



**Integrated conservation management of priority habitat type 9590* in the
Natura 2000 site “Koilada Kedron-Kampos”
(LIFE15 NAT/CY/000850)**



DELIVERABLE:
PROJECT MONITORING PROTOCOL
(ACTION F.2)

NOVEMBER 2016
NICOSIA

BENEFICIARIES:





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List of abbreviations

PMT: Project Management Team

SCo: Scientific Committee

PMPr: Project Monitoring Protocol

¹ The present report has been prepared by the Nature Conservation Unit (Frederick University) in the framework of the project LIFE15 NAT/CY/000850. The project is co-financed by the LIFE programme.

ACTION F.2: Project Monitoring and Compilation of information DELIVERABLE F.2: Project Monitoring Protocol

1. Introduction

The project “*Integrated conservation management of priority habitat type 9590* in the Natura 2000 site Koilada Kedron-Kampos*” (LIFE15 NAT/CY/00850) aims to ensure the medium and long-term preservation of the priority habitat type 9590 **Cedrus brevifolia* forests in good conservation status, at two levels: within the only Natura 2000 site (CY2000008) where the unique population of habitat 9590* occurs (*in situ* conservation) and outside the natural boundaries of the habitat (*ex situ* conservation). To address this aim, the project’s beneficiaries are implementing a range of carefully planned management measures that will mitigate all negative impacts of the major threats to the habitat. Thus, 17 actions were designed and are being implemented through the current project: five preparatory actions (Actions A), five concrete conservation actions (Actions C), three actions for monitoring the project’s impact (Actions D), two actions on public awareness and dissemination of results (Actions E) and two actions on project management (Actions F). In total, 52 milestones and 46 deliverables will be produced by the project.

A fundamental point for the successful implementation of the project’s actions, is the establishment of an effective project’s monitoring system, through Action F.2: *Project monitoring and compilation of information*. The monitoring system of the project will be carried out through the elaboration and monitoring (evaluation) of the **Project Monitoring Protocol (PMPr)**.

2. The Project Monitoring Protocol

The **Project Monitoring Protocol** (present deliverable) is specifically designed to monitor the progress of the project and to evaluate the timely and proper implementation of the project’s actions. This is a key monitoring system in order to ensure that the project is implemented according to the project’s proposal and timeframe. The project’s monitoring is carried out based on:

- the cooperation, continuous communication and constant exchange of information between the Project Management Team (PMT) and the project’s beneficiaries,
- the evaluation of the preparation of the project deliverables, according to the timeframe and
- the monitoring and evaluation of the project’s expenses according to its budget.

The PMPr **was** elaborated by the PMT and was approved by the Scientific Committee (SCo) during its first meeting on 01/12/2016. The PMPr will be evaluated every six months by the PMT to ensure that the methodology agreed is being implemented. The PMT consists of:

- Project Coordinator & Scientific Coordinator: Dr. Andreas Christou (Department of Forests, Ministry of Agriculture, Rural Development and Environment)
- Project Manager: Dr. Nicolas-George Eliades (Nature Conservation Unit, Frederick University)
- Financial Manager: Mr. Alexis Onoufriou (Frederick University)

Furthermore, the project's SCo (nominated through Action F.1) will also be responsible for evaluating the PMPr, since in all of its meetings (which are expected to take place four times during the project's implementation), it will critically review the PMPr and suggest any changes (if this is required). More specifically, the SCo will:

- **Review the progress of the project** in relation to each Indicator.
- **Provide scientific advice**, so that the monitoring of the project is carried out in a technically correct way.
- **Check** whether the **Project Monitoring Protocol** is applied consistently.
- **Approve changes in relation to certain Indicators** (where these changes are considered necessary), and add new Indicators, if necessary.

3. The structure of the Project Monitoring Protocol

The PMPr includes the related information for monitoring the project's actions. More specifically, the PMPr presents:

- The project's **Action**.
- The **monitoring index** which is relevant to this action.
- The **beneficiary** that is responsible for the implementation/monitoring of each action.
- The **milestone** and/or the **deliverable** that is relevant to the monitoring index.
- The **sources of information** used for evaluating each monitoring index.
- The **target numbers** (where applicable) for the required values of each monitoring index.
- The **deadline** (final date) for achieving the necessary values for each monitoring index.
- **Progress checks** that address if the required levels/values for each monitoring index have been reached.
- The **evaluation date** of each monitoring index by the Scientific Committee of the project.
- **Divergences** from the required values, as these were initially set; **justification for these divergences and proposed changes**.
- The monitoring **indicators** based on which the monitoring index will be evaluated:
 - o **Time-frame**: Corresponds to the timely preparation of the monitoring index.
[3-On time; 2-Low delay (1 to 3 months); 1-Significant delay (>4 months)]
 - o **Quality**: Corresponds to the quality of the monitoring index and the quality of its outcomes (deliverable).
[3-Sufficient; 2-Insufficient; 1-Failed]
 - o **Success**: Summarises the grades (rates) from the *Time-frame* and *Quality* indicators, as presented in Table 1.

Table 1: Success of Actions implementation over the evaluation of monitoring indicators.

Quality of the deliverable \ Implementation date	<i>On time (3)</i>	<i>Slight delay (2)</i> <i>(1-3 months)</i>	<i>Significant delay (1)</i> <i>(>4 months)</i>
<i>Sufficient (3)</i>	Excellent implementation (EI)	Good implementation (GI)	Moderate implementation (MI)
<i>Insufficient (2)</i>	Good implementation (GI)	Moderate implementation (MI)	Poor implementation (PI)
<i>Failed (1)</i>	Deficient implementation (DI)	Insufficient implementation (II)	Unsuccessful implementation (UI)

Project Monitoring Protocol of the LIFE-KEDROS implementation

Action Completed	Action In progress	Indicator upcoming	Incomplete
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Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
A.1	Floristic composition	FU	(D) Report on floristic composition of habitat type 9590* within the targeted Natura 2000	Inventories from the project partners: on-the-site surveys.	1 Report	11/2017 (11/2017)	Completed	22/05/2018	-	3	3	EI
	Marking rules	DF	(D) Marking guidelines for silvicultural treatments of the habitat 9590*		1 Report	10/2017 (01/2018)	Completed	22/05/2018	Short delay because of an increase in the number of plots in order to collect accurate data and more time needed for data analysis	2	3	GI
A.2	Fire Protection Plan	DF	(D) Fire Protection Plan of habitat 9590	Historical information & Inventories from the project	1 Report	11/2017 (12/2017)	Completed	22/05/2018	For approval, the deliverable must be presented to the next	2	3	GI

² DF: Department of Forests; FU-NCU: Frederick University – Nature Conservation Unit, CAP: Cyprus Forest Association.

³ In parenthesis, the actual end date.

⁴ Date of evaluation by the Scientific Committee. [Evaluation indicated **in red** is implemented by PMT and will be reviewed by SCo in their following meeting]

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
				partners					meeting of the "Pafos Forest Management Committee"			
A.3	Entomological biotic risks	DF	(D) A report on the entomological biotic risks for habitat 9590* and associated environmentally sound management guidelines (seed wasps and bark beetles)	On-site surveys	1 Report	11/2017 (12/2017)	Completed	22/05/2018	Short delay due to the processing of the data collected from the field	2	3	GI
	Damage by <i>Rattus rattus</i> on the health and vitality of habitat 9590*	DF	(D) Report on the occurrence and damage seriousness of <i>Rattus rattus</i> , suggested control measures including a map locating the control measures	On-site surveys	1 Report	11/2017 (12/2017)	Completed	22/05/2018	Short delay in order to adopt the suggestions and comments of the experts	2	3	GI
A.4	Preliminary Environmental Impact Assessment	FU	(D) One Preliminary Environmental Impact Assessment	Deliverable of Action A.2 and field observations, on-site visitor surveys	1 Report	10/2017 (10/2107)	Completed	22/05/2018	-	3	3	EI
	Evaluation of grazing	FU	(D) Grazing management plan	On-site	1 Report	11/2017	Completed	22/05/2018	-	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
	capacity		for the southern edge of the Natura 2000 site "Koilada Kedron-Kamos" (CY2000008)	surveys		(11/2017)						
A.5	Action Plan of concrete conservation action	FU	(D) Action Plan for the sustainable management and conservation of habitat type 9590*	Deliverables of Actions A.1 to A.4 and on-site surveys	1 Report	12/2017 (02/2018)	Completed	22/05/2018	Short delay due to the delayed completion of deliverables of Actions A.1-A.4	2	3	GI
C.1	Silviculture interventions	DF	(D) Three annual reports with an account on the felling result-number of stems cut, number of shrubs pruned, number of <i>Cedrus</i> favored, damages if any, disposal of wood and other biomass, wood	On-site surveys	3 Reports	03/2018 (03/2018)	Completed	22/05/2018	-	3	3	EI
						03/2019 (03/2019)	Completed	14/05/2019	-	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
			sales etc. & Deliverables of Action A.1			03/2020 ⁵ 01/2021 (01/2021)	Completed	10-11/2020 (approved by SC) 29/01/2021	The Action was finished according to the timeframe of the amended project's duration	3	3	EI
C.2	Effective enhancement of targeted habitat	DF	(D) Three reports for sowing and planting at the end of each year. & Deliverable of Action A.5	On-site surveys	Expansion of 9590*: 3.3 ha Restoration of 9590*: 12 ha	12/2017 (11/2017)	Completed	22/05/2018	-	3	3	EI
						12/2018 (03/2019)	Completed	14/05/2019	-	2	3	GI
						12/2019 (11/2019)	Completed	30/09/2020	-	3	3	EI
C.3	Forest fire protection measures	DF	(M) Permanent closure of forest roads & Deliverable of Action A.3 and A.5	Field observations	Closure of 10 Km of forest roads	06/2017 – 06/2020 (05/2018)	Completed	14/05/2019	-	3	3	EI
			Construction of			200-300 m of fire break	06/2018	Completed	22/05/2018	-	3	3

⁵ On "Deadline" column, dates with strikethrough denote deadlines that were initially set in the project's proposal, but were later extended due to the project being granted an extension (five-month-extension due to Covid-19 pandemic).

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
			fire break & Deliverable of Action A.3 and A.5		will be constructed	(04/2018)						
			Construction of water tanks & Deliverable of Action A.3 and A.5		Two water tanks (90-ton) will be constructed	08/2018 (05/2018)	Completed	22/05/2018	-	3	3	EI
			Installation of information signs on fire protection & Deliverable of Action A.3 and A.5		Six information signs will be installed	06/2017 (08/2017)	Completed	22/05/2018	-	2	3	GI
			Construction and installation of guzzlers & Deliverable of Action A.3 and A.5		Six guzzlers will be constructed	05/2018 (12/2018)	Completed	14/05/2019	Delay of 6 months due to administration issues that arose during the preparation of the Mid-term report. (Suggestion for deviation from the initial proposal.)	1	3	MI
C.4	Resilience of 9590*: Control of harmful	DF	(M) Establishment of artificial nests for	Field observations	10 artificial nests for Barn owls	02/2018 (02/2018)	Completed	22/05/2018	-	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
	species		Barn owls									
			Establishment of artificial nests for bats		20 artificial nests for bats	02/2018 (02/2018)	Completed	22/05/2018	-	3	3	EI
			Installation of insect traps		20 insect traps	04/2018 (05/2018)	Completed	22/05/2018	Delay of one month since the weather was not the optimum	2	3	GI
	Resilience of 9590*: Soil erosion control measure		(D) Applied measures & Deliverable of Action A.5	On-site surveys	100 m of log erosion barriers	12/2018 (02/2019)	Completed	14/05/2019	Delay due to bad weather conditions. Creation of 101.60 m of log erosion barriers	2	3	GI
					5 permeable gabion barriers	12/2018 (12/2018)	Completed	14/05/2019	Creation of 156 m of gabion barriers	3	3	EI
					150 m of dry stone terraces	12/2018 (06/2018)	Completed	14/05/2018	Creation of 176 m of dry stone terraces	3	3	EI
C.5	<i>Ex situ</i> conservation: Establishment of New population	DF	(D) Report on the localities and crop year of seedlots	ENSCONET curation protocol and seed collection manual	6 seedlots (at least), leading to 200 Kg of seeds.	06/2020 (06/2020)	Completed	30/09/2020	67 seedlots were collected, this led to the storage of 200 kg of seeds	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
			(D) Reforestation plan for <i>ex situ</i> plantation of <i>Cedrus brevifolia</i>	On-site surveys	8 ha of compact area in Amiantos asbestos mine 6.500 plantlets will be planted	05/2018 – 06/2020 (06/2020)	Completed	14/05/2019	-	3	3	EI
			(D) Report on the establishment and maintenance of the habitat type 9590* plantation in the Amiantos mine				Completed	30/09/2020	8,5 ha at Amiantos mine were restored by planting 6.500 plantlets	3	3	EI
D.1	Conservation Monitoring protocol		(D) Conservation monitoring protocol	On-site surveys	2 Reports	01/2017 (12/2016)	Completed	22/05/2018		3	3	EI
			(D) Report on the conservation impact of the project's actions on the habitat type 9590*			06/2020 01/2021 (01/2021)	Completed	29/01/2021	The Action was finished according to the timeframe of the amended project's duration	3	3	EI
D.2	Project's socio-economic impact	FU	(D) Socio-economic study	Completion of groups interviews	1 Report	07/2020 01/2021 (12/2020)	Completed	29/01/2021	The Action was finished according to the timeframe of the amended project's duration	2	3	GI
D.3	Project's ecosystem	FU	(D) Study on the impact of the	Field observations	1 Report	08/2020 12/2020	In progress	29/01/2021	The Action was finished	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
	functions		project on ecosystem services	and data analysis		(12/2020)			according to the timeframe of the amended project's duration			
E.1	Dissemination planning and execution Technical dissemination	CFA	(D) Project networking	Implementation of networking meetings	2 projects abroad	10/2018	Completed	14/05/2019	-	3	3	EI
					2 local projects	(10/2018)						
			(M) Installation of notice boards	Creation and installation of notice boards and parklet	6 notice boards 1 parklet	12/2017 (11/2017)	Completed	22/05/2018	-	3	3	EI
			(M) Development and upload of the project's website	Website development	50 unique visitors on a monthly basis	02/2017 (04/2017)	Completed	22/05/2018	-	2	3	GI
			(D) Promotion material	Production of promotion materials	3.000 coasters 2.000 cups 3 roll-up banners	03/2017 (04/2017)	Completed	22/05/2018	-	2	3	GI
			(D) Project film	Production of documentary	20 minutes Two languages (English & Greek)	05/2020 (04/2020)	Completed	30/09/2020	-	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
					DVD: 800 copies							
			(D) One Newsletter, 2 Press Releases, 1 Article	Production and disseminated materials & Media Campaign	4 Newsletters (4.000 copies in total) 8 press releases 4 articles	07/2017 (05/2017)	Completed	22/05/2018	-	3	3	EI
		07/2018 (06/2017)				Completed	31/08/2018		3	3	EI	
		07/2019 (07/2019)				Completed	30/09/2020	-	3	3	EI	
		07/2020 (06/2020)				Completed	30/09/2020		3	3	EI	
			(M) Creation of social media account	Media Campaign	1 social media account	10/2016 (10/2016)	Completed	22/05/2018	-	3	3	EI
			(D) Leaflets	Production and disseminated materials & Media Campaign	2 leaflets in two languages (English & Greek - 4.000 copies in total/ language)	05/2017 (05/2017)	Completed	22/05/2018	-	3	3	EI
		01/2018 (05/2017)										
			(M) Organization of a two-phase rural workshops	Rural workshops	4 workshops	04/2017 (08/2017)	Completed	22/05/2018	1 st phase completed	1	3	MI
				Layman's report		10/2018	Completed	30/09/2020	The Action was finished according to the timeframe of the	3	2	GI
						10/2020 (in Kampos and Tsakkistra)		29/01/2021 (evaluated by PMT)				

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
						villages) (11/2020)			amended project's duration A rural workshop at Panayia village was cancelled due to Covid-19 cases			
			(D) Layman's report		Two languages (English & Greek - 500 copies in total; 20 pages)	05/2020 01/2021 (01/2021)	Completed	30/09/2020 29/01/2021 (evaluated by PMT)	The Action was finished according to the timeframe of the amended project's duration	3	3	EI
			(D) Organization of a Final info-day	Final info-day	30 participants	07/2020 12/2020 (N/A)	Completed	29/01/2021	The Action was finished according to the timeframe of the amended project's duration	N/A	N/A	UI
			(D) Publication in the respective book of abstracts/	Participation in scientific conferences	4 publications/presentations in scientific	12/2016 (10/2016)	Completed	22/05/2018	-	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
			proceedings of international conference		conferences	12/2017 (01/2019)	Completed	14/05/2019	The project's outcomes were presented at the "9 th Biennial Conference of the International Biodiversity Society" (Malaya, Spain). Delay of the submission date due to the decision to present results of the project.	1	3	MI
						12/2019 (10/2019)	Completed	30/09/2020	The project's outcomes were presented on a poster at the "10 th International Conference of Ecosystem Services Partnerships", held in Hannover (Germany) on 21-25 October 2019. An abstract (in English) was included in the Conference Proceedings.	3	3	EI
						04/2020 12/2020 (01/2020)	Completed	29/01/2021	The Action was finished according to the timeframe of the amended project's duration	3	3	EI
E.2	Technical dissemination	CFA DF	(D) Technical guide for the sustainable	Publication of technical	Two languages (English &	05/2020 12/2020	Completed	29/01/2021	The Action was finished according to	2	3	GI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
	Project Management		management and the long-term conservation of narrow endemic habitat type in a limited area of occupancy: The case of the 9590* habitat type	guide (report)	Greek)-100 copies/ language)	(01/2021)			the timeframe of the amended project's duration			
			(M) Nomination of Stakeholders Committee (ShC) (M) Minutes from ShC meetings	Minutes	4 Meetings	04/2017 (03/2017)	Nominated	22/05/2018	-	2	3	GI
						06/2018 (05/2018)	Completed	31/08/2018	-	3	3	EI
						06/2019 (11/2019)	Completed	30/09/2020	-	1	3	MI
						06/2020 12/2020 (12/2020)	Completed The Action was finished according to the timeframe of the amended project's duration	29/01/2021	British Ecological Society, Festival of Ecology, 14-18 December 2020, Online	3	3	EI
						(M) Nomination of Project Management Team (PMT)	N/A	PMT	09/2016 (09/216)	Nominated	22/05/2018	-
F.1	Project Management Project	DF DF	N/A	Nomination of independent auditor	N/A	08/2018	-	31/08/2018	This will not be implemented according to the new	-	-	-

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators				
										Timely	Quality	Success		
	reporting								regulations of the LIFE Programme.					
			(D) Minutes of the Scientific Committee (SC) meetings	Nomination and operation of SC	4 Meetings	09/2016 (09/2016)	Nominated	22/05/2018	-	3	3	EI		
								11/2016 (11/2016)		Completed	22/05/2018	3	3	EI
								05/2018 (05/2018)	Completed	22/05/2018	-	3	3	EI
								05/2019 (05/219)	Completed	14/05/2019		3	3	EI
								06/2020 11/2020 (11/2020)	Completed	30/09/2020 29/01/2021 (evaluated by PMT)	The Action was finished according to the timeframe of the amended project's duration	3	3	EI
			(D) Elaboration and submission of project's Progress reports / Midterm	Project's timetable	4 Reports	06/2017 (06/2017)	Completed	22/05/2018	-	3	3	EI		

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
			report / Final report			09/2018	Completed	14/05/2019	-	3	3	EI
						06/2019 (06/2019)	Completed	30/09/2020	-	3	3	EI
						11/2020 (04/2021)	Completed	29/01/2021	Due to the Covid-19 lockdown and the delay of the project's actions, the project proceeded to an amendment request for the change of the end date of the project. The project prepared and will send to EC a 3 rd progress report in 10/2020. The Final report with a payment request will be delivered within 3	3	3	EI

Action	Monitoring index	Responsible beneficiary ²	Relevant Milestone(M) / Deliverable(D)	Sources of information	Target numbers	Deadline ³	Progress checks	Evaluation date ⁴	Divergences, justification, proposed changes	Indicators		
										Timely	Quality	Success
									months after the new end date of the project (31/04/2021).			
	Expansion of the CY2000008	DF	NA	Addition of the Exo Milos patch within the boundaries of site CY2000008	Update of SDF	08/2019 (07/2020)	Completed	30/09/2020	The whole distribution area of habitat 9590* (including all patches) has been included in a new Natura 200 site, namely "Dasos Pafou" (CY2000016).	3	3	EI
	After-LIFE Plan	DF	(D) After-LIFE plan (separate chapter of the final report)	N/A	1 Report	07/2020 01/2021 (01/2021)	Completed	30/09/2020 29/01/2021 (evaluated by PMT)	The deliverable submitted with the Final report	3	3	EI