

1. Tilos: After-LIFE Conservation Plan

1.1. Introduction

The existence of three very important bird species - for Europe - on the island, make Tilos Island a very important site for the avifauna conservation in the Aegean and is already characterized as *Important Bird Area* and *Special Protection Area* (according to 79/409/EEC Directive). These species are the Bonelli's Eagle (*Hieraaetus fasciatus*), the Eleonora's Falcon (*Falco eleonorae*) and the Mediterranean Shag (*Phalacrocorax aristotelis desmarestii*). The LIFE - Nature Project is designed for the protection of these three bird species and also for the protection and management of the island's natural environment.

The LIFE-Nature project entitled «**Tilos: Conservation management of an island Special Protection Area**», LIFE04NAT/GR/000101, commenced in November 2004. Its duration is 40 months and its forecasted budget is 824.212€.

The LIFE Nature project in Tilos is co-funded 75% by the European Commission. Beneficiary of the project is the **Municipality of Tilos** and the partners are: the Regional Forest Directorate of South Aegean (Notio Aigaio), the NGO «Tilos Park» and the OIKOS-Nature Management Ltd.

The project objective is to implement management measures in order to improve the conservation status of the bird species of *Hieraaetus fasciatus*, *Falco eleonorae* and *Phalacrocorax aristotelis desmarestii* and to set a basis for the **SPA management requirements** of the site of Tilos.

The threats that are estimated to exist in the natural environment of the island so that their confrontation is essential through the application of a series of actions from LIFE Project are:

- * The reduction of prey due to: (a) Low fresh water availability for wild fauna, which results in shortage of prey for targeted species, (b) Abandonment of farmland and loss of traditionally cultivated habitat, which results in shortage of prey for targeted species, c) Decrease of the natural regeneration rate of trees because of the overgrazing, that results in fewer habitats for invertebrates and micro mammals.
- * Lack of data about the targeted bird species of the island.
- * The disturbance of breeding sites and the lack of protection and conservation management for targeted species.
- * The lack of apprehension and appreciation of the SPA's conservation value by locals and visitors.

- * The lack of incentives and nature management proposals.

The actions and means involved in the LIFE Project in order to face up to the threats to the island natural environment are:

- * Bird species management:
 1. Creation of accessible fresh water ponds
 2. Pilot sowing of local varieties of cereal
 3. Planting of native trees
 4. Scientific monitoring and surveillance of the targeted bird species
 5. Pilot management of rodent population on an islet
- * Public awareness and sensitization:
 1. Provision of leaflets and material concerning the targeted species and the project
 2. Operation of Information Centre
 3. Provision of nature guided tours
 4. Workshop on island and islet conservation
- * Nature interpretation:
 1. Establishment of small exhibition
 2. Establishment of an educational trail
 3. Establishment of information stands
- * Site management:
 1. Elaboration of proposals for future management of the species targeted

The results of LIFE Nature Project in Tilos are briefly the following:

- ⤴ Enhancement/preservation of invertebrates (insects), birds (partridges), reptiles (lizards) and (micro) mammals.
- ⤴ Provision of fresh water from two modified springs for longer period at summer, for the benefit of wildlife and targeted species.
- ⤴ Increase/preservation of the breeding success of Bonelli's Eagle and Eleonora's Falcon.
- ⤴ Control of human disturbance of the targeted species at the important breeding sites of the species through awareness.
- ⤴ Surveillance of breeding targeted bird species populations and of feeding areas of Mediterranean Shag.
- ⤴ Apprehension of the SPA's conservation value by locals and visitors.
- ⤴ Formation and promotion of new proposals for the future conservation of the species.

- ⤴ Upgrade of the cooperation among local, regional and central services/authorities regarding future projects and increase of the potential of local services/authorities on environmental management issues.

1.2. The current situation (after the end of LIFE project)

The current situation, just after the end of LIFE project, of the SPA of Tilos Island, is the following (comparing with the period before LIFE):

- Up-to-date data for the status of the targeted bird species populations.
- Standard methodology for the monitoring of bird species and database.
- Known significant bird species populations.
- Sowed areas with cereals that provide food to the seed-eating birds of the island.
- Two modified fresh water springs that provide fresh water for longer period to wildlife.
- Fenced areas and new trees that will help the regeneration of the local tree species and will halt the biodiversity decline.
- Equipment for the surveillance of the site and the monitoring and of targeted bird species.
- Information Centre with Exhibition room for the environmental education and awareness of the local people and the visitors.
- Nature interpretation trail that promotes the nature conservation and the ecotourism.
- Trained personnel that could continue to work on nature conservation.
- Upgraded potential of the local services and authorities on environmental management issues and strengthened cooperation among local, regional and national authorities that can be used for future projects.
- An experienced local NGO that promotes the nature conservation issues and undertakes initiatives.
- Speeding up of the process for the legal designation of the protected area and of the establishment of its Management Body.
- Conservation and management proposals and broadening of the environmental actions.
- Frequent presence of media (local, national, global) promoting the natural history of the island and its ecotouristic profile.

1.3. Problems that remain and future requirements

In Greece, the conservation management of the protected areas progresses slowly. Even in protected areas, where conservation management was applied for many years in the past, the newly formed Management Bodies have not managed to operate fully staffed and organized, while their funding is still problematic. Although some Management Bodies have moved on faster than others, the general impression of the conservation management at Greek protected sites looks doubtful since the majority of the Management Bodies are not operating well because they have issues with their constitution, their board members' composition, their staff shortage or the application of protection measures.

Tilos is a site that has been included in the Natura 2000 network as a Special Protected Area. The Specific Environmental Study that has been elaborated for the site (1999-2002) has been approved by the Ministry of Environment, Planning and Public Works but the Presidential Decree that will designate the protected site is still pending. The draft Presidential Decree for the Tilos site is expected to transfer the management of the site (most probably) to Tilos Municipality, with an option called "Management Agreement". Since this is a new procedure, it is not known yet the difficulties that might arise.

A brief analysis that will help the design for the future protection and management of the site is presented at the following short SWOT analysis.

Strengths

- Favorable conservation status of the site
- Significant populations of important bird species
- Concentrated activities
- Active local self-government
- Positive view of the nature protection by the majority of the local society
- Presence of local NGO

Opportunities

- Development of ecotourism and alternative tourism
- New funding for environmental actions by the EU financial framework 2007-2013
- Gradual insertion (up to priority) of the environmental topics in the political agenda

Weaknesses

- General weakness for the implementation of nature management in Greece
- Slow moving process for the designation of the site and the establishment of a Management Body
- There is not yet formed a framework in local/regional services and authorities that will support the conservation management
- Shortage/absence of local scientific personnel

Threats

- Uncontrolled economic and touristic development
- Abandonment of the environmental topics from the local political agenda

An important subject in the after-LIFE plan is how there is not going to be a management gap from the end of the LIFE project until the establishment of the Management Body. This gap is going to be filled by the continuation of the project actions by the Municipality of Tilos and the NGO Tilos Park, but yet without an integrated Management Plan for the site.

Significant issues that arise are:

- The lack of designation for the protected area and the lack of a Management Body or of organized management. The lack of designation for the protected area and the lack of a Management Body do not allow the environmental control of the site at the administrative and statutory level and make difficult the funding for the conservation management of the site.
- The lack of an integrated Management Plan. The lack of the site's Management Plan results in an absence of priorities, objectives and funding opportunities for the conservation management of the site.
- The maintenance of LIFE project's infrastructures. The infrastructures that have been created by the LIFE project need maintenance and support. This is planned to happen with the support of the Municipality of Tilos and of the NGO Tilos Park.
- The continuation of the monitoring and of the surveillance. The targeted species monitoring and their protection is a priority action for the evaluation of the management and for the constant data provision for the ecological status of the species.
- The continuation of the Tilos Information Centre operation and of the awareness actions. The awareness actions, by using the LIFE project's infrastructures, are of critical importance for the continuation of the effort for the conservation of the site and the increase of public support to this aim.
- The implementation of new actions for the targeted species and the protected site. The implementation of new actions is necessary for the protection of the bird species populations and for the achievement of the favorable conservation status of the SPA.

According to the abovementioned, it is estimated that in order to have a smooth transitional period from the end of LIFE project to the establishment of the Management Body, there have to be implemented the following actions/works:

Administrative Actions/Works

- Immediate issue of the Presidential Decree for the designation of the protected site and the establishment of the Management Body.
- Elaboration of an integrated Management Plan for the terrestrial and the marine area.
- Elaboration of an Action Plan for the development of economic activities of the site in relation with its protection status.

Management and Conservation Actions

- Continuation of the monitoring and the collection of data for the targeted bird species according to the monitoring plan and the protocols that have been developed by the LIFE project.

- Surveillance for illegal activities and actions that cause disturbance to the targeted bird species.
- Maintenance and support of the LIFE project's infrastructures and actions.
- Constant operation of the Tilos Information Centre and continuation of the awareness actions.
- Burial or twisting of power lines at the important areas for the raptors and placement of protection structures in water reservoirs in order to protect the birds from drowning.
- Monitoring of young Bonelli's Eagles with satellite tracking.
- Continuation of hunting ban.
- Elaboration of Action Plan for the development of ecotourism and of trekking trails in Tilos.
- Continuation of the monitoring of the rodent management action and expansion of the action to nearby islets.
- Monitoring and action plan for the marine environment (e.g. Monk seal monitoring).
- Action plan for the management of the free-range livestock.

1.4. Proposed future actions

In detail, for the implementation of the abovementioned actions that are going to be needed in the future for the conservation management of the site, it is necessary to be implemented an integrated Management Plan which will include the actions that are proposed by the present LIFE project.

Proposed Actions	Significance	Responsible for the implementation	Possible funding means	Comments
<u>Administrative actions</u>				
Issue of the Presidential Decree for the designation of the protected site and the establishment of the Management Body	Critical	Municipality of Tilos	(It is not required)	It is recommended the development of cooperation with other authorities and NGOs for the increase of lobbying to the competent authorities.
Elaboration of integrated Management Plan for the terrestrial and the marine area	Necessary	Municipality of Tilos, Tilos Park, (Management Body)	NSDP, LIFE+	

Proposed Actions	Significance	Responsible for the implementation	Possible funding means	Comments
Elaboration of an Action Plan for the development of economic activities of the site in relation with its protection status	Important	Municipality of Tilos, Tilos Park, (Management Body)	NSDP, ERDF, MED	
Management and conservation actions				
Continuation of the monitoring and the collection of data for the targeted bird species according to the monitoring plan and the protocols that have been developed by the LIFE project	Necessary	Tilos Park (Management Body)	LIFE+, Self-funding	The monitoring can also be done with volunteers
Surveillance for illegal activities and actions that cause disturbance to the targeted bird species	Necessary	Tilos Park (Management Body)	LIFE+, Self-funding	The surveillance can also be done with volunteers
Maintenance and support of the LIFE project's infrastructures and actions (plantations, springs, sowing of cereals, nature interpretation trail, Tilos Information Centre)	Critical	Municipality of Tilos, (Management Body)	LIFE+, NSDP, Self-funding	
Constant operation of the Tilos Information Centre and continuation of the awareness actions	Critical	Tilos Park (Management Body)	LIFE+, NSDP, Self-funding	
Burial or twisting of power lines at the important areas for the raptors and placement of protection structures in water reservoirs in order to protect the birds from drowning.	Important	Municipality of Tilos, Tilos Park (Management Body)	LIFE+, NSDP, INTERREG, MED	
Monitoring of young Bonelli's Eagles with satellite tracking	Important	Tilos Park (Management Body)	LIFE+,	
Continuation of hunting ban	Critical	Region of Notio Aigaio (South Aegean)	(Δεν απαιτείται)	
Elaboration of Action Plan for the development of ecotourism and of trekking trails in Tilos	Important	Municipality of Tilos, (Management Body)	NSDP, INTERREG, MED	
Continuation of the monitoring of the rodent management action and expansion of the action to nearby islets	Important	Tilos Park (Management Body)	Self-funding	The rodent management can also be done with volunteers
Monitoring and action plan for the marine environment (e.g. Monk seal monitoring)	Necessary	Tilos Park (Management Body)	LIFE+	
Action plan for the management of the free-range livestock	Important	Municipality of Tilos, Tilos Park (Management Body)	NSDP, National Funds	
Significance: Critical, Necessary, Important NSDP: National Strategic Development Plan 2007-2013 ERDF: European Regional Development Fund MED Programme: Mediterranean Space 2007-2013 INTERREG: European Territorial Cooperation Programme INTERREG IVC 2007-2013 Self-funding: Personnel of Municipality of Tilos or Tilos Park				

Additionally,

The support of the LIFE project actions (plantations, springs, sowing of cereals, nature interpretation trail, Tilos Information Centre) will be implemented by the Municipality of Tilos (beneficiary). The Municipality of Tilos has the necessary equipment and the personnel for the support of the project's actions after the end of the project.

After the end of the LIFE project a list containing the acquired equipment and the durable goods has been composed in order to be used for the delivery of the equipment to the future Management Body. The equipment and the durable goods of the project are under the responsibility of the Municipality of Tilos, which is responsible for its use for conservation actions and also for its maintenance.

Mrs. Despoina Kafentsi, one of the LIFE's personnel in Tilos, continues to work as employee of the Tilos Park, at Tilos Information Centre. Her new position is partly funded by an EU employment program. She has undertaken the operation of the Information Centre and the continuation of awareness actions. The rest of the LIFE project's personnel do not continue to be employed at the Tilos Park after the end of LIFE project. However, the LIFE project's personnel have gained important experience on nature conservation actions. Their experience is going to be valuable for their employment at the forthcoming Management Body. More, because the continuation of the LIFE project's actions is a significant issue, the local inhabitants that have already experience in nature conservation, are important to be employed in such positions, so that there is ensured a constant activation of conservation management.