



**REGIONAL WORKSHOP ON PROMOTE SUSTAINABLE  
TOURISM IN THE MEDITERRANEAN SOPHIA-ANTIPOLIS 2&3  
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**PROMOTING A SUSTAINABLE TOURISM DEVELOPMENT IN  
TURKEY:  
MONITORING THE MEDITERRANEAN STRATEGY FOR  
SUSTAINABLE DEVELOPMENT**

**KÖYCEĞİZ - DALYAN SPECIAL ENVIRONMENTAL  
PROTECTION AREAS' PROJECTS AS AN EXAMPLE FOR GOOD  
PRACTICE**

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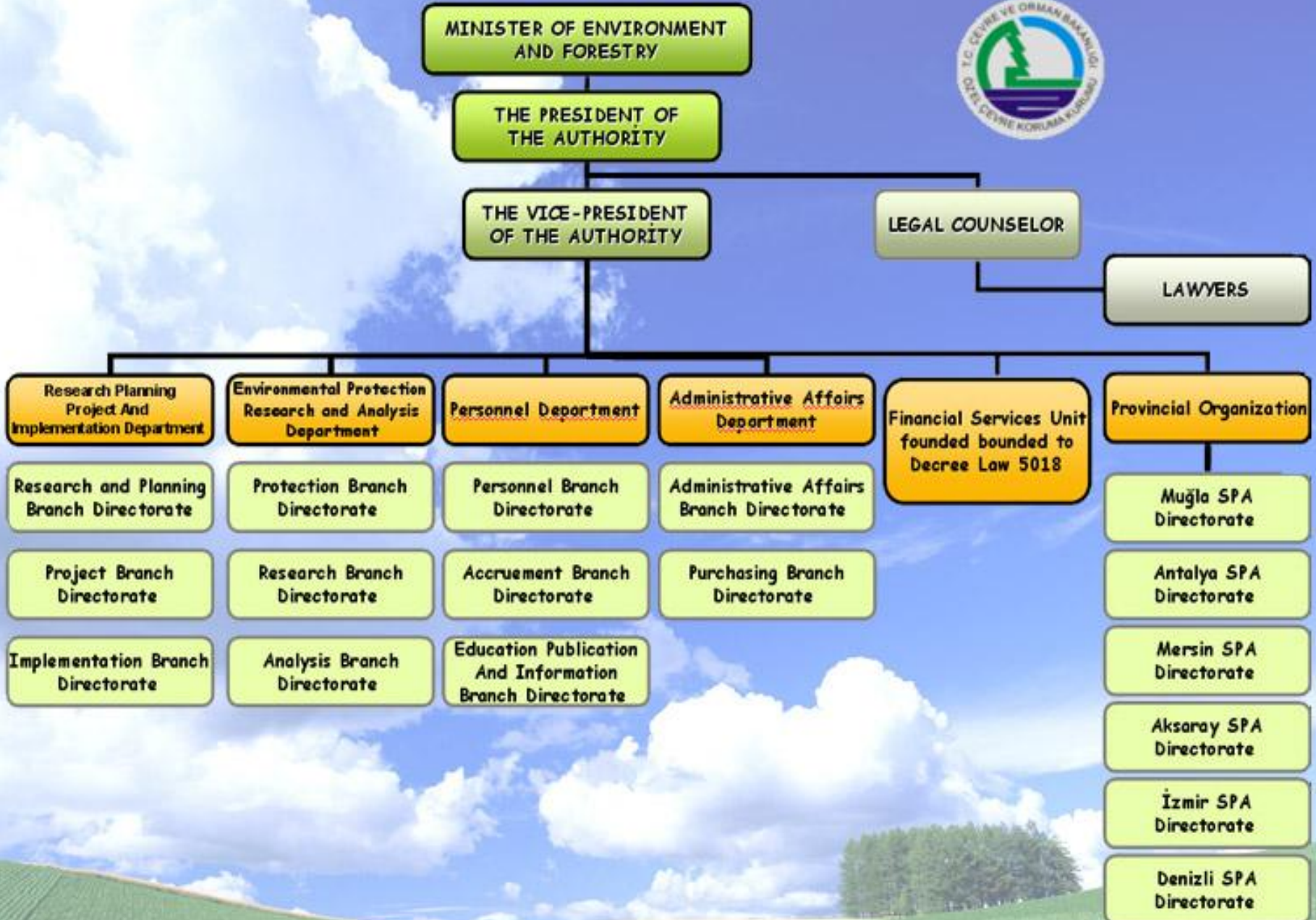
## Introduction

After being party to “The Protocol Concerning Specially Protected Areas & Biological Diversity in the Mediterranean”, Turkish Government established Environmental Protection Agency for Special Areas (EPASA) as an authority responsible for the implementations about the subject in 1989 (see Figure3.1).

From that time on, 14 Special Environmental Protection Areas (SEPA) have been declared with cooperation of the UNEP.

Dalyan – Köyceğiz is determined as one of the Special Environmental Protection Areas by the Turkish Environmental Protection Agency (EPASA) in collaboration with UNEP.

# EPASA ORGANIZATIONAL CHART



## Scope of Good Practice

### **Field Information**

- Water            -Waste -Waste water            Ecosystem            -Education
- Land planning

### **Type of Activity**

- Training, Action plan and Policy

### **Classification According to the SD Issues**


- Biodiversity
- Access to basic services for all
- Creating environmental Awareness

### **Participants**

- Ministry of Environment & Forestry
- Ministry of Agriculture (national authority)
- Various universities (e.g. Hacettepe Uni., Middle-east Technical Uni., Istanbul Technical Uni., Ankara Uni., etc.),
- Local governments (municipalities),
- Employees working for Environmental Protection Authority for Special Areas (both central and local offices), teachers and students in the Köyceğiz – Dalyan Special Environmental Protection Areas

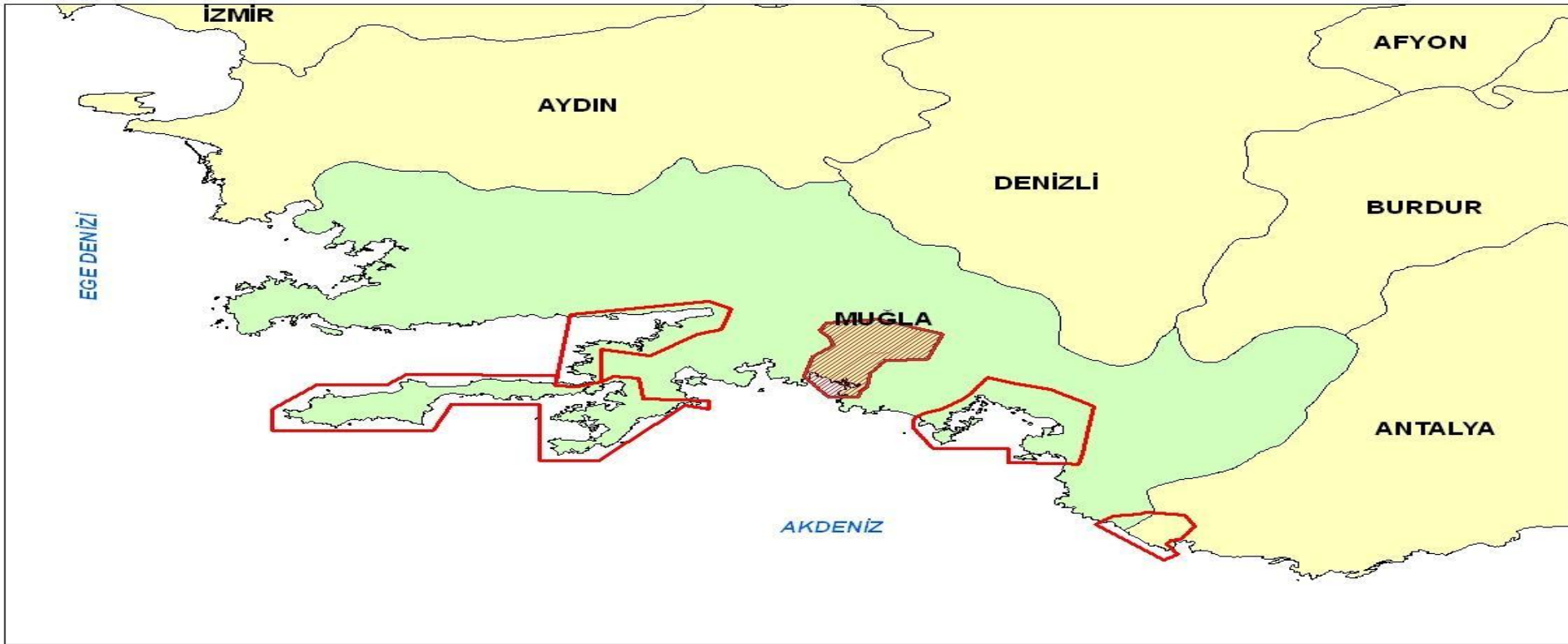
## What Makes Köyceğiz - Dalyan Special Environmental Protection Area Particularly Interesting?

- The region covers around 461 km square areas & includes 17 different settlements.
- This area reflects all peculiarities of hydrobiological & aquatic ecosystem.
- It has a Mediterranean climate, thus it presents the typical flora characteristics of this climate type.
- The region is very rich in plant cover. 924 taxons has been determined
- 19 Pisces species are present in the region,
- 5 turtle, 11 lizard, 13 snake & 18 mammalian species in the region identified.
- Somnolent farming towns by the late 1980s, but has become a popular tourist destination since the 1980s.
- Included in the Tourism Investment Zone declared in the context of the Tourism Encouragement Law N0. 2634 in 1982.
- Invaluable natural & cultural heritage such as beaches, the endangered Loggerhead Turtle, ancient ruins (Caunos), the *mud baths* , hot springs, etc.

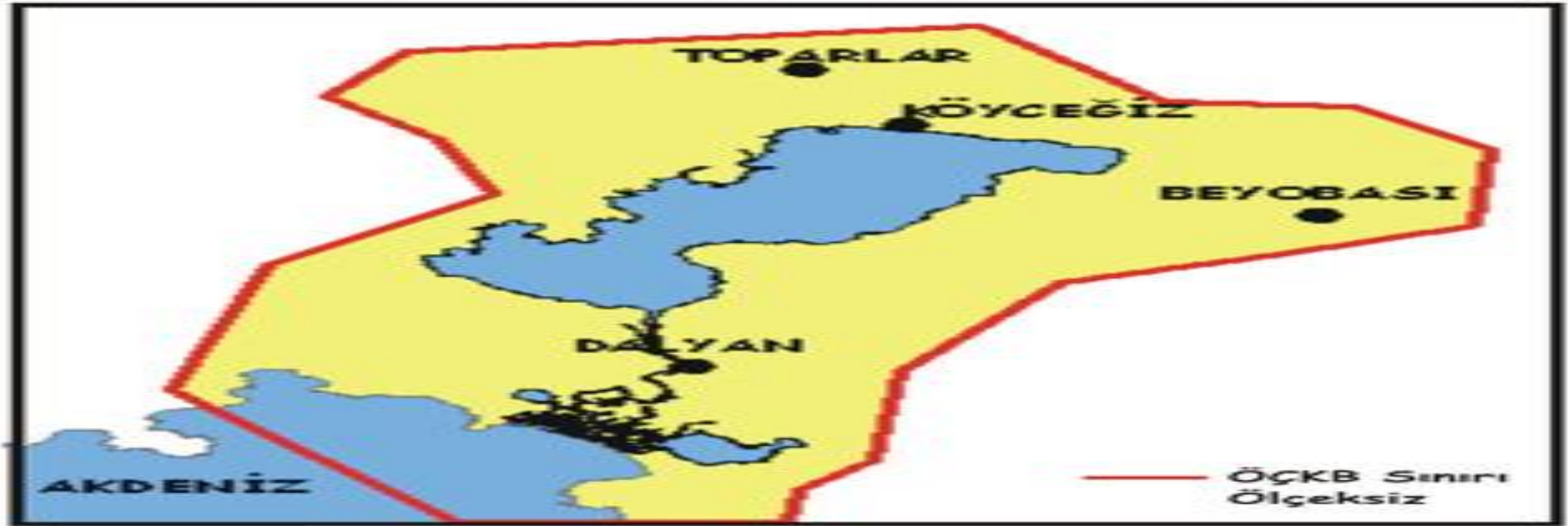


After experiencing rapid mass TD & its negative impacts, through the urge of international protocol & agreement such MAP, Köyceğiz - Dalyan was determined as one of the “Special Environmental Protection Areas in 1990 so as to protect & enrich bio-diversity, avoid environmental pollution, and protect water resources in the given locality.

Various projects have been developed & implemented to achieve the pre-determined objectives guided by the MAP



## KÖYCEĞİZ-DALYAN ÖZEL ÇEVRE KORUMA BÖLGESİ



## Table 3.1: Projects in the Good Practice Area

| Project Title<br>(Components of the Project)                                   | Starting & Finishing<br>Date |       | Conducting Institution   |
|--|------------------------------|-------|--|
| Investigation of boat organizing tour & watercraft traffic                     | 1990                         | 1992  | İTÜ  |
| The Hydrobiological Examination of Köyceğiz-Dalyan SPA Aquatic Ecosystem       | 1991                         | 1992  | Hacettepe University Biology Department                          |
| Environment Education  | 1991                         | Cont. | The Agency   |
| Turtle Observation and Protection  | 1991                         | Cont. | Universities   |
| The Bryophyte Flora Research in Köyceğiz-Dalyan SPA                            | 1991                         | 1991  | Ankara University Biology Department                             |
| The research on Amphibian, Reptile and Mammal Fauna in Köyceğiz Dalyan Complex | 1991                         | 1991  | Dokuz Eylül University   |
| Köyceğiz-Dalyan SPA (Muğla) Flora Project                                      | 1991                         | 1992  | Hacettepe University   |
| Solid Waste Recycling  | 1991                         | Cont. | The Authority, Çevko, Local Administration                       |
| Sociological Observation on Environmental & Ecological Tourism                 | 1991                         | 1992  | GTZ (German Agency for Technical Cooperation)                    |
| Köyceğiz-Dalyan SPA Ornithology Project  | 1992                         | 1992  | GTZ  |
| Köyceğiz-Dalyan SPA Fishing Project  | 1992                         | 1993  | Ministry of Agriculture Bodrum Water Products Research Institute |

## Table 3.1: Projects in the Good Practice Area

| Project Title<br>(Components of the Project)   | Starting & Finishing Date |       | Conducting Institution   |
|--|---------------------------|-------|--|
| Pollution Observation  | 1993                      | Cont. | Project of the Agency  |
| Yunus Emre Arboretum Project   | 1993                      | 1994  | İstanbul University  |
| Foundation of a Bilge Refinery   | 1997                      | 1998  | External Resources   |
| Determination of Otter Protection Strategies in Köyceğiz-Dalyan SPA                        | 1997                      | 1998  | Muğla University   |
| Preparation of an Action Plan for Sustainable Use of Yuvarlakçay (Köyceğiz-Dalyan) Project | 2001                      | 2002  | Ege University Marine Products Faculty   |
| The Identification of Biological diversity in Köyceğiz-Dalyan SPA Project                  | 2005                      | Cont. | Çınar Engineering  |
| Water Quality Observation Project  | 2006                      | Cont. | Private Institutions   |
| Dalyan and Köyceğiz Fresh Water System   | 2003                      | 2003  | Village Assoc.; KfW (German Credit Bank for Reconstruction - ;Kreditanstalt fuer Wiederaufbau) |
| Köyceğiz Sewerage & Waste Water Recycling System   | 2003                      | 2003  | Municipality, KfW & Village Association  |

## **How & Why Were the Köyceğiz-Dalyan Special Environmental Protection Area' Projects initiated?**

As a concrete of outcome of “The Protocol Concerning Specially Protected Areas & Biological Diversity in the Mediterranean”, in 1989 Turkish Government established Environmental Protection Agency for Special Areas (EPASA) as an authority responsible for the implementations of the relevant projects.

The EPASA has determined 14 Special Environmental Protection Areas (SEPA). In the scope of the Protocol Concerning Specially Protected Areas & Biological Diversity in the Mediterranean, Köyceğiz-Dalyan is determined as one of the Special Environmental Protection Areas by the Turkish Environmental Protection Agency in collaboration with UNEP.

Following this international initiative, various projects have been prepared & put into practice by various governmental, non-governmental bodies, and universities.

## **Environmental Sustainability Projects for Köyceğiz-Dalyan Special Environmental Protection Area**

In this respect, the projects on the following titles to be applied in the areas are prioritized:

- Research on biological diversity,
- Protection & development of environment,
  
- Determining socio-economic & socio-cultural status & development perspective,
- The developments in agriculture, industry & tourism & their relation with environment,
  
- Projects that are of specific importance & priority for a particular area,
- The exploration & protection of ground & above ground water sources.

In brief, various projects have been prepared & implemented in collaboration with local, national & international institutions & association to achieve environmental sustainability of the Good Practice Area. Table 3.1 includes some of these projects. Because of space limitations & lack of data, only some of these projects will be explained in details.

These are:

- Training about environmental issues
- Protection of bio-diversity.
- Building infrastructure

# **Training Activities Organized for Achieving Environmental Sustainability**

## **Main aim of training activities:**

- The rational use & protection of natural values by raising awareness levels of target groups (local people, teachers, students, fishermen, farmers, government officials, people working in tourism sector, sailors & so on).
- It is stated that “raising an environmental consciousness is an important factor in protection & development of environmental values. The protection & well-balanced use of environment by local people is a more efficient & permanent approach in terms of environmentalism. This approach is also the basic motto of the environment protection training activities of the Agency.

**Table 3.2: Training Activities Given for Achieving Environmental Sustainability**

| <b>Year</b> | <b>Training Subject</b>   | <b>Participants</b>   | <b>Additional Activities</b>  |
|-------------|---|---|---|
| 1995        | Environment Protection  | Government officials, teachers, students, hunters, village headmen, farmers, local people, sailors, fishermen and people working in tourism sector in the Special Environmental Protection Areas. | Environmental art, poetry and essay contests were conducted in these areas.     |
| 1998        | Environment Protection; an environmental quiz contest was conducted       | Students and teachers in the Special Environmental Protection Areas,  | Solid waste recycling training workshops were organized throughout the regions. |
| 2003        | General Environment Protection<br>Ornithology and<br>Orientation training | Security employees (police officers, gendarmes and municipal police officers, 168 people) working in 13 Special Environmental Protection Areas<br>People working for the Agency (15 people).      | Solid waste recycling training workshops were organized throughout the regions. |

**Table 3.2: Training Activities Given for Achieving Environmental Sustainability**

| Year | Training Subject  | Participants   | Additional Activities   |
|------|---|--|---|
| 2004 | General Environment Protection                                      | Mayors working in 14 Special Environmental Protection Areas (55 people).                           | Training for technical personnel working in government and private waste water refineries (39 people) in the Special Environmental Protection Areas.  |
| 2005 | Environment Protection; “Birds and Ecology” Environment Protection; | The employees of the Agency in the Special Environmental Protection Areas<br>Students in the area. | An Art Contest about nature and environment conducted for students<br>Solid waste recycling training workshops were organized throughout the regions. |

## **Infrastructure Projects for Achieving Environmental Sustainability**

Some of the infrastructural projects for a better environment:

- The rehabilitation of Köyceğiz fresh water
- The restoration of Dalyan fresh water suppliance system
- Köyceğiz urban area 41 km sewerage system,
- In Köyceğiz one pump station,
- Dalyan urban area 28 km sewerage system,
- In Dalyan 2 pump stations,
- In Köyceğiz & Dalyan, construction of two central waste water refineries with a third degree refining capacity,

For further information please see <http://www.ockkb.gov.tr/TR>



Picture 1: Köyceğiz Waste Water Refinery



Picture 2:Köyceğiz Fresh Water Depository



Picture 3:Dalyan Waste Water Refinery



Picture 4: Dalyan Fresh Water Depository



**Picture 5:Ortaca Garbage Storage Plant**

Planned to have a 225.000 m<sup>3</sup> capacity. The solid wastes produced in the surrounding area are disposed in this storage Plant. The equipments needed for operation of the Plant are financed by the grant obtained from KfW in 2006.

## **Activities for Protecting & Enhancing Biological Diversity as a Tool for Achieving Environmental Sustainability**

TD inevitably can disrupt & even destroy the ecological balance of an area which may have taken thousands of years to evolve into a mature, self-regulating, stable system. For example, large numbers of hotels & second homes have been built in coastal areas in Turkey by destroying olive & citrus fruit gardens as well as destroyed the livelihoods of many agricultural workers.

**Similarly, TDon beaches coupled with lighting & noise from tourist facilities have negatively influenced the life of *Caretta caretta* & *Chelonia mydas*, species of sea turtle, along a small part of the Mediterranean Sea. Successive governments in Turkey have taken measures to protect & enhance biological diversity. Dalyan Project appears to be one of the best examples in this regard.**

**In brief, the following measures are taken to protect the sea turtles:**

- **Caging is seen as a necessity on all nesting beaches with touristic activity.**

- **Tourists are made aware of the dangers that they create for the sea turtles via various leaflet & sign-board.**

- A strict control mechanism has been established for placement of sun-beds & umbrellas, which are removed at night. This has helped the sea turtles make a clear pathway to superior nesting sites. It is observed that such arrangements have been successful on the beaches of Dalyan.

- **EPASA sets the optimum balance as it imposes very stringent & rigidly enforced controls on its 4 km Itzuzu Beach, including total restrictions on night-time access, and limitations on the placement of sunloungers & umbrellas. As a result, it is recorded as the highest density nesting beach in Turkey.**

**This seems to be a good example that may indicate how tourism can co-exist with sea turtles, as well as other flora & fauna.**

## **Private Sector Initiative for Environmental Sustainability**

One of the private companies, Kardak Tourism, has initiated to produce & use boat operated with solar energy. The company notes on its website that “As part of our commitment to protecting the environment around Dalyan, we are now working hard to create the first solar powered boat for Dalyan.

The main objective of the project is to reduce water pollution that emerge due to the operation of diesel motors. This will contribute not only to keeping the waterways cleaner, it will also help biological diversity.

## Initiatives or Projects for Social Sustainability

Establishing large scale tourism establishments require large capital which is not available at the local level. Thus, big hotel companies are not owned by the local people.

Moreover, in many local tourist destinations qualified employees have been brought from outside to work for the tourism industry in certain positions.

Clearly, there is no evidence that community involvement in planning, development & management of tourist destination has taken place in Turkey.

In brief, it may be said that tourism growth does not create acceptable opportunities for local people to build capacity for social SD.

## **Initiatives or Projects for Economic Sustainability**

**The content analysis of relevant documents such as National Development Plans, reports prepared by Association of Turkish Travel Agencies, NGOs, etc suggest that economic sustainability of the projects in the GP area has not been considered.**

There are no measures taken for marketing & promotional activities, marketing efficiency assessment, cooperation with local goods & service providers including agriculture, building & civil engineering works, etc.

## **Regulation of Tourism Activities**

Without proper laws affecting tourism operations in the forms of incentives & restrictions it will be impossible to promote STD. In the good practice, various measures are taken for strict control and/or restriction for urbanization & building scheme to ensure environmental sustainability of the GP Area.

In particular, more strict restrictions are put in effect for enriching & protecting biological diversity. E.g., night access to the beach in Dalyan & Köycegiz are totally forbidden for healthy nesting and fertilizing.

## **Economic and Financial Aspects of Projects in the Good Practice Area**

Almost all costs of the projects of the GP Area are financed by the Ministry of Environment & Forestry with financial contribution of German financial institution KfW, GTZ & local governments.

### **Viability:**

Presently, Dalyan & Köycegiz seem to have a good economic viability & profitability in terms of the tourism industry. While 1.768.777 tourists visited the area in 1998, 2.658.398 tourists visited the area in 2007. This is an almost 67% increase in a nine year period. However, the tourism industry is very sensitive to fluctuation of the market, political instability, economic crisis & terror activities of PKK.

## **Monitoring Activities in the Good Practice Area**

The content analysis of relevant documents suggest that monitoring activities seems to be very limited in the good practice area. Only the sea turtles population has been observed by various researchers from different universities.

Thus, in terms of biodiversity it may be said that there is a good system of assessing the performance of measures taken to protect the sea turtles population.

Other than this monitoring activity, there are no monitoring activities.

## **Accountability**

**R**eporting & feedback mechanisms created, involvement & information of employees, local community & other partners involved – transparency are the basic issues for accountability of any projects.

Although research results of the sea turtles are released by the researchers through publishing in international journals, local & national newspapers, there are no reports about involvement & information of employees, local community & other partners involved.

## **Positive & Negative Results / Lessons Learnt**

### **Positive Lessons**

The GP shows that how tourism can co-exist with sea turtles, as well as other flora & fauna. Dalyan sets the optimum balance as it imposes very stringent & rigidly enforced controls on its 4 km Itzuzu Beach, including total restrictions on night-time access, and limitations on the placement of sunloungers & umbrellas. As a result, it is recorded as the highest density nesting beach in Turkey. Yet despite such comprehensive restrictions, international tourism has still rapidly flourished in the nearby riverfront tourism centre. Surveys have demonstrated that tourists are quite content with the beach being partly accessible only during the daytime, and there is over-all a high degree of destination satisfaction.

The second positive lesson is related to resource / environmental management. Through the exercise of special environmental protection areas Turkey has learned how to achieve environmental sustainability of destination to some degree. Because of the announcement of special environmental protection zones, around 14 environmentally sensitive and fragile areas have been taken under protection and strict restriction in terms of urbanization and any development including tourism related constructions.

Finally, the relevant projects have helped the relevant society & tourists to establish a better behavior & attitudes towards environment & bio-diversity.

## **Negative Lessons**

Private sector is not yet willing to finance initiative beyond their immediate benefits. They do not consider environmental resources as a valuable one for the future of their business. It is believed that the public bodies must take all necessary measures for sustainable development and fully finance any initiative in this regard without asking contribution of private sector.

Official bodies have failed to achieve participation of interest groups in the relevant projects. However, without sincere cooperation of private sector, local community & NGOs it would be very difficult to achieve a comprehensive STD.

## **Replication Possibilities**

The projects are mostly related to environmental sustainability. There is almost no project or initiative to achieve economic & socio-cultural dimension of SD.

That is to say, this GP could be replicated when resources are available for financing projects, and official bodies are willing to implement projects for promoting STD.