



Putting PEEN to Practice in Marine and Coastal Areas
A demonstration project ensuring the ecological resilience, coherence and sustainable future of Gökova Bay SPA in Turkey

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1ST SEMI-ANNUAL TECHNICAL PROGRESS REPORT

Reporting Period

1 January – 30 June 2009

Prepared by

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SAD-AFAG

15 July 2009

Ankara

A. ACTIVITIES COMPLETED

Activity 1.1. Biodiversity values identified and assessed

1.1.1. Avifauna

Method

Avifauna study was initiated with a literature survey for both birds species recorded in the Project area in previous terms and habitat types & geography. Relevant publications & articles were scanned and it is concluded that Gökova Special Environment Protection Area (SEPA) is one of the important key biodiversity areas due to rich fauna & flora, including the avifauna diversity.

Canon 1D Mark III body and Canon 300 mm f:4 L lens & Canon 1.4X Extender were used in the documentation of the habitats and bird species in their natural habitats. 10x40 and 12x24 binoculars were used in the field identification of birds within Gökova SEPA. GPS device in Nokia E90 was used for determining some of the coordinates, where needed. Gökova plain was scanned by SAD-AFAG van vehicle in 4 and 5 May while the following two days on the southern coasts of Gökova SEPA was scanned using a speed boat. Boat progressed on its path with a speed of 3 to 5 nautical miles per hour for bird watching purpose and stopped when species identification was necessary.

Field Study

Cem O. Kırac and Kasım Kırlangıç (biologist) implemented the first avifauna and breeding status survey between 4th-8th May 2009. Nilay Akça (biologist) and Ayhan Tonguç (driver) participated to the field studies in the first two days. Dr. Max Kasperek (zoology specialist on Middle East) and Dr. Aygün Kılıç are also cooperated for a short bird watching session in the evening of 7 May 2009 in east of Akyaka.

In the first survey; 5-days avifauna research was implemented in two main areas;

- 1- in the Gökova plain between Kadınazmağı river and Ferek river
- 2- Southern coasts from Akyaka to Yediadalar islands.

In the first day, 4 May 2009, Bahar Suseven, local consultant of the Project from Akyaka for ICMM Planning and biodiversity and Thomas Schmitz, both are veteran birdwatchers, were visited in their home-office in Akyaka. The bird survey team was informed by Bahar & Thomas about the possible bird watching transects and bird watching points in Gökova plain and wetlands. 4 and 5 May were spent in Gökova plain & wetlands based on guidance by Heike & Thomas Tholl-schmitz. Akyaka town and Akçapınar village were included in the

surveys. In 6 and 7 May, a speed boat was hired from a local fish farm owner, who has comprehensive knowledge about Gökova SEPA coasts. Southern coasts of Gökova SEPA from Akyaka until Yediadalar islands and Bördübet was scanned from sea near shore. Çamlı village and Gelibolu wetland (Çamlı estuary) were also scanned. Also, in the mornings of 6 and 7 May 2009, Boncuk bay coasts and adjacent woodland area was also surveyed following transect and point counts on land. On 7 May, Dr. Max Kasperek was also interviewed about birds of Gökova plain and Akyaka. In 8 May 2009, avifauna survey team (Cem O. Kırac and Kasım Kırlangıç) visited Karacasöğüt area in Gökova SEPA.

In the second survey; 3-days birdwatching was done in four main areas/locations;

- 1- Akyaka town
- 2- Sedir island
- 3- Coast and marine zone between Akyaka and Sedir island
- 4- Kadınazmağı stream (in Akyaka)

Results

59 species were identified in total in the field and most of them were photographed. New bird species were also included in the avifauna list of Akyaka, inner Gökova and Gökova SEPA. The most important record is Osprey (*Pandion haliaetus*) during field surveys. Two Ospreys were observed on 4 May 2009 in the southern part of Gökova dunes both flying around and hunting near shore. Both Ospreys hunted fish in the shallow waters of inner Gökova Bay and took the fish to the pine forest in the southern Gökova plain & wetlands. Further studies should be carried out to confirm if the species breeds in the area or not. Also, Caspian terns (*Sterna caspia*) observed together with Common terns and Whiskered terns flying around and shallow sand banks near shore in the same area. Great spotted cuckoo (*Clamator glandarius*) was also observed and photographed. Great spotted cuckoo also photographed in the forest adjacent to Akçapınar village. All the above three species are new account for the avifauna list of Gökova Bay. Together with other birds observed, especially the existence of Osprey and Caspian tern make Gökova plain and wetlands and adjacent dune & coastal habitats very important.

Rüeggell's Warbler (*Sylvia rueppelli*) are also observed in the area. The species exists only in eastern Mediterranean mainly in Türkiye and Greece considering whole Western Palearctic zoogeography zone. Rüeggell's warbler breeds in the Project area. White storks (*Ciconia ciconia*) and Yellow-legged gulls (*Larus cachinnans*) are colonially breeding species in the Project area with minimum 4 pairs in Gökova plain (Akçapınar village) and minimum 80 pairs in Sedir islands and Yediadalar islands respectively.

Having cooperation with the local conservationists and birdwatchers (Heike and Thomas Tholl-Schmitz) increased the efficiency of birdwatching and avifauna survey with their expertise about the area and transect routes, especially in Gökova plain & wetlands.

In the future periods of the Project, the importance of Gökova Bay including Gökova plain & wetlands would be emphasized more with new findings and results.

Full list of birds recorded in the first and second field surveys is given in ANNEX-1a. Also see ANNEX-1b and ANNEX-1c for bird photos taken during the avifauna surveys in the Project area.

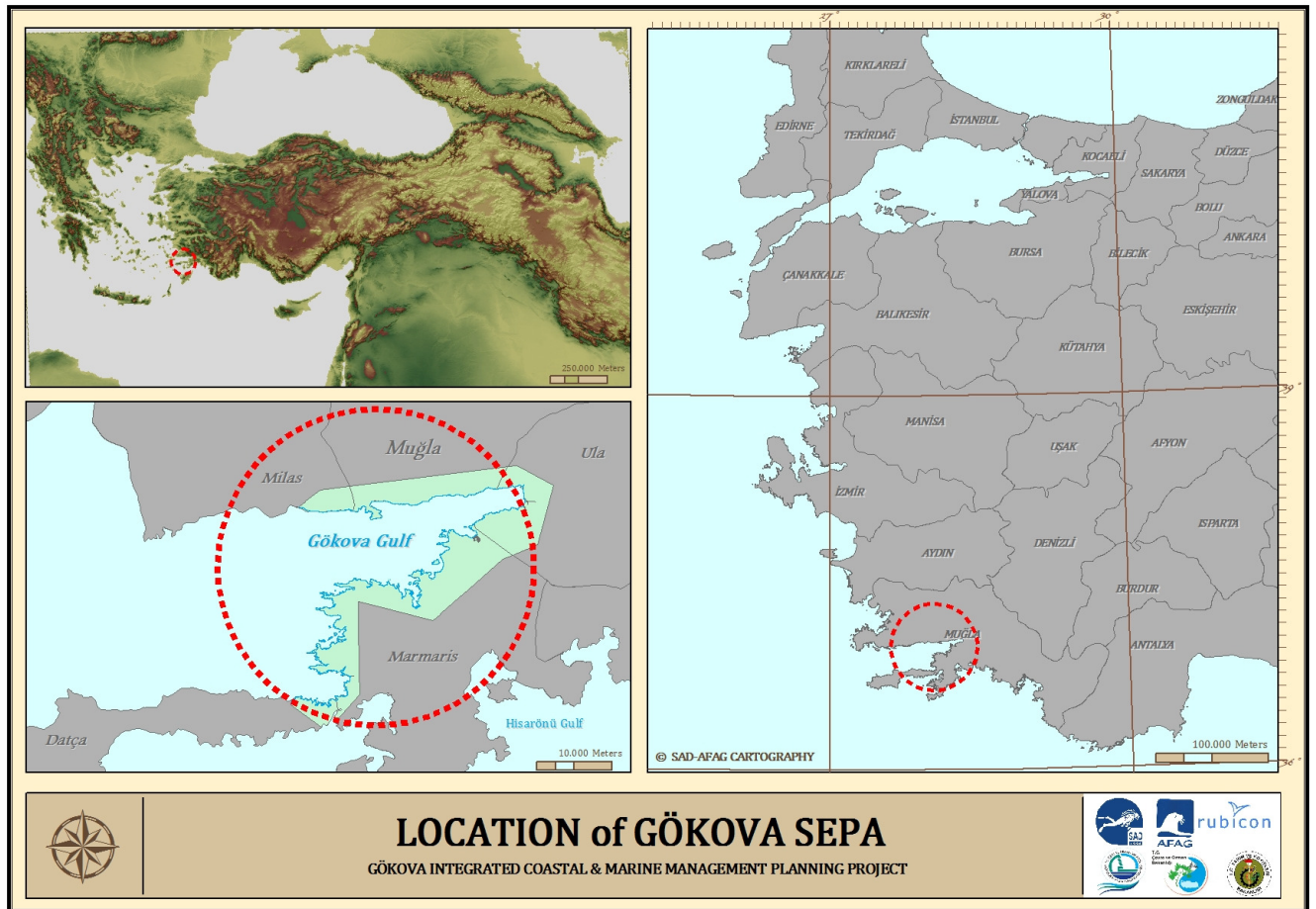


Fig-1. Location of Gökova SEPA.

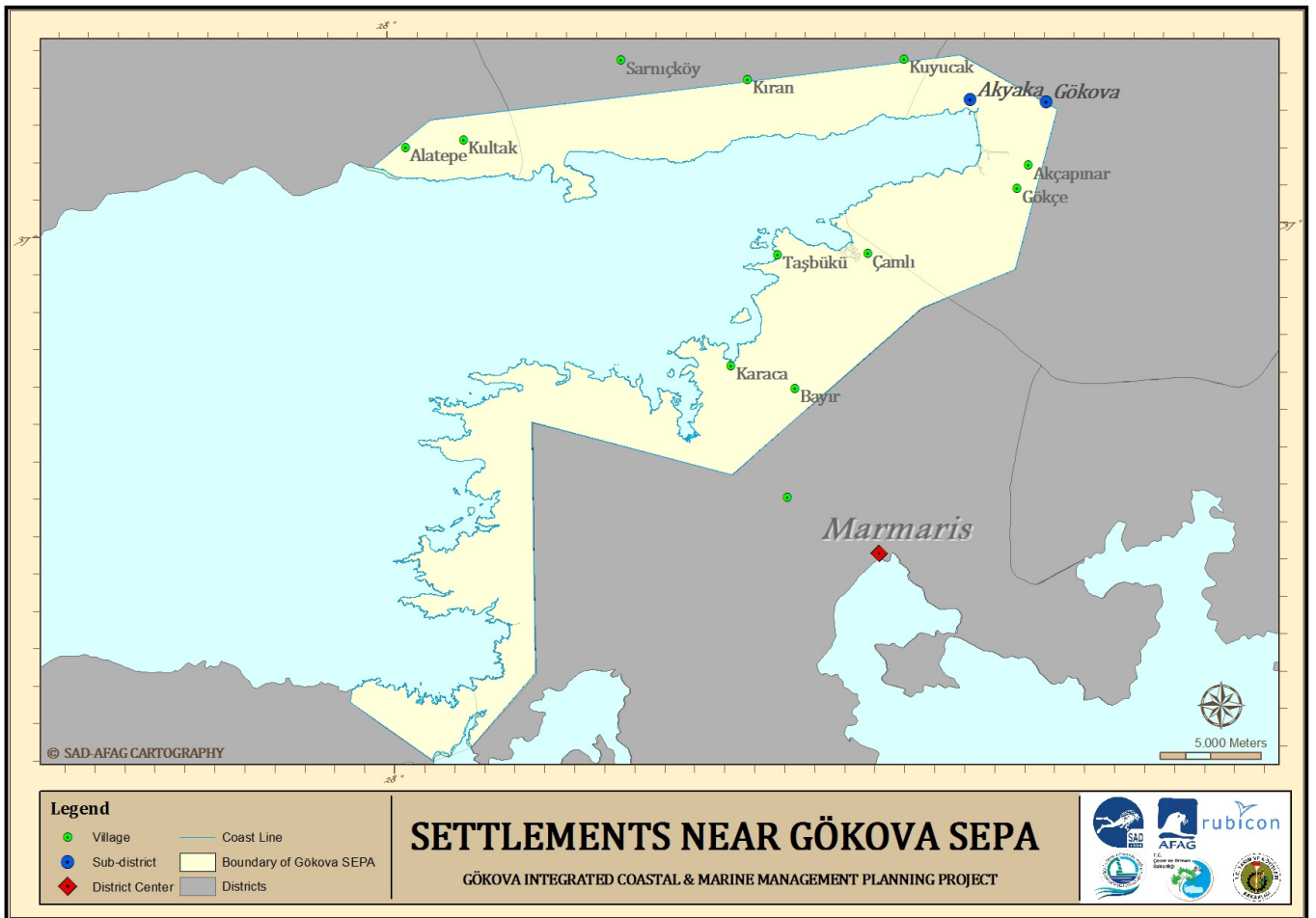


Fig-2. Settlements in Gökova Bay.

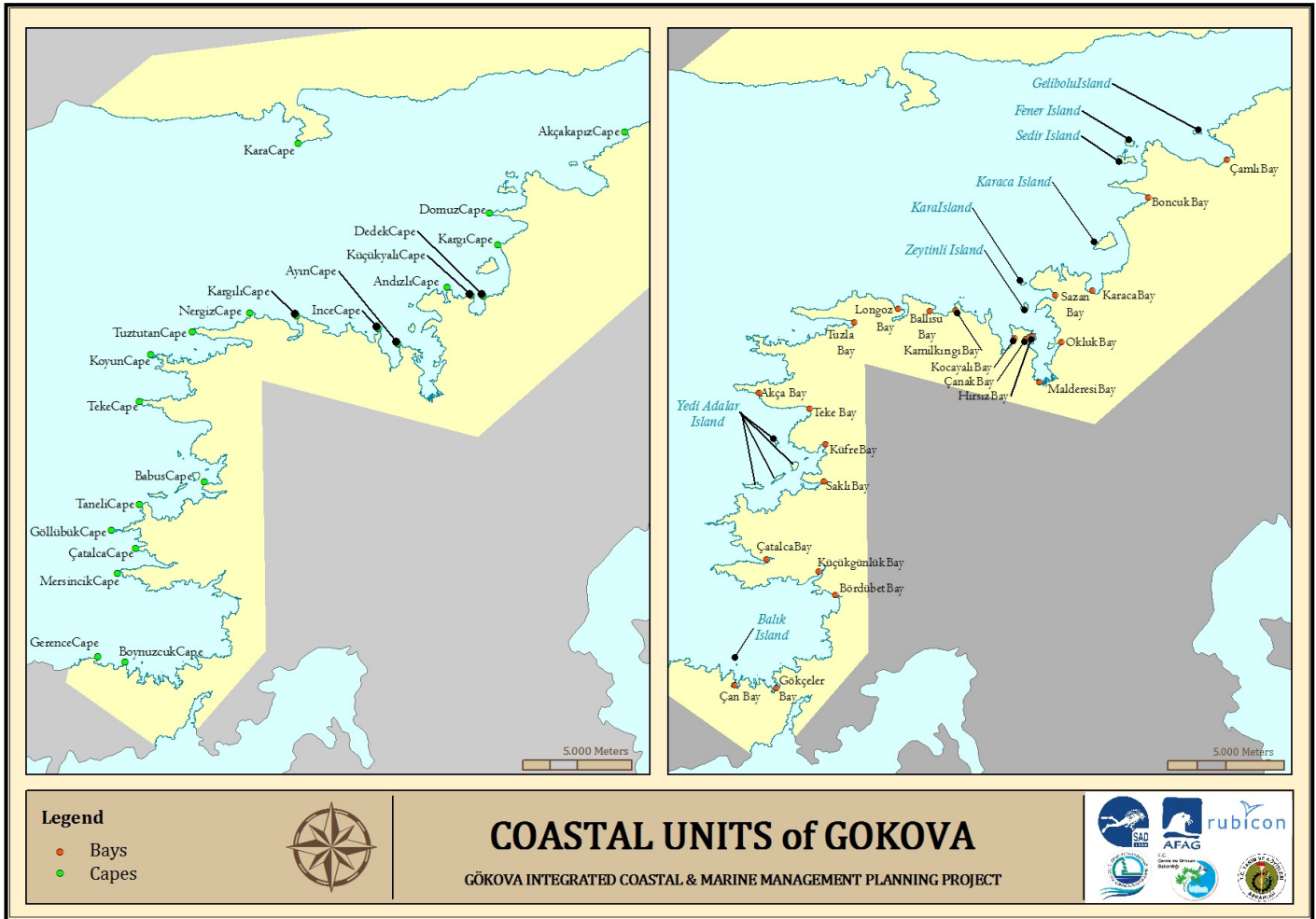


Fig-3. Bays, capes and islands in Gökova SEPA.

1.1.2. Mediterranean monk seal

Method

Firstly, the *FokData* dbase, a comprehensive database program which includes monk seal sighting records from 1987 till now compiled by SAD-AFAG, was examined both for Gökova SEPA region and the adjacent coastal and marine areas.

Also, interviews were done with some artisanal fishermen and local people to gather first-hand Mediterranean monk seal sighting records and standard “monk seal sighting form” previously designed by SAD-AFAG were filled for each sighting data. The analog data will then be forwarded to IT & GIS responsible to be transferred to database of GIS of the project. Monk seal distribution, population and other critical information about the species and its habitat will be issued as a separate layer in Gökova GIS in the next terms. And Integrated

Coastal & Marine Management Planning shall be completed based on layers of ecological components including Mediterranean monk seal.

Field Study

Field studies have not been commenced because of rough sea conditions emerging afternoons (after 14:00 hours) in Gökova Bay in summer seasons. Based on the expert statements by the local fishermen, September and October months are best to utilize whole day as “full research days” and in order to increase efficiency of field studies.

Field study for monk seals will be carried out with using two main methods; 1- field surveys to assess the importance of whole Gökova SEPA coasts in terms of suitable monk seal caves/caverns/haul out sites and foraging marine areas and 2- interviews with the local people with special emphasis to artisanal fishermen who spend most of their time in the same niche that of monk seals, to gather 1st hand monk seal sighting data directly visiting the settlements and fishing communities in the Project area.

Results

The preliminary data newly obtained from local fishermen & local people during the Project implementation period confirmed SAD-AFAG’s previous findings that Mediterranean monk seals inhabit Gökova SEPA while coastal habitats are (still) very suitable for survival of the species. The species possibly breeds in the area with the sighting of monk seal pups and juveniles. However, a very detailed field survey is needed to confirm breeding status of the species within the Project area. At least, for the the time being, we can state that Mediterranean monk seals breed outside Gökova SEPA borders just adjacent marine & coastal area within the limits of greater Gökova Bay, however, Mediterranean monk seal certainly inhabit Gökova SEPA.

<http://www.sadafag.org/english/index.php?bolum=haber&id=162>

<http://www.sadafag.org/index.php?bolum=haber&id=40>

<http://www.monachus-guardian.org/mguard23/2316mednew.htm#Turkey>

1.1.3. Sandbar Sharks

Method

Literature survey was done by Assoc. Prof. Dr. Murat Bilecenoğlu and Biologist Nilay Akça. Based on the previous studies done by SAD in the years 2006, 2007 and 2008, the existence and migration of Sandbar sharks (*Carharhinus plumbeus*) were already known by the Project team. For the purpose of this Project, SAD has established a camp in Boncuk Bay with

permissions obtained from EPASA (ÖÇKK Başkanlığı) and also landlord to carry out field research in the area.

At least two skin divers take part in each survey. Since sandbar shark is a migrant species, their stay in Gökova is limited in spring and early summer season. Therefore, weekly survey period was decided to monitor status, population and migrations of the species in Boncuk Bay smoothly. Because sandbar sharks are shy animals, it has been proven by the observations that they easily escape from bubbles from tanks of SCUBA divers. Therefore, SAD researchers always made skin diving (without any SCUBA diving apparatus) in the surveys in 2009 to avoid disturbance of animals. Underwater cameras, writing plates and pencils were used by the divers during research. Sandbar shark counting has been done in 5 different zones of Boncuk Bay (coastal and marine segments) as determined by SAD in the previous years. See Fig-4. Research dives were always made in the early hours of the day (c. 07:00-07:30 hours) and if possible second dives were also made noon time (c. 12:00-13:00 hours).

Field Study

Under the sub-component of sandbar shark and habitat research, field studies were started in 18th April 2009 under the guidance and leadership of Assoc. Prof. Dr. Murat Bilecenoğlu, fish research component responsible in the project.

The field studies were implemented by at least two diver observers in Boncuk Bay where the Sandbar sharks (*Carcharhinus plumbeus*) can be seen as groups or individuals. See ANNEX-2.

Dates	Researchers/Participants	Dates	Researchers/Participants
18–19 April 2009	Murat Bilecenoğlu* Harun Güçlüsoy Nilay Akça Suna Tüzün	29–30–31 May 2009	Murat Bilecenoğlu* Harun Güçlüsoy Nilay Akça Ayhan Tonguç Haluk Camuşcuoğlu Tahsin Ceylan
25–26 April 2009	Nilay Akça Suna Tüzün	6–7 June 2009	Murat Bilecenoğlu* Nilay Akça
6–7–8 May 2009	Nilay Akça Cem O. Kıraç N. Ozan Veryeri Ayhan Tonguç	13–14 June 2009	Murat Bilecenoğlu* Nilay Akça
16–17 May 2009	Murat Bilecenoğlu* Nilay Akça Z. Derya Yıldırım Suna Tüzün Ayhan Tonguç Harun Güçlüsoy	20–21 June 2009	Murat Bilecenoğlu* Nilay Akça

23–24 May 2009	Murat Bilecenoğlu* Nilay Akça Z. Derya Yıldırım Nurettin Beşer	27–28 June 2009	Murat Bilecenoğlu* Nilay Akça
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Results

During the observations scientific data collected and underwater photographs taken by the team. Sandbar sharks were observed first time in Boncuk Bay in 26-27 April 2009. In the observation in 30 May 2009, max. 20 sandbar sharks were sighted in the early hours of the morning. Normally, 7 to 15 sandbar sharks have been observed in the field studies individually or in groups. In 31 May 2009 the buoys which separate the recreational area and the research & conservation area were controlled by the SAD Güllük Representative Mr. Erhun Yakar.

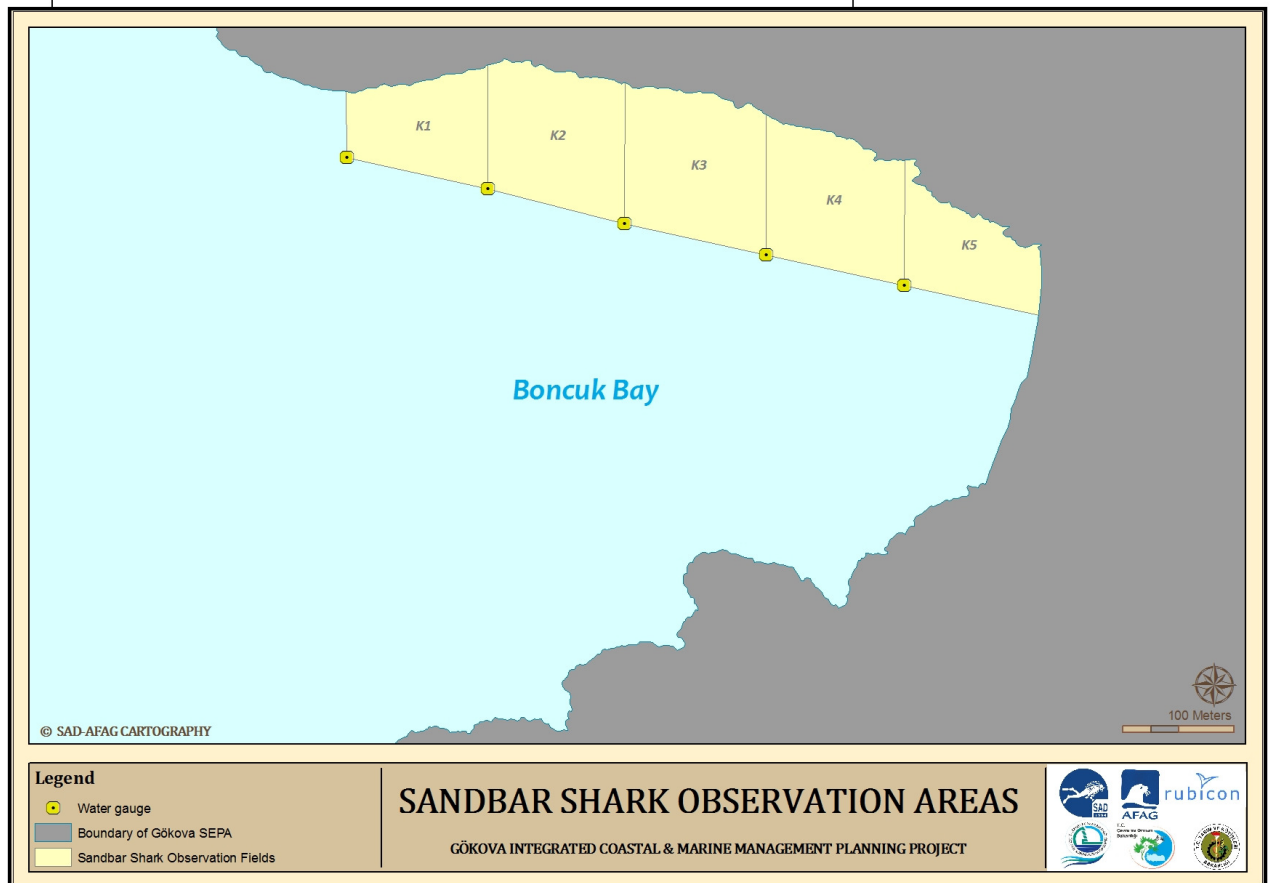


Fig-4. Sandbar Shark observation zones in Boncuk Bay.

1.1.4. *Posidonia sea grass*

Method

First literature survey was done by Yalçın Savaş, Posidonia component responsible. “Determination of Posidonia Sea Beds Along Turkish Coasts” carried out by SAD and “Oceanus Biodiversity Study in Gökova SEPA” carried out by İstanbul University - Aquaproducts Faculty were two basic studies to be taken into consideration in this project. Reports of both research projects were obtained and studied before field surveys started.

To identify the borders of Posidonia beds; a wooden fishing boat, underwater towing cctv camera, video monitor, GPS (WAAS/EGNOS) and echo sounder are used. One researcher released, towed and adjusted the cable of underwater cctv camera while other researcher check the video monitor for the existence of Posidonia beds and also depth from ecosounder. Batimetric study is executed with the help of echosounder and GPS (WAAS/EGNOS).

Field Study

Yalçın Savaş and Ayhan Tonguç, both from SAD-AFAG, carried out the first field study between 11th and 13th June 2009. The aim of the Project team was to produce posidonia (*Posidonia oceanica*) distribution maps in Gökova SEPA. During the research, the mapping of posidonia distribution all along the northern coasts (from Akyaka to Ören) and some segments along the southern coasts and Boncuk Bay in the southern coast was completed. See ANNEX-3.

Results

In the southern coasts of the area, identification studies of -10 and -30 meters deep bathymetric contours were commenced. This study will be completed with additional 3-4 days of field study in the next term (in July 2009). The aim of this study is: there is no available digital data. With the existing navigation maps the base maps used in the study are not compatible with each other; moreover, discrepancy was identified in coastal depth (bathymetric) contour.

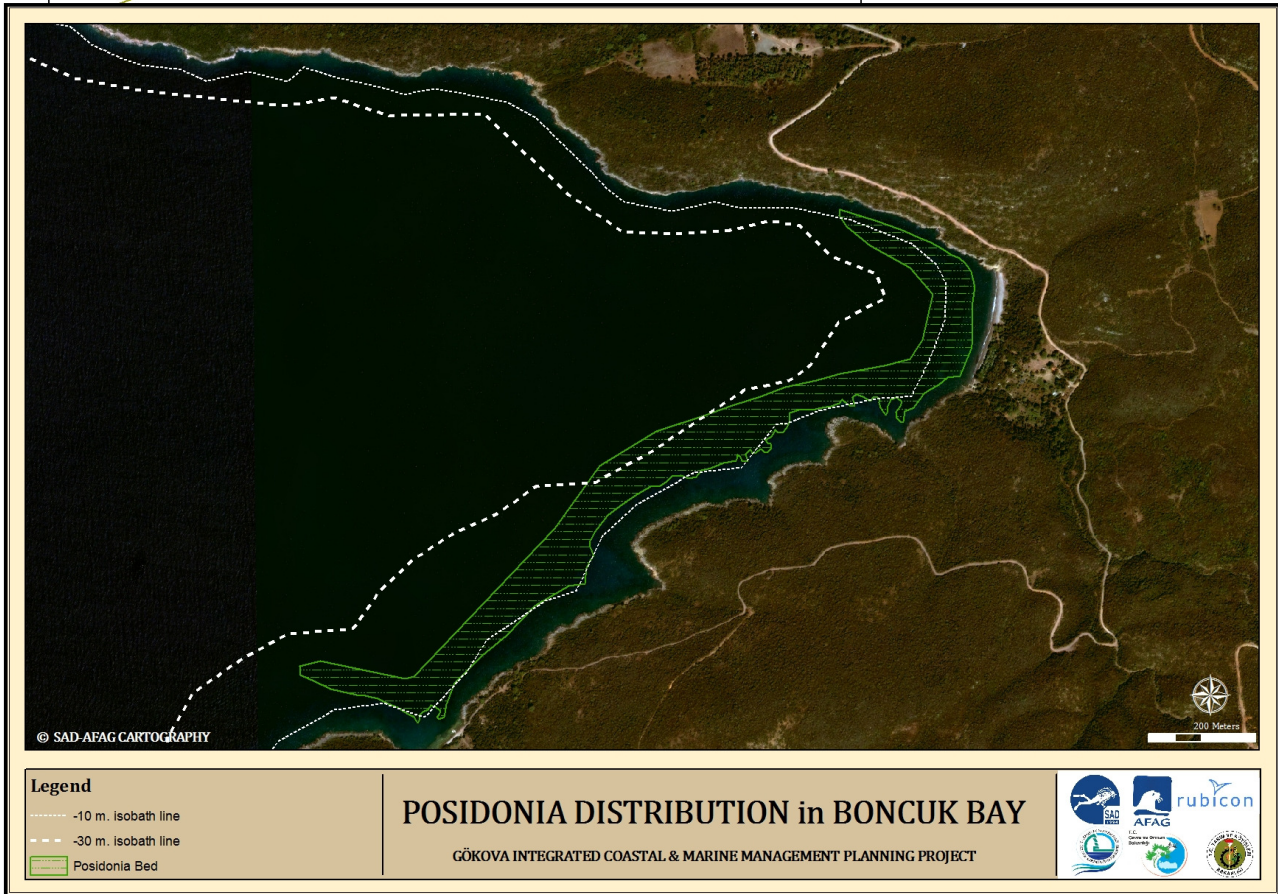


Fig-5. Posidonia sea beds in Boncuk Bay (southern Gökova Bay) determined in the field studies.

1.1.5. Coastal habitat types

Method

Cem O. Kıraç and Semiha Demirbaş have taken the responsibility of this component. First, maps from Google Professional were downloaded with high resolution. Satellite image obtained later was used for digitization.

Field Study

Coastal habitat types were studied during the field studies of avifauna surveys between 4–8 May 2009 by Cem O. Kıraç. Also, C.O.Kıraç and S. Demirbaş had a survey in 11 and 12 June in Akyaka and also a trip by boat in 13 June 2009 along the southern coasts of Gökova SEPA from Akyaka to Sedir island. The distinctive characteristics of the coast are defined with the observations.

The survey areas are verified with the digitized layer of coast line.

Results

Specific classes of the habitat types were determined. In order to implement this classification the land cover, topography and landscape characters of the areas will be examined.

1.1.6. Others

Nuray G. Veryeri implemented first fieldwork about organizational jobs on the arrangement of field research in Akyaka area. The assesment on status of river otter between 29th April and 3rd May 2009. Otter tracks and scents were explored between 'Akyaka Kadın Azmak' and 'Kanlı Azmak' areas during three days.

Activity 1.2 Socio-Economic values (actual and potential) assessed

1.2.1. Fishery Management

Assist. Prof. Dr. Vahdet Ünal implemented fishery potential field studies on 8th-9th April, 17-20 April, 17-19 May and 13-16 June 2009.

Assist. Prof. Dr. Vahdet Ünal visited three fishery cooperatives (**Akçapınar, Akyaka and Gökçe Fishery Cooperatives**) within the boundaries of Gökova SEPA according to the fishery potential studies, on 8th April 2009. The coordinates of these cooperatives were recorded with GPS. On these meetings the following questions were answered through the questionnaire prepared before;

- How many members are affiliated with these cooperatives?
- What is the profile of members?
- Where are the fishery grounds?
- What services are provided by cooperatives?
- Do they have common problems?

See ANNEX-4a.

Dr. Ünal visited the chairman of three fishery cooperatives in the Project area. Dr. Ünal believes that the records on fish caught and sold through the cooperatives are certainly necessary to obtain during this project. Also the presence of chairman in the future meetings is very important to achieve the targets in the project. The questionnaires were done and it is going to be continued among the fishermen in July. See ANNEX-4b.

Vahdet Ünal and Denizcan Durgun visited Akyaka and Akçapınar fishery cooperatives between 17–19 May 2009. Backward records of the White grouper (*Epinephelus aeneus*), and Black grouper (*Epinephelus alexandrinus*) samples were obtained from the cooperatives. As the grouper season commenced, the length, weight, price, fishery equipment and quantity of the grouper data were obtained from cooperatives. The fishermen that have been active in Akçapınar and Gökçe, were taken the poll. Vahdet Unal and Denizcan Durgun negotiated with chairmen of cooperatives about illegal fishery and what should be done to prevent the prevailing bad condition. At the end of the meeting the idea of holding a meeting in June opened to discussion and in the end Vahdettin Kürüm-Head of Aqua Products Department in MARA was decided to be invited to the meeting. The attendant list was prepared together with the chairmen. Beside, İzmir Agriculture Province Directorate was called and informed. Head of Aqua Products Department Mr. Vahdettin Kürüm was called and informed too about illegal fishery. He committed to give instruction to Muğla Agriculture Province Directorate to make the restaurants controlled to prevent purchase of fish caught through illegal fishing techniques.

1.2.2. Marine traffic and navigational matters

Blue voyage boats and daily excursion boats are the main types of marine vessels playing role in sea tourism in Gökova SEPA. Therefore, these two types of boats have been targeted in the Project.

In accordance with the consultancies with Mr. Haluk Karamanoğlu, President of Gökova Sailing Club and Prof.Dr. Bülent Akınoğlu, experiences sailing cruiser in Gökova, once a weekend, daily excursion boats are counted in certain anchorage areas in between 12:00-13:00 hours and blue voyage sailing yatches in between 19:00-20:00 hours. Mr. H. Karamanoğlu arranges counting in Karacasöğüt and Okluk Bays and Mr. Volkan Hürsever, SAD İstanbul Representative arranges counting in Akbük Bay since beginning of June 2009. Sedir Island is also targeted for counting daily excursion boats and sailing boats in the next term.

1.2.3. Organic fish farming

Mr. Damien Dessane, the consultant for organic fish farming, started his studies via literature survey and analysis during 1st reporting period for organic fish farming in EU countries, in Türkiye and also feasibility of implementing this job sector in Gökova bay. As the component responsible, Damien Dessane participated first progress meeting in İzmir in 28 May 2009 and provided background information among project staff on the basics and situation of “organic fish farming” in Europe.

Activity 1.3. Threats and pressures identified and assessed

1.3.1. Threats to the natural resources, habitats and biological diversity analyzed

The 3rd Workshop on “EU SMAP III Gokova Inner Bay and Sedir Island Integrated Coastal Zones Management and Action Plan” was coordinated by Muğla University with the partnership of Muğla Governorship, Ula Sub-Governorship, and Environment Protection Authority for Special Areas (EPASA) and Akyaka Municipality. The workshop held on 6th-7th March 2009 in Muğla University, which can be considered as the final meeting of the project completed on March 2009. SAD was invited to the final meeting of the project among many other organizations.

The project team of our Gokova P3 (ICMM) Project funded by BBI Matra funds attended the SMAP III Workshop with the participation of Cem O. Kırac, Harun Güçlüsoy, N. Ozan Veryeri, D. Haluk Camuşcuoğlu, Prof. Dr. Bülent Akınoğlu, Assoc. Prof. Murat Bilecenoğlu, Assist. Prof. Dr. Vahdet Ünal and SAD-AFAG Mersin Aydıncık Representative Mehmet Sarı. See ANNEX 5.

The kick-off meeting of the previous project funded by EU under SMAP III program was very useful for our project, since based on the first observations, there are a number of human activities that are unplanned in line with conservation of natural resources in Gökova SEPA.

Project team’s initial findings from the field surveys in the first reporting period from January to June 2009 clearly demonstrates that illegal fishing & over fishing, new road constructions on wild coastal areas and intrusions of tourists into sensitive marine & coastal areas seem most important threats originating from anthropogenic pressure. As for the fishery pressure, especially trawlers, purse-seiners and spear fishing with scuba diving and/or with torches in nights are main sources of illegal fishing. These activities are putting great pressure on the natural marine resources and illegal fishery is hardly controlled and enforcement seems weak in Gökova SEPA.

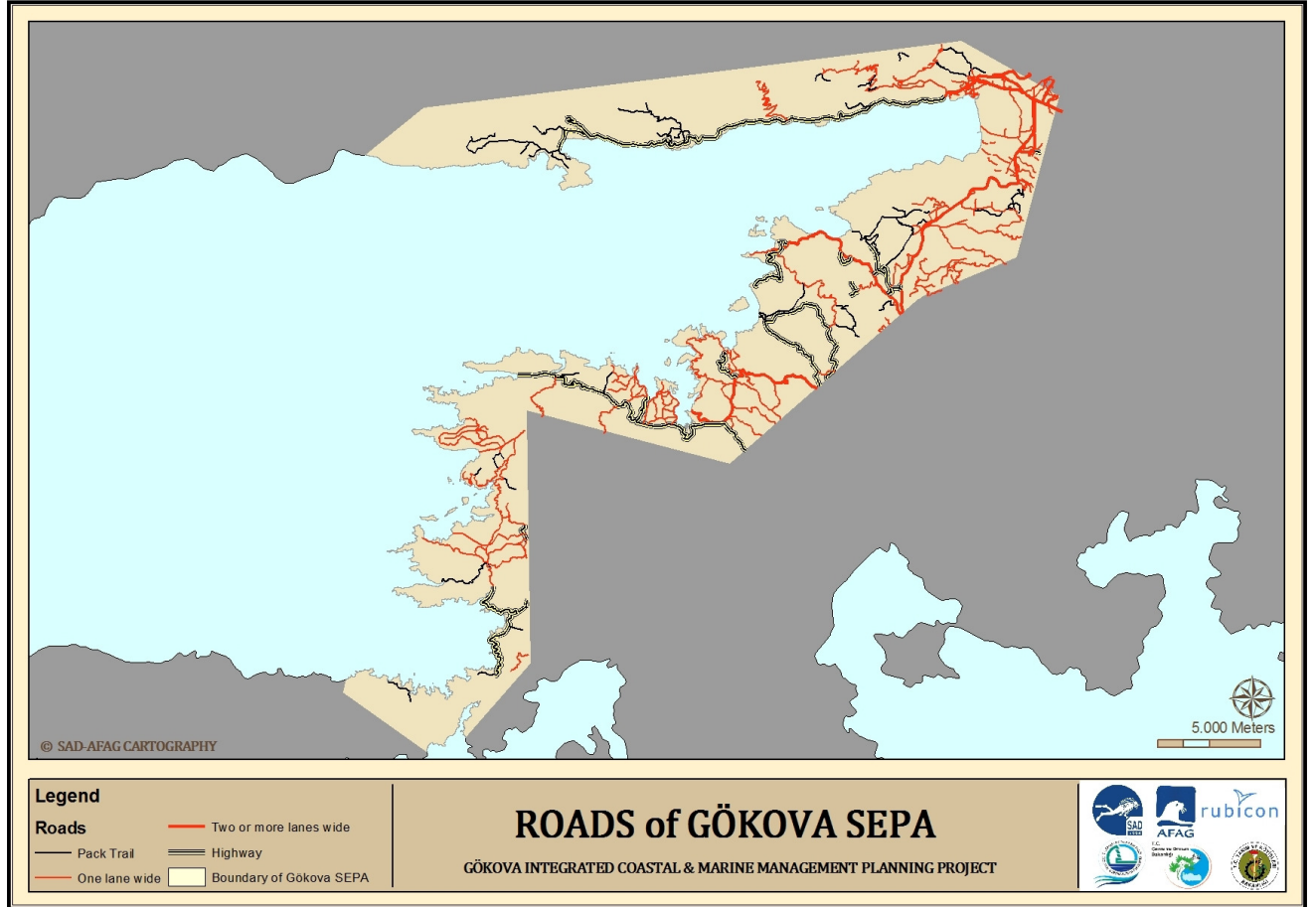


Fig-5 Roads that penetrate through the coastlines of Gokova

Activity 2.1. Database designed in accordance with the needs

Method

The satellite image of Gokova SEPA was obtained from EPASA. The boundary and coast line were digitized in vectoral format. Marine field area and coast line length were measured in GIS media. The necessary layers (rivers, roads, settlements, capes and bays, elevations, coastline data) were digitized over topographic maps and satellite map in GIS media in April 2009.

Semiha Demirbaş, Elif Tertemiz, Harun Güçlüsoy and GIS supervisor Gökhan Kaboğlu had a meeting on 28th May 2009. Structural data (polygon, line or point) that will be collected with the field studies, were analyzed according to the activities and needs. After the meeting, the determined details about GIS structure and GPS adjustments were studied and discussed with Cem Orkun Kıraç (PL-TR) and then announced to all research component responsables (survey team leaders).

The GIS structure was constructed with the collection of data that will be recorded through field studies. The experience that had gained before, the literature survey and reviews of the researchers have contributed to the GIS construction approach.

Results

The relevant layers are designed within datasets. The data structure was constructed with research component leaders. The database design was completed for most of the components. See ANNEX-6.

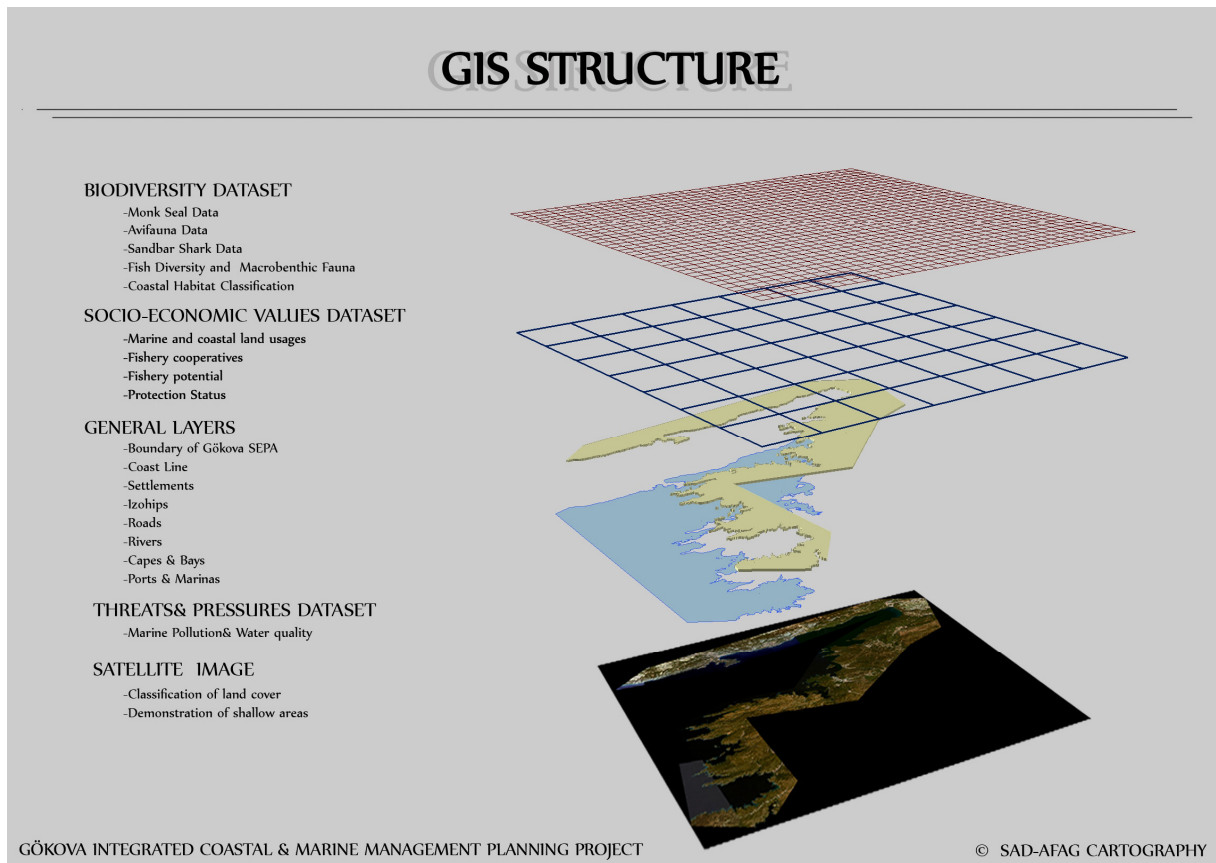


Fig-7 GIS Layers in Gökova ICMM Project.

Activity 2.4. Media campaign developed

Within Gökova ICMM project, project business cards for each staff including personal communication information were printed.

Marketing analysis for the project materials and tools was completed in March 2009.

An informative article about project written by Elif Tertemiz, Project Assistant, was published in Akyaka bulletin on issue 17 / year 2009. See ANNEX-7a.

Vahdet Unal interviewed with Mr. Hüseyin Çalışkan, the general director of Sahil FM (a local radio station) on 9th April 2009. The meeting concluded with that decision; a radio program that deals with the overall project in addition to “Fishery cooperatives and their problems” to be prepared.

On 13th June 2009 N. Ozan Veryeri, Project Manager, Assist. Prof. Vahdet Unal, Zafer Kızılkaya SAD-AFAG (Consultant in Gokova Project), Mustafa Uysal, the chairman of Akbuk Cooperative, Can Görgün, the chairman of Akyaka Fishery Cooperative and Mehmet Muhammed Aslan the chairman of Akçapınar cooperative participated Sahil FM live broadcast. The base points of the program are illegal fishery and the situation of cooperatives in fishery industry, the situation and the problems of fishery in Gokova Bay, inspection, the trade of illegal fish in restaurants, no take zone were underlined issues among the broadcast. Beside the general description and the main goals of Gökova SEPA ICMM Project. See ANNEX-7b.

An article on Gökova ICMM project and SAD-AFAG activities was written by N.Ozan Veryeri, Project Manager, published in Naviga Magazine in issue 6 / year 2009. See ANNEX-7c.

Activity 2.5. Web page designed and developed in the SAD-AFAG website

For Gökova ICMM Project a web site is going to be designed according to the project contract; hence web site technical specification draft contract was developed and sent to the web-master in March 2009.

The Gökova web site was designed and put into *test publication* under the link www.sadafag.org/gokova. General description of the project area, purpose and coverage of the project, activities of the project, some of the project documents and the information about the team were placed in the web site. Following the completion and agreement of the web site among Rubicon and SAD-AFAG, it will be translated into English.

Activity 3.2.. Public meeting(s) on Gokova SPA ICZM planning process held

The SAD Team (steering committee co-chair Prof. Dr. Bülent Akınoğlu, project co-leader Cem O. Kıraç, project manager N. Ozan Veryeri and field studies co-coordinator Dr. Harun Güçlüsoy, project consultant D. Haluk Camuşcuoğlu, project assistant Elif Tertemiz) visited Muğla University, Muğla Governorship, Akyaka Sub-Governorship, Friends of Gökova

Akyaka Society (GAS Der.), Gökova Sailing Club and Karacasöğüt Fish Farm at 6th, 7th, 8th February 2008. All visits organized for the aim of introducing the project and obtaining the supports of these organizations supposed to indispensable local stakeholders.

Prof. Dr. Ahmet Nuri Tarkan, the Dean of Aquaproducts Faculty in Muğla University, Mr. Ahmet Çalca (the mayor of Akyaka), Mrs. Bahar Suseven (President of GAS Der.) and Mr. Thomas Schmitz, Mrs. Nurhan Kavuzlu, Mr. Muammer Yılmaz, Mr. Naci Kaya, Mr. Salih Armutçuoğlu, Mr. Mehmet Datça (GAS Der. members), Mr. İrfan Yıldırım (owner of fish farm in Karacasöğüt) as well as Mr. Haluk Karamanoğlu (Gokova Sailing Club founder) have declared that they would give full support for the project. Mr. Ahmet Ali Baris (Depty Governor for Muğla) committed to support the project within the limits of Muğla Governorship.

Prof. Dr. Erdal Özhan (Ex-President of Management of Coastal Areas-Turkish National Committee and President of Med Coast Foundation – Akdeniz Kıyı Vakfı) stated to give their support as much as possible for the project; furthermore he would share the existing data that he obtained with the previous projects.

Mr. İrfan Yıldırım (Karacasöğüt fish farm) was informed on the threats of the facility and the benefits of eco-aqua farming projects. See ANNEX-8a.

Assist. Prof. Dr. Vahdet Ünal participated Akyaka City Council meeting on 9th April 2009. Within this council a number of individual groups such as cultural, architectural, environmental carry out their works. During the meeting Gökova ICCRM project was informed, and city council emphasized that to carry on the interaction between city council and the project team benefits both actions. Beside Vahdet Unal undertook the team leader responsibility of 'fester and coastal facilities working group'. See ANNEX-8b.

Activity 5.1. National legislation and EU acqui in the field of fishery compared

The first preparatory technical meeting on fishery, fish biodiversity, national legislation and EU acqui related to fishery management was held within SAD-AFAG on 25th December 2008 with the participation of Cem O. Kırac, Harun Güçlüsoy, Ozan Veryeri, Zafer Kızılkaya, Assoc. Prof. Murat Bilecenoğlu, Assist. Prof. Vahdet Ünal and the legal advisor Kemal Battal.

Kemal Battal, the legal advisor of the "National legislation and EU acqui in the field of fishery compared" component, gathered the related documents. The authorities of Agriculture Ministry were visited two times and coordination and info exchange were obtained. The studies on organic fishfarming was commenced together with Mr. Damien Dessane. First of all a study meeting was held in İstanbul and the deeds were planned.

The basic report on legislation entitled to “Report on legislative proposals for implementation of “Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea” for Gökova Bay” was started to be written. The available parts are listed below. See ANNEX-9.

- Introduction
- EU fisheries policy in the Mediterranean and Community action plan for the conservation and sustainable exploitation of fisheries resources in the Mediterranean
- Inspection of provisions of “Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea”

The 1st report on studies on fishery legislation including the legislative situation on fishery in EU States is given in ANNEX-18.

Activity 6.1. Project progress evaluation meeting

The 1st Project Progress Meeting of Gökova ICMM was held on 28th May 2009 in Chamber of Shipping in Alsancak, İzmir. The participants were; Cem O. Kıraç Project co- leader-TR, Avifauna Survey, Canan Orhun Project co-leader – NL, Assist. Prof. Vahdet Ünal - Fishery Management, M. Kemal Battal - Fishery Legislation and EU Acqui, Nilay Akça - Fish and Macro-benthic Biodiversity, Damien Dessane - Organic Aquafarming, Zafer Kızılkaya and Derya Yıldırım - No-fishing Project (as a supporting & co-funding project for Gökova ICMM) Dr. Harun Güçlüsoy, N. Ozan Veryeri - Mediterranean Monk Seal, Semiha Demirbaş – GIS Expert, Elif Tertemiz – Project Assistant. Each expert explained their studies and mentioned about what have been achieved until date of the meeting. See ANNEX-10.

Activity 0.2. Comply with administrative requirements

Elif Tertemiz began to work for the position of project assistant on 10th November 2008. The cover letter, project summary, logical frame matrix of the project and support letters were sent to the relevant bodies and organizations on 10th January 2009. The organizations are: MARA General Directorate of Protection and Control, Authority of EPASA, General Directorate of Nature Protection National Parks, General Directorate of Environment Management, Gendarmerie Command, Coast Guard Command, Muğla Governorship, Ula Sub-Governorship, Akyaka Municipality, Muğla University Rectorate, Akyaka Aqua Products Cooperative, Friends of Akyaka Society, Mediterranean Coast Foundation, Coastal Zone Management Turkish National Committee.

The first briefing meeting on Gökova Bay SPA Integrated Coastal and Marine Management Planning Project (ICMM) was held on 23rd. January 2009 in EPASA Headquarter, Ankara. The

participants of the meeting were representatives of Ministry of Agriculture and Rural Affairs, Authority of Turkish Environmental Protection Agency for Special Areas (EPASA), Ministry of Environment and Forestry DG of Nature Protection and National Parks and partners of the project; Rubicon based in Netherlands and SAD-AFAG based in Turkey. See ANNEX-11. for the minutes of meeting.

Semiha Demirbaş was employed as GIS expert within the framework of the project on 25th March 2009.

B. ACHIEVEMENTS AGAINST INDICATORS

It is too early to judge and evaluate achievements comparing them with the indicators.

C. PROBLEMS ENCOUNTERED

1. Gökhan Kaboğlu had been selected as the GIS and Reporting expert prior to the start of the project. However, he has been informed that G. Kaboğlu shall be participating his obligatory military service in the summer of 2010, which shall certainly hinder the pace of the project.
2. Vahdet Ünal has a problem with supplying the GPS through the study of fishery potential studies on 8th -9th April 2009.
3. Semiha Demirbaş encountered a problem with overlapping layers because of different detailed scales.
4. During the sandbar shark and habitats searching field study, it has been observed that the marine border located between the research area and the recreational area is not considered by campers or tourists.
5. It is evaluated that the Posidonia distribution cannot be determined within the project duration with the equipments and opportunities that SAD has.
6. Although the Posidonia distribution between Karaca and Çam bay was implemented, the coordinates could not be saved due to the memory limit of GPS.
7. While the data was exported to the GIS media, some -10 m depth data were recognized to miss in GPS device in Posidonia distribution studies by Yalçın Savaş.

D. CORRECTIVE MEASURES (IF TAKEN)

1. Candidates for IT GIS & Reporting were called. After having interviews, Ms. Semiha Demirbas was selected as IT & Reporting expert.
2. Vahdet Unal helped solving the problem by getting the GPS from Ege University.
3. The coastal line was re-digitized using satellite map with a scale of 500.
4. The tourists were warned to leave the shark protected area.
5. The methodology of Posidonia distribution revised as: the distribution will be mapped only on anchorage areas along southern coasts. -10 m and -30 m depth contours of the whole coast will be re-drawn. For the partially unmapped coasts on southern part, a new map will be produced based on data from previous studies and the bathymetric studies to be completed by Yalçın Savaş.
6. The Posidonia field study between Karaca and Çamlı Bay will be repeated in the next term. The fact that the GPS memory can save max 500 points was learned by researchers.
7. The missing data will be collected in the next field study of Posidonia distribution.

E. PLANNED ACTIVITIES IN THE NEXT PERIOD

Activity 1.1 Biodiversity values identified and assessed

1.1.1 Field surveys on fish diversity and macrobenthic fauna will be continued in the 2nd reporting period. First field study to be held by Assoc. Prof. Murat Bilecenoğlu, Dr. Baki Yokeş and Nilay Akça in September or October 2009, depending on weather conditions.

1.1.2 3rd avifauna and breeding status and habitat survey will be held in August 2009 by bird survey team comprising Cem O. Kırac, Kasım Kırlangıç and possibly another experienced birdwatcher.

1.1.3 The field survey of the Mediterranean monk seal and coastal habitats will be held in September and October 2009, depending on weather conditions, by SAD-AFAG team composed of Cem O. Kırac, Harun Güçlüsoy and N. Ozan Veryeri.

1.1.4 Ayhan Tonguç and Yalçın Savaş (as the component leader) will implement “bathymetry survey” and “Posidonia distribution field studies” surveys in September and October 2009, due to calm weathers in those periods to increase efficiency of field surveys.

1.1.5 The land cover, elevation groups and other important layers will be superposed in GIS media for determination of the habitat classes. Remote sensing and spatial tools of GIS will be used for this classification.

Activity 1.2. Socio-Economic values (actual and potential) assessed

1.2.1 Dr. Vahdet Ünal will continue his studies about fishery potential between 16th-19th July 2009 and later during next months until end of 2009.

Activity 1.3. Threats and pressures identified and assessed

Threat analysis will be done in the 3rd and 4th quarters of the project.

Activity 2.1. Database designed in accordance with the needs

The data obtained from field studies will be imported to the GIS media in the next term of the project.

Activity 2.5. Web page designed and developed in the SAD-AFAG website

The deficiencies of the web site specific for the Project will be completed in the next term of the project.

Activity 3.2. Public meeting(s) on Gokova SPA ICZM planning process held

A public meeting on fishery policies will be held with wide participation of fishermen in the 2nd half of the project.

Activity 5.1. National legislation and EU acqui in the field of fishery compared

- The parts of the basic report below on legislation will be completed.
- Inspection of provisions of Turkish national legislation related to rules of “Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea”
- Comparison between Turkish related national legislation and “Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea” and determination of gaps.
- Legislative drafting for the purposes of transposing of “Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea” into Turkish national legislation.
- Recommendations for implementation of provisions of aligned Turkish national legislation with “Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea” in Gökova Bay.

The studies below will be achieved on organic fish farming:

- Summarize TR legislation on Organic Aquaculture
- Search for Turkish National Strategy on Sustainable Aquaculture
- Fix a meeting date and take an appointment to present the legislative proposal to be drafted before the end of August
- Fix a meeting for the GAP analysis for the end of July.