



International Conference on Environment: Survival and Sustainability

19-24 February 2007 Nicosia-Northern Cyprus

Organized by Near East University

www.neuconference.org



COMMUNITY BASED ECO-TOURISM POTENTIALS AT THE DIPKARPAZ NATIONAL PARK AREA: OPPORTUNITIES AND THREATS

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INTRODUCTION:

The island of Cyprus, is void of terrestrial and marine parks. The land and natural and biological resources have been misused for centuries, therefore, good fauna and flora exists only on small and remote areas of the Island. The four areas in Cyprus which are of vital ecological importance are: Akamas Peninsula in the west, Larnaka and Limassol salt lakes in the south and Karpas Peninsula in the north- east. According to Kettaneh et. al. (1988), "the Peninsula and sea shores will be the most ideal National Park in the Eastern Mediterranean Region, due to its good location near Turkey, Syria, Lebanon and Israel and closeness to Europe, North Africa and Asia."

UNDERSTANDING COMMUNITY-BASED ECOTOURISM DEVELOPMENT

"After WW2, parallel to the technological developments, population growth, increase in the disposable income and development of means of transportation promoted the development of mass tourism. Mass tourism's environmental and socio-cultural cost on localities throughout the world have prompted policy makers at the international, national and community levels to re-examine their stance towards industry. Consequently, there is growing understanding in different stakeholders that future tourism developments should be sustainable. In terms of tourism, whereas conventional mass tourism could be defined as the product of global greed economy, ecotourism could be an element of alternative tourism that targets the sustainable society" (Yuksel, 1997).

Many definitions of ecotourism have been developed since the phrase was coined in the mid-1980s by Ceballos-Lascurain, "Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features - both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations"(Ceballos-Lascurain,1996).

The International Ecotourism Society defines ecotourism as "responsible travel to natural areas that conserves the environment and sustains the well-being of local people". This definition not only implies that there should be a recognition of, and positive support for, the conservation of natural resources, both by suppliers and consumers, but also that there is a necessary **social dimension** to ecotourism.

As (WWFI, 2001) identified "the term '**community-based ecotourism**' takes this social dimension a stage further. This is a form of ecotourism where the local community has substantial control over, and

involvement in, its development and management, and a major proportion of the benefits remain within the community”.

The **community-based ecotourism development** is based on three core principles; conservation has to take place, the local community has to benefit from tourism and it should educate tourists, industry and the host population that refers to the three main principles of sustainability:

- Ecological Sustainability to protect the ecology and biological diversity that ensures ecotourism development to be appropriate to the carrying capacity of the ecosystem
- Social and Cultural Sustainability to preserve a society's identity that enables the decision making to involve all the stakeholders of the community
- Economic Sustainability to ensure economic efficiency and the management of resources so that they can support future generations (Nikolova and Hens, 1997).

BACKGROUND OF THE DIPKARPAZ NATIONAL PARK AREA

Geographical Location

Cyprus is the third largest island after Sicily and Sardinia, situated in the north-eastern corner of the Mediterranean Sea. She has an area of 9,251 square kilometers. The distances to the neighboring coasts are 72 km to the north Turkey, 105 km to the east Syria, 350 km to the south Egypt and 600 km to the west Greece.

Dipkarpaz National Park Area (DNPA) is located in the eastern side of the island of Cyprus at the Karpaz Peninsula as shown on the (**Figure 1**). The boundaries of the Park was defined by the line joining the points of latitude and longitude (15°5'E - 38°0'N; 18°0'E - 34°4'N; 23°2'E - 34°6'N ; 23°7'E - 24°1'N).

This distinct area, comprising the land mass and the surrounding marine environment, extends from the eastern side of the town of Dipkarpaz (village located middle of the distance between north and south side of sea coast with the population around 2,000 people) to the tip of the Island which is known as Cape St. Andreas, including a group of small islands (Klidhes islands). The sea surrounds the area from three sides, i.e. North, East and South, therefore the elongated land resembles a tongue.

The average length of the area from west to east is about 22 km. and the width is about 5 km. Accordingly the DNP Area is 94.9 km². The length of the coast around the DNPA is about 65.8 km.

Legal Status of the Dipkarpaz National Park Area

Efforts for the establishment of national parks in Cyprus have been continuing since 1983. In 1983 by the resolution of Council of Ministers an area of 2,000 ha. in Karpaz Peninsula declared as National Park. But the political pressures of tourism investors to develop this area for mass tourism stopped further studies in this respect. Struggle of wide range of environmentalists against tourism investments caused to conflicting resolutions of the Council of Ministers and leads to the position of stalemate for a long time. In 1988 Department of Forestry prepared a plan to establish three national parks and extended the area of Dipkarpaz National Park to 8,000 ha. Council of Ministers came with another resolution in 1993 identifying different boundaries for the 'Karpas Peninsula National Park Area' (Yuksel, 1996).

Studies done by The Department of Town Planning in 2004 for the park area, produced a physical plan for Karpas peninsula. Dipkarpaz National Park now is part of this planning area. The current boundary of the Dipkarpaz National Park was defined by the “Karpas Region, Control and Development Ordinance” by the resolution of the Council of Ministers (Oztek, 2005) . The Karpaz National Park area that comprised of the “Natural and Archaeological Site” and “Ancient Carpasia Archaeological Site” was designated by the Supreme Commission of Monuments in November 1995. It begins north

east from Ronnas Bay's dunes and across the northern and eastern part of Dipkarpaz village to Chelones place in south of village up to the Cape Apostolos

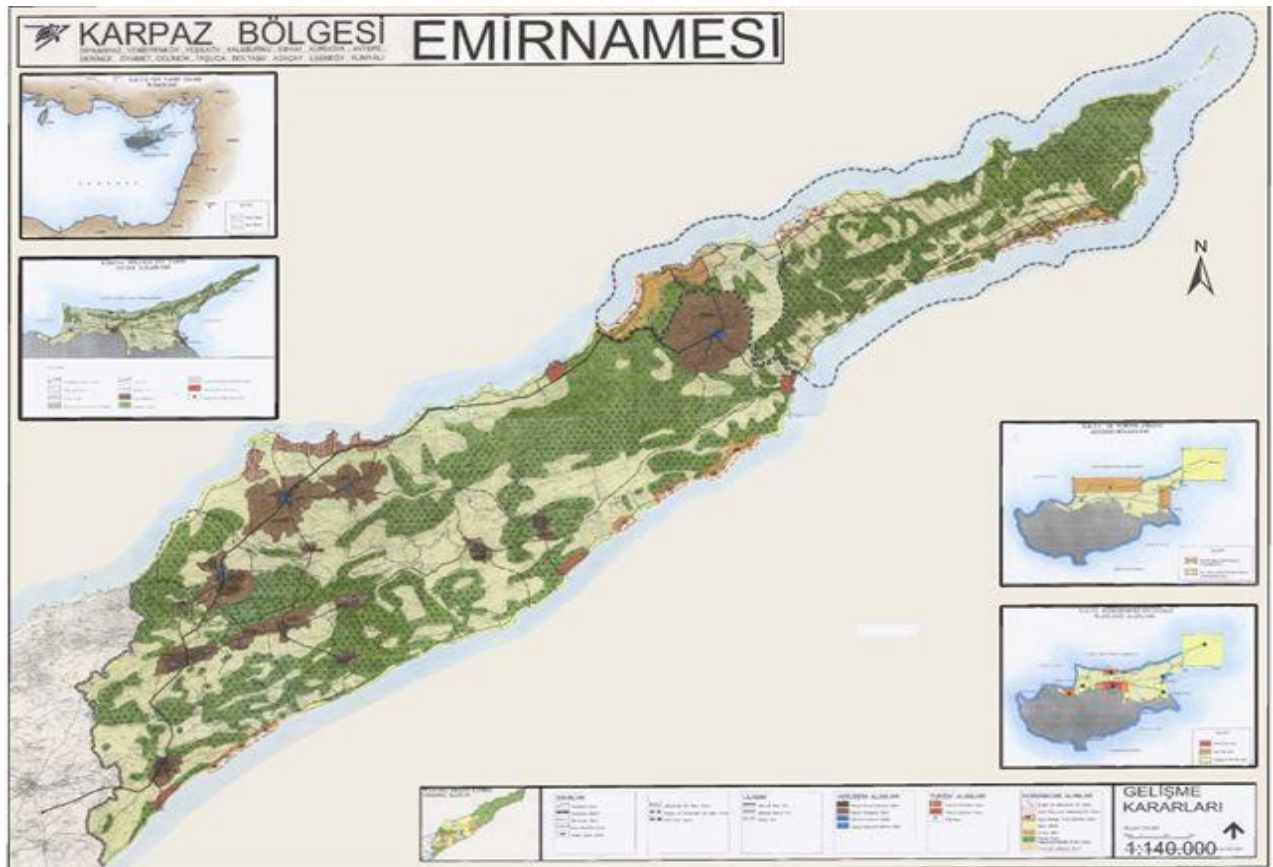


Figure 1: Dipkarpaz National Park Area (as indicated by the dashed area) on “Karpaz Region, Control and Development Ordinance” Map.

Andreas. Despite the existence of an Ordinance that describes the Karpaz National Park Area “there is no official protected area network” (USAID-CYPRUS. 2006) in the northern part of Cyprus.

Topography and Geology

The land formation of the Karpaz Peninsula belongs to the third geological period and considered as the extension of Kyrenia Range in the north of the island which is an Alpine fold mountain system. The rocks are of the limestone and sand-stone character. They are considered as second grade aquifer for water holding. The elevation differs between sea-level and 241 m. The increase of the elevation is towards the center line and the western part of the Area.

Dreghorn (1978), describes the Dipkarpaz area as a chain of low hills and scarps that consists of two segments. The segment of the range between Dipkarpaz and Apostolos Andreas Forest, constitutes 10 km long by one km wide elongated plateau, whose height varies from 150 to 241 m. The other segment is found in the Apostolos Andreas section of the Karpaz Peninsula in the form of low dome-like plateau at an average height of 100 m.

Hydrogeology

The Karpaz Peninsula has mainly impervious rocks of the Kythrea Formation overlain by generally thin Pliocene-Pleistocene sedimentary rocks. Only near Dipkarpaz are the layers thick and enough to form small groundwater units. Water infiltrating into the Limestone Group, which forms the central backbone of the Peninsula, outflows in small springs (UNDP, 1970).

There are no running or continuous water streams or wadis in the area. The main source replenishing the water resources of the Karpaz Peninsula is rainfall. All the wadis are running when the land is saturated after an excess rainfall and towards to north or south. There are more than 18 wadis draining the watersheds to the north or south. Water scarcity as whole of the Northern part of Cyprus have been due to the overused water resources, unsustainable water use and mismanagement (UNDP-PFF, 2006).

Flora and Fauna

“Dikarpaz National Park Area is one of the richest areas with respect to fauna in Cyprus. In Northern part of Cyprus, 1,410 species and subspecies of flora are identified. $\frac{3}{4}$ of these species and subspecies are found in Karpaz peninsula and $\frac{1}{2}$ of these are growing in Dipkarpaz National Park area. Also, 24 species out of 47 species endemic to north Cyprus and 128 endemic to Cyprus are found in Dipkarpaz National Park. Park area is also houses more than 100 species of rare plants” (Oztek, 2005).

Forests cover about 45% of the DNP Area of which 79.3% of the total forest area compose of nonproductive forests, whereas 20.7% of total forest land includes productive forests (Pinus brutia forests, maquis, Junepurus phenicea).

According to Meikle (1977), Karpaz Peninsula is one of the eight Botanical Divisions of Cyprus, where the DNPA comprising part of it. Meikle, described the Peninsula as an area of fertile cultivated fields, low hills and extensive sandy and rocky shores where flora includes a miscellany of rare plants such as *Fumaria galliardotii*, *Enarthrocarpus arcuatus*, *Helianthemum ledifolium* and *Trifolium globosum*. *Rosamarinus officinalis*, very rare as a wild plant in Cyprus, grows in some abundance around the town of Dipkarpaz. Within the boundaries of DNPA thirteen endemic rare plants has been identified. The Carob (*Ceratonia siliqua*) and Olive (*Olea europaea*) are trees that cultivated since ancient times spreading all around the area.

Dianthus cypria, *Pimpinella cypria*, *Ferulago cypria*, *Hypericum repens* *Mentha longifolia* ssp. *Cypria*, *Origanum majorana* var. *tenuifolium*, *Teucrium divaricatum* ssp. *Canescens*, *Mandragora officinarum* and *Juniperus* spp. are some of the flora which are found in the park area and protected under “The Flora and Fauna Conservation Ordinance” under which 51 species of plants were placed under conservation.

Dipkarpaz National Park Area is an important place for fauna. According to “The Flora and Fauna Conservation Ordinance”, 238 species of fauna is under protection, and 162 out of the total species live in the park area (local and migrants). 68 % of the endangered species under protection are found in the park area. Under the ordinance, 2 out of 5 mammals, 12 out of 16 reptiles, 147 out of 215 birds are found in the park area (Oztek, 2005).

Birds

Because of its convenient geographical situation, Cyprus is of great importance for the annual flight of millions of migratory birds (more than 200 species) within the West Palearctic- African Flyways. To Flint and Stewart (1983), out of 347 species some 46 resident and 27 migratory species breed regularly in Cyprus, while another 24 species breed occasionally, or have bred in the past. Because of the migratory characteristics of the birds of the island of Cyprus and proximity to mainlands the degree of endemism is high. Seven endemic subspecies detected by various studies in Cyprus, from which three subspecies recorded at the Karpas Peninsula (Cyprus Pied Wheatear *Oenanthe pleshanka cypriaca*, Cyprus Warbler *Sylvia melanothorax*, Jay *Garrulus glandarius glaszneri*).

Mammals

27 species have been found on Dipkarpaz including the endemic Cyprian Spiny Mouse *Acomys nesiotus* found in rocky dry parts of the DNPA, characterized by stiff bristles on back. Monk Seal *Monachus monachus* is the sole flippered mammal to be found in the DNPA and Akamas in Cyprus, an endangered species protected by international and Cyprian legislation. It is recorded on Klidhes islands and needs further studies to detect the habitat environs. DNPA also shelters four rare species of sea-mammals and two rare species of land mammals.

During the war in Cyprus in 1974 quite large numbers of domestic donkeys were let loose. Most of these were subsequently captured. However in the DNPA a feral population of donkeys have become established and grown. Population estimates are confusing. Department of Environmental Protection estimates the number of feral donkeys around 300, while villagers complaining of agricultural damage, stretch this number to thousands. Study of Godley (1994) who used mark and recapture techniques for the detection of population size of feral donkeys estimated this number as 300 to 400 animals with a density of eight to ten animals per km².

The latest study on feral donkeys of Karpaz Peninsula (Hamrick, et. al., 2005) estimated donkey density as 6.7 donkeys km², and estimated total abundance as 800 donkeys for the entire 132.5 km² study area. There were 95 donkey groups and 464 individuals detected, collectively, during the study.

Reptiles

According to Schatti and Sig (1989), DNPA refuge eight kinds of lizards, four kinds of amphibians and nine kinds of snakes. These are regionally widespread species that most of them could be found around the island.

The study of WWF (1989), in Cyprus indicates that both marine turtle species that breed regularly in the Mediterranean are considered threatened species by IUCN; on a global level Green Turtle *Chelonia mydas* is endangered, the Loggerhead *Caretta caretta*.

Both north and south beaches of DNPA is the home of *Chelonia mydas* and *Caretta caretta*. On the six beaches, referred to as the South Karpaz beaches, a total of 92 nests were identified (72 *Chelonia mydas* and 20 *Caretta caretta*). 1306 out of the 1558 *Chelonia mydas* nests made on Karpaz beaches in eight years research. This value is 84% of total nest in on All Karpaz Beaches. It is therefore necessary to protect the North Karpaz and Agios Philon beaches which are so important. The regular continuation of this monitoring conservation and research is very important for the continued existence of marine turtles living in the Mediterranean (Kusetogullari, 2006).

Butterflies

19 species were recorded at DNPA.

Marine Flora

According to Russo (1994), "Marine plants, both seagrasses (e.g. *Posidonia oceanica*) and algae (predominantly the genus *Cystoseira*) are abundant around the island of Cyprus. Seagrass and algal beds provide the basic substrata for offshore sublittoral fauna and provide shelter, habitat space, and food for both fishes and invertebrates."

The study of Russo (1994), found out 55 species of epifauna living on 12 sublittoral algae species at Cyprus waters. Of these, twenty epifauna species living on three sublittoral algae species detected at DNPA waters. The dominant algae in terms of abundance, cover and biomass was *Cystoseira barbata* where it covered 90% of the substratum and the epifauna species which inhabit marine algae around DNPA are predominantly mollusk, polychaete and amphipod taxa.

Historical and Archaeological Resources

Cyprus has very rich cultural heritage ranging from prehistoric period up to today. Dipkarpaz National Park Area played an important part in the historic culture.

In addition to individual monuments, there are archaeological city sites in the park area. There are five archaeological settlements in Dipkarpaz National Park. *Karpasia City Site*: (Classical – Middle Byzantine) *Urania City Site*: (Classical and Byzantine period) *Agridia City Site*: (Middle Byzantine period) *Chelones City Site*: (Archaic and early Byzantine period) *Kastros Settlement*: (Neolithic and Chalcolithic period) (Oztek, 2005).

In addition to ancient city sites, there are plenty of ancient monuments in Karpaz

	Hellenistic-Roman Period
Aphrodite Akraia Temple Ruins	
Ayios Philon	Early to Middle Byzantine
Panayia Afendrika	Early to Middle Byzantine
Asomatos	Early to Middle Byzantine
Ayios Photios	Early to Middle Byzantine
Ayios Yeryios	Middle Byzantine
Ayios Philos Agridhia	Middle Byzantine
Ayios Athanassia	Middle Byzantine
Ayios Synessios	Middle Byzantine
Ayia Mavra	Middle Byzantine
Ayia Marina	Late Byzantine
Ayios Yeryios Ruins	Late Byzantine
Panayia Daphnonda Ruins	Late Byzantine
Panayia Eleousa Monastery	Late Byzantine-Mediaeval
Apostolos Andreas Church and Monastery	Mediaeval

DIPKARPAZ NATIONAL PARK AREA: SWOT ANALYSIS

For better understanding of the state of the resources that would be the basis for community-based ecotourism development in the region, a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) was performed based on the literature, personal observation and interviews with experts. The SWOT analysis provides an overview of the current state in the region. It also revealed insights for developing possible policies.

The SWOT analysis has a qualitative nature, which helps one to discover information about values and resources a destination possesses. The result of the SWOT analysis of Dipkarpaz National Park Area is presented below:

DNPA: Strengths

- Ronnas Bay is the third most important nesting site for Green Turtles in the Mediterranean
- One of the fewer places in the Mediterranean that mass tourism have not been developed
- One of the four most important ecological sites on the island of Cyprus (together with Akamas and Salt Lakes)
- Shelters the Kastros -first human settlement site of the Island of Cyprus
- Home of the;
 - 4 important ecological sites of the Island
 - 17 out of 85 nesting sites for *Caretta caretta* ve *Cylenia midas*
 - Unspoilt dunes

- Historical monuments and archeological sites of different historical periods
- Endemic and rare flora and fauna
- migration route of “West Palearctic-African Flyways”
- Klidhes Islands as breeding site of Endangered *Monacus monacus* and *Larus audouinii*
- Outstanding natural sites
- Multicultural life
- Serene environment
- Natural and attractive beaches
- Apostolos Andreas Monastery
- Declaration as national park by the “Karpaz Region, Control and Development Ordinance”
- Topography of the area provides suitable habitat for migratory birds and other fauna

DNPA: Weaknesses

- Lack of any strategy and policy for the Area
- Lack of a legal and administrative framework for the protection status of the Area
- Lack of monitoring and protection of biological diversity of the Area
- Unprotected Cultural Heritage
- Lack of system to monitor state of the environment and information system in the Area
- Lack of management plans for natural and cultural resources
- Tuna Fishing as a foreign economic activity
- Difficulty of preserving wild life because of the lack of information and awareness
- Illegal picking up of endemic and threatened species

DNPA: Opportunities

- “Karpaz Region, Control and Development Ordinance”
- Potential for locally operated Tuna Fishing
- Tuna Fishing as a touristic attraction
- Projects supported by international institutions
- Convenient environment for education and scientific research
- Potential for development of the awareness for the stakeholders related to the Area
- Potential resources of the DNPA to support the economic, social and cultural development of the local people
- Geological formations that enables geo-park, geo-tourism and scientific research
- Integrated marketing potential of sustainable products in the Area
- Guest-house tourism considered as best practice in the Dipkarpaz village
- Potential employment opportunities for the future
- Potential for the maintenance and protection of biological diversity
- Potential contribution of the endemic flora and fauna to the ecotourism activities

DNPA: Threats

- 25,000 bed capacity planned by the “Karpaz Region, Control and Development Ordinance” at the neighboring area
- Plans to bring electric power infrastructure to the Park Area
- Destruction of the 7000 years old Kastros Neolithic Settlement Site
- Destruction of Shelones-Banaia Church
- Environmental degradation and pollution created by the tankers, ships and fisherman boats

- The currents of the Northern Levantin that sweep the coast in an anti-clockwise direction brings all the surface garbage of Lebanon to the DNPA's coast.
- Destruction of natural and cultural resources
- Lack of commitment of the requirements for the sustainable planning and management of the DNPA.
- Ideas supporting the mass tourism at the Area
- Leaving the Dipkarpaz village outside the boundaries of DNPA.
- No buffer zone established between DNPA and adjacent regions
- Failure of central and local governments in managing and controlling the DNPA
- Leakage of regional revenues against the local community
- Intensive hunting pressure for the Area
- Construction activities against traditional architecture
- Negative approach of the local community of not benefiting from local revenues
- Searching for unsustainable projects because lack of awareness on beneficial local resources
- "Karpaz Region, Control and Development Ordinance" constituting a bad example by planning the mass tourism just outside the DNP Area
- Proposal of some universities to establish their preparatory schools within the DNPA
- Improper usage causing degradation of the Area's ecosystem
- Realization of mass tourism projects at the buffer zone of the DNPA
- Fishing losing its economic importance as a local economic activity

Strengths describe the key assets of the area that offer some basis upon which community-based ecotourism development is dependent. An important asset of the region is diversity of natural and cultural resources together with rural socio-economic characteristics which provides a favorable environment for balancing protection of environmental resources with the development of tourism.

Weaknesses identified for the DNPA mainly covers the lack of institutionalization that prevents structured and organized actions for the establishment of the internationally renowned park area.

Identification of opportunities indicates the potential sources of future benefits. In Dipkarpaz National Park Area there are opportunities for economic growth, more jobs, socio-cultural development, diversification of ecotourism business and biodiversity, but these opportunities depend on or could be achieved after weaknesses mentioned above will overcome.

Threats mainly concerned with the executive body decision making process that turned to be damaging tools and measure instead to be protective for DNPA. Thus, political commitment at the government level could avoid threats to environmental, social and cultural values for both to the Area and local people.

WHAT IS TO BE DONE? / RECOMMENDATIONS

- To initiate legal and administrative framework in order to establish a national park according to the criteria of IUCN and EU.
- A Master Plan for the DNPA should be prepared
- Essential management plans should be prepared for the resource management of the Area
- Local Community should become aware about National Park Area and Community-based Ecotourism
- Sustainable management of the natural, historical and archeologic sites should be provided

- The baseline resources of the National Park Area and the Area defined by “Karpaz Region, Control and Development Ordinance” should be determined.
- Calculation of economic, physical, social and environmental carrying capacities
- “Karpaz Region, Control and Development Ordinance” should be reviewed to regulate the provisions supporting mass tourism
- Practices at the “Karpaz Region, Control and Development Ordinance” jurisdiction area should immediately be stopped
- A buffer zone should be established between DNP Area and “Karpaz Region, Control and Development Ordinance” Area.
- Funds that support the application of Community-based Ecotourism Project in the Area should be provided
- Local people should be educated on the sustainability of the resources of the Area
- NGOs should be involved with the Community-based Ecotourism Project in order to get their support in helping to other stakeholders
- Tourists should be educated through special awareness programs
- Lessons from good and bad practices should be on the agenda of all stakeholders
- Local culture and environment should be a part of the national education programme
- Tuna fishing should become one of the local economic activities run by local community
- Encouraging planning and construction of eco-lodge in the DNP Area
- Empowerment of local community for participation to the decision making and planning processes that would direct the future of the region.
- Code of ethics for local community, visitors, tour guides and operators and investors should be produced

LAST WORDS

The Dipkarpaz National Park Area has an abundance of natural resources, scenic areas, and historical and archaeological values that would attract an increasing number of ecotourists. The income from these ecotourists can provide the financial justification for protecting the biodiversity and the local communities of the Area. Yet community-based ecotourism potential of the Area presents two challenges to consider. First, to prevent the development pressures of mass tourism circles and second, to create awareness for the local people that they could act as ecotourism entrepreneurs so that they can become advocates for conservation. The best outcome of this approach is that communities preserve both their environment and their own culture in the process. To summarize, Community-based ecotourism could be a catalyst for economic, social and environmental development in northern part of Cyprus that local communities and natural environment benefits from sustainable ecotourism operations through job creation, investment returns and environmental protection.

REFERENCES

- Ceballos-Lascurain, H. 1996. Tourism, Ecotourism and Protected Areas. IUCN, Gland (Switzerland).
- Dreghorn, W. 1978. Landforms in the Girne Range - Northern Cyprus. The Mineral Research and Exploration Institute of Turkey. Ankara (Turkey).
- Flint, P., Stewart, P. (1983) The Birds of Cyprus, Second Edition. British Ornithologists' Union, Dorset Press, Dorchester (UK).

Godley, B.J., and A.C. Broderick, (1994), Glasgow University Turtle Conservation and Expedition To Northern Cyprus 1994: Expedition Report. Glasgow University Veterinary School, Glasgow (Scotland).

Kettaneh, M.S., et. al. 1988. Zafer National Park (Karpaz Peninsula). Department of Forestry and Environmental Protection, Nicosia (Cyprus).

Kusetogullari, H. 2006. Marine Turtle Conservation and Protection Project. Report prepared for Department of Environmental Protection, Nicosia (Cyprus).

Meikle, R.D. 1977. Flora of Cyprus. Volume I & II. The Bentham-Moxon Trust, Royal Botanic Gardens, Kew (UK).

Nikolova, A. and Hens, L. (1997). Sustainable Tourism. Human Ecology Department, Free University Brussels (Belgium).

Oztek, E. 2005. Karpas National Park: Existing Situation, Analysis and Proposals. Report prepared for the seminar on “Protected areas in Karpas Region” organized by the Management Centre with support from the UNDP Partnership for the Future Programme funded by the European Union, Nicosia (Cyprus).

Russo, A.R. 1994. Epifauna Living on Sublittoral Seaweeds Around Cyprus. Fulbright Research for Cyprus Department of Fisheries, Ministry of Agriculture, Nicosia (Cyprus).

Schatti, B., and H. Sigg. 1989. Die Herpetofauna der Insel Zypern. Teil 1: Die Herpetologische Erforschung/Amphibien.-Herpetofauna 11(61): 9-18.

TRNC Printing Office. “Karpaz Region Control and Development Ordinance”, Official Gazette, No: 118, August 12, 2004

UNDP. 1970. Survey of Groundwater and Mineral Resources-Cyprus. Technical Report Prepared for the Government of Cyprus by the UN. New York, (USA).

UNDP-PFF. 2006. Baseline Study on the Environmental Conditions of the Karpaz Peninsula in the Northern Part of Cyprus. Report prepared by Nature Conservation Centre, (Ankara), Nicosia (Cyprus).

USAID-CYPRUS. 2006. FAA Biodiversity Analysis. Report Prepared by DevTech Systems, Inc. under an EPIQ II subcontract to PA Consulting, Nicosia (Cyprus).

Yuksel, D. 1996. Environmentally Sustainable Management Plan For the Proposed Karpaz Peninsula National Park Area. Unpublished Ms.Thesis. European Masters Degree Course In Environmental Management, University Of Ankara, Ankara (Turkey).

Yuksel, D. 1997. “Ecotourism: An Element of Environmental Paradigm in Achieving Sustainable Society.” Keynote Speech at Regional Alumni Conference on Eco-Tourism, organized by Hubert H. Humphrey Alumni Association of Turkey, 28-31 May 1997 Istanbul (Turkey).

WWF. 1989. Marine Turtles - Northern Cyprus: Status Survey and Recommendations for Conservation. WWF Project 3852, Nicosia (Cyprus).

WWF International , 2001. Guidelines for Community-based Ecotourism Development. Guideline prepared by Dr Richard Denman, The Tourism Company, UK-based tourism consultancy, Ledbury (UK).