeding materials will be purchased through tenders (mulch, sticking material, organic fertilizer etc.);
- (viii) Planting – sowing – hydro-seeding: by DF staff and use of equipment. Only species indigenous to the area will be used and the target is to establish 4 ha with Habitats Directive habitat types namely "Scrub & low forest vegetation" with *Quercus alnifolia* (9390\*), *Pinus nigra* - Pallas's pine forests (9530\*), \*Endemic forests with *Juniperus* spp. [9563\*Stinking juniper (*Juniperus foetidissima*) woods] and Mediterranean pine forests with endemic Mesogean pines – *Pinus brutia* (9540);
- (ix) Beating up of failures: a part of established plants usually die and must be replaced – about 10% on average;
- (x) Tending & irrigation: to take place from late June to September; it includes weeding, digging and irrigation;
- (ix) Removal of 1.000 invasive species from existing plantations: removal of *Robinia pseudoacacia* and *Ailanthus altissima* which are invasive or potentially so will be carried out using a method that is successfully used by the Nature Authority of Israel under the guidance of a specialist.

A detailed description of current mine restoration methods is given in Annex 5.

Labour work will be executed by staff of the Department of Forests.

The total estimated budget of Activity 5 is €754.000.

*(f) Activity 6: Publicity*

- (i) Press release;
- (ii) Three articles published in mass media;
- (iii) Four posters (20 hard-back copies each);
- (iv) Two leaflets;
- (v) Project's Website (creation, update and annual fees);
- (vi) Three information events;
- (vii) Installation of two billboards (one at the mine entrance and one near the pond);
- (viii) Commemorative plaque (near the pond);
- (ix) Documentary film about the history of the mine and the present project (approx. 15 min. duration).

More details on this Activity are given in section 12 of the present project proposal.

The total estimated budget of Activity 6 is €38.000

*(g) Activity 7: Project operation and management:*

- (i) Appointment of Project Manager by the Director of the DF;
- (ii) Appointment of one accountant, one secretary and other forest staff to be involved in the project implementation;
- (iii) Setting up of the Steering Committee;
- (iv) Recruitment of two university graduates (forester and biologist) on a contract basis for the needs of the project (to assist in project management, data collection, promotion of publicity actions, preparation of project reports etc.)

The total estimated budget of Activity 7 is €46.000.

#### **4.4 Beneficiaries and target groups**

The primary target group that will obtain benefit from the project is the entire society of Cyprus, through the improvement of the landscape and ecological and hydrological conditions in the mine area, and especially the inhabitants of local communities surrounding the mine (i.e., Amiantos, Kyperounda, Pelendri, Chandria, Agros, Potamistissa and Dymes villages) who are in close contact with the mine either as visitors or as workers, or simply through having every day visual contact with the site.

The secondary target group includes the labourers of the Department of Forests, who will work under safer and healthier conditions, and professionals in mine restoration, who will obtain knowledge and experience on improved restoration techniques.

Lastly, during project implementation, jobs will be created for labourers, unemployed scientists and private entrepreneurs / professionals

#### **4.5 Risks and risk management**

No permits or feasibility studies, including environmental impact assessments, are required for the implementation of the various project activities. Therefore, the factors that may have a likely impact on project success are external and may have an influence on the prerequisites that need to be met and/ or satisfied for the various actions to be successfully implemented.

<b>Risks and Risk management</b>			
<b>Description of Risks</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk Mitigation Plan</b>
<i>Problems with public procurement procedures: cancelling due to errors or omissions, lack of interest, high prices, insufficiency of tenderers etc.</i>	<b>Medium</b>	<b>Medium</b>	<ul style="list-style-type: none"> <li>i. Careful and timely preparation of tender documents.</li> <li>ii. Active involvement of the experienced Section of Public Procurement of the DF in preparation of tender documents.</li> <li>iii. Investigation of the market to locate the main potential interested tenderers and make sure they are informed about each public tender.</li> <li>iv. Preparation of some tender documents in English where experts may not be available in Cyprus or Greece.</li> <li>v. Due consideration of the possibility of delays in tendering planning.</li> </ul>
<i>Poor qualifications and/or poor capabilities of experts due to lack of interest or poorly defined qualifications, especially in specialised fields.</i>	<b>Medium</b>	<b>High</b>	<ul style="list-style-type: none"> <li>i. Investigation of the market to locate appropriate and interested experts in each field (lists of experts are already available) and inform them about the intention to hire services.</li> <li>ii. Careful preparation of qualification requirements.</li> <li>iii. Translation of tender documents in English in some cases e.g. expert in invasive species.</li> </ul>
<i>Poor quality of equipment items</i>	<b>Low</b>	<b>Medium</b>	<ul style="list-style-type: none"> <li>i. Ensure that appropriate technical specifications are included in the tender documents and that equipment is available in the market and suppliers are interested to bid.</li> <li>ii. Definition of minimum standards.</li> <li>iii. Appointment of a committee to check delivered equipment to ensure that prescribed standards and specifications are met, before official acceptance and issue of a delivery certificate.</li> </ul>
<i>Difficulties in the supply of the necessary topsoil in required quantity (70.000 m<sup>3</sup>) and quality for the mine restoration works.</i>	<b>Low</b>	<b>High</b>	<ul style="list-style-type: none"> <li>i. Early investigation and contact with possible suppliers operating in the mine vicinity.</li> <li>ii. Preparation of tender documents from previous year to provide for adequate time in case of failure to repeat tendering procedure before works start.</li> <li>iii. Inclusion of appropriate specifications for soil quality (long experience in this).</li> </ul>
<i>Extreme weather conditions may cause delays in the pond construction, damages to restored sites and unavailability of adequate quantities of propagation material, especially seeds produced by wild plants (in case of drought)</i>	<b>Medium</b>	<b>Medium</b>	<ul style="list-style-type: none"> <li>i. Attempt will be made to implement activities which are vulnerable to weather conditions as early as possible</li> <li>ii. Collect seeds when available and store them to be used for the whole project period.</li> <li>iii. Pay due attention to stabilisation of earthworks and drainage of rain water.</li> </ul>

<p><i>Poor planning and co-ordination which may result in delays and failure to achieve targets within agreed time schedule.</i></p>	<p><b>Low</b></p>	<p><b>High</b></p>	<ul style="list-style-type: none"> <li><i>i. Careful selection of Project manager and other staff</i></li> <li><i>ii. Involvement of Director of the Department in monitoring project progress and results.</i></li> <li><i>iii. Regular meetings of project's personnel to elaborate detailed planning ahead for periods of six months and evaluate progress.</i></li> </ul>
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#### 4.6 Project sustainability

Restoration of the Amiantos Asbestos Mine is an effort initiated in 1996 and is expected to continue for at least 15 - 20 years ahead. So far, restoration works have been funded exclusively by national budgets and a sum ranging between €500.000 – 700.000 yearly, estimated to have reached €10m in total, was allocated in the DF annual budget. This is expected to continue until the whole mine area is restored. Annual works comprise not only re-vegetation of new sites, but also tending of restored sites. Wildlife and nature conservation activities are expected to be a common activity in the future as a result of acquired experience, but also because the Troodos Natura 2000 site is to be managed with more emphasis placed on nature conservation.

Additionally, the Mine Master Plan, which is currently under preparation by a consultants' team and will be completed by May 2014, is expected to suggest ecologically and financially viable uses of the restored part of the mine, including the core of the mine which is the object of the present project.

## 5. Project Justification

Amiantos Asbestos Mine is a big scar in the heart of an important natural landscape in an area that is extremely valuable to Cyprus as a recreational area and as water catchment; it is also a designated National Forest Park and part of a Natura 2000 site. Restoration works started in 1996 and they are not expected to be completed before 2030, with a total cost that is expected to reach 30 million euros. The techniques used have been elaborated by the local Forest Division and, although reforestations seem to be successful, there have been some apparent drawbacks, such as the use of exotics which are potentially invasive, the obvious low efficiency in the use of hydro-seeding equipment and the lack of direct nature conservation measures. Furthermore, all phases of the work seem to need improvement and standardization to ensure achievement of the best outcome and consistency over time.

The high total cost of this restoration work in conjunction with the need to produce a high quality result in a fragile area makes imperative the need to use the most effective, efficient and suitable methods.

The project is expected to:

- i. operate as a demonstration project in the frame of the whole restoration effort;
- ii. review and evaluate the used techniques and propose improved methods which will be expressed in a written protocol / guide to be used by foresters in other places of the island as well;
- iii. promote capacity building of the staff;
- iv. integrate nature conservation aspects in restoration;
- v. contribute to the enhancement of the area's landscape and its attractiveness;
- vi. speed up restoration works through re-vegetation of 14 additional ha.

The activities and measures foreseen in the project proposal have been selected with a view to ensure the achievement of the above objectives and the effective tackling of the problems identified.

## 6. Project Organisation

The overall responsibility for the successful implementation of the project lies with the Director of the Department of Forests. Co-ordination and management will be the responsibility of the Project Manager, who will be appointed by the Director and will be a senior and experienced forest official. The project manager will be supported by a forest officer employed on a permanent basis and two university graduates (forester and biologist) to be employed on a contract basis for the needs of the project. Furthermore, the accounting work will be undertaken by the Troodos

Division's accounting office which employs two forest officials. Part of the works foreseen will be executed by DF's staff (labourers) and machinery, but most of the works will be carried out through tenders / contracts.

The Project Manager and the Troodos Divisional Forest Officer will participate in the Project's Steering Committee. Other members of this Committee will be representatives of the Director of Geological Department, Water Development Department and of the Permanent Secretary of the Planning Bureau. The Committee will meet every six months to approve the annual programme of work and review project progress.

The main activities and aims of the project have been agreed upon with the Water Development and the Geological Survey Departments of the Ministry of Agriculture, Natural Resources and Environment, as well as with other members of the Technical Committee for the Amiantos Asbestos Mine. The Technical Committee was formed in 1994 to help an *ad hoc* Ministerial Committee responsible for the various problems associated with the Amiantos Asbestos Mine. The Water Development Department has worked closely with the Department of Forests for the elaboration of the proposals for the creation of the water pond.

The Water Development Department and the Geological Survey Department will play an advisory and supportive role during implementation of the project. They will not be directly involved in the project implementation or contribute financially to it, but they will monitor the progress in the implementation as members of the Steering Committee. The involvement of the two departments will benefit the project mainly through providing their experience and expert knowledge in particular technical matters (e.g. water pond and human safety measures).

The Project Manager will report to the Technical Committee for the Amiantos Mine about the progress in the implementation of the project once every year. The organizational chart attached as Annex 2 is relevant.

## 7. Detailed Implementation Schedule

### 7.1. Activities and Schedule

	month	year
Target start date	JANUARY	2013

Total Expense ( EURO)	0
Planned duration (months)	36

#	Activity Name	Schedule and Cost	
1	Preparatory actions and acquisition of equipment	Start month	1
		Duration (months)	12
		Expenses ( EURO)	92.000
2	Evaluation and Improvement of current mine restoration techniques and capacity building	Start month	2
		Duration (months)	24
		Expenses ( EURO)	49.000
3	Landscaping of the mine core	Start month	3
		Duration (months)	33 months
		Expenses ( EURO)	332.000
4	Wildlife conservation	Start month	4
		Duration (months)	31
		Expenses ( EURO)	39.000
5	Mine restoration	Start month	5
		Duration (months)	30
		Expenses ( EURO)	754.000
6	Publicity	Start month	1
		Duration (months)	36
		Expenses ( EURO)	38.000
		Start month	1
		Duration (months)	36

#	Activity Name	Schedule and Cost	
		Expenses ( EURO)	
7	Project operation and management	46.000	

A Gantt chart illustrating the implementation schedule of the project is attached as Annex 6.

## 7.2 Major Milestones and Monitoring of Progress

No	MILESTONE	PROJECT RESULTS	INDICATOR	TARGET DATE (month)
<b>ACTIVITY 1: Preparatory actions and equipment acquisition</b>				
1.	Preparatory actions and equipment acquisition	Tender awards and delivery of equipment items indicated in project proposal by suppliers to Department of Forests	Number and kind of equipment items delivered and registered in store registers	12
<b>ACTIVITY 2: Evaluation and improvement of current mine restoration techniques / methods and staff capacity building</b>				
2.	Staff training in personal safety measures	Improved personal safety measures	Realisation of training event	10
3.	Elimination of invasive species and staff training	Removal of 1000 invasive plants (trees)	Number of trees removed	10
4.	Staff training in hydro-seeding	Improved hydro-seeding application	Realisation of training event	11
5.	Visit of Cypriot Foresters to Norway	Realisation of the visit	Number of foresters and duration of the visit	22
6.	Biodiversity workshop	Improved integration of wildlife aspects in restoration	Number of foresters to participate	23
7.	Publication of the mine restoration guide	1000 copies of the guide in English and 1000 copies in Greek	Availability of publication	24
<b>ACTIVITY 3: Landscaping of the mine core</b>				
8.	Creation of the artificial pond	Completion of excavations, reshaping and laying of membrane	Water capacity of pond	23
9.	Construction of walkway on the pond perimeter	600m of walkway	Length of paved walkway	32
10.	Landscaping of the mine core and provision of visitor facilities	Completion of walkway, road paving and installation of visitor facilities	Length / kind of structures and facilities provided	34
<b>ACTIVITY 4: Wildlife conservation</b>				
11.	Wildlife concrete actions	Implementation of foreseen actions	Number / area / length of constructions / structures	34
<b>ACTIVITY 5: Mine restoration works</b>				
12.	Mine restoration	Restoration of 4 ha	Area restored	12
13.	Mine restoration	Restoration of 5 ha	Area restored	24
14.	Mine restoration	Restoration of 5 ha	Area restored	35
<b>ACTIVITY 6: Publicity</b>				
15.	Production of documentary on the mine	Production of a 15-minute film on the mine history and project	Availability of film	28
16.	Realisation of the final information event by the Ministry of Agriculture, Natural Resources and Environment	Presentation of the project's outputs	Realisation of the event	34



## 8. Budget and Financing Plan

### 8.1 Summary Budget (In EURO)

Total Eligible Expenses Breakdown	2013	2014	2015	Total	%
Labour	47.000	67.050	57.750	171.800	12,73
Services	45.000	37.600	26.000	108.600	8,04
Consumables and Supplies	20.000	19.750	16.050	55.800	4,13
Equipment	87.500	0	0	87.500	6,48
Contractors	159.800	346.500	349.300	855.600	63,38
Publicity	9.000	12.000	17.000	38.000	2,81
Travel and Subsistence	0	10.000	0	10.000	0,74
Others	8.200	7.650	6.850	22.700	1,68
<b>Total Eligible Expenses</b>	<b>376.500</b>	<b>500.550</b>	<b>472.950</b>	<b>1.350.000</b>	<b>100</b>
<b>Non-eligible Expenses</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>
<b>Total Project Cost</b>	<b>376.500</b>	<b>500.550</b>	<b>472.950</b>	<b>1.350.000</b>	<b>100</b>

### 8.2 Financial Resources – Eligible Expenses Funding (In EURO)

	2013	2014	2015	Total	%
<b>Grant Allocation</b>	<b>317.422</b>	<b>422.007</b>	<b>398.738</b>	<b>1.138.167</b>	<b>84,3</b>
<b>Co-financing from central, regional or local government budget</b>	<b>59.078</b>	<b>78.543</b>	<b>74.212</b>	<b>211.833</b>	<b>15,7</b>
<b>Other (e.g. own – co-financing)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Funding</b>	<b>376.500</b>	<b>500.550</b>	<b>472.950</b>	<b>1.350.000</b>	<b>100</b>

## 9. Procurement

A relatively large number of public procurement procedures will be needed (their number is estimated between 25 and 30) in order to implement the numerous activities of the project. These procedures will include works (constructions), supplies (goods and materials) and services (experts/consultants). All procurement procedures of the project will be carried out in accordance with the provisions of “The Coordination of Procedures for the Award of Public Works Contracts, Public Supply Contracts and Public Service Contracts and Related Matters Law of 2006. N.12(I) of 2006, which transposes the EC Directive 2004/18/EC on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts.

All procedures are below Community thresholds. They will be either open or simplified procedures, depending on the estimated contract value.

## 10. Legal Issues Relevant to the Project

### 10.1 Compliance with EU Legislation

Apart from the references made in other sections of the present proposal (e.g. public procurement) the project does not involve any other action that comes under the EU legislation including the State Aid Rules and environmental legislation. The possible need for preparing an EIA for the pond construction has already been discussed with the competent authority (Dept of Environment) and it was agreed that there is no such obligation, since the pond already exists and will serve in a better way the management objectives of the area after reshaping and rendering it watertight.

## **10.2 Implementation of EU Legislation**

The project has been designed to serve primarily national needs, both social and environmental, and at the same time it has been elaborated to conform with the provisions and demands of the Habitat and Bird Directives (92/43/EEC and 79/409/EEC respectively), as the area is part of the European NATURA 2000 network. The project is also in line with and serves the achievement of the objectives of other EU Directives such as the Water Framework Directive (2000/60/EC) and the Directive on the protection of workers from the risks related to exposure to asbestos at work (2009/148/EC).

## **10.3 Legal Challenges or Procedures**

The successful implementation and completion of the project is not dependent on the outcome, positive or negative, of any legal challenges or procedures within the jurisdiction of Cyprus, the European Community, international courts or tribunals, or any other state.

## **10.4 Certificates and Permits**

As the land on which the project will be implemented is state forest land under the management of the DF, no certificates or permits will be needed for any project component. It will only be necessary to report to the Technical Committee for the Amiantos Asbestos Mine about the annual program of works every year. In addition, the opinion of the Town and Housing Department will be needed on the landscaping / constructional plans of the mine core (Activity 3). This will not determine whether the work will be done or not, but it may merely influence the technical details of the architectural plans.

# **11. Cross Cutting Issues**

## **11.1 Good Governance**

The DF, which will have the responsibility of project implementation, is a government department, and is therefore obliged to strictly follow pertinent laws, regulations and standing rules of the public service of Cyprus which are in line with the European aquis. This applies for public procurement procedures, equipment acquisition, use, maintenance and storing, procedures for staff employment etc. Furthermore, the experience of the DF in all works of mine restoration and in European – funded project implementation, ensures efficient and effective use of the project resources and funds. The information events, the participation of Local Authorities in the Technical Committee of the Amiantos Asbestos Mine and the operation of the Project's Steering Committee will further contribute to better standards of participation and transparency.

## **11.2 Sustainable Development**

### **11.2.1 Environmental Considerations**

The project will unequivocally have a positive effect on the environment. Most of its activities are focused on nature conservation and they aim at restoring natural vegetation and landscape, reducing air borne asbestos fibres in the mine area and the vicinity, making the mine area more hospitable to the wildlife and humans, implementing demonstration actions of invasive species control etc. No adverse impacts on the environment can be identified.

The implementation of the project will speed up restoration works in the mine, but more importantly it will reinvigorate the restoration effort by introducing new principles and approaches which meet contemporary needs and policies. It will also serve as a demonstration restoration project for similar efforts in Cyprus.

### 11.2.2 Economic Sustainability

The Amiantos Asbestos Mine restoration works are expected to continue to at least up to 2030 with national funds and staff of the DF (government's commitment). The outputs of the project will be used by the DF staff involved in mine restoration possibly for the entire remaining restoration period. The principles and guidelines of the restoration guide are expected to be used and adopted in the restoration works of other abandoned mines (e.g. Skouriotissa Copper Mine) and also in the restoration of the more numerous quarries on the island.

In addition, it will prepare the ground for future visitor use of the mine in the light of the Mine Master Plan that is under preparation by a consultants' team. The Mine Master Plan, which is currently under development and will be completed in May 2014, is expected to suggest ecologically and financially viable uses of the restored part of the mine, including the core of the mine which is the object of the present project.

### 11.2.3 Social Sustainability

The project will have a positive effect on social dimensions through speeding up mine restoration, landscape improvement, provision of employment to rural populations around the mine and improving water and ecological conditions. In addition, the project will improve the attractiveness of the mine through the works around the mine core, thus creating favourable conditions for the future use of the mine area by visitors, as is the government intention expressed by the on-going elaboration of the Master Plan of the Amiantos Asbestos Mine. Finally, the project will have a positive influence on human health both of the staff involved in restoration, and also of neighbouring populations, through re-vegetation of a significant part of the asbestos wastes, which are a potential source of airborne asbestos fibres.

### 11.3 Gender Equality

Women will have equal opportunities with men of being employed in all activities of the project. This is imposed by Law in Cyprus but is the common practice as well. Amiantos restoration works provide jobs to at least 10 women from the neighbouring villages every year since 1995. They work as casual or regular labour of the DF. This number is expected to increase during the project period since works will be intensified and expanded. Within its publicity actions, the project will host an activity aiming at raising awareness of women contribution both during mine operation and restoration. An one-day event is foreseen to be organised in cooperation with the Local Authorities of the three main surrounding villages.

## 12. Publicity

The main aim of the Publicity Plan is to implement targeted, planned measures and activities in order to adequately inform the Cyprus society, especially stakeholders, about the project implementation and importance throughout the whole project period and the significance of the financial aid of the Donor States and the EEA Financial Mechanism for Cyprus.

The target groups of the communication plan are the general public of Cyprus, with special emphasis to local populations and Local Authorities, competent government Departments, NGOs and visitors of the mine. The strategy of implementation will be to conform to the relevant provisions of the regulation, timely organise activities, and pursue high standards of design and construction / printing as well as of language and strategic selection of billboards' locations.

The DF will have the whole responsibility of the publicity actions which include the following:

- (a) Project launching press release: at the beginning of the project (first month) a press release about the project will be prepared and distributed to local mass media through the Ministry of Agriculture, Natural Resources and Environment. Cost: €0
- (b) Articles: at least three articles on the project (about two pages text - with photographs) will be prepared and published in local media (newspapers and magazines), one every year of the project (11/2013, 11/2014, 11/2015). Cost: €0.
- (c) Posters: Four hard-back posters will be prepared: (i) one about the aims and content of the project – 1<sup>st</sup> year, 04/2013 (ii) one about the restoration of the mine and methods - 2<sup>nd</sup> year, 03/2014 (iii) one poster about the

contribution of women and their role during mine operation, and also during restoration - 2<sup>nd</sup> year, 03/2014 (iv) one about the project results - 3<sup>rd</sup> year -10/2015 (presenting the pond, re-vegetated areas and other main project activities). Fifteen copies of each will be produced and distributed (Nicosia, Botanical Garden and main villages). Cost: €2.000.

(d) Leaflets: Two leaflets (i) one at the beginning to inform about the project. It will be released during the first information event (April 2013) – bilingual (in Greek and English language) 1.000 copies and (ii) one on the restoration of the mine and other relevant activities: 2000 in Greek and 2.000 in English – mid of year 2015 (to present project progress). Cost: €1.500.

(e) Website dedicated to the project: operational six months after project initiation (June 2013) and updated throughout the project implementation period. All texts will be both in Greek and English. After the end of the project the content of the site will be incorporated to the Department's official website. Cost: €4.000

(f) Three information events: (i) one at the beginning of the project implementation (April 2013), during which the Minister of Agriculture, Natural Resources & Environment or his/her representative will announce the initiation of the project implementation to all stakeholders. (ii) the second in April 2014 during which women will be honored for their contribution to the mine restoration works since 1995 (iii) the 3<sup>rd</sup> in late October 2015 close to the project implementation completion, to present the results of the project. All events will be organized in the Troodos Botanical Garden, which is situated on the edge of the mine and utilizing the Visitor Centre of the Garden and also its open spaces. In all three events all stakeholders will be invited, together with Journalists of the national press. In the 2<sup>nd</sup> event about 20 women who are currently working or who have worked in the mine and have now retired will be invited. Cost: €8.000

(g) Billboards: Two billboards one at the main entrance of the mine, next to the main road of Kakopetria – Troodos and one near the central crater of the mine - 04/2013. Cost: €3.000

(h) Commemorative plaque: It will be placed permanently at an appropriate point near the pond (central crater) towards the end of the project implementation. 10/2015 (before the 3<sup>rd</sup> information event). Cost: €2.000

(i) Film about the mine: a 15-minute documentary presenting the history of the mine and the restoration effort, and also the contribution of the project implementation to the restoration process - 04/2014 – 4/2015. Cost €17.500.

### 13. Bilateral Relations

The proposed study-visit of Cypriot foresters to Norway is expected to establish a long term communication and cooperation between professionals from Cyprus and experts and entrepreneurs from Norway and open ways of economic exchanges, since restoration material and equipment produced in Norway will be made known to Cyprus.

The participation of two Norwegian experts in the biodiversity workshop will provide the chance for Cypriots to benefit from the Norwegian experience and for the Norwegians to get familiar with the problems anticipated in different climatic and social conditions. The exchange of views and direct contact will establish communication between Cypriots and Norwegians in fields related to the project.

The implementation of the proposed publicity actions are expected to improve the image of donor states among Cyprus people.

Bilateral Relations will be further strengthened through the activities that will be funded under the Fund for Bilateral Relations at Programme Level.

### 14. Bi-communality

There is no bi-communality aspect in the implementation of the present project.

## 15. Annexes

**Annex 1: Project Logical Framework**

**Annex 2: Project Organisation**

**Annex 3 (A&B): Detailed Budget**

**Annex 4a & 4b & 4c: Map and photos of the project area**

**Annex 5: Current mine restoration practices**

**Annex 6: Gantt chart**