LIFE Project Number

LIFE08 NAT/CY/000453

FINAL Report

Covering the project activities from 01/01/2010 to 30/06/2013

Reporting Date

30/09/2013

Establishment of a Plant Micro-Reserve Network in Cyprus for the Conservation of Priority Species and Habitats. (PLANT-NET CY)

Data Project

Project location	Nicosia, Cyprus
Project start date:	01/01/2010
Project end date:	30/06/2013 **Extension date:** -
Total Project duration (in months)	42 months **Extension months** -
Total budget	€ 1.550.297
EC contribution:	€ 1.070.265
(%) of total costs	69,17%
(%) of eligible costs	100%

Data Beneficiary

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List of key-words and abbreviations (when appropriate).

APM: Assistant Project Manager
DE: Department of Environment
DF: Department of Forests
EC: European Commission
EMT: External Monitoring Team
FEOC: Federation of Environmental Organizations of Cyprus
FU-NCU: Frederick University- Nature Conservation Unit
IR: Inception Report
MANRE: Ministry of Agriculture, Natural Resources and Environment
MTR: Mid-Term Report
NKUA: National and Kapodistrian University of Athens
PA: Partnership Agreement
PM: Project Manager
PMR: Plant Micro-Reserve
PMT: Project Management Team
PMTL: Project Management Team Leader
PR1: First Progress Report
PR2: Second Progress Report
SB: Stakeholders Board
SC: Scientific Committee
SCo: Scientific Coordinator
UNDP–ACT: United Nations Development Programme – Action for Cooperation and Trust

1. Executive Summary

The present report is the Final Report of the project entitled "Establishment of a Plant Micro-Reserve Network in Cyprus for the Conservation of Priority Species and Habitats", with the acronym PLANT-NET CY (reference code: LIFE08 NAT/CY/000453), which was implemented within the framework of the LIFE+08 call. The project started in January 2010 and was completed in June 2013 (duration of 42 months) and was implemented within four Natura 2000 sites in Cyprus. The total project budget was € 1.550.297 of which € 1.070.265 Euro (69,17% of total eligible budget) was funded by the EC (LIFE+08 programme).

The project's aim was to improve the conservation status of four plant species (**Arabis kennedyae*, **Astragalus macrocarpus* subsp. *lefkarensis*, **Centaurea akamantis* and **Ophrys kotschyi*) and two habitat types [*9590 *Cedrus brevifolia* forests (*Cedrocetum brevifoliae*) and *9390 Scrub and low forest vegetation of *Quercus alnifolia*] of Cyprus. These plant species and habitat types are found exclusively (endemic) in Cyprus and are protected by: the European Habitats Directive (92/43/EEC, Annexes I & II), International Organizations (IUCN), and International Conventions (Bern Convention). In order to carry out the project's aim, the approach of Plant Micro-Reserves' (PMR) was adopted. The PMR approach focuses on the protection of certain parts of the population of endemic, rare and threatened plant species through the establishment of a constant monitoring system and the implementation of targeted measures for their conservation. This concept is now widely accepted as one of the most effective practices towards the conservation of plant diversity in small land plots that are of peak value in terms of plant richness, endemism or rarity. The PMRs are legally defined as areas of small surface size (less than 20 ha), in order to (1) protect a selected sample of the main subpopulations of the rarest, endemic or threatened species and (2) establish a continuously monitored network. Such a patchy network of small protected areas is considered as a complementary tool to the generally adopted "large site" strategy that has recently been materialized into the Natura 2000 European Network of nature conservation. Since 1994 the LIFE/LIFE+ programme has funded numerous projects based on the PMR approach in Europe (i.e. Spain, Greece, Bulgaria). This project was innovative since this was the first time that the PMR approach was put into practice in Cyprus.

The project established a PMR network within four Natura 2000 sites in Cyprus. The establishment, monitoring and management of the five PMRs, targeted either the largest subpopulations or part of the largest subpopulations of the targeted species and habitat types which are:

- PMR 1: **Ophrys kotschyi*, Periochi Mitserou (CY2000003),
- PMR 2: *9390 - Scrub and low forest vegetation of *Quercus alnifolia*, Koilada Kedron – Kampos (CY2000008),
- PMR 3: *9590 - *Cedrus brevifolia* forests (*Cedrosetum brevifoliae*) and **Arabis kennedyae*, Koilada Kedron – Kampos (CY2000008),
- PMR 4: **Centaurea akamantis*, Chersonisos Akama (CY4000010) and
- PMR 5: **Astragalus macrocarpus* subsp. *lefkarensis* Periochi Asgatas (CY5000007).

The project was carried out properly due to the efficient cooperation among its beneficiaries. The consortium of the project consisted of: (i) two governmental bodies – Department of Environment (Coordinating Beneficiary) and Department of Forests, (ii) two University bodies – Nature Conservation Unit of Frederick University and Biology Faculty of National and Kapodistrian University of Athens and (iii) two NGOs – Federation of Environmental Organizations of Cyprus and United Nations Development Program - Action for Cooperation and Trust.

For the project's implementation four major actions were carried out: preparatory (Actions A), conservation (Actions C), dissemination (Actions D) and management (Actions E).

- The *preparatory actions* (which included six actions, A.1-A.6) were fundamental for accumulating the necessary scientific information for the initiation and the implementation of the project. They focused on inventorying the localities for establishing the five PMRs, defining their boundaries, as well as their detailed mapping. Additionally, the preparation of the "Monitoring Plans" (one for each PMR) and the "Management Plans" (one for each PMR) was also significant, as these Plans illustrated the necessary monitoring and conservation activities which were put into practice within the framework of Action C. Of great importance was also the "Assessment of the genetic diversity and population structure for each of the five targeted species and *Cedrus brevifolia*", which provided the information needed for the enrichment of their subpopulations (Action C).

- The *conservation actions* (which included eight actions, C.1-C.8) were the project's core actions and contributed towards achieving its main aim. These included the establishment of the PMRs in the field, the development of a constant monitoring system and the implementation of specific measures for the conservation of the targeted species / habitat types. Certain key deliverables that illustrate the effort implemented were (1) the "Monitoring Reports" (2012, 2013) (one for each PMR) and the "Monitoring Database/Diagrammatic summaries" (models), which accumulate all the information gathered from the monitoring activities, (2) the "Post-Project, Long-Term Monitoring and Management Plan", which provides the guidelines for the monitoring and conservation activities which should be implemented in the long term, following the completion of the project, for the sustainability of the PMR network, (3) the "Report on the enrichment of the populations of the targeted species", which resulted from the effort for *in situ* conservation of the targeted species and the enrichment of the targeted subpopulations and (4) the "Protocols on seed storage, germination, growth and outplanting of the targeted species", which illustrate the scientific data gained from the actions for the *ex situ* conservation of the targeted species. Finally, a significant result of the conservation actions was the considerable number of seeds of the targeted species selected from the respective PMRs for their long-term storage at the Agriculture Research Institute and their future usage for *in situ* or *ex situ* conservation purposes.

- The *dissemination actions* (which included four actions, D.1-D.4) of the project focused on presenting its actions and disseminating its results to the scientific committee, interested stakeholders, youth and the general public. Such actions were the implementation of rural appraisals and meetings with local communities neighboring the PMRs, themed workshops (e.g. Tourism workshop, Bicommunal workshop) and the production of information material. Key deliverables were (1) the "Reports from the participatory rural appraisals and local workshops", which referred to the effort of the project's beneficiaries to inform local people on the project's aim and attract their interest and cooperation, (2) information material such as "Newsletters", "Leaflets", "Posters", "Notice Boards", (3) the project's website, (4) the Youth Competition and (4) the media coverage of the project's actions. Furthermore, also of great importance are several other deliverables, namely the "Layman's report", the "DVD" and the "Book on PMR experiences" which accumulates the knowledge and experience gained through the project and presents these in an approachable way to the general public.

- The *management actions* (which include six action, E.1-E.6) of the project enabled the coordination and cooperation among the project's beneficiaries, the involvement of interested stakeholders in the project and the networking with similar European projects. The three bodies nominated according to the proposal of the project in order to facilitate the administrative process and monitoring of the project were (1) the Project Management Team, (2) the Scientific Committee and (3) the Stakeholders Board. The members of the three bodies were in constant communication among them and between them, both through regular meetings as well as through the project manager. The Project Management Team ensured the efficient management of the project according to the "Organisation and Management Chart". The activity of all three management bodies secured the effective cooperation among all beneficiaries for the successful implementation of the project. The Project Management Team (PMT) had the most significant role to the project's implementation, as well as to the project's dissemination and promoting of public awareness. It had a major impact on the project's implementation, since it was responsible for the management of the project and the timely preparation of the reports. In addition, it secured the effective communication and coordination of the participating organizations. The PMT consisted of the: Project Management Team Leader (PMTL) (Coordinating Beneficiary), Project Manager (PM), Scientific Coordinator (SCo) and Project Accountant (PA). Thus, the PMT was responsible for the overall effective administrative coordination and proper implementation of the project's actions through the collaboration of beneficiaries. Despite that this body was nominated for the project's implementation, it had a significant impact on dissemination / awareness management, as well.

The course of the project's implementation was in general successful. However, different unexpected circumstances occurred during the project's implementation; these problems were solved by the PMT. Such problems were: the need for changing a member of PMT during the

project's implementation, the delay in completing the nomination of SB, the delay in implementing Action A.5, as well as the need for making a number of insignificant financial changes to the budget, in order to carry out specific activities from different actions. All these problems were encountered by the PMT without significantly affecting the project's implementation.

One of the project's main aims was to disseminate its results and raise public awareness, as well as to promote the involvement of the general public in conservation activities. Based on this approach, the project developed a number of activities which included interaction with local communities neighbouring the PMRs and other target groups, as well as the production and dissemination of printed and electronic information material to these groups. The target groups of the project included, among others, governmental departments, youth, local communities, environmental NGOs, tourist guides, local and foreign visitors. The local communities and the wider public of Cyprus responded positively to the project's initiatives and several social groups expressed keen interest to be involved in the project's activities. It is characteristic that the project carried out more dissemination activities thank those presented in the proposal.

The successful implementation of the project has led to the long-term improvement of the conservation status of four priority plant species and two priority habitat types of Cyprus (both species and habitats are included in the Annexes of the Council Directive 92/43/EEC - Habitats' Directive). The establishment, monitoring and management of a network of five PMRs within four Natura 2000 sites in Cyprus, ensured the long-term environmental benefits for Natura 2000 sites and the target species/habitats. In addition, a significant outcome of the project was the recognition of the PMRs, found within forest areas, as sites of great value and their declaration as Natural Micro-Reserves by a Ministerial Order, through the Cyprus Forestry Legislation (2012). Hence, the project's implementation has improved the conservation benefits of Natura 2000 sites, especially for rare endemic species. The long-term sustainability of the PMR network and consequently the long-term benefits of the targeted species and habitat types will be continued through the implementation of the "After-LIFE conservation plan". This plan provides details regarding which activities should be carried out, with data on when, for how long and by which beneficiary these activities should be implemented, in order to ensure the sustainable conservation of the target subpopulations and the sustainability of the network. However, remaining threats are the global problem of climatic change and its impact on plants and habitats viability, as well as the negative impact of desertification.

The project is also characterized by the long-term social and economic benefits (and indirect benefits to the rural areas), through raising public awareness and also through the participation of local communities in the conservation activities. In fact, the project has developed a series of measures promoting the participation of local communities in the conservation process and raising awareness among the general public about the need of conservation and sustainable management of target species and habitat types within Natura 2000 sites. Besides, the project has familiarized the general public with the PMR approach,

the diversity of Cyprus' nature and the possibilities of eco-tourism activities within PMRs, through the information campaigns that focused on specific target groups (i.e. tour-operators, ecotourism guides and environmental non-governmental organizations, students, etc.). The project's beneficiaries suggested to the interested stakeholders that the PMRs, as well as the unique nature of Cyprus, could attract fans of alternative tourism and these would benefit particularly the communities and villages neighboring the biodiversity-rich PMRs and Natura 2000 sites. In addition, the coordinated efforts of the project's beneficiaries have succeeded the inclusion of the PMR approach and related educational activities in the new "Primary Teachers" guide for implementing the National Curriculum for *Environmental Education - Education for Sustainable Development*.

Finally, the project contributed to the long-term benefits of the PMR approach. This was carried out by providing a platform for networking of all previous LIFE / LIFE+ projects with a focus on the establishment of PMRs in Europe, through which scientific information and best practices were exchanged (two-day workshop). An outcome of this first networking was the publication of the first book on PMR experiences. The book has become the reference publication for planning, establishing and managing PMRs and presents the knowledge and experience accumulated through the implementation of the PMR approach in several European countries.

2. Introduction

The project PLANT-NET CY was implemented under the framework of LIFE+ Nature components and had a duration of 42 months. The project's main aim was to improve the conservation status of four priority plant species (Annex II of Council Directive 92/43/EEC) and two priority habitat types of Cyprus (Annex II of Council Directive 92/43/EEC). The aim of this project was implemented through the establishment, monitoring and management of a network of five Plant Micro-Reserves (PMRs). The PMRs are small land plots (~ 20 ha.) which are established for the protection of certain parts of the population of endemic, rare and threatened plant species through a constant monitoring system and the implementation of targeted measures for their conservation. The PMR network concept was initially implemented in a LIFE project (LIFE93 NAT/E/000766) and it is nowadays accepted and has been implemented throughout Europe as one of the best practices for the conservation of rare plant species and habitat types.

The PMR network concept was innovative in Cyprus as this was the first case of its implementation on the island; it consists of five established PMRs within four Natura 2000 sites: (1) **PMR 1** - **Ophrys kotschyi* [Periochi Mitserou, CY2000003], (2) **PMR 2** - *9390 Scrub and low forest vegetation of *Quercus alnifolia* [Koilada Kedron – Kampos, CY2000008], (3) **PMR 3** - *9590 *Cedrus brevifolia* forests (*Cedrosetum brevifoliae*) and **Arabis kennedyae* [Koilada Kedron – Kampos, CY2000008], (4) **PMR 4** **Centaurea akamantis* [Chersonisos Akama, CY4000010] and (5) **PMR 5** **Astragalus macrocarpus* subsp. *lefkarensis* [Periochi Asgatas, CY5000007].

All targeted species and habitat types are endemic to Cyprus and all species are rare and included in the Red Data Book of the Flora of Cyprus. Additionally, all targeted species and habitat types are included in the Annexes II and I, respectively, of the Council Directive 92/43/EEC (Habitats Directive), classified as "priority". Thus the project and the completion of the foreseen conservation actions enhanced the implementation of the Habitats Directive in Cyprus.

The project's conservation actions included *in situ* (within the PMRs) and *ex situ* (outside the PMRs) measures as foreseen in the project's proposal. These served the main goals of the project through dealing with the threats that the targeted species and/or habitat types' face, namely negative impact from human activities, reduction of genetic diversity, climate change, fire, as well as limited public awareness and participation. For each of the targeted species and habitat specific conservation measures were applied (see #5).

The establishment of the PMR network foresees both the improvement of the conservation status of the targeted species/habitat types within the PMR boundaries and the sustainable management of each PMR as protected area for rare and endangered species and areas for scientific and educational purposes. Significantly important was the involvement of local communities and youth in some of these conservation actions, as well as the raising of public awareness and dissemination actions. Public awareness and involvement ensures not only the long-term conservation of the targeted species/habitat types but also the familiarization of the general public with important species of the island's nature.

3. Administrative part

3.1 Description of the management system

The project developed and applied a specific management system (**Annex 1: Organization and Management Chart**) in order to ensure the effective administrative, scientific and financial coordination and proper implementation of the project. Despite that, the project could be divided into two phases: The preparatory phase (including the activities from Actions A1 – A6, Action D1 and Actions E1 - E6) and the conservation phase (including the activities from Actions C1 – C8, Actions D1 – D4 and Actions E1 - E6), the management system was uniform from the beginning until the end of the project.

The "Organization and Management Chart" was divided into three major management levels: (i) advisory, (ii) implementation and (iii) dissemination / awareness. The two management levels (implementation and dissemination / awareness) were carried out by the project's beneficiaries. For the more satisfactory and rational management of the project, specific bodies were foreseen for the advisory level, and, hence, two bodies were nominated:

(1) The Scientific Committee (SC): The SC was a group of experts who supported the coordination of the Project, and was the body that addressed the scientific and technical community on behalf of the Project. The SC was comprised by seven members (*Inception Report (IR), # 3.1.21, in page 15 - 30/09/2010*). The monitoring and review of the project's progress was possible through indicators which were defined in the "Monitoring Protocol" (**Annex 2**: **Monitoring Protocol - Final evaluation**).

(2) The Stakeholders Board (SB): The SB consisted of 11 members (*IR, # 3.1.22, in page 15 - 30/09/2010*) and served as the link between the Project and the local, regional and national administrative authorities. It also served as a forum for the exchange of information and ideas on the PMR and their conservation.

These two bodies were the link between the project's beneficiaries and specific groups and public bodies outside the project.

The Project Management Team (PMT) had a central role in relation to the management of the project activities, as well as to the dissemination of the project's results and promotion of public awareness. The PMT was nominated under the framework of management level (*IR, # 3.1.19, in page 14 - 30/09/2010*). The PMT had a major impact on the project's implementation, since it was responsible for the management of the project and the timely preparation of the reports. In addition, it secured the effective communication and coordination with the participating organizations. The PMT consisted of the: Project Management Team Leader (PMTL) (Coordinating Beneficiary), Project Manager (PM), Scientific Coordinator (SCo) and Project Accountant (PA). Thus, the PMT was responsible for the overall effective administrative coordination and proper implementation of project's actions through the collaboration of beneficiaries.

The PMT sent to the European Commission (EC) (and the External Monitoring Team (EMT) the following reports: 1) Inception Report (IR) – 30/09/2010, 2) First Progress Report (PR1) –

01/09/2011, 3) Mid-Term Report with payment request (MTR) - 24/02/2012, 4) Second Progress Report (PR2) - 10/12/2012 and 5) the present Final Report with payment request – 30/09/2013. The answers to the questions of EC on the PR2 are attached with the final report (**Annex 3: Answers to the questions of the European Commission**).

The project was carried out by a well-organized consortium consisting of: two governmental bodies [**Department of Environment (DE)** and **Department of Forests (DF)**, Ministry of Agriculture, Natural Resources and Environment], which are the competent authorities of the Republic of Cyprus for nature conservation, two Universities [**Nature Conservation Unit of Frederick University (FU-NCU)** and **Faculty of Biology of the National and Kapodistrian University of Athens (NKUA)**] and two non-governmental organizations [**Federation of Environmental Organizations of Cyprus (FEOC)** and the **United Nations' Development Program (UNDP-ACT)**].

The project Coordinating Beneficiary was the DE, a public agency responsible for nature and landscape protection. The DE is the coordinating service for Government programmes for the protection of the environment, heads the technical committee on environmental impact assessments, advises on environmental policy, is mandated to ensure the implementation of the environmental policy, administers the Law on the Control of Water Pollution, coordinates the process for the adoption of the European Union's environmental policy and legislation, coordinates the co-operation of Government agencies with international agencies and promotes environmental awareness, training and information. The DE covers legal and regulatory issues concerned with the implementation of the Habitats Directive in Cyprus. It employs professionals on environment management, natural sciences, pollution control, geology and marine ecology.

The remaining beneficiaries of project's consortium were institutions and/or organizations with long and high-quality experience on issues relativity to the project's aim. The FU-NCU's major goal is biodiversity conservation and natural resources management in Cyprus. The Unit is the only department in Cyprus' academic system that focuses on nature conservation. It draws from the experience of several collaborating scientists, together with graduate and postgraduate students with extensive experience on conservation biology and natural resources management. The Faculty of Biology of NKUA has been demonstrating a continuum of educational, research and conservation activities in the field of Plant Biology for the last 30 years. The NKUA has been actively involved and gained considerable expertise in biodiversity conservation projects. Besides this, the NKUA team has also been actively involved with relative projects: LIFE04 NAT/GR/000104 and LIFE04 NAT/CY/000013. The DF has a dual role: managing state forest land and implementing the national forest legislation and policy. In this framework the DF is engaged with forest fire protection, forest management, as well as landscape and nature conservation, reforestations and management of state forests that are part of the Natura 2000 network. The DF has long experience in implementing various European co-funded projects including LIFE projects, EEA Grant Projects etc. The FEOC comprises of 17 members (most of them active environmental NGOs) and it is active in the fields of ecology, environment, culture and human rights. The FEOC is the official representative of environmental NGOs in the policymaking process recognised by

the state. Raising public awareness about environmental issues is high on the Federation's agenda. Since 2005 the UNDP-ACT launched its peace-building project in Cyprus, namely the Action for Cooperation and Trust (ACT). The purpose of UNDP-ACT is to create opportunities for Greek-Cypriots and Turkish-Cypriots to work together on concrete projects which will benefit all people on the island, while at the same time promoting inter-communal tolerance and mutual understanding. The UNDP-ACT provided the opportunities for organizations in Cyprus to design and implement projects which will help build the foundations for lasting relationships island-wide. One of the main objectives of UNDP-ACT is to encourage Cypriots to demonstrate the benefits of island-wide cooperation.

The project organisation and the number of persons from each beneficiary are presented in **Annex 4: Table of personnel involved in the project**. As showed in the project's proposal, each of the six beneficiaries was responsible for the implementation of specific Actions (see # 4.1). The role, rights and responsibilities of the beneficiaries in specific Actions were presented in the **Partnership Agreements** (PA) which were signed by all beneficiaries at the begining of the project. The project adopted the PA which is available in the LIFE+ programme's website. The PA and their amendments have been submitted to the EC through previous reports (*PR1, Annex 1 – 30/09/2010*). As mentioned above, the PMT was the responsible body for the project's management and for securing effective coordination of the participating organizations. Hence, the PMT had regular contact and meetings with beneficiaries' representatives and organised all annual meetings of SC (*PR2, # 3.1.22, in page 19 - 10/12/2012*) and of SB (*PR2, # 3.1.23, in page 20 - 10/12/2012*). Besides, the PMT organised all workshops foreseen in the proposal.

3.2 Evaluation of the management system

The general approach of the project's management is already described in section # 3.1. The nomination of the management bodies (PMT, SC, SB) and the fact that their operation initiated by the beginning of the PLANT-NET CY (01/01/2010), ensured the success of the project's implementation. A significant parameter was also the fact that, from the first day, each of the beneficiaries had already recruited the employees involved in the project. The central point of the management system was the PMT which was responsible for the successful management and administration of the project. The PMT could not prevent these unexpected circumstances. The need for changing a member of PMT during the project's implementation (*PR1, #2 in page 6 – 01/09/2011; MTR, #2 in page 8 – 24/01/2012*), the delay in completing the nomination of SB (*PR1, #2 in page 6 – 01/09/2011*) and the delay in implementing Action A.5 (see *#5.1.6*). These problems were encountered by the PMT without significantly affecting the project's implementation. The beneficiaries which focused on the public awareness and built on environmental campaign ensured the effectiveness of the dissemination of the project's dissemination. It is characteristic that the project carried out more dissemination activities than those presented in the proposal. Finally, evaluation of the management system was carried out according to the Project Monitoring Protocol since specific quantitative and qualitative indicators were adopted for the monitoring of the proper and on time implementation of the deliverables (**Annex 2**).

4. Technical part

4.1. Task by task - description

4.1.1. Action A.1: Inventory of the localities of the targeted species/habitats and determination of the boundaries of the micro-reserves

This action focused on inventorying the localities of the known subpopulations of the targeted species and habitat types, including: (i) gathering historical information, (ii) locating all known populations and searching for new locations within the respective Natura 2000 sites. The inventorying of data for this action was done based on fieldwork and extensive research of written sources and oral expertise. These data provided valuable scientific information for the design and implementation of effective conservation measures. This action was also the base for determining the exact boundaries of PMRs, within which the long term monitoring and conservation of targeted species/habitats took place.

The project contributed to a more complete knowledge of the population distribution of the targeted species and habitat types. As a result of this action, the boundaries of each PMR were determined. The outputs of this action were two major deliverables.

Time schedule: The action was successfully implemented and completed within the proposed timeframe (January 2010 – June 2012).

Implemented by: FU–NCU (responsible beneficiary), DE & FD

Deliverables (outputs):

- Database with data gathered through the inventorying of the localities of the targeted species/habitats (*IR, Annex 2, page 2 - 30/09/2010*).
- Five 1:5000-scale maps (one for each PMR) with the exact boundaries of the micro-reserves (*IR, Annex 3, page 7 - 30/09/2010*).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.2. Action A.2: Detailed mapping of the plant micro-reserves

The action focused on the precise mapping of each PMR and provided information about the exact subpopulation distribution of the targeted species, the habitat types which occur within each PMR, as well as other data such as slope and aspect. The outcome from this action was the creation of five high-resolution (1:500) maps.

Time schedule: The action started earlier than foreseen in the proposal of the project (February 2010 instead of June 2010) and completed on time (December 2010).

Implemented by: FD (responsible beneficiary), DE & FU–NCU

Deliverables (outputs):

- Five high-resolution and large-scale (1:500) maps (one for each PMR) (*PR1, Annex 4, page 7 - 01/09/2011*).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.3. Action A.3: Preparation of Monitoring Plans for each PMR

In this action well-designed and complete Monitoring Plans (one for each PMR) were prepared, which constituted essential tools for the monitoring of the targeted species/habitat types. The Monitoring Plans (one for each PMR) focused on the sound monitoring of the PMRs and the species found within their boundaries. In addition, they provided the basis for ranking monitoring priorities and selecting scale and intensity of monitoring measures, so as to achieve effective design and implementation of the appropriate monitoring management.

Time schedule: The action was carried out according to the timeframe of the proposal (January 2010 – December 2010).

Implemented by: NKUA (responsible beneficiary), DE, FU–NCU & FD

Deliverables (outputs):

- Five Monitoring Plans (one for each PMR) (*PR1, Annex 5, page 7 - 01/09/2011*).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.4. Action A.4: Preparation of Management Plans for each Plant Micro–Reserve

This action developed integrated Management Plans (one for each PMR) comprising of *in situ* and *ex situ* conservation measures for each targeted species/habitat type and for the respective PMRs. The Management Plans were approved by the SC of the project and officially validated by the competent authorities (DE and DF), which are responsible for the implementation of the European and National legislation related to the protection and conservation of nature, as well as the application of the Habitats Directive (92/43/EEC) and the effectiveness of the Natura 2000 sites network in Cyprus (*PR1, Annex 7, page 8 - 01/09/2011*).

Time schedule: The action was carried out according to the proposal and completed on time (December 2010).

Implemented by: FU–NCU (responsible beneficiary), DE, NKUA & FD

Deliverables (outputs):

- Five Management Plans (one for each PMR) (*PR1, Annex 6, page 8 - 01/09/2011*).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.5. Action A.5: Assessment of the genetic diversity and population structure for each of the 5 targeted priority species and *Cedrus brevifolia*.

This action was carried out in order to assess the genetic diversity and population structure of each of the targeted species and the dominant species of habitat type *9590 - *Cedrus brevifolia* forests (*Cedrosetum brevifoliae*). This action was necessary since the level of genetic diversity, particularly of wild species' populations, should be taken into serious consideration when assessing impacts of translocations on genetic diversity and population persistence. With the increasing number of threatened species, it is important to investigate the effects of translocations upon genetic diversity. For the targeted priority species (**A. kennedyae*, **A. macrocarpus* subsp. *lefkarensis*, **C. akamantis* and **O. kotschyi*) there is not any previous knowledge on their genetic diversity, whereas for *C. brevifolia* there are recent scientific publications. A full description of the methodology followed for the assessment of genetic diversity and population structure of the targeted priority species is described in the deliverables. The outcomes of this action contributed particularly towards developing both *in situ* and *ex situ* sustainable conservation actions for the targeted species/populations. This action was carried out in three phases: (i) the sampling of plant tissues of the target species, from the corresponding PMRs and locations outside the PMRs, (ii) the laboratory assessment of genetic diversity and (iii) the statistical analysis and deliverables preparation.

Time schedule: The action was foreseen to end in September 2011 but ended in May 2012. This delay was due to: 1) the biology of the targeted species (periodical growth) leading to the limitation of the sampling season, and, hence, in some cases sampling ended in mid-2011, 2) the electricity problem which occurred in the whole island during July 2011 – September 2011 (explosion at Mari area), which caused problems to the lab-work processes. The lab work for DNA extraction resumed when the electricity problems were solved and the equipment was repaired and 3) the necessity of further treatment (optimization of protocols for DNA isolation and/or PCR reactions) of the samples before molecular analysis due to the fact that is the first time that these species are studied. In any case this delay did not affect the project's implementation.

Implemented by: FU–NCU

Deliverables:

- Report on the genetic diversity and population structure for each of the 4 targeted priority species and *Cedrus brevifolia* (*PR2, Annex 2, page 9* – 10/12/2012).

- Report on the necessity and feasibility of reinforcement of existing populations (*PR2, Annex 3, page 9 – 10/12/2012*).

Changes in the Technical Part of the action: Based on the proposal of the project this action was foreseen to be implemented via «External Assistance». However, following the permission of UNDP-ACT (associated beneficiary) to FU personnel to use UNDP-ACT's lab and all specialized equipment for molecular analyses, FU made a partial modification of the proposal. The change concerns the purchase of additional equipment and the implementation of lab work in Cyprus (DNA isolation). The genetic analyses were thus implemented via «External Assistance» as foreseen. The EC approved these changes (IR – 30/09/2010). The changes did not alter the purpose or the expected results of the Action.

Changes in the Financial Part of the action: Due to the change at the technical part of the action there was alteration at the action's costs which was presented in IR (30/09/2010) and the letter answering the EC's questions sent with PR1 (01/09/2011).

4.1.6. Action A.6: Learning from the experiences of other EU countries that adopted the PMR approach - Training of staff that will be involved in the implementation of the project

The purpose of this action was to familiarise the Cypriot scientists involved in the project (from Cypriot beneficiaries) with the PMR approach as this was implemented in other European countries. The knowledge and experiences that the scientists have gained were transferred to their organisations and utilised towards the successful implementation of the project. Scientists of the project visited: 1) The PMR network in Crete (LIFE04 NAT/GR/000104) (16-19 May 2010), 2) The PMR networks in Valencia (LIFE93 NAT/E/011100, LIFE95 NAT/E/00856, LIFE99 NAT/E/006417, LIFE03 NAT/E/0064) and Menorca (LIFE00 NAT/E/007355) (24-30 October 2010) and 3) The PMR network in Bulgaria (LIFE08 NAT/BG/279) (14-17 June 2011).

Time schedule: The action started in May 2010 and was completed three months later than the date that was initially scheduled (June 2011 instead of March 2011) *(#3.1.6 in MTR, page 14 - 24/01/2012*).

Implemented by: DE (responsible beneficiary), FU–NCU, NKUA & FD

Deliverables: None

Changes in the Technical Part of the action: The delay in completing the action resulted from changing one of the foreseen destinations. Members for the PLANT-NET CY visited the PMR network in Bulgaria, which has been established within the framework of a running LIFE+ project (LIFE08 NAT/BG/279), instead of the PMR network in Slovenia.

Changes in the Financial Part of the action: There was a change in the action's budget following the transfer of External assistance costs (€9,000) from DE to FU. These costs were foreseen for purchasing services from the respective European projects for training (Learning from other PMRs). This change was approved by the EC (*IR, # 3.1.6, page 10 - 30/09/2010* and *PR1, Annex 24, page 17 - 01/09/2011*).

4.1.7. Action B: Purchase/lease of land and/or compensation payments for use rights

NON APPLICABLE

4.1.8. Action C.1: Establishment of the Plant Micro-Reserves in the field

Based on this action the establishment of the five PMRs in the field was implemented. Signs, bearing the logo of the project, were placed on the borderline of each PMR and indicated their boundaries (*Annex 9 in PR1, page 10 – 01/09/2011*). Additionally, in three out of the five PMRs (PMR 1, PMR 2 and PMR 5) a pathway was created (*PR2, Annex 4, page 10 – 10/12/2012*). In addition, parts of PMR 1 (**O. kotschyi*) and PMR 4 (**C. akamantis*) have were fenced for preventing a significant number of the plants' predators (*PR2, Annex 4, page 10 – 10/12/2012*). The pathways construction and the fencing followed the guidelines defined by the Management Plans (Action A.4).

Time schedule: The action was carried out according to the timeframe of the proposal (July 2010 – June 2011).

Implemented by: FU–NCU (responsible beneficiary), DE, NKUA & FD

Deliverables: None

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.9. Action C.2: Installation of permanent monitoring plots

Through this action the permanent monitoring plots were installed for continuous monitoring of the target species and habitat types, mainly inside the PMRs but also in neighbouring locations for comparison purposes. The number and size of the established monitoring plots in each PMR were determined by the Monitoring Plans (Action A.3) and vary according to the targeted species/habitat types (*PR2, Annex 4, page 11 – 10/12/2012*).

Time schedule: The action was successfully implemented within the foreseen timeline (January 2010 – June 2011).

Implemented by: FU–NCU (responsible beneficiary), DE & NKUA

Deliverables: None

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.10. Action C.3: Monitoring of the Plant Micro-Reserves

This action focused on the monitoring of the PMRs and the targeted species / habitat types, by recording external (biotic and abiotic) factors which affect them, according to the guidelines set in the Monitoring Plans (Action A.3). For the purposes of this action, "monitoring stations" (digital sensors and data loggers) were established in each PMR (apart from PMR 3: a "monitoring station" of the DF, was established in the site within the framework of a different project) (*Annex 10 in PR1, page 11 - 01/09/2011*).

Two sets of five Monitoring Reports (one for each PMR) were prepared as foreseen in the proposal (June 2012, June 2013). The reports provided information on the implementation of the monitoring plans that have been prepared within the framework of Action A.3. Additionally, two more deliverables were prepared based on the results and observations derived from the monitoring. A report on the Monitoring Database / Diagrammatic Summaries (models) describing the ecological attributes and the monitoring parameters as well a Post-Project Long-Term Monitoring and Management Plan aiming to contribute towards the sustainability of the PMR network, were sent to the EC, attached on the present report.

Time schedule: The action ended in June 2013, according to the project's proposal.

Implemented by: FD (responsible beneficiary), DE, FU–NCU & NKUA

Deliverables:

- Operation and maintenance protocol for the Monitoring Stations (*PR1, Annex 10, page 11 - 01/09/2011*).
- Monitoring Reports (one for each PMR) (*PR2, Annex 5, page 11 – 10/12/2012*).
- Monitoring Reports (one for each PMR) (**Annex 5**).
- Monitoring Database/Diagrammatic summaries (models) **(Annex 6).**
- Post-Project, Long-Term Monitoring and Management Plan **(Annex 7).**

Changes in the Technical Part of the action: According to the proposal of the project, the deliverable Post-Project, Long-Term Monitoring and Management Plan was mistakenly foreseen to be implemented by July 2013. The deliverable was prepared at the end of the project (June 2013) and is attached in the present report, as sent to the EC.

Changes in the Financial Part of the action: Not applicable

4.1.11. Action C.4: Application of conservation measures within the Plant Micro-Reserves

This was one of the core actions of the project, since it focused on developing, testing and applying concrete and environmentally friendly conservation measures (management measures) for the conservation of the targeted species and habitats. The conservation measures were continuous mild interventions within each PMR according to the Management

Plans (one for each PMR - Action A.4), where the timeframe and the necessity of their implementation for each targeted species and habitat type was outlined. All these conservation measures were carried out in order to enhance the structure and composition of the habitat and to improve the conservation status of the targeted species. Management measures that were carried out during the project's implementation were:

- *Protection of naturally emerging seedlings by artificial cover & Selective fencing of adult individuals to reduce predation* – This management measure foresaw involving adult individuals at the PMRs where predation of seeds / fruits is a threat. It was implemented in PMR 1 (**Ophrys kotschyi* – fencing an area of 25 m^2 including more than 10 adult individuals) and PMR 4 (**Centaurea akamantis* – fencing an area of 450 m^2 including more than 210 adult individuals). Additionally, in PMR 5 it was considered that the 1-year-old individuals or seedlings of 50 **Astragalus macrocarpus* subsp. *lefkarensis* plants, were more vulnerable in predation thus they were also individually fenced.
- *Sustainable control of predators* – It was implemented in PMR 5 where predation of the seeds of **A. macrocarpus* subsp. *lefkarensis* was considered as a threat for the conservation of the subspecies. Monitoring of the subpopulation in PMR 5 took place and a pilot effort of management was applied for 20 individuals, with the guidance of an entomologist. The measures were mild since the predator is a rare species and were repeated for a second year without, however, any encouraging results.
- *Hand pollination* – It was implemented in PMR 1 for the enhancement of **O. kotschyi*'s subpopulation. Hand pollination (or artificial pollination) was applied for four successive years (2010, 2011, 2012 & 2013) in 70 individuals each year (in 35 individuals cross pollination was carried out and for another 35 plants self-pollination was carried out). The result of the action was estimated to be 10.044.000 seeds, in total.

  Pilot hand pollination was also implemented in PMR 5 (**A. macrocarpus* subsp. *lefkarensis*), in order to check if this could be a measure to overcome the threat of predation and enhance the subpopulation. Hand pollination in PMR 5 was implemented twice (2012 & 2013) without any encouraging results. This pilot implementation was not included in the foreseen project proposal.

- *Small-scale relief modifications* – This management measure aimed to reduce erosion and was implemented in PMR 5 (despite that it was foreseen to be implemented in all targeted species except **C. akamantis*, it was evaluated that the measure was necessary to be applied in PMR 5 only). The small-scale relief modification was implemented for ~20 individuals of **A. macrocarpus* subsp. *lefkarensis*.
- *Mild weeding of the main competitors* – This measure had as scope to decrease the competition factors. It took place in three out of the five PMRs. In PMR 1 the activity was carried out for one year in a pilot phase for 20 individuals of **O. kotschyi*. However, the results from this activity were not successful and it did not continue for a second year. In contrary, the activity showed to benefit the target species in PMR 4 and PMR 5 (**C. akamantis* and **A. macrocarpus* subsp. *lefkarensis*, respectively) where the mild weeding of flora competitors was removed in two different years. In PMR 4 the activities took place in 2012 and 2013, and benefited 60 individuals. In addition, in PMR 5 the activities were

carried out during the years 2010 and 2011, where an area of 36 m^2 (appr. 20-50) plants of **A. macrocarpus* subsp. *lefkarensis* were benefited.

- *Removal of flammable biomass* – This activity was needed to be implemented only in PMR 1 (**O. kotschyi*) for two consecutive years (2012, 2013). This activity took place only in PMR 1, since it is the PMR which can be easily approached by humans and ran the risk of wild fire during the target species live cycle.
- *Moderate provision of water in drought conditions* – This activity was implemented in PMR 1 (**O. kotschyi*), in PMR 3 (individuals of *Cedrus brevifolia* core tree species of 9590*) and in PMR 4 (**C. akamantis*). In PMR 1, the measure was implanted in a pilot phase for 15 individuals but without any positive results; thus it was not repeated. In contrast, in PMR 3 and PMR 4 the measure was implemented in 30 individuals for three (2011, 2012, 2013) and two (2012, 2013) continuous years, respectively. It is noteworthy mentioning that, following the enrichment of all targeted species' subpopulation via plantations, water was provided in order to increase the survival rates. This was not mentioned here for other taxa like **A. macrocarpus* subsp. *lefkarensis*, due to the fact that the subspecies is a perennial herb. So, during summer drought conditions, the aerial parts of each plant dry out and this survives as a rhizome which sprouts in early winter time. Similarly, **Arabis kennedyae* is an annual plant which dries out in late spring.
- *Moderate provision of fertilizer* – Fertilizer was applied in PMR 5 (for **A. macrocarpus* subsp. *lefkarensis*) within two different periods (2010, 2011). Implementation of this activity in **A. macrocarpus* subsp. *lefkarensis* did not show the expected outcome, most likely owing to the used type of fertilizer (using fertilizer type: 20-20-20; perhaps another type of fertilizer would had given more optimum results). Fertilization was also applied for **A. kennedyae* (PMR 2), although it was not planned in the proposal. Fertilizer was carried out for 10 individuals during three different periods (2010, 2011, 2013), but without the expected outcome, most likely because of type of fertilizer, used.
- *Course modification of pathways* – Pathway was proposed to take place in all PMRs in order to benefit all targeted species and habitat types. A pathway was created by the project in three out of the five PMRs, as follows: in PMR 1 a pathway of 100 m, in PMR 2 a pathway of 250 m and in PMR 5 a pathway of 400 m. In PMR 3 and PMR 4, pathways already existed as part of National nature trail (established by the Department of Forests).
- *Seed collection* – Seed collection took place for all targeted species and *C. brevifolia*, for the implementation of several conservation actions. The number of seeds collected is related to the annual seed production during the fruiting season of each species. During the project the following amount of seeds was collected from each of the target species: **O. kotschyi* – 1.634.000, **A. kennedyae* – 126.933, *C. brevifolia* - >6.000, **C. akamantis* – 2.364 and **A. macrocarpus* subsp. *lefkarensis* – 896.
- *Dispersal of seeds* – Seed dispersal was implemented in three PMRs. In all cases the dispersed seeds originated from local sub-population for all targeted species and the number of seeds dispersed was according to the available seeds. During the project's implementation 9.042.000 seeds of **O. kotschyi* were dispersed in PMR 1, 6.950 seeds of **A. kennedyae* were dispersed in PMR 3 and 115 seeds of **C. akamantis* were dispersed in

PMR 4. For *_A. macrocarpus_* subsp. *_lefkarensis_* this measure was not applied due to the limited number of collected viable seeds.

All the above data provided in Table 3 of Annex 8 of this report (Final report of the project).

Time schedule: The action started earlier, in order to extend the period of the application of conservation measures and include the flowering period of the targeted species (April 2010 instead of October 2011).

Implemented by: FU–NCU (responsible beneficiary), DE, NKUA & FD

Deliverables: None

Changes in the Technical Part of the action: No significant changes were done. The suggestions regarding the implementation of certain management measures by the SC, were accepted and implemented.

Changes in the Financial Part of the action: Not applied

4.1.12. Action C.5: Enrichment of the populations of the targeted species

This action was foreseen to enrich the genetic variation and strengthen the natural populations of the targeted species (apart from *_O. kotschyi_*) and *_Cedrus brevifolia_* (core tree species of habitat type *9590) by planting at least 200 plantlets of each species in the respective PMR. Based on the report that was composed Action A.5, it was decided for the plant materials used for enrichment of the targeted species' population within each PMR to originate from the local subpopulation. This decision was taken since the genetic analysis (Action A.5) showed significant genetic differentiation among the sampling subpopulations of each of the targeted species. Thus, seeds of targeted species (*_A. kennedyae_*, *_C. akamantis_* and *_A. macrocarpus_* subsp. *_lefkarensis_*) and *_C. brevifolia_* were collected from the respective PMRs and were germinated (outplanting plantlets) under controlled conditions in plant growth incubators and in the nurseries of the DF (see *_PR2, Annex 4, page 12 – 10/12/2012_*).

The timing of outplanting took into consideration the biology of each species and in most cases it took place during spring time (March – May). Following the remarks and indications of the SC, enrichment also took place in autumn (September – December 2012) in order to avoid the stressful summer environmental conditions for the plantlets. Despite that the initial idea was to plant 200 plants for each targeted species and *_C. brevifolia_* in the respective PMRs, the final number of plantlets was determined by biological and demographic factors. Thus, the total amount of plantlets in each PMR (and each target species) as follows:

- In PMR 3 where *_A. kennedyae_* and *_C. brevifolia_* occur, the planting strategy was to plant 62 individuals of *_A. kennedyae_* and 150 of *_C. brevifolia_*. Plants of *_A. kennedyae_* were planted during winter time of 2012 and 2013, in order to release their seeds, in early summer time, for the enrichment of soil seed bank and the enhancement of natural regeneration. The fact that *_A. kennedyae_* is an annual plant (flowering and

fruiting only once during its life cycle) was an inhibiting parameter for adopting the initial goal of 200 plantlets, for this species. However, significant strengthening of **A. kennedyae*'s natural population within the PMR 3 took place by seed dispersal (Action C.4) where 6.950 seeds were dispersed (instead of 500 seeds written in the proposal). On the other hand, the number of 150 plantlets of *C. brevifolia* was decided based on the demographic parameters of small-scale landscape (i.e. the census size of cedar trees in the planting area).

- In PMR 4, 160 plants of **C. akamantis* were planted; the foreseen numbers of plantlets used for the enrichment of the respective populations were almost reached. On the other hand, a great number of seeds of this target species was dispersed within PMR 4.
- In PMR 5, 127 plants of **A. macrocarpus* subsp. *lefkarensis* were planted. **A. macrocarpus* subsp. *lefkarensis* is a perennial herb which faces the predation of its fruits/seeds by a rare Bruchid (insect). Despite that fruits were selected during the fruiting season of the subspecies for the implementation of germination experiments and the production of plantlets, a considerable amount of seeds were damaged due to insect infection. In this point it must be mentioned that the slightly lower number of plantlets of this species (127 than 200) was the consequence of another two Actions, since: part of collected seeds were used for storage in a seed bank (Action C.7) and for maintaining a living collection in the Botanic Gardens of the Department of Forests (Action C.6). Thus, the available seeds for plantlets were less than foreseen.

Time schedule: Although that the action was foreseen to start in October 2011, preparatory activities such as the collection of seeds of the targeted species from the respective PMRs, were carried out earlier. The action ended in June 2013, as foreseen.

Implemented by: FD (responsible beneficiary), DE & FU–NCU

Deliverables:

- Report on the enrichment of the populations of the targeted species (Annex 9).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.13. Action C.6: Utilisation of existing Botanical Gardens of the DF to achieve the *ex situ* conservation of the targeted plant species

This action contributed to the long-term survival of the targeted species outside their natural environment, through the establishment of living collections in particular sections of the Botanical Gardens that are located within Troodos, Athalassa and Akamas National Forest Parks. The seedlings produced in the lab from seed germination experiments were delivered to the nurseries of DF to further grow (*PR2, Annex 4, page 13 – 10/12/2012*). In the Botanical Garden of Troodos saplings of **A. kennedyae* were planted; further, two small-scale habitat types were created, one for each *9390 - Scrub and low forest vegetation of *Q. alnifolia* and *9590 – *C. brevifolia* forests (*Cedrosetum brevifoliae*). In addition, in the Botanical Gardens

of Athalassa and Akamas, saplings of the species **A. macrocarpus* subsp. *lefkarenis* and **C. akamantis*, respectively, were planted.

Time schedule: Like Action C.5, preliminary activities (seed collection and seed germination) started in April 2010 and were seasonally repeated according to the fruiting season of each targeted species. The action ended according to the project's proposal (June 2013).

Implemented by: FD (responsible beneficiary), DE & FU–NCU

Deliverables: None

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: A transfer of man-hours and consequently budget, from Action C.6 to C.7 was made, taking into consideration the reply of the EC to the MTR request (*MTR, #3.1.13, page 21 – 24/01/2012*). These man-hours and budget (personnel and consumables) were mistakenly allocated to NKUA as contribution to action C.6 (instead of C.7).

4.1.14. Action C.7: Collection and storage of seeds of the targeted species at the seed bank of the Agricultural Research Institute to achieve the *ex situ* conservation of the targeted *taxa*.

The long-term survival of the targeted *taxa* by storing and preserving a representative range of their genetic diversity at the National Seed Bank at the Agricultural Research Institute (ARI) (MANRE) was carried out based on this action. The action adopted the provisions of the Management Plans (Action A.4). Seedlots from each targeted species (apart from **O. kotschyi* and *Q. alnifolia*, whose seeds cannot be stored in a seed bank) were collected, prepared and delivered to the National Seed Bank of ARI (**Annex 10: Storage of seedlots of the targeted species at the seed bank of the Agriculture Research Institute for the *ex-situ* conservation**).

Time schedule: The action ended in June 2013.

Implemented by: NKUA (responsible beneficiary), DE, FU–NCU, & FD

Deliverables:

- Protocols on seed storage, germination, growth and outplanting of the targeted species (**Annex 11**).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.1.15. Action C.8: Safekeeping of the Plant Micro-Reserves

Safekeeping of the PMRs was implemented by frequent patrolling of trained staff of the DF (*PR1, Annex 11, page 13 - 01/09/2011*).

Time schedule: The action started earlier (May 2011) than it was initially planned (January 2012), as soon as the PMRs were established in the field (Action C.1).

Implemented by: FD (responsible beneficiary) & FU–NCU

Deliverables: None

Changes in the Technical Part of the action: The patrolling of trained staff of the DF started earlier than it was initially planned, in order to secure the protection of the infrastructure (i.e. meteorological stations) that was established in the PMRs.

4.2 Evaluation

The PMR approach is generally accepted and implemented in other EU countries. The project encountered no serious problems during the establishment of the PMR network on the island and the implementation of the PMR approach. All problems that occurred during the project's implementation were resolved from their beginning, mainly owing to the efficient cooperation between the project's partners, the project's management team, as well as the consultation by PMR experts (Dr. Emilio Laguna and Prof. Costas Thanos). The success of PMR approach in Cyprus is obvious by the inclusion of the PMRs in the "New Forest Law 2013", as areas of great value and their declaration as "Natural Micro-Reserves". Besides, an important achievement of the project was its connection with the academic and educational systems of the island, since PMRs were included in the "Primary Teachers" guide for implementing the National Curriculum for Environmental Education-Education for Sustainable Development. Last but not least is the fact that the PMR approach was adopted by the MSc program in "Education for the Environment and Sustainable Development" (EESD) of Frederick University, as a best-case practice of cooperation among scientists, teachers and local societies for the conservation of biodiversity in Cyprus.

The actions, carried out according to the layout of the initial proposal of the project, were significant for the proper implementation of the PMR approach in Cyprus. Initially, the **preparatory actions** were important for the collection of the required information and knowledge on the targeted species/habitat types and were fundamental for the establishment, monitoring and management of the PMR network. The **monitoring and conservation actions** implemented were important for the sustainable management of the targeted species/habitat types as well as the respective PMRs. The majority of these were successfully implemented and had a positive impact on the targeted subpopulations (e.g. hand pollination, subpopulation enrichment, seed dispersal) in contrast with a few which had either none or negative impact on the targeted species/habitat types and were not repeated (e.g. small scale relief modifications to reduce erosion, moderate provision of fertilizer/manure). The **dissemination activities** were also of great importance for the project's proper implementation since these presented the targeted species/habitat types, the project's main aim and actions as well as the output and results, to the general scientific committee, to interested stakeholders and to the general public. All dissemination activities reached the foreseen public acceptance and participation, especially those which targeted youth and students. Apart from these, the project was involved in several outside – LIFE activities which enhanced its awareness campaign without changing its budget. Finally, the cooperation between the project's beneficiaries, the administration by the PMT and the contribution of the

SC and the SB were considerable for the implementation of the project's proposal and the carrying out of its actions. In all cases the cost-efficiency of actions was within the proposed budget and there were no significant financial changes.

As mentioned above, the main objective of the PLANT-NET CY project was to improve the conservation status of four priority plant species and two priority habitat types of Cyprus that are found in NATURA 2000 sites, through the establishment, monitoring and management of a network of five Plant Micro-Reserves (PMRs). The results achieved in comparison with the project's objectives were evaluated as successful, and hence, the objectives were met both quantitatively and qualitatively. These objectives are presented in the following table:

Task	Foreseen in the revised proposal	Achieved	Evaluation
Inventory of the localities of the target species/habitats and determination/mapping of the boundaries of the PMRs	Five **low resolution maps** (1:5000) one for each PMR.	5 maps - 1:5000	Fully completed
	Five **high resolution maps** (1:500) one for each PMR.	5 maps – 1:500	Fully completed
Preparation of Monitoring Plan for each PMR.	Five **Monitoring Plans**, one for each PMR.	5 Monitoring Plans (1 for each PMR)	Fully completed
Preparation of Management Plan for each PMR.	Five **Management Plans**, one for each PMR.	5 Management Plans (1 for each PMR)	Fully completed
*Assessment of the genetic diversity and population structure for four priority species and the core plant species of habitat *9590.*	**Report** on the genetic diversity and population structure for each of the four targeted priority species and *Cedrus brevifolia*.	1 Report delivered	Fully completed
	Report on the necessity and feasibility of reinforcement of existing populations.	1 Report delivered	Fully completed
Investigation of the potential legal status of the PMRs in Cyprus.		All PMRs found within forested areas (PMR2, 3 & 4) were included in the Cyprus Forestry Legislation (2012) and	A similar article is expected to be included in the National Legislation in

		were declared as Natural Micro-Reserves (**Annex 12**).	order to also declare the other 2 PMRs (PMR1 & 5) as areas of great value.
Installation of permanent monitoring plots.		see **Annex 8** in Final Report	Fully completed
Monitoring and on-site management of the PMRs.	**Establishment of a system of digital**, environmental sensors and data loggers (Monitoring Station) within each PMR.	1 Monitoring Station in each PMR (apart from PMR3 where a station was already established by the DF within the framework of a previous project)	Fully completed
Enrichment of the populations of target species by outplanting plantlets.	At least **200 plantlets** from each targeted species (apart from **Ophrys kotschyi*) planted in the respective PMRs.	see **Annex 8** in Final Report	Fully completed
Ex situ conservation of priority plant species in Botanical Gardens and a seed bank.	The long-term survival of the targeted species outside their natural environment, through: (i) the **establishment of particular sections** within the **Botanical Gardens** that are located within Troodos, Athalassa and Akamas National Forest Parks and (ii) **storing and preserving** a representative range of their genetic diversity at the **seed bank** of the Agricultural Research Institute, Ministry of Agriculture, Natural Resources and Environment.	(i) see **Annex 8** in Final Report (ii) see **Annex 8** in Final Report	Fully completed Fully completed
Safekeeping of the PMRs.	Carried out by **patrolling of trained staff** of the Department of Forests (DF).	see **Annex 3** in Final Report	Fully completed

	The training of the DF staff covered all pertinent theoretical and practical issues.		
Implementation of an information campaign (i.e. workshops, information materials, youth competitions).	**Ten notice boards** describing the project (within each of the five PMRs and five in the neighbouring inhabited places).	10 notice boards – 5 (each PMR) + 5 (each community)	Fully completed
	Installation of permanent monitoring plots within each PMR based on the monitoring program.	see **Annex 8** in Final Report	
	Four **participatory rural appraisals and local workshops** – 30 local participants per workshop.	4 participatory rural appraisals and local workshops – 30 participants per workshop	
	A tourism workshop – 50 participants.	1 tourism workshop – 61 participants	
	A **bicommunal workshop** – 50 participants.	1 bicommunal workshop – 51 participants	
	A **youth competition.**	1 youth competition – 44 schools (more than 590 students)	
	Media coverage: 3 press releases, 3 TV & 2 radio broadcasts, 3 articles in newspapers/magazines.	Media coverage: 3 press releases, 2 TV & 3 radio broadcasts, 3 articles in newspapers/magazines	
	Three newsletters - 3000 printings (1000 per year).	3 newsletters – 1000 copies each	
	Leaflets – 6000 printings	1 leaflet in 3 languages –	

	(2000 in Greek, 2000 in English, 2000 in Turkish).	2000 copies for each language	
	500 Posters **DVD** - 500 copies **Final info day** – 50 participants.	1 poster – 500 copies 1 DVD – 500 copies Final info day – 44 participants	
Production of the technical publications (i.e. Layman's report, CD-ROM, website)	**Technical publication** – 100 copies, A4 size. **Layman's report** - 200 copies, colour, 18pp, A4 size. **CD-ROM** – 100 copies. **Website** – 50 hits per month.	1 Technical publication – 100 copies 1 Layman's report – 200 copies 1 CD-ROM – 100 copies 1 website – more than 50 hits per month	Fully completed
Preparation and publication of a book on PMR experiences.	**Book** – 500 copies, coloured, 150 pp, A5 size. The book was published in paper (having its ISBN), and, in addition, for succeeding wider distribution, it was simultaneously released as an e-book (PDF).	1 book – 500 copies, pdf, epub, flipbook	Fully completed
Organising of a workshop on plant conservation in PMRs.	A **two-day experts' workshop –** Who brought to the project knowledge and experience that has been accumulated from projects which have successfully adopted the PMR approach. The workshop contributed towards the creation of a European PMR network for	1 experts' workshop – 2 days, 52 participants (20 guests)	Fully completed

	the conservation of the European wild plants.		

4.3 Analysis of long-term benefits

The successful implementation of PLANT-NET CY has led to the long-term improvement of conservation status of four priority plant species and two priority habitat types of Cyprus (both species and habitats are included in the Annexes of the Council Directive 92/43/EEC - Habitats Directive). The project's aim was implemented through the establishment, monitoring and management of a network of five PMRs within four Natura 2000 sites in Cyprus. As mentioned above, the PMR concept is widely accepted as one of the most effective practices towards the conservation of plant diversity in small land plots that are of peak value in terms of plant richness, endemism or rarity. Besides, the PMR concept is considered as a complementary tool to the generally adopted "large site" strategy that has recently been materialised into the European Network of nature conservation, NATURA 2000. Therefore, the PMR approach is in the same line with the *Article 6 of the Habitats Directive*, where it is stated that: "… Member States are required to undertake conservation measures in order to maintain species and habitats at a favourable conservation status…". If necessary, these measures may involve appropriate management plans. The guidelines set by Article 6 led to the conceiving of the PMR approach. All these aspects ensure the environmental long-term benefits for Natura 2000 sites and targeted species/habitat types. Consequently, the actions carried out within the framework of the project in order to face the threats and pressures as well as to improve the conservation status of their larger subpopulations (or parts of their subpopulations) not only had a considerably positive impact on Cyprus' unique nature but also contributed to the improvement of the Habitats Directive (92/43/EEC) in Cyprus. A significant outcome of the project was the recognition of the PMRs, found within forest areas, as sites of great value and their declaration as Natural Micro-Reserves by a Ministerial Order, through Cyprus Forestry Legislation (2012) (**Annex 12: Documentation of Outside-LIFE activities**). In general, the establishing of the PMR network, as well as the implementation of monitoring and conservation actions, have contributed towards combating the treats that the target species/habitats face. Hence, the project's implementation has improved the conservation benefits of Natura 2000 sites, especially for rare endemic species. Additionally, their recognition as Natural Micro-Reserves contributes to the protection of the targeted species and habitat types as well as the PMRs in their entirety.

The long-term sustainability of the PMR network and consequently the long-term benefits of the targeted species and habitat types will be continued through the implementation of the "**After-LIFE conservation plan**" (**Annex 13**). The After-LIFE conservation plan provides details regarding which activities should be carried out, with data on when, for how long and by which beneficiary these activities should be implemented, in order to ensure the sustainable conservation of the targeted subpopulations and the sustainability of the network.

However, remaining threats are the global problem of climatic change and its impact on plants and habitats viability, as well as the negative impact of desertification.

The project is also characterized by the long-term social and economic benefits (and indirect benefits to the rural areas) through public awareness campaign and participation of local communities in the conservation activities. It has developed a series of measures promoting the participation of local communities in the conservation process and awareness among the general public about the need of conservation and sustainable management of targeted species and habitat types within Natura 2000 sites. Besides, the project has familiarized the general public with the PMR approach, the diversity of Cyprus' nature and the possibilities of eco-tourism activities within PMRs, through the information campaigns that focused on specific target groups (i.e. tour-operators, ecotourism guides and environmental non-governmental organizations, students, etc.). The project's beneficiaries suggested to the interested stakeholders that the PMRs, as well as the unique nature of Cyprus, could attract fans of alternative tourism and these would benefit particularly the communities and villages neighboring the biodiversity-rich PMRs and Natura 2000 sites. In addition, the coordinated efforts of the project's beneficiaries have resulted in the inclusion of the PMR approach and related educational activities in the new "Primary Teachers" guide for implementing the National Curriculum for *Environmental Education - Education for Sustainable Development*.

Last but not least, the PLANT-NET CY contributed to the long-term benefits of the PMR approach. This was carried out by providing a platform for networking of all previous LIFE / LIFE+ projects with a focus on the establishment of PMRs in Europe, through which scientific information and best practices were exchanged (two-day workshop). An outcome of this first networking was the publication of the first book on PMR experiences. The book has become the reference publication for planning, establishing and managing PMRs and will present the knowledge and experience accumulated through the implementation of the PMR approach in several European countries.

4.4 Dissemination issues

One of the project's main aims was to disseminate its results and raise public awareness, as well as to promote the involvement of the general public in conservation activities. Based on this approach, the project developed a number of activities which included interaction with local communities neighbouring the PMRs and other target groups, as well as the production and dissemination of printed and electronic information material to these groups (**Annex 14: List of deliverables of the Actions D: Public Awareness and Dissemination of Results**). The target groups of the project included, among others, governmental departments, youth, local communities, environmental NGOs, touristic guides, local and foreign visitors. The local communities and the wider public of Cyprus responded positively to the project's initiatives and several social groups showed keen interest to be involved in the project's activities.

The revised project proposal included numerous dissemination activities, such as:

- Implementation of an information campaign through workshops, information material and youth competitions. The campaign provided information to all stakeholders and promoted their active involvement in the project.
- Production of technical publications, Layman's report and a CD-ROM, as well as website development. These activities focus on the presentation of the scientific data and the results from the project so that they can be effectively disseminated and sufficiently used by the relevant authorities and the scientific community.
- Preparation and publication of a book on PMR experiences. The book has become the reference publication for the planning, establishment and management of PMRs and presents the knowledge and experience accumulated through the implementation of the PMR approach in several European countries.
- Organisation of a workshop on plant conservation in PMRs.

Apart from the contractual obligations of the project, its beneficiaries have implemented a series of Outside-LIFE activities thus enhancing public awareness and the dissemination campaign without affecting or burdening the project's budget (**Annex 12**).

4.4.1 Dissemination: overview per activity

4.4.1.1. Action D.1: Information campaign, organisation of workshops, seminars and conferences, production of information material

The activities of this action aimed to provide information and promote the active involvement of all stakeholders in the project. The activities from this action focus on specific target groups, namely: Government authorities, local authorities and local people, students of local schools and eco-schools, youth centres of the villages involved, tourists and local visitors, tour operators, hoteliers, the Cyprus Tourist Organisation, the Union of agro-tourism enterprises, the relevant NGOs and the media. The action resulted in:

- The establishment of **ten notice boards** (one in each PMR and one at the village neighbouring each PMR) (*PR1, Annex 12, page 13 – 01/09/2011*).

- The implementation of **four participatory rural appraisals and local workshops** (*Annex 6 in IR, page 12 - 30/09/2010*) at the beginning of the project in the communities neighbouring the PMRs, in order to facilitate the involvement of local people in the project. The action had a delay, the reasons of which were explained extensively in a previous report (*IR, #3.1.15, page 12 - 30/09/2010*).

- A **Tourism workshop,** which attracted 50 participants and was addressed by the Minister of MANRE (*PR1, Annex 13, page 14 - 01/09/2011*).

- A **Youth competition** (*PR2, Annex 8, page 15 – 10/12/2012*), in which the participation exceeded the project's expectations (44 schools - more than 590 students) (*PR2, #3.1.16, page 14 – 30/11/2012*).

- A **Bicommunal workshop** (*PR2, Annex 9, page 15 – 10/12/2012*), which attracted 50 participants from both Turkish-Cypriot and Greek-Cypriot communities (*PR2, # 3.1.16, page 14 – 10/12/2012*).

- **Three Newsletters,** with 1000 copies of each one printed and disseminated to all targeted groups (*IR, Annex 8, page 12 - 30/09/2010, PR1, Annex 17, page 14 - 01/09/2011* and *PR2, Annex 11, page 15 – 10/12/2012*).

- A **Leaflet** produced in three languages (Greek, English and Turkish), with 2000 copies for each language printed and disseminated (*PR1, Annex 19, page 15 - 01/09/2011*).

- **Coloured posters** (500 copies), which were distributed to primary and secondary schools and to the beneficiaries of the project (*PR1, Annex 18, page 15 – 01/09/2011*).

- **Media Coverage,** which included 3 press releases (*IR, Annex 7, page 12 – 30/09/2010, PR1, Annex 14, page 14 – 01/09/2011*), 2 TV broadcasts (*PR1, Annex 15, page 14 – 01/09/2011*), 3 radio broadcasts (*PR1, Annex 15, page 14 – 01/09/2011, MTR, Annex 3, page 24 – 21/01/2011* and **Annex 15**) and 3 articles in newspapers/magazines (*PR1, Annex 16, page 14 - 01/09/2011* and *PR2, Annex 10, page 15 – 10/12/2012*). According to the project's proposal the coverage of the project's activities by media included, as foreseen, 3 TV and 2 radio broadcasts. However, instead of the last TV broadcast the beneficiaries of the project estimated that the project's results were better to be presented in a radio broadcast. Thus the SCo presented the project's results and invited the listeners to the Final Info Day during a 15-minute-conversation at the radio programme called "At the Earth's Garden" of "Astra" station. "Astra" is an island-wide station and the specific programme focuses on environmental issues and has very high ratings.

- **A 19-minute DVD,** which shows the project's actions and targeted species/habitat types (**Annex 16**). The DVD was produced in 500 copies and was disseminated to all targeted groups.

- **A Final Info Day** event which attracted approximately 50 participants (**Annex 17**).

Time schedule: The action's implementation followed the timeline of the proposal (January 2010 – June 2013).

Implemented by: FEOC (responsible beneficiary), DE, FU–NCU, FD & UNDP-ACT.

Changes in the Technical Part of the action: For two of the dissemination activities, namely: (i) Youth Competition (which took place in April 2012 instead of September 2011) and (ii) DVD (which was prepared by June 2013 instead of December 2011), an extension was requested for their more efficient implementation (*PR1, #3.1.16, page 14 – 01/09/2011*). The requested changes did not have any impact on the course of the project. EC was informed about these changes in PR1 and MTR. Additionally, the third TV broadcast of the project was replaced by a radio broadcast, since in this way the SCo had more broadcasting time in order

to present the project's activities in more detail. For this change the External Monitoring Team (EMT) was informed.

Changes in the Financial Part of the action: There were some changes regarding the financial part of this action, of which the EC was informed (*PR1, #4.2., page 24 – 01/09/2011* and *MTR, #3.1.16, page 23 – 24/01/2012*). These changes were:

- A budget transfer from UNDP–ACT to FU which regarded: (i) personnel costs of the two Turkish-Cypriot Plant Ecologists (€9,620), who work for the project and (ii) catering costs for the Bicommunal workshop (€1,000). Additionally, it was reported in previous reports (*PR1, #4.2, page 24 – 01/09/2011* and *MTR, #3.1.16, page 23 – 24/01/2012*),

- An increase of the external assistance costs for the DVD preparation (from €500 to €4,000) and also for the promotion campaign of the Youth Competition (from €1,000 to €3,000). These increases did not change the project's overall budget, and they were within the foreseen limits. The EC was informed on these changes.

4.4.1.2. Action D.2: Technical publications, website development, CD-ROM production, Layman's report

This action focused on the presentation and publication of the scientific data and the results that arose from the project. The action started with the construction of the website (*IR, Annex 10, page 13 - 30/09/2010*). A site meter has been added at the cover page of the website following the indications of the EMT. Additionally, the project's beneficiaries adopted all indications of the EC following the IR (*PR1, Annex 24, page 17 – 01/09/2011*). The website had over 100 visits per month, which is more than the target number of visitors (**Annex 18: A report showing the number of visitors of the project's website**).

The dissemination of the project's scientific results was carried out through the participation of the project's members in scientific conferences. The project was presented in more than three scientific conferences (in seven conferences), as indicated in the proposal. In five out of the seven conferences the participation cost was covered by the project's budget (*Annex 11 in IR, page 13 – 30/09/2011* and *PR1, Annex 22, page 16 – 01/09/2011*), while the participation in the other two conferences was covered by other financial sources (*PR2, #3.4., page 24 – 10/12/2012*).

Time schedule: The action followed the timeline of the proposal of the project (October 2010 – June 2013).

Implemented by: FU–NCU (responsible beneficiary), DE & NKUA

Deliverables:

- Project website (www.plantnet.org.cy) (*IR, Annex 10, page 13 - 30/09/2010*).

- Publications in three international conferences (*IR, Annex 11, page 13 - 30/09/2010* and *PR1, Annex 22, page 16 - 01/09/2011*).
- Habitat and Species report (Technical Report) (**Annex 19**).
- Layman's Report (**Annex 20**).
- All-inclusive project activities CD-ROM (**Annex 21**).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.4.1.3. Action D.3: Operation of Information Centres within three Botanical Gardens

This action focused on the operation of Information Centres within the three Botanical Gardens (BG) of the DF, which are situated within three National Forest Parks (Troodos, Athalassa, Akamas), for the promotion of public awareness about conservation values, the objectives of the project and the importance of the targeted species. The action started as foreseen and living collections of the targeted species were exhibited to the visitors. Apart from establishing the living collections, the promotion of public awareness was supported by establishing a section on the PMR approach in the Botanical Gardens. This section presents general information about the project.

Time schedule: The action implemented as foreseen (December 2011 – June 2013)

Implemented by: FD (responsible beneficiary) & FU–NCU

Deliverables: None

Changes in the Technical Part of the action: Not applied

Changes in the Financial Part of the action: Not applied

4.4.1.4. Action D.4: Preparation and publication of a book on PMR experiences

This action aimed at publishing a book (500 copies, coloured, 150 pp, A5 size), which presents the knowledge and experience that has been accumulated during the last 15 years from successful, LIFE-funded, PMR projects. The book presents scientific information and best practices on effective conservation management measures developed within PMRs in several European countries. The contribution of scientists who lead PMR projects in other European countries was significant.

Time schedule: The action was implemented and completed as foreseen in the proposal of the project (May 2013).

Implemented by: FU–NCU (responsible beneficiary), DE, NKUA & FD

Deliverables:

- Publication of a book on PMR experiences (**Annex 22**).

Changes in the Technical Part of the action: Not applicable

Changes in the Financial Part of the action: Not applicable

4.4.2 Layman's report

The project adopted the general guidelines for the creation of the Layman's report. The report was released in English and Greek both digitally (PDF-format) and on paper. The Layman's report presents the project's scope and objectives, the targeted species and habitat types and also provides information on its main conservation and dissemination activities. It is one of the project's deliverables (Action D.2) and obligations and it is being sent to the EC with the present report (Final Report) (**Annex 20: DELIVERABLE – Layman's Report**).

5. Comments on the financial report

Total project declared costs amount to a total of €1,288,214.80 while the eligible costs are €1,273,126.60 (Annex 23: Standard Statement of project's Expenditure). The final eligible amount is 17% lower than the approved proposal budget. It is noted that the proposed actions of the project were undertaken as foreseen and reduced expenses have not had any impact in the scale, nature, scope or quality of the project activities and deliverables.

Although declared costs are lower than the foreseen proposal costs the cost statement does not include substantial modifications to the approved financial proposal. Below is a description of the key aspects of the cost statement and the main factors that resulted in reduced expenses.

Personnel:

- Lower hour rates for the personnel of partners FU-NCU, DE and FEOC has led to lower than foreseen personnel costs.

Consumables:

- A total of €11.500 was initially budgeted for this budget line. However €30.102 were spent constituting an increase of €18.602 (162% increase). Various costs of UNDP-ACT including overheads have been transferred to consumables while FU also transferred costs to consumables from external assistance in order to undertake Action A.5 internally rather than subcontracting, as explained in the first progress and interim reports.

Travel: Lower costs due to:

- DF does not request local travel costs
- NKUA has made fewer trips than foreseen. As already noted, the reduction in the number of trips did not have any negative impacts on project implementation.

External Assistance

- According to Action A.5, it was foreseen the use of external assistance by Frederick University for a value of €63.000. During the course of the project it was decided that all required resources and personnel for implementation of A.5 were available internally at FU. External assistance for DU was therefore reduced to €26.886,60.
- FEOC costs for construction of posters were initially estimated based on the assumption that hard surface posters would be produced. However it was decided in the course of the project that paper posters were both more cost efficient as well as more practical in terms of transport and posting. Costs were thus significantly reduced in comparison with the proposal.

- As already described in the Midterm report, costs for support for financial management were initially foreseen under FU-NCU. However this cost was transferred to external assistance.

Equipment

Initially a budget of €60.407,00 was foreseen while final real costs were increased to €82.979,15 which results in eligible costs of €67.890,95. This constitutes an increase of €7.483,95 (12%). Differences were the result of the following:

- The foreseen car was purchased at a higher price than foreseen.
- Additional equipment was purchased for the implementation of Action A.5 which was not initially foreseen in the proposal.
- Savings occurred in the purchase of various equipment (e.g. plotter).

In addition the following are noted:

Following the letters sent, after the assessment of the MTR, by the European Commission on the 30th of March 2012 and the 16th of July 2012, with accession number «Brussels, ENV/E.3/MD/PT/jv ARES (2012) 381379» and «Brussels, ENV/E.3/MD/PT/ ARES (2012) 862521», respectively, Annex 24 is attached to the final report and includes:

- The payslips and proof of payment for Prof. Costas Thanos and Prof. Kyriakos Georgiou.
- The salary slips for Prof. Costas Kadis.
- A copy of the invoice number 1371944 of 17.6.2011, for 203.01€ (office consumables of NKUA).

The DF has made a payment for an invoice which was submitted after the project end date. It can be verified that the work has been completed within the project duration while payment has been made prior to the submission of the report. The Auditor has therefore accepted the cost as valid, pending the final approval of the EU.

FEOC has received payments from the DE (Coordinating Beneficiary) totalling €80.639,30 while its declared eligible costs are €76.045,00. The FEOC must return at least €4.594,30 to eliminate the over-payment received. A further arrangement with the DE to set the FEOC's own contribution amount will be made, to decide the final amount to be returned.

The salary rates of Ms G. Sioshilou, working at FEOC, have been modified based on the delayed payment of inflation based compensation. Compensation was provided also for prior years thus the salary rate declared for the period prior to the interim report has also been prepared.

5.1 Costs incurred

The incurred costs are presented in the table below. We direct your attention to the fact that the Audit report does not incorporate the latest payment to the project auditor which amounts to €3.469.20 and respective V.A.T.

PROJECT COSTS INCURRED				
	Cost category	Total cost according to the Commission's decision*	Costs incurred from the start date to 30/06/2013	%**
1.	Personnel	€1.096.540,00	€909.195,27	82.91%
2.	Travel	€94.237,00	€48.541,38	51.51%
3.	Outside assistance	€168.300,00	€116,153.53	69.02%
4.	Durables: total non-depreciated cost			
	- *Infrastructure sub-tot.*	€8.000,00	€8.855,00	110.69%
	- *Equipment sub-tot.*	€63.407,00	€82.979,15	130.87%
	- *Prototypes sub-tot.*	€0.00	€0.00	
5.	Consumables	€11.500,00	€30.102,00	261.76%
6.	Other costs	€9.500,00	€9.899,81	104.21%
7.	Overheads	€98.813,00	€83,28866	84.29%
	SUM TOTAL	€1.550.297,00	€1,284,560.53	82.91%

5.2. Accounting system

The following accounting practices were applied:

- Time sheets: All partners used the timesheet template recommended by the LIFE+ unit. Man hours have been recorded for the present project and other LIFE projects. In addition man hours for the remaining activities of each member of personnel were recorded such that all hours worked in the organisation are accounted for.

- Other Direct costs: For all costs incurred that are payable to third parties, invoices and receipts were received as appropriate. Where required by internal rules proposal/tender procedures were followed. Original invoices and receipts included in the cost statement of the project were marked accordingly and are maintained in the regular accounting books of the organisation. Copies of the invoice and receipt are kept at a separate project file to facilitate easy access and control.

- Records: All documentation relevant to the costs incurred by the project was collected in a project specific file prepared by each organisation. The files will be maintained at the beneficiary's office in accordance with the LIFE+ rules.

5.3. Partnership arrangements (if relevant)

All partners have signed an agreement with the beneficiary at the beginning stages of the project. Payments were made to the associated beneficiaries in line with payments made by the EU to the beneficiary. A down payment and second payment were thus proportionately dispatched to all partners based on the initial approved budget.

Each Partner prepares their individual cost statement and cost related documentation. The beneficiary inspects and approves cost statements prior to making the relevant payments. Inspections included the following:

- Ensuring that declared costs are sufficiently verified with appropriate documentation
- Ensuring that costs are relevant to the project
- Communicating with the technical coordinator of the project to ensure that the Partner has conformed to its work and deliverable requirements and that declared costs correspond to the work undertaken
- Integration of individual cost statements and checks to ensure that total costs do not exceed the foreseen budget and that the overheads and 2% rules are fulfilled.

5.4. Auditor's report/declaration

The audit report was carried out by the "A. Panayiotou & P. Prodromides LTD, Certified Public Accountants" (Membership n of the association: E353/008). The audit report is attached in Annex 25.

6. Final Output Indicators

The tables providing the LIFE+ Nature output indicators for the evaluation of the output of the preparatory, concrete conservation and awareness raising and communication actions of the project are found in Annex 26 of the Final Report.

7. Annexes

7.1 Administrative annexes

Annex 1: Organization and Management Plan

Annex 2: Monitoring Protocol – Final Evaluation

Annex 3: Answers to the questions of the European Commission

7.2 Technical annexes

7.2.1. Deliverables

Annex 5: DELIVERABLE – Monitoring Reports (one for each PMR).

Annex 6: DELIVERABLE – Monitoring Database/Diagrammatic summaries (models).

Annex 7: DELIVERABLE – Post-Project, Long-Term Monitoring and Management Plan.

Annex 9: DELIVERABLE – Report on the enrichment of the populations of the targeted species.

Annex 11: DELIVERABLE – Protocols on seed storage, germination, growth and outplanting of the targeted species.

Annex 13: DELIVERABLE – After-LIFE Conservation Plan.

7.2.2. Other

Annex 8: Information on the conservation activities (Actions C).

Annex 10: Storage of seedlots of the targeted species at the seed bank of the Agriculture Research Institute for the *ex-situ* conservation.

7.3 Dissemination annexes

7.3.1. Deliverables

Annex 15: DELIVERABLE – Media Coverage.

Annex 16: DELIVERABLE – DVD.

Annex 17: DELIVERABLE – Report on Final Info Day.

Annex 19: DELIVERABLE – Habitat and Species report (Technical Report).

Annex 20: DELIVERABLE – Layman's Report.

Annex 21: DELIVERABLE – All-inclusive project activities CD-ROM.

Annex 22: DELIVERABLE – Publication of a book on PMR experiences (electronically) a book is attached as sample.

7.3.2. Other

Annex 12: Documentation of Outside-LIFE activities.

Annex 14: List of deliverables of the Actions D: Public Awareness and Dissemination of Results.

Annex 18: A report showing the number of visitors of the project's website.

7.4 Financial annexes

Annex 23: Standard Statement of project's Expenditure.

Annex 24: Pay slips of Dr. C. Kadis, Dr. C. Thanos and Dr. K. Georghiou.

Annex 25: Audit Report.

7.5 Final indicators tables

Annex 26: Final Output Indicators