NATURAL AND CULTURAL HERITAGE: What opportunities from tourism?

Tourism and protected areas: a symbiotic relationship

Steve McCool
(Presented by Ameer Abdulla)
IUCN World Commission on Protected Areas

Abstract

Tourism and protected areas often take on a symbiotic relationship. Protected areas provide values, settings and resources attractive to visitors from other places; they serve as settings to appreciate and learn, to have adventure and experience challenge and to enjoy other's company in beautiful natural environments. By so doing, protected areas generate revenue for the tourism industry, through visitor expenditures for accommodation, food, guides, transportation, arts and crafts and so on. In addition, through the use of entrance and user fees and taxes, tourism often generates revenue that is used to sustain the operating expenses for a protected area. For example, in the Saba Marine Park, surrounding the island of Saba in the Netherlands Antilles, fees for recreational diving support 50% of the annual operating budget for the park. Through careful management of visitors and tourism development, based on the values for which the area was gazetted, tourism thus promises to be an important partner for sustaining values contained within protected areas, and for providing local residents with a viable source of income.

Biography

Steve McCool is Professor, Wildland Recreation Management, Department of Society and Conservation. He joined the faculty of the School of Forestry in 1977, after serving on the faculty of the University of Wisconsin-River Falls and Utah State University. He has held special assignment positions with the USDA Forest Service Northern Region office, the Supervisor's Office of the Flathead National Forest, and the Interior Columbia Basin Ecosystem Management Project. From 1987 to 1993 he served as the first Director of the University of Montana Institute for Tourism and Recreation Research. From 1995 to 1999 he also served as the Coordinator of the Recreation Management Program at the University of Montana.

In 2001, he completed an edited volume (with Neil Moisey of the University of Montana) titled "Tourism, Recreation and Sustainability: Linking Culture and the Environment" published by CAB International. This 18 chapter book explores analytical frameworks, issues of sustainability and provides examples of sustainable tourism projects around the globe. With Paul Eagles of the University of Waterloo, he wrote the textbook "Tourism in National Parks: Planning and Management", published by CAB International in 2004. Also, he is co-author of the IUCN Best Practice Guidelines "Sustainable Tourism in Protected Areas: Planning and Management". This popular book was originally published in 2002, and has been translated into Spanish, Japanese, Chinese and Russian.

Steve sits on the WCPA Tourism and Protected Areas Task Force and is a frequent contributor to research and strategic planning in this area. In 2004, Steve served as a visiting scholar at the University

of KwaZulu-Natal in the Republic of South Africa teaching a special course in integrated protected area management.

In 2005, Dr. McCool was recognized by the USDA Forest Service with the "Excellence in Wilderness Stewardship Research" award. The Wild Foundation and editors of the International Journal of Wilderness also recognized him in 2005 for lifetime achievements in wilderness research. The University of Idaho awarded Steve with the "Celebrate Natural Resources" Award for his work in integrated natural resource planning and research in April of 2006.

Dr. McCool is an active wilderness and backcountry user, and accepts assignments dealing with protected area management in various areas of the world.

Protected Areas and Tourism: A Symbiotic Relationship
المناطق المحمية و السياحة: العلاقات التعايشية.

Stephen McCool
The University of Montana, Missoula, Montana
IUCN WCPA Tourism and Protected Areas Task Force
ستيفن مككول، جامعة مونتانا
ميزولا، مونتانا
السياحة و المناطق المحمية IUCN WCPA

ورشة عمل عن السياحة المعشبه
البايدة، ليبيا، 28-29، نوفمبر 2006

Goals
الأهداف

- Describe relationship between tourism and protected areas
- Outline ways protected areas can enhance tourism
- Suggest different ways private sector can become involved

- شرح العلاقة بين السياحة و المناطق المحمية.
- تحديد الطرق للمناطق المحمية التي تعزز من السياحة.
- إقتراح مختلف طرق القطاعات الخاصة التي يمكن أن تتضمن اليها.

Tourism and Protected Areas
السياحة و المناطق المحمية

- Much of tourism is dependent on natural environment
- Tourists are attracted to areas of high biodiversity
- Marine settings facilitate unique experiences

- معظم وسائل السياحة تعتمد على الوسائل الطبيعية.
- السياح ينجذبون إلى مناطق التنوع الحيوي العالي.
- إعدادت جنود المارينز ذو خبرات فريدة.

Ways Protected Areas Can Enhance Tourism
الطرق التي من خلالها يمكن للمناطق المحمية تعزيز السياحة

- Provide unique and different experiences
- Complement on-shore settings
- Enhance learning – a major motivation
- Encourage sustainable business

- توفير خبرات متنوعة و فريدة.
- تكملة لإعدادت الشاطي.
- تعزيز التعليم – دافع رئيسي.
- تشجيع التجارة المستمرة.ة

Private Sector Involvement
تداخل القطاعات الخاصة

- Protected area usually state managed
- Services needed by tourists provided by private sector
- Revenues may assist in funding management

- المناطق المحمية غالبا ما تكون تحت إدارة الولاية.
- خدمات السياح غالبا ما تقدم عن طريق القطاعات الخاصة.
- يساعد الدخل على تمويل الإدارة.

Types of Effects in the Private Sector
أنواع التأثيرات على القطاعات الخاصة

- Direct – from initial tourist spending
- Indirect – from spending of tourism firms
- Induced – from employee spending

- مباشر – من الدخل السياحي المبدئي.
- غير مباشر – من دخل الشركات السياحية.
- المستحثة – من دخل الموظفين.

The Tourism – Protected Area System

Economic Impacts
التأثيرات الإقتصادية

- The sum of direct spending plus indirect and induced effects
- Thus, for every Euro spent by tourists, another Euro in effects occurs

- إجمالي المصروفات المباشرة بالإضافه إلى المصروفات غير المباشرة و المصروفات المستحثه.
- بالتالي، أي يورو يصرف عن طريق السياح، تأثير يحصل على يورو اخر.

Basic Principles
مبادئ أساسية

- Conservation remains the core
- Tourism values contingent on core conservation mission
- Tourism and visitors must be managed
- Focus on identifying what experience to provide

- الحماية تبقى دائما هي الغاية.
- قيمة الفريق السياحي تعتمد على الحماية.
- يجب تنظيم حركة السياح و الزوار.
- التركيز على توفير الخبرات اللازمة.

Tourism and Visitor Management Tools
أدوات تنظيم السياح و الزوار

- Education
- Interpretation
- Site hardening
- Rules and regulations
- Dispersing and concentrating use
- Limiting use
- Managing development

- التعليم.
- الترجمة.
- موقع التصلّب .
- القواعد و التنظيمات.
- إستخدام التفريق و التركيز.
- محدودية الإستخدام.
- تنظيم التطوير.

Lessons Learned
الدروس المستفادة

- Integrate tourism with protected area
- Connect land and marine environments
- Engage tourism industry as supporters
- Consider tourism niche
- Use tourism to generate revenues

- السياحة الكاملة في المناطق المحمية.
- إتصال الأرض و طبيعة المارينز.
- إرتباط تجارة السياحة كعنصر داعم.
- إعتبار السياحة كوّة .
- إستخدام السياحة لتشغيل الدخل.

- Thank you
- And thanks to Adnan Al-Mesbahi for translation services

- شكرا جزيلا لكم.
- شكر خاص للأخ عدنان المصباحي لقيامة بالترجمة.

Saba Marine Park




Saba Marine Park Management Plan Principles

- *Recreational activities and fishing in the Park are dependent on maintenance of pristine conditions, yet provide substantial monetary and social benefits to participants, the local community and the Park administration.*

- النشاطات التجديدية وصيد السمك في المنتجع يعتمد على صيانة ذات شروط نظيفة جدا، مما يوفر عوائد مالية كبيرة جدا فوائد إجتماعية للمساهمين و العمال المحليين و إدارة المنتجع.

Saba Marine Park Management Plan Principles

- *The marine environment forms the basis for all other values and benefits associated with the Saba Marine Park and its management.*

- إن طبيعة المارينز تكون الأساس لكل القيم و الفوائد المتعلقة مارينز سبأ بارك و إداراتها.

أمثلة

– مباشر

- محلات تجارية لبيع أدوات الغطس و توفير معلمين للغطس.
- رسوم للغطس.

– غير مباشر

- الأكل الذي يطلب من محلات الغطس للغطاسيين السياح.

– المستحثة

- البيوت التي سيحتاجها موظفيم محلات الغطس.

Example

- Direct
  - Dive shops and dive masters
  - Dive fees
- Indirect
  - Food purchased by dive shops for divers
- Induced
  - Housing needed by employees of dive shops

Hol Chan Marine Reserve



NATURAL AND CULTURAL HERITAGE: What opportunities from tourism?

Overview of the natural resources (and flag species) of the Libyan coast

Abdulmaula Hamza

Head, Marine Conservation Department, Nature Conservation Department, Environment General Authority EGA

Abstract

The strategic location of Libya in the central southern Mediterranean, with 2000km coast, and the well unspoiled coastal area make this country rich with so many habitats and species diversity compared to its neighbouring countries. Libya has also joined the majority of conservation treaties and conventions. The talk concluded activities of EGA for better knowing this natural wealth of both species and pristine coastal and marine habitats in Libya. The coastal lagoons, seagrass beds, salt marshes (Sebkhas), small islands and sandy beaches are very important habitats hosting several endangered species in the Mediterranean. The talk also included some basic information about cultural heritage of the Libyan coastal zone, i.e. Roman and Greek ancient cities, Islamic architecture and world heritage sites. Urgent conservation measures should be applied immediately to preserve such rich diversity, especially after the opening of Libya for investment in several sectors including tourism.

Biography

Abdulmaula Hamza has studied in basic sciences at secondary school (Biology Dept.). Then he obtained his B.Sc. Zoology (1995) from the University of Alfateh (UOA)-Tripoli. After two years as national servant (Biology teacher)-(1996-1997), he worked as full time research assistant for the Technical Centre for Environment Protection (TCEP)-1998-2000. TCEP was reformed to become the Environment General Authority, where he worked as full time researcher in the Biodiversity Unit and then moved to the Natural Resources and Biodiversity Department (NRBD).

During his work time he have studied Freshwater Ecology of gastropods in Taourgha spring-Libya, and got a M.Sc in zoology from UOA-Tripoli. Before he defended his thesis in UOA, he has applied for a Chevenning Scholarship to the British Council which led him to another master from Leeds University in 2003-2004 (M.Res. Biodiversity and Conservation).

At present, he is a chief researcher in the Marine Conservation Unit of NRBD. During the past years and still, he has been involved in several research activities related to marine conservation especially with sea turtles nesting program (which he is currently coordinating) and he is a member in IUCN- Marine Turtle Specialist Group -Med.

He has worked with many colleagues from the conservation community in the Mediterranean basin in: Ornithology (2005-to date) co-authoring the annual wintering water bird census, mapping of *Posidonia* meadows in Libya (2000-2006) with Mr. G. Pergent of Corse University, conducting several other activities on MPA's designation and governance and on organizing workshops and symposia in Libya in the Conservation Field.

Workshop on Sustainable Tourism: Al-Bayda, 28-29 Nov 2006

Overview of the Natural resources (and flag species) and of the Libyan coast

Abdulmaula Hamza
Nature conservation Department
Environment General Authority
Tripoli-Libya
Email:
conservation@environment.org.ly
abdhamza@yahoo.com

Contents المحتويات

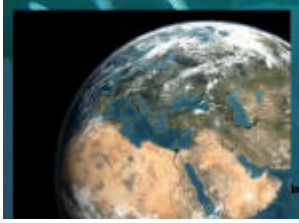
- Libya: Location, coastline topography.
- Libya: MEA & conventions
- Types of coastal natural habitats
- Flagship marine/coastal species
- Coastal cultural sites

- ليبيا: الموقع. طبوغرافيا الساحل
- ليبيا: عضوية الاتفاقيات البيئية الدولية
- اهم انماط البيئات الطبيعية الساحلية
- الانواع البحرية والساحلية الرئيسية
- مواقع الموروث الثقافي بالساحل الليبي

ليبيا: الموقع الجغرافي
Libya.. The geographic location

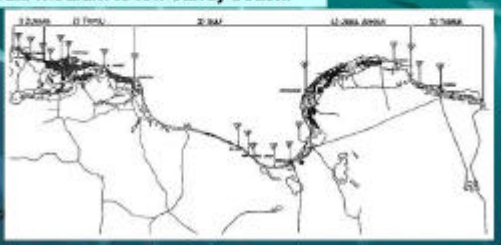
- **Location**: North Africa
  Area: 1,759,540 sq km
- **Coastline**: 1,770 km
- **Climate**: Mediterranean along coast; dry, extreme desert interior

- الموقع: شمال أفريقيا
- المساحة: 1,759,540 كم2.
- طول الساحل: 1,770كم
- المناخ: متوسطي على الشريط الساحلي، صحراوي في الجنوب.



ليبيا: طبوغرافيا الساحل الليبي
Libya.. Coast Topography

- 5 main zones
-Zuwara and Tripoli: Sandy-Medium rocky/sandstone coast.
-Gulf of Sirte: Low lying sandy beaches.
-Jebel Akhdar: high, limestone coast.
-Tubruk: medium to low sandy beach.



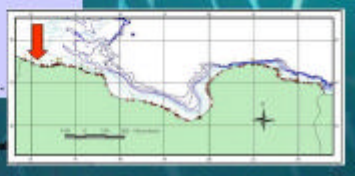
Libya is a contacting party to

MAP, CMS, Ramsar, UNCCD, AEWA, ACCOBAMS

Natural resources of the coast

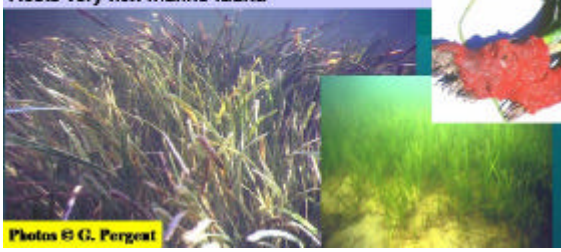
Important Natural Areas: Farwa/Bukamash

- 15 km east of the border with Tunisia.
-Lagoon covers a surface area of 31 km².
- in 2005: 47 waterbird species was counted= 2464.
-In 2006: 23 waterbird species was counted= 2548.
- Bird important site
- SeaTurtle nesting site
- Seagrass habitat
- Traditional fishing site
-Proposed to be MBA, but…



Posidonia oceanica & Cymodocea nodosa beds

Extends along the whole coastline
The biggest concentrations are: Ain Ghazala, Gulf of sirte, Misuratah, and west coasts inc. Farwa area.
Very important feeding and wintering areas for turtles
Hosts very rich marine fauna



Photos © G. Pergent

Islands of *Posidonia* & *Cymodocea*

The accumulation of washed a shore-dead leaves and shoots of these two plants are accumulated in some areas to form a sort of "islands", these sites are quite important nesting spots for endangered marine birds like *Sterna albifrons* and *Sterna hirundo*.

Shallow coastal lagoons

The Libyan coast exhibits 4 coastal lagoons:

- Farwa lagoon: close to Tunisian border.
- Ain Zayanah lagoon: 15km N of Benghazi
- Bumba bay: 45 km east of Derna
- Ain Al-Ghazala: 60 km west of Tobruq.

All of these sites are very important biodiversity spots, and under pressure of fishing, hunting and limited pollution. Libyan authorities are working to declare theses sites as specially protected areas under SPA protocol and other relevant conventions.

Sebkhas (Salt marshes)

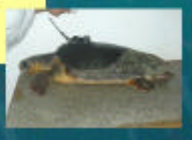
- The most wide wetland habitat present in Libya. Scattered along the coast, and in some cases
- Seasonally flooded depressions characterized by unique floral and faunal biodiversity.
- Taourgha, Hisha, Al-Kuz and Abukammash are the most important sites for migratory water birds.
- A recent census (2005-2006) of waterbirds have been conducted and re-assured the importance of these habitats for many bird species.

Examples of flagship marine and coastal species

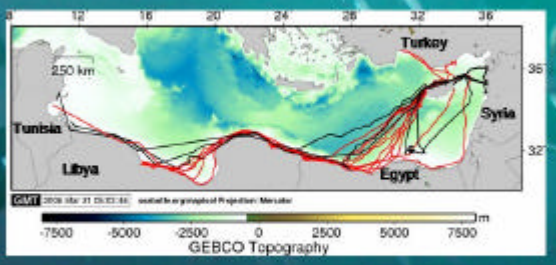
Flagship marine and coastal species

Marine Turtles

- **3 species** of Turtles has been reported in Libyan waters (*Caretta caretta; Chelonia mydas; Dermochyles coriacea*)
- **National coastal survey** 95, 97, 98 covered the whole coastline, with support of RACSPA, WWF, MedAsset (Laurent, et al., 1995, 1999).
- Libya may host the **largest Mediterranean** sea turtle rookery (9,000 nests/year).
- Western coast and gulf of site are major feeding/wintering areas.
- **Satellite transmitter** have been deployed on male *Caretta caretta* this month, to study migration routes.



ALL TRACKS 1998-2005 (GREEN; LOGGERHEAD)



North African coast important migratory corridor

Flagship marine and coastal species

Mediterranean monk seal
Monachus monachus

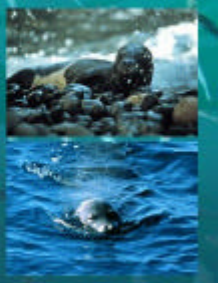
One of the rarest marine mammal in the world.

In 1970's the population estimated 20 individuals

A recent study (EGA, RACSPA, ICRAM) on coastal structures mapping and fishermen questioning in 2002 indicated that 30% of fishermen in eastern Libya has encountered the species at least once during the last 4 years.

A second phase of this study was started last June 2006 aimed to study further cave structures and food availability for the seals.

EGA has produced awareness materials such as leaflets and posters.



Mid-Winter Census 2005-2006: Area covered

- Area covered from NW to NE borders
- In Total: 65 sites visited
- 55 classified as wetlands
- Some inland sites were included
- Oasis in South were not visited

Flagship marine and coastal species

- **Lesser crested terns** endangered (SPA protocol).

The sole Mediterranean population (2000 pairs) breeds in only two small islands off the Libyan coast.

Gezirat Garah and Elba 20 km west of Zwaytina oil port.

EGA considers this sites an urgent priority for conservation. Communication with oil co. for help in protect these islands is underway.

Cultural sites along the coast

Libyan coastal area was a destination for many civilizations, since prehistory till Islamic era.

- West: Sabratah, Oea, Leptis
- Middle: Taourgha, Hisha, Sultan, Sirte
- East: Benghazi, Tokra, Tolmitah, Appolonia, Cyrene, Tubruk....

NATURAL AND CULTURAL HERITAGE: What opportunities from tourism?

Case study:
The experience of the National Marine Park of Zakynthos (Greece)

Georgios Paximadis
WWF Greece

Abstract

The case study of the National Marine Park of Zakynthos illustrates what happens when the link between resource conservation and tourist development is broken.

Although tourism in Zakynthos Island is associated with the loggerhead turtle and its natural beauties and should capitalize on these very same resources by conserving them, reality is quite the opposite. Zakynthos tourism development demonstrates the paradox of tourism. The very same resource that attracts tourism is destroyed by it, leading to a collapse in the system, a negative feedback loop.

Tourism in Zakynthos is characterised by a spatial and temporal “competition” between turtles and a large number of middle to low income tourists. This - together with irresponsible practices – results to a series of environmental problems.

The creation of the National Marine Park of Zakynthos in the Bay of Laganas in 1999 was a step towards conservation, but unfortunately its role nowadays can be described in the best case as damage control. As a result, the NMPZ today faces severe environmental problems, as well as intense social unrest and dissatisfaction.

Although the opportunity for the development of low impact tourism has been lost, the only solution that will ensure the financial viability of tourism at this point is conservation. The lesson to be learnt from Zakynthos is that resource degradation should be prevented in the first place by linking conservation with long term tourism development goals.

Biography

Giorgos Paximadis is the Marine Officer of WWF Greece. His academic background includes a B.A. in Economics and a M.Sc. in Marine Resource Management.

He has extensive experience in cetacean research and conservation. He has worked for Tethys Research Institute, Milano at the Ionian Dolphin Project in Greece, the Canary Islands Project in the Canarian Archipelago, and the Mediterranean Fin Whale Project in the Ligurian Sea. Furthermore, Giorgos is one of the founding members of Pelagos Cetacean Research Institute in Greece, of which he remains Vice-President to date.

He also has a wide experience in communications, having worked for Ogilvy advertising agency as an Account Director, handling numerous multinational accounts for 5 years.

The experience of
the National Marine Park of Zakynthos, Greece

Giorgos Paximadis, WWF Greece
Al Bayda, November 29, 2006

Contents

- Zakynthos Island
  - Location
  - Ecological importance
  - Tourism development
- Zakynthos Tourism
  - Characteristics
  - The picture today
- National Marine Park of Zakynthos
  - History and activities
- The future

Purpose

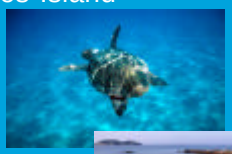
- Illustrate the need for
  - setting the appropriate development goals
  - preventing resource degradation in the first place

…by sharing the exactly opposite experience

Zakynthos Island

Zakynthos Island

- Ecological importance
  - Loggerhead turtles
  - Monk seals




Zakynthos Island

- Ecological importance
  - Migratory birds
  - Indigenous plants
  - Posidonia fields

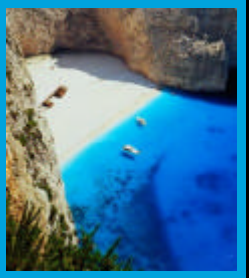


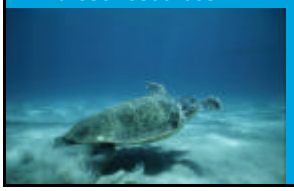
Zakynthos Island

- The "discovery" of Zakynthos in the 70s
  - NGOs (local, national, international)
  - The first steps of conservation in Greece
  - Local controversies
  - Social tensions
  - Lack of stakeholder participation in conservation

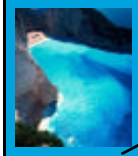
Zakynthos Island

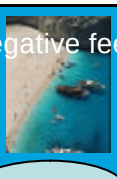
- Tourism associated with sea turtles and natural beauties
- Development patterns should capitalize on these resources...





The negative feedback loop





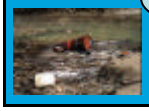
Tourist inflow

Infrastructure development

Unspoiled resources

Pressure on the environment

Resource degradation



Decrease in income from tourism

Zakynthos tourism

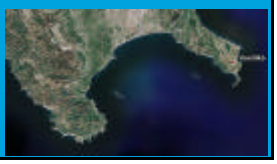
- Characteristics
  - Spatial and temporal concentration
  - Best beaches for turtles / best for tourists!
  - Best time for tourists: nesting period
  - 700.000 tourists/yr vs. 35.000 inhabitants
  - Medium to low income tourists

Zakynthos tourism

- The picture today
  - Umbrellas and sun-beds
  - Illegal buildings
  - Electric lights
  - Cars and motor bikes on beaches
  - Horseback riding
  - Boats
  - Turtle spotting
  - Quality of water
  - Waste problem

NMPZ

- The National Marine Park of Zakynthos
  - Set up under pressure from the EU in 1999 in the Bay of Laganas
  - First management body in Greece
  - Research and conservation
  - The role of NGOs

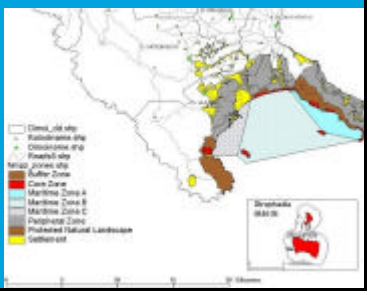


NMPZ

- WWF and the NMPZ
  - Purchase of 32.7 hectares around Sekania beach with the financial support of the EU and thousands of members from all over Europe in 1994
  - Every summer Sekania beach hosts 500-1000 nests, making it the most important nesting beach in the Mediterranean

NMPZ

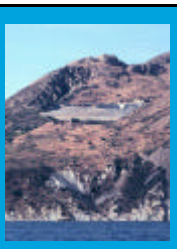
- Size
- Zoning system
- Restrictions
- Management



NMPZ

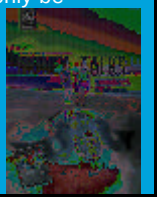
A reality check…

- Waste disposal site
  - Run off
  - Seagulls
  - Expansion
- Illegal buildings at Dafni area
- Insufficient patrolling and wardening
- Stakeholders' unrest and discontent



The future

- A lost opportunity…
- The only way to ensure the financial viability of tourism in Zakynthos in the long run is conservation, but at this point it can only be limited to damage control



The future

- The costs and the effects of development are visible after the long term thresholds have been crossed and the outcomes are almost irreversible

⇒ Prevent resource degradation in the first place!

- Identification of needs, careful planning, wise choices, analyses of interactions and conflicts, environmental monitoring, involvement of stakeholders

Thank you

NATURAL AND CULTURAL HERITAGE: What opportunities from tourism?

Case study:
The experience in Samadai (Egypt)

Giuseppe Notarbartolo di Sciara
Tethys Research Institute

Abstract

Spinner dolphins (*Stenella longirostris*) throughout the Tropics rest within coral reefs during daytime, after nights spent hunting in the open sea. Samadai, a dolphin-frequented reef few km off the Egyptian Red Sea coast, has attracted in recent years large numbers of tourists, who travel there to watch the dolphins and swim with them. Concerned about the potentially disruptive effect of uncontrolled tourist crowding in this vulnerable ecosystem, the Egyptian authorities closed Samadai to public access in 2003, and implemented a management scheme since January 2004. Management involved time and space restrictions (including the zoning of the reef with a no-entry area encompassing the dolphins' main resting space), a ceiling of 200 daily visitors, the leading of visits by trained guides, the adoption of a code of conduct, the strict enforcement of regulations, and a daily fee of € 15 per visitor. A monitoring programme, which was initiated contextually to the management scheme and continues to this day, indicates that the dolphin presence in Samadai has slightly increased from 2004 to 2006. Revenues to the tourist industry catering to Samadai's visitors are substantial, while entrance fees to a protected area no greater than four football fields generates a yearly governmental income of several hundreds of k€. Although perfectible, the Samadai case provides an excellent example of how: (a) the timely intervention by the government has halted the potentially irreversible degradation of a valuable natural resource, and (b) the implementation of a management regime is ensuring that two possibly incompatible objectives – dolphin conservation and fruition by tourists – are simultaneously met. Most importantly, Samadai is a demonstration that environmental protection can have economically important implications even in the short term

Biography

Giuseppe Notarbartolo di Sciara is a marine conservation biologist who earned is doctoral degree at the Scripps Institution of Oceanography (La Jolla, California) in 1985. His major professional interests focus on marine science, conservation and policy.

Giuseppe has been concerned for over 30 years with the advancement of knowledge of the natural history, ecology, behaviour, taxonomy and conservation of aquatic vertebrates, with an emphasis on marine mammals and cartilaginous fishes, and described his research in more than 100 scientific papers and 30 reports and conference presentations.

During the last decade he has concentrated efforts on the development of marine protected areas as a conservation tool. In particular, he has stimulated the creation of the first high-seas marine protected area, the Pelagos Sanctuary for Mediterranean Marine Mammals, established in 2002 by a Treaty among France, Italy and Monaco. He is now coordinator of the Mediterranean Group of the IUCN's World Commission for Protected Areas.

Giuseppe has been responsible for the leading and management of governmental and private, national and international science and conservation organisations, including the Tethys Research Institute, the Central Institute for Applied Marine Research (an Italian governmental body), and the European

Cetacean Society. He currently chairs the Scientific Committee of ACCOBAMS, an UN-based international agreement.

In recent years he has served as a marine policy advisor to various national and international bodies, and participated in multilateral meetings and negotiations in representation of Italy.

In many occasions Giuseppe has engaged in training and teaching activities. Through appearances on television and radio, and the publication of popular articles and prize-winning books, he has been striving to increase public awareness on the conservation of the marine environment, with an emphasis on the Mediterranean Sea.

Further details of Dr. Notarbartolo di Sciara's activities and accomplishments, including the full texts of his main publications, can be found in www.disciara.net.

The Samadai Dolphin Reef in Southern Egypt: balancing nature conservation with economic benefits

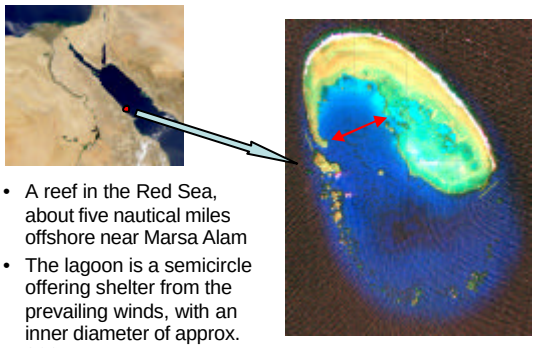
Giuseppe Notarbartolo di Sciara
Tethys Research Institute, Milano, Italy

Workshop on Sustainable Tourism
Al Bayda, 28-29 November 2006

The Samadai Dolphin Reef in Southern Egypt

- Where is Samadai and why is it special
- A brief history of management
- The current situation
- Main achievements

Where is Samadai and why is it special



- A reef in the Red Sea, about five nautical miles offshore near Marsa Alam
- The lagoon is a semicircle offering shelter from the prevailing winds, with an inner diameter of approx. 300 m.

Where is Samadai and why is it special

- One of the many offshore tropical coral reefs serving as a daytime resting place for spinner dolphins, *Stenella longirostris;*
- Dolphins normally enter the reef at daybreak to rest, and exit the reef during the afternoon, to travel beyond the shelf break to forage on mesopelagic prey.

A brief history of management in Samadai

The pre-2004 situation

- Rapid diffusion in the 1990s and early 2000s of the notion that Samadai was a place where anyone could swim with wild dolphins;
- The site is easily accessible by large numbers of tourists;
- Lack of regulations in terms of:
  - Number of visitors;
  - Time and area limitations;
  - Conduct of visitors;
- Great concern for the continuation of the use of Samadai by the dolphins, considering that these animals frequent the reef for their resting needs (negative precedents exist);
- **In Dec. 2003 access to Samadai was closed by decree of the Red Sea Governor.**

Implementation of a provisional management regime

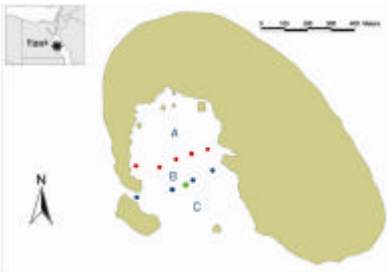
- Management was implemented in Jan. 2004 to ensure:
  - an acceptable quality of life for the dolphins in Samadai, and therefore the continued use of the reef by these mammals;
  - the orderly and sustainable fruition by the tourists of an extraordinary situation;
  - local development: income and workplaces in the tourist sector.

Implementation of a provisional management regime

- Why provisional? No data, use of precaution.
- Two management objectives:
  1. The continuation of the use of the reef by the **dolphins**.
  2. The continuation of enjoyment of such an extraordinary natural experience by the **tourists**.

Main elements of the provisional management plan

- Time and area limitations:
  - Zoning: A= no-entry zone (approx. 4 ha); B= swim-only zone; C= small boat zone.



Main elements of the provisional management plan

- Time and area limitations:
  - Zoning: A= no-entry zone (approx. 4 ha); B= swim-only zone; C= small boat zone.
  - Entry allowed from 10:00 to 14:00;
- Limits of access to the reef: seven boats, 100 snorkellers and 100 divers per day;
- Employment of trained, certified guides to lead and control visits in Zone B; maximum of 10 visitors/guide;
- Adoption of a code of conduct;
- Daily entrance fee of € 15 per person;
- Regular monitoring programme and constant enforcement performed by the Red Sea Protectorates.

Monitoring activities

- Rangers were trained in monitoring techniques in Jan. 2004;
- Monitoring continued on a daily basis from Jan 2004 onwards (ongoing);
- Data are being collected on:
  - Seasonal trends and year-to-year trends of the presence of dolphins in Samadai;
  - Changes of dolphin behaviour and reef use with time of day;
  - Human effects on the dolphins' presence;
  - Environmental effects on the dolphins' presence.

Research and training project

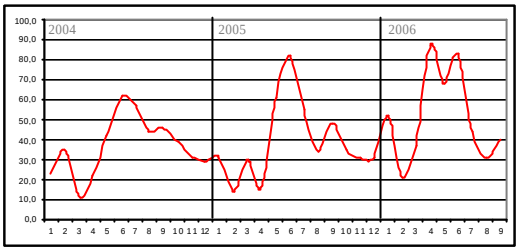
- Duration of project: Oct. 2005 – Sep. 2006
- Project funded by the Italian Cooperation Office in Cairo, through the Debt Swap Programme.
- Main goals of the project:
  - Progress in the knowledge of spinner dolphins and Red Sea marine mammals in general, and provide elements for the improvement of Samadai management regime;
  - Local training in research and management techniques.

Focus of research

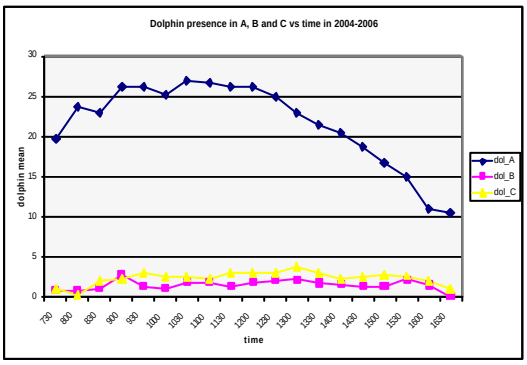
- Ecology of spinner dolphins in Samadai:
  - Use of reef
    - Temporal use (by season and by time of day)
    - Spatial use
  - Feeding habits
  - Breeding habits
- Behaviour
- Photo-identification

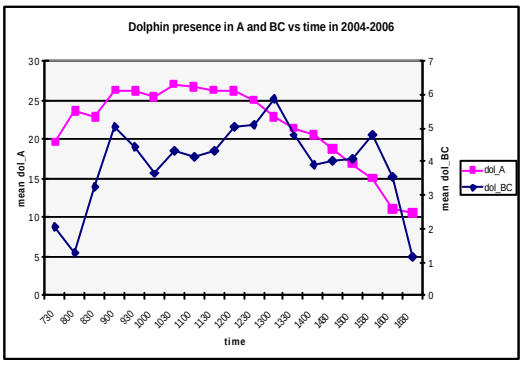
Some results of research and monitoring activities

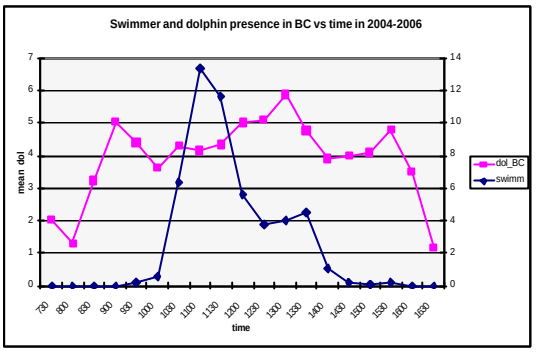
Presence in Samadai



mean monthly number of spinner dolphins in Samadai, 2004 - 2006





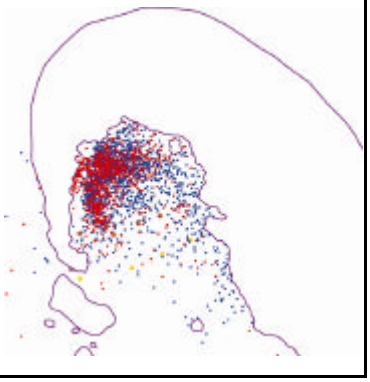


Dolphins' use of reef vs. time of day

Dolphin positions tracked at 2.5 min. intervals on a sample day.

red dots: positions from 6.00 to 11.59

blue dots: positions from 12.00 to 16.00



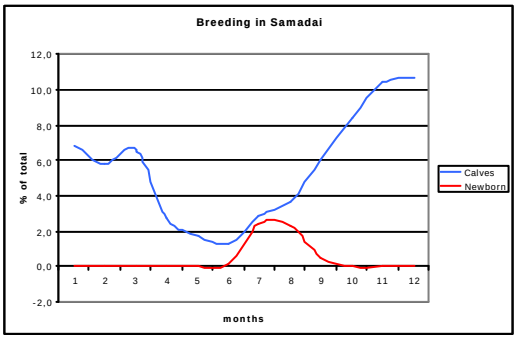
Feeding habits

Squid beaks found in dolphin vomits

small mesopelagic squid, possibly enoploteuthid

Reproduction

Seasonality of reproduction



Aerial behaviours




Aerial behaviours: changes with time of day

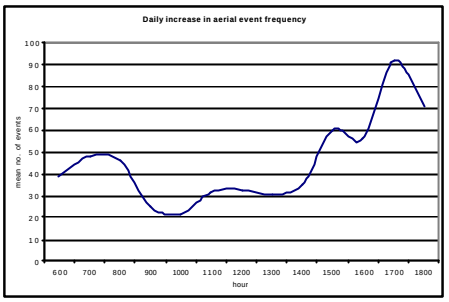
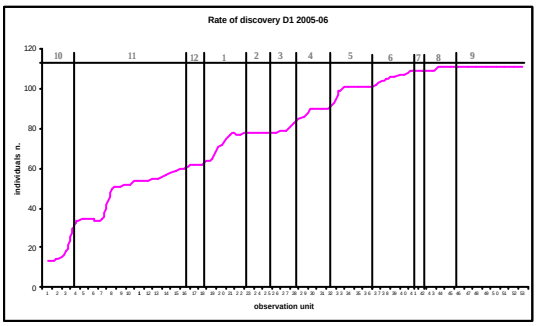
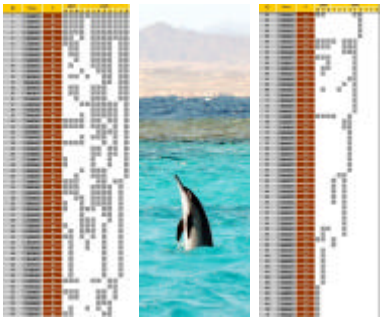


Photo-identification

- Recognition of particular individuals from their body marks to detect fidelity to sites and fidelity to other group-members;
- Indications about the size of the population.



Residency in Samadai of the 111 most identifiable individual dolphins



Research conclusions relevant to management

- Samadai is an important habitat for spinner dolphins for daytime resting, socialising and breeding.
- The dolphins' behaviour and use of reef changes with time of day in a predictable pattern.
- Although dolphins use the reef regularly, their abundance in the reef varies seasonally, also in a predictable pattern.
- There is a marked breeding season in Summer.

Research conclusions relevant to management

- Dolphins using Samadai are likely to be a community of <400 individuals.
- Dolphins observed and photo-identified in Samadai were not the same of those observed in other reefs to the south (e.g., Satayah).
- Dolphins forage during the night, likely above or beyond the shelf break; their main prey during the study period apparently was a small enoploteuthid squid.
- **Dolphins have not been declining since the beginning of management in Samadai; coexistence with strictly regulated tourist activities is possible.**

Recommendations for Management

1. **Zoning of Samadai**
2. **Visiting regulations**
3. **Enforcement**
4. **Communication**

1. Zoning of Samadai

Based on research conclusions, the current zoning can be slightly modified with no obvious detriment to the dolphins but to the benefit of swimmers

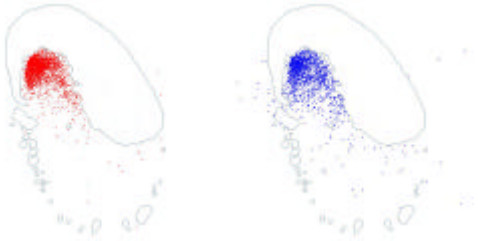
Current zoning

Suggested zoning

2. Visiting regulations

- Extension of visiting time from the current schedule to encompass the period 9.30 – 16.30 (inform visitors that likeliness of encountering dolphins outside of Zone A increases with time of day).

Use of reef: changes with time of day



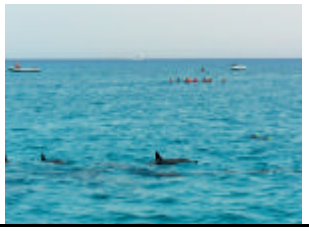
positions from 10.00 to 12.00 positions from 12.00 to 16.00

2. Visiting regulations

- Extension of visiting time from the current schedule to encompass the period 9.30 – 16.30 (inform visitors that likeliness of encountering dolphins outside of Zone A increases with time of day).
- Swim visits in Zone B must always be conducted by trained guides.
- Maintenance of current visitor ceiling at 200 per day.
- Try to distribute visits during the allowed period.

3. Enforcement

Enforcement of regulations by rangers is **essential** at all times



Communication from the Managing Authorities

- A communication channel between the MA and the tourists themselves must be kept open. This may be done by an intermediary organisation.
- Dissemination of state-of-the-art information material for tourists, including: (a) information on the Samadai marine environment, (b) spinner dolphins, (c) code of conduct, through posters (e.g., in the airport, in the hotels, dive centres, etc.), booklets, leaflets, and possibly an information centre.
- Periodical organisation of seminars for operators, to facilitate a participatory, transparent relationship

Communication from the Managing Authorities

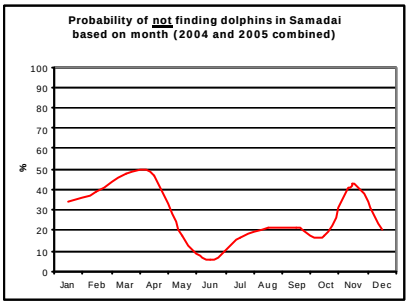
- Quality control of the information provided by operators to tourists
- Quality control of snorkel guides' training and certification
- Solicit and facilitate direct feedback from tourists to MA through a questionnaire and evaluation/complaint sheets (paper and web-based).

Communication from the Tourist Operators

1. Modify the message on what is being offered in Samadai
2. Revise and improve information provided to tourists before visit and pre-snorkel.

1. Modify the message on what is being offered in Samadai

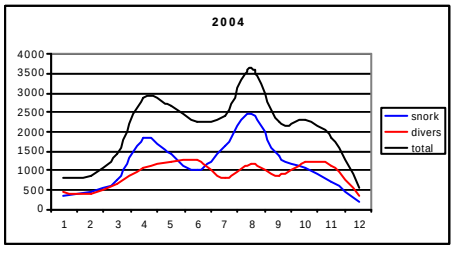
- Samadai is a protected area with many valuable elements; dolphins are one of them. These are **"coral dolphins"** and coral is an important part of why dolphins are special
- Provide information and increase awareness about all the natural elements that make Samadai beautiful
- Dolphins are wild animals, free to do what they want. Part of their beauty is in the image of freedom they convey.
- Dolphins are not always in Samadai (statistics are available); there are seasons; so their presence is never guaranteed



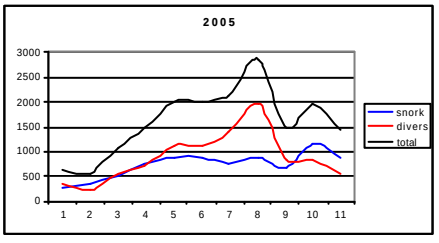
Visitors may miss the dolphins in Samadai but they still are privileged to visit such an intact marine reef.

2. Revise and improve information provided to tourists before visit and pre-snorkel

- Implement sessions of dolphin-watching from the top deck of boats, with binoculars and display material, during time between arrival to Samadai and time of snorkel session
- End dolphin-watching session with briefing on snorkel session prior to visit in the water.



Tourist presence in Samadai: 2004
23,977 visitors, € 360,000



Tourist presence in Samadai: 2005
17,534 visitors, € 263,000

Achievements of management and related activities

- Until the management continues, dolphins are protected and will continue using the reef.
- At the same time, tourists can continue enjoying an extraordinary experience on a sustainable basis, while providing significant revenues to the local tourist industry.

Achievements of management and related activities

- The Samadai dolphins, from an area no wider than four football fields, support conservation in the whole of the southern Egyptian coast: revenues from government fees in Samadai have allowed the Red Sea protectorates to hire > 60 persons, employed in several locations from Marsa Alam southwards.
- Strong case is made for the protection of the marine environment in Egypt, which can provide lasting economic resources and sources of development in alternative to mass tourism and major coastal construction and infrastructure.

Acknowledgments

- The Red Sea Governorate
- The Red Sea Protectorates
- The Egyptian Environmental Affairs Agency
- The Italian Cooperation Office in Cairo, and in particular Nino Merola, Marco Spada, Marco Marchetti
- Research assistants Marina Costa, Amina Cesario, Maddalena Fumagalli, Géraldine de Montpellier, Giovanna Pesante
- Ameer Abdulla, IUCN Global Marine Office, Gland and Malaga
- Research trainees Beshoy Morise, Ahmed Shawky, and Red Sea rangers Ahmed Abd El-Khalik, Amgad El-Shaffai, Sayed Khodary, Mohammed Bessar, Hamed Fathy, Sameh El-Masry, Mukhtar Beher
- Diving Ocean for their initial support
- The skippers and the Tondoba facilities.

Thank you

NATURAL AND CULTURAL HERITAGE: What opportunities from tourism?

Case Study:

Using GIS in relation to ecotourism – the experience of the Libyan Arab Jamahiriya

Osama M. A. Shalouf

Environment General Authority EGA

Abstract

Tourism is important for any healthy economy, providing a steady inflow of money to local businesses. When planned out and marketed well, tourism can be a powerful economic force. GIS can help tourism succeed. The integration of roads, buildings, landmarks, restaurants, hotels and routes with prices, availability, and activities can make GIS a valuable tool in tourism.

The first part:

- Why is GIS important to tourism?
- Eco-tourism definition.
- The principles of eco-tourism.

The second part:

- How is GIS important to tourism development?

The third part:

- Using GIS in eco-tourism planning.
- Using GIS in seedy - Almasry National Park.
- Using GIS application in seedy - Almasry National Park.

The fourth part:

- Using GIS to convert the hard copy to digital copy for Abo-Gilahn National Park.

Biography

Name: **Osama M. Shallouf**

Date of birth: 22/11/1971

Environment General Authority

Bsc. Forest science

Master degree in protected area.

Member of Libyan association for marine science

General Manager of Green Line Centre (Private GIS centre)

GIS IN ECO-TOURISM

ENVIRONMENT GENERAL AUTHORITY
DEPARTMENT OF NATUER CONSERVATION
OSAMA.M.SHALLOUF

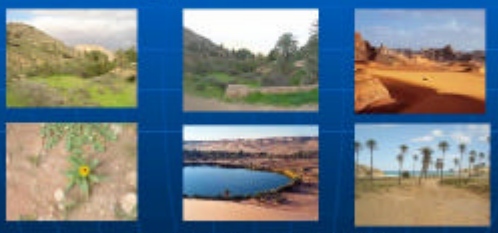
Outline

- Introduction in gis & tourism
- What is a GIS Good At?
- Why is GIS important to tourism?
- GIS/Tourism – Planning
- GIS/Tourism – Guide

Introduction in gis & tourism

Tourism is important for any healthy economy, providing a steady inflow of money to local businesses. When planned out and marketed well, tourism can be a powerful economic force. GIS can help tourism succeed. The integration of roads, buildings, landmarks, restaurants, hotels and routes with prices, availability, and activities can make GIS a valuable tool in tourism..

- A main difficulty is that the tourist sector is large and diverse that even with detailed research, unique and interesting places will be overlooked



Why is GIS important to tourism?

- 13 of 15 questions most likely to be asked by tourist have a "where" element

ECO-TOURISM DEFINATION

"Ecotourism is responsible travel to natural areas that conserves the environment and sustains the wellbeing of local people."

The Ecotourism Society, 1991

This means that those who implement and participate in ecotourism activities should follow the following principles:

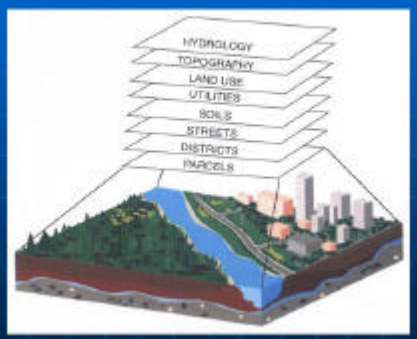
- Minimize impact
- Build environmental and cultural awareness and respect
- Provide positive experiences for both visitors and hosts
- Provide direct financial benefits for conservation
- Provide financial benefits and empowerment for local people
- Gain an understanding of host countries' political, environmental, and social

أهمية نظم المعلومات الجغرافية – للتنمية السياحية

مقدمة:

تتميز الجماهيرية بجمال طبيعتها ومناخها الساحر ، والذي جعلها قبلة سياحية لهواة السفر والسياحة من مختلف بلدان العالم بما حباها الخالق من عوامل الجذب السياحي المتعددة والتي تنفرد بها عن معظم بلدان العالم أجمع ، وتعتمد السياحة على مقومات طبيعية وتراث حضارة وعناصر ترفيهية ووسائل نقل وإمكانيات إقامة وعلاقات و مجهودات إنسانية متشابكة عن طريق إبراز المعالم السياحية بصورة لائقة تتفق مع طابعها وطبيعتها ، وإعداد الطرق وسبل المواصلات المناسبة إليها ، وتوفير الخدمات السياحية حول هذه المعالم.

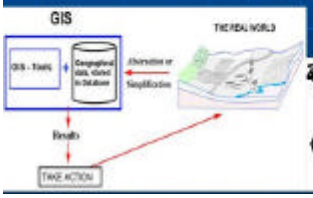
أهمية نظم المعلومات الجغرافية في التنمية السياحة



أهمية نظم المعلومات الجغرافية – للتنمية السياحية

ومن هذه المقومات الطبيعية و البشرية المتعددة المؤثرة في الجذب السياحي , و مع التقدم في تكنولوجيا المعلومات اصبح من الضروري مواكبة العصر و تطويع هذه النظم لتنمية و تطوير السياحة .

ومن المعروف ان المكان و الموقع هو العنصر الهام في السياحة فقد تم استخدام نظم المعلومات الجغرافية في ادارة و تطوير القطاع السياحي , لما لها من القدرة الفائقة في تحليل و ادارة و تخزين قواعد البيانات المكانية المرتبطة بالمواقع .



الربط بين البيانات المكانية والوصفية في قاعدة بيانات واحدة داخل نظم المعلومات الجغرافية تساهم في دعم اتخاذ القرارات المختلفة .

أهمية نظم المعلومات الجغرافية

أهمية نظم المعلومات الجغرافية – للتنمية السياحية

امكانيات نظم المعلومات الجغرافية فى القطاع السياحى

1- تحديد مقومات الطلب السياحى

- مقومات طبيعية (الموقع الجغرافى – التضاريس – المناخ الحياة النباتية و الحيوانية) .
- مقومات بشرية (الارث الحضارى – المراكز و المزارات الدينية – المراكز الثقافية و الفنية – المراكز العلمية)

أهمية نظم المعلومات الجغرافية

تبرز أهمية نظم المعلومات الجغرافية بصفة عامة لقدرتها على:

1. القيام بعمليات الاستعلام و التحليل الجغرافي
2. اتخاذ قرارات افضل
3. إخراج الخرائط

أهمية نظم المعلومات الجغرافية – للتنمية السياحية

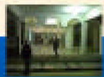
امكانيات نظم المعلومات الجغرافية فى القطاع السياحى :

القدرة على دعم اتخاذ القرار فى عملية التخطيط السياحى لتحديد :

- المناطق الصالحة للتعمير السياحى.
- المناطق التى تخضع لتخطيط طبيعى خاص.
- المناطق التى تترك على طبيعتها.
- تحديد القدرة الاستيعابية للمناطق المختلفة وتقدير عدد المشتغلين بالعمل أو الخدمة السياحية فى المنطقة.
- تحديد المساحات اللازمة لكل منطقة سياحية على أساس المعدلات المناسبة لها.
- تحديد نوع وفئة وطبيعة الاسكان السياحى.
- المرافق العامة اللازمة (مياه،كهرباء،صرف) والخدمات التكميلية التشجير والحدائق الملائمة لطبيعة المنطقة.

أهمية نظم المعلومات الجغرافية – للتنمية السياحية

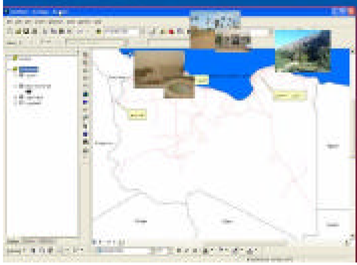
امكانيات نظم المعلومات الجغرافية فى القطاع السياحى :



انشاء خرائط رقمية و قواعد البيانات لغرض

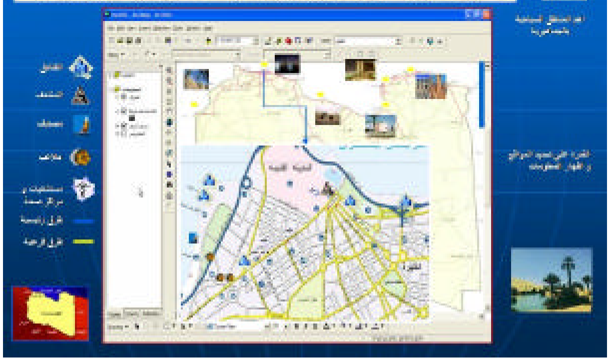
2. *تحديد انماط العمران السياحى*

- المنتجعات الشاطئية.
- المنتجعات الجبلية.
- منتجعات العيون المعدنية.
- المنتجعات الريفية والبدوية.



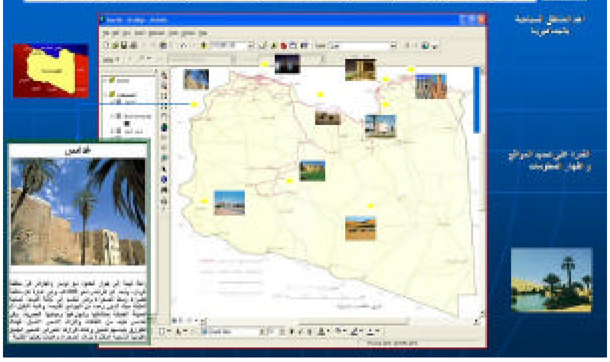
أهمية نظم المعلومات الجغرافية – للتنمية السياحية

القدرة على انتاج العديد من الخرائط السياحية الرقمية :



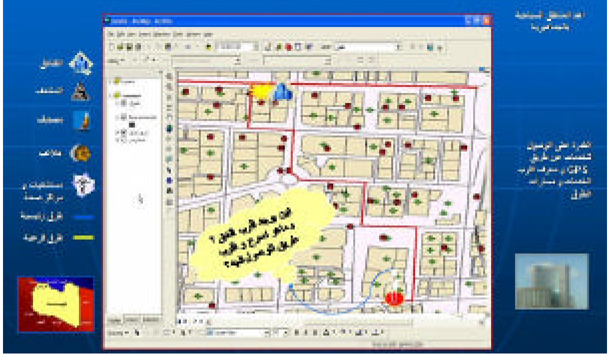
أهمية نظم المعلومات الجغرافية – للتنمية السياحية

القدرة على انتاج العديد من الخرائط السياحية الرقمية :



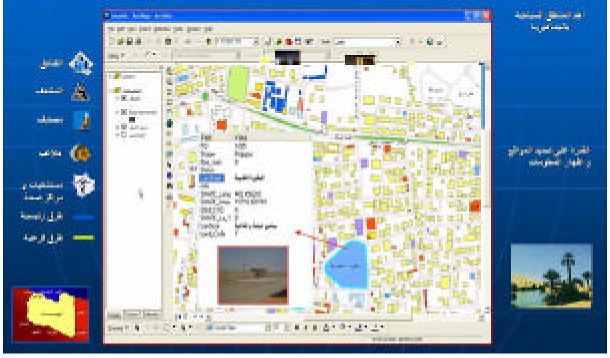
أهمية نظم المعلومات الجغرافية – للتنمية السياحية

القدرة على انتاج العديد من الخرائط السياحية الرقمية :



أهمية نظم المعلومات الجغرافية – للتنمية السياحية

القدرة على انتاج العديد من الخرائط السياحية الرقمية :



أهمية نظم المعلومات الجغرافية – للتنمية السياحية

منظومة الاستعلام و الدليل السياحى :

القدرة على دمج المعلومات السياحية مع تقنية الاتصالات

مشروع منتزه سيدي المصري

استخدام نظم المعلومات الجغرافية في تخطيط السياحة البيئية

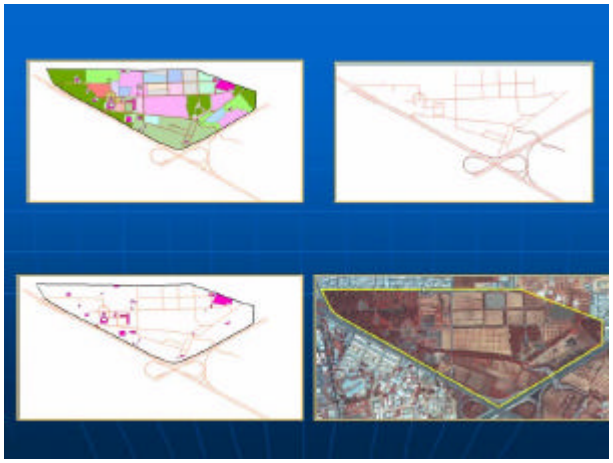
صورة بالقمر الصناعي ايكونوس توضح حدود منتزه سيدي المصري

مقدمة

يقع منتزه سيدي المصري في وسط مدينة طرابلس يحده من الشمال منطقة سكنية كثيفة هي منطقة رأس حسن و من الشرق منطقة زناته و من الجنوب طريق الجامعة - سيدي المصري ، و من الغرب منطقة باب بن غشير على مساحة 88.6 هكتار تقريبا (88.5991 هكتار).و هو عبارة عن غابة ذات طبيعة خاصة تمتاز بتنوع حيوي كبير جدا من أشجار غابات و أشجار مثمرة و حوليات و نباتات زينة و طيور و حشرات مستوطنة للموقع مما يزيد من أهميتها و امتيازها ، و هي بمثابة متحف حيوي قائم يجب الحفاظ عليه و حمايته و استغلاله بالطرق الصحيحة و تنميته بإتباع منهجية التنمية المستدامة .

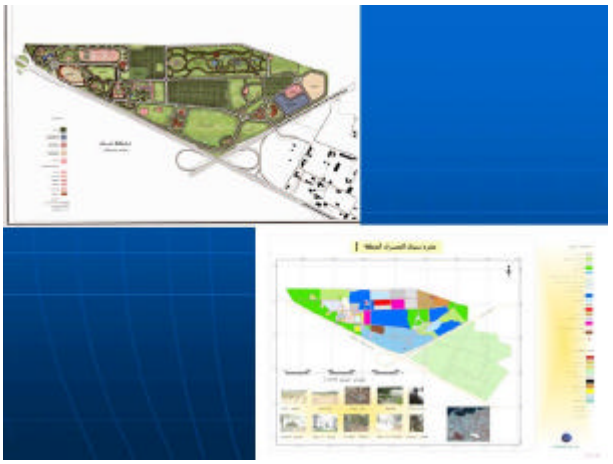

خريطة تبين توزيع الطرق داخل المنتزه

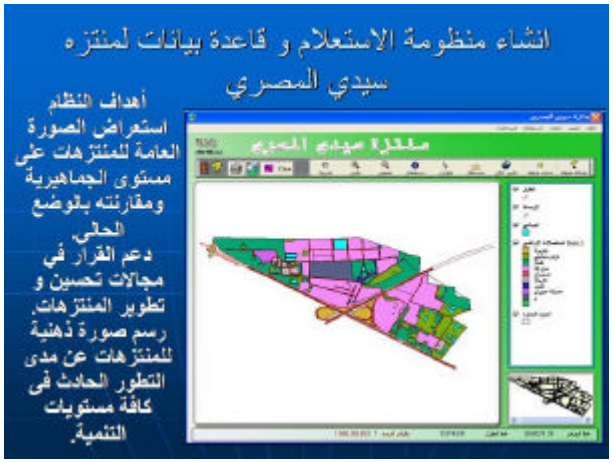

خريطة تبين توزيع المبانى و المنشات داخل منتزه سيدى المصرى



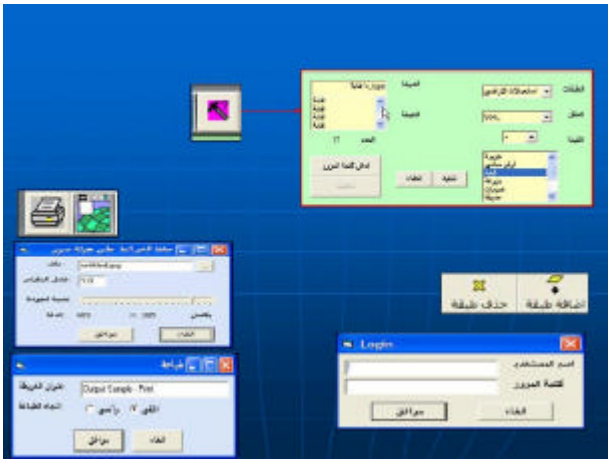

عملية دمج الطبقات


خريطة استعمالات الاراضي و الاخراج النهائي



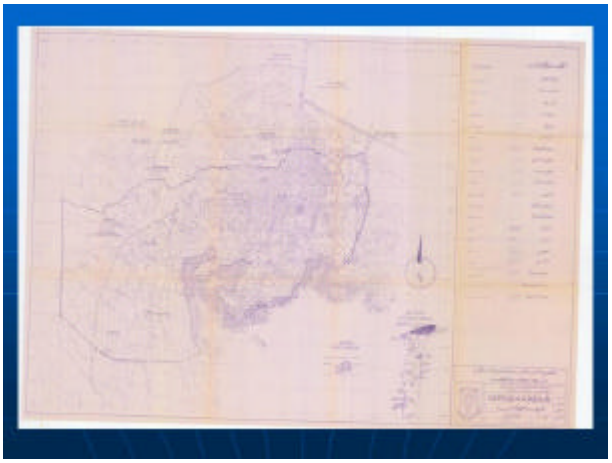

انشاء منظومة الاستعلام و قاعدة بيانات لمنتزه سيدي المصري
أهداف النظام
استعراض الصورة العامة للمنتزهات على مستوى الجماهيرية ومقارنته بالوضع الحالي.
دعم القرار في مجالات تحسين و تطوير المنتزهات.
رسم صورة ذهنية للمنتزهات عن مدى التطور الحادث في كافة مستويات التنمية.

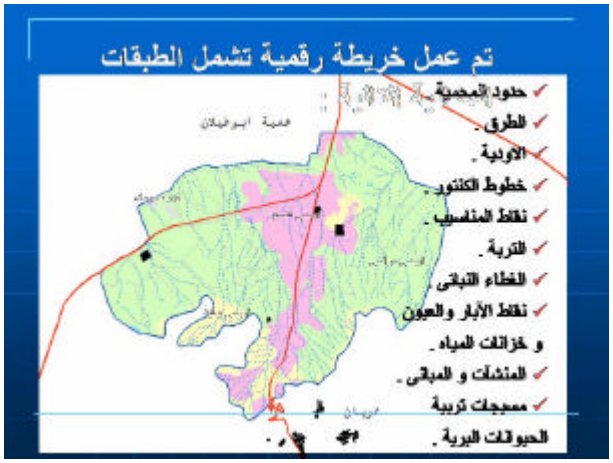

قواعد بيانات النظام
قاعدة بيانات موحدة، تهدف الى تخزين وإدارة البيانات بكافة أنواعها.
البيانات المخزنة عبارة عن:
قواعد البيانات الجدولية المجمعة عن المنتزهات.
خرائط حدود المنتزه بمقياس رسم 1 : 5000 مرتبطة بالأسماء (ومرتبطة بقواعد البيانات الجدولية الخاصة بالمنتزه).
خرائط الطرق الرئيسية و الفرعية بالمنتزه (ومرتبطة بقواعد البيانات بالمنتزه).
خرائط الغطاء النباتي و استخدام الأرض مرتبطة بالأسماء (ومرتبطة بقواعد البيانات الجدولية الخاصة بالمنتزه).
خرائط المباني و المنشآت داخل المنتزه مرتبطة بالأسماء (ومرتبطة بقواعد البيانات الجدولية الخاصة بالمنتزه).
خرائط الآبار و الخزانات العلوية و السفلية.
خرائط تواجد الاحياء و النباتات النادرة و المهددة بالانقراض
تتيح قاعدة البيانات إمكانية إدارة البيانات مثل إدخال البيانات، تحديث البيانات، الحفظ الدوري للبيانات.
تتيح قاعدة البيانات تنظيم تعامل أكثر من مستخدم للبيانات .

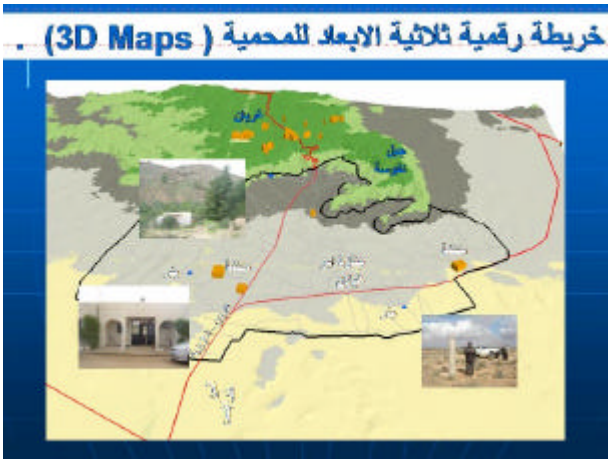


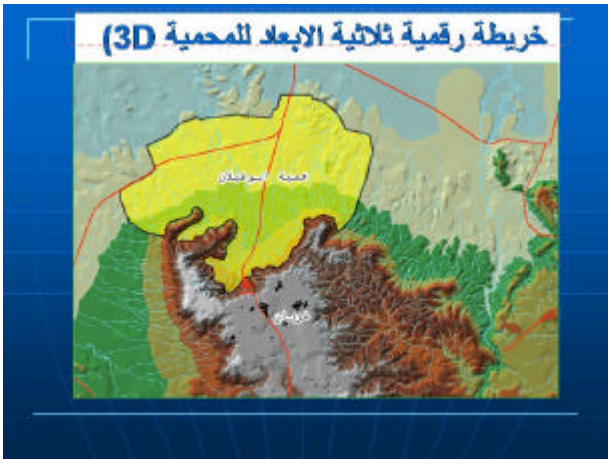

محمية أبو غيلان
باستخدام نظم
المعلومات الجغرافية


نبذة عن المحمية
الموقع العام : تقع محمية ابوغيلان على يمين ويسار الطريق الواصل بين مدينة الغزيزية و مدينة غريان و تبعد عن مدينة طرابلس بمسافة 65 كم حثوياً .
السمات الطبيعية :
تتميز المنطقة بوجود هضبة صخرية تعتبر امتداد للسفوح الشمالية لجبل نفوسة حيث يمر بداخلة مجموعة من الاودية و المسارات المائية .

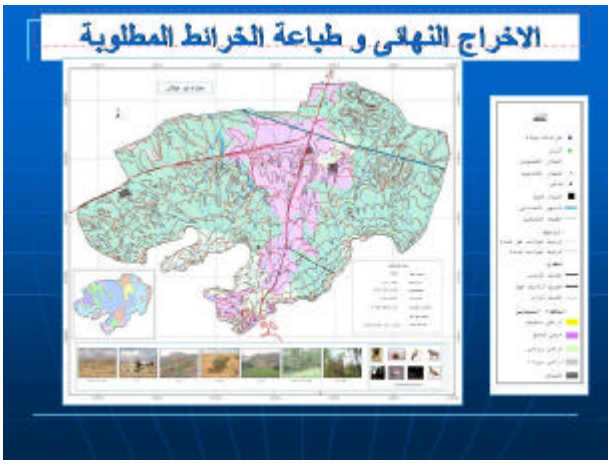


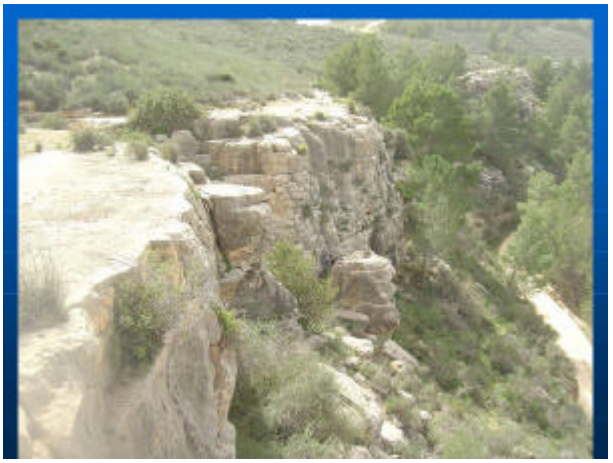

تم عمل خريطة رقمية تشمل الطبقات
حدود المحمية .
الطرق .
الاودية .
خطوط الكنتور .
نقاط المناسيب .
التربة .
الغطاء النباتى .
نقاط الآبار والعيون
و خزانات المياه .
المنشآت و المبانى .
مسميات تربية
الحيوانات البرية .


خريطة رقمية ثلاثية الابعاد للمحمية (3D Maps) .


خريطة رقمية ثلاثية الابعاد للمحمية (3D


1.انشاء و تصميم قواعد بيانات تتكون من :
قاعدة معلومات لأنواع العشب والنباتات .
قاعدة معلومات لأنواع الحيوانات
قاعدة معلومات لأنواع الطيور .
قاعدة معلومات للخدمات البشرية الدورية .
قاعدة معلومات لبيوت ومخابئ الحيوانات والطيور .





köszönöm תודה! děkuji
mahalo 고맙습니다
thank you
謝謝 shie shie 谢谢 danke
Ευχαριστώ merci شكرا
どうもありがとう gracias